Final

Remedial Investigation Report

Battery Knox TD - Land Munitions Response Site

U.S. Army Garrison West Point
West Point, New York

June 2014

Prepared for:

U.S. Army Corps of Engineers
Baltimore District

Prepared by:

Weston Solutions, Inc.

PRINTED ON RECYCLED PAPER

12P-0454-1d

FINAL
REMEDIAL INVESTIGATION REPORT

BATTERY KNOX - TRANSFERRED (TD) LAND MUNITIONS RESPONSE SITE
U.S. ARMY GARRISON WEST POINT
WEST POINT, NEW YORK

Contract No.: W912DR-09-D-0006
DELIVERY ORDER NO.: 0001

Prepared For:

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June 2014

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other documentation.

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LIST OF ACRONYMS

ºF	degrees Fahrenheit
µg/kg	microgram per kilogram
2,4-DNT	2,4-Dinitrotoluene
2-Am-DNT	2-Amino-4,6-dinitrotoluene
4-Am-DNT	4-Amino-2,6-dinitrotoluene
amsl	above mean sea level
APP	Accident Prevention Plan
ARAR	applicable or relevant and appropriate requirement
ASTM	American Society for Testing and Materials
bgs	below ground surface
CENAB	U.S. Army Corps of Engineers, Baltimore District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHE	Chemical Warfare Materiel Hazard Evaluation
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
CSM	conceptual site model
CTT	closed, transferred, and transferring
CWM	chemical warfare materiel
DERP	Defense Environmental Restoration Program
DGM	digital geophysical mapping
DMM	discarded military munitions
DoD	Department of Defense
DQO	data quality objective
ECBC	Edgewood Chemical Biological Center
Eco-SSL	ecological soil screening level
EHE	Explosives Hazard Evaluation
ELAP	Environmental Laboratory Accreditation Program
EM	Engineering Manual
EPA	U.S. Environmental Protection Agency
ESL	ecological screening level
ESP	Explosives Site Plan
ESV	ecological screening value
EZ	Exclusion Zone
FS	feasibility study
FWS	Fish and Wildlife Service
GIS	Geographic Information System
gpm	gallons per minute
GPS	Global Positioning System
HE	high explosive
HFD	hazardous fragment distance
HHE	Health Hazard Evaluation
HHRA	human health risk assessment
HPLC	High Performance Liquid Chromatography
HRR	Historical Records Review
IDW	investigation-derived waste
ISO	industry standard object
LOAEL	lowest observed adverse effect level
LUC	land use control
MAMMS	Multiple Award Military Munitions Services
MC	munitions constituents
MD	munitions debris
MDAS	material documented as safe
MDEH	material documented as an explosive hazard
MEC HA	Munitions and Explosives of Concern Hazard Assessment

LIST OF ACRONYMS (Continued)

MEC	munitions and explosives of concern
mg/kg	milligram per kilogram
MGFD	munition with the greatest fragmentation distance
mm	millimeter
MMRP	Military Munitions Response Program
MPPEH	material potentially presenting an explosive hazard
MRA	munitions response area
MRS	munitions response site
MRSPP	Munitions Response Site Prioritization Protocol
MS/MSD	matrix spike/matrix spike duplicate
MSD	minimum separation distance
NA	not applicable
NAD	North American Datum
NBA	no benchmark available
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NELAC	National Environmental Laboratory Accreditation Conference
NFA	no further action
NMEA	National Marine Electronics Association
NOAA	National Oceanic and Atmospheric Administration
NOAEL	no observed adverse effect level
NWI	National Wetland Inventory
NYNHP	New York Natural Heritage Program
NYSDEC	New York State Department of Environmental Conservation
OESS	Ordnance and Explosive Safety Specialist
ORNL	Oak Ridge National Laboratory
PA	Preliminary Assessment
PAL	project action limit
PETN	pentaerythritol tetranitrate
PRG	preliminary remediation goal
PVC	polyvinyl chloride
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
QSM	Quality Systems Manual
RCRA	Resource Conservation and Recovery Act
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	remedial investigation
RI/FS	remedial investigation/feasibility study
ROE	right-of-entry
RPD	relative percent difference
RSL	regional screening level
SARA	Superfund Amendments and Reauthorization Act
SCO	soil cleanup objective
SI	site inspection
SLERA	screening level ecological risk assessment
SOP	standard operating procedure
SQL	sample quantitation limit
SSHP	Site Safety and Health Plan
SUXOS	Senior UXO Supervisor
TAL	Target Analyte List
TBC	to be considered
TCL	Target Compound List

LIST OF ACRONYMS (Continued)

TD	Transferred
THQ	target hazard quotient
TLI	TLI Solutions, Inc.
TNT	trinitrotoluene
TPP	Technical Project Planning
TR	target risk
TRV	toxicity reference value
TSD	team separation distance
U.S.	United States
U.S.C.	United States Code
UFP-QAPP	Uniform Federal Policy Quality Assurance Project Plan
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAEC	U.S. Army Environmental Command
USDA	U.S. Department of Agriculture
UTM	Universal Transverse Mercator
UV	ultraviolet
UXO	unexploded ordnance
UXOQCS	UXO Quality Control Specialist
VSP	Visual Sample Plan
West Point	U.S. Army Garrison West Point
WESTON®	Weston Solutions, Inc.
WPMR	West Point Military Reservation

EXECUTIVE SUMMARY

A remedial investigation (RI) was completed at the U.S. Army Garrison West Point (West Point) Battery Knox - Transferred (TD) Land Munitions Response Site (MRS) (WSTPT-004-R-02) in support of the Active Army Military Munitions Response Program (MMRP).

The purpose of the MMRP RI conducted at the Battery Knox - TD Land MRS (WSTPT-004-R-02) was to determine whether further response action pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) is warranted at this MRS. The RI was designed to determine the nature and extent of munitions and explosives of concern (MEC) and munitions constituents (MC) and to determine the hazards and potential risks posed to human health and the environment by MEC and MC.

The RI Report presents the characterization strategy and the results from the mag and dig geophysical surveys and the intrusive investigation performed at the Battery Knox - TD Land MRS. The results were used to further assess the explosives hazards posed by MEC. The Battery Knox - TD Land MRS spans 12 privately owned parcels.

Historical Information

The Battery Knox - TD Land MRS is the off-post land portion of the Battery Knox range fan. Battery Knox was constructed high on the bluff above the Hudson River at a location approximately 145 feet above the water and was used for defense of the Hudson River and for training of cadets. Battery Knox contained six gun positions and ammunition magazines, and was established sometime between 1836 and 1850. Although the original armament of Battery Knox is not known, four 10-inch Rodman rifles on coastal carriages were installed at the battery during the Civil War era. Battery Knox was rebuilt in 1874, with modifications made to the armament and the orientation of the guns to improve both their defensibility and their ability to cover the river with firepower. By 1892, Battery Knox was armed with one 100-pounder Parrott 6.4-inch caliber rifle, one 300-pounder Parrott 10-inch caliber rifle, one 8-inch converted rifle, and four 10-inch Rodman rifles. At that time, the 10-inch muzzle-loaded Rodman guns were

considered obsolete, and the 8-inch muzzle-loaded converted rifle was retained in service only for secondary purposes (TLI, 2006).

When the Rodman guns became outdated, they were retained at Battery Knox, and the Battery became a "ceremonial" or "salute" battery. The 100-pounder Parrott rifle, the 300-pounder Parrott rifle, and the 8-inch converted rifle were removed from Battery Knox between 1906 and 1918. September 12, 1906 correspondence from West Point Headquarters indicates that three guns and carriages were to be removed from Battery Knox. Three of the last four guns remaining at the battery were retained by West Point and transferred with their carriages to Trophy Point. The fourth gun was transferred to the National Park Service and is on display at Fort Point in San Francisco, California. The battery was demolished sometime during the WWII era (TLI, 2006).

When the battery was in operation, the direction of fire was east toward potential targets located in the Hudson River, and overshots during firing activities might have impacted the Battery Knox - TD Land MRS. The MRS boundaries were developed as part of the site inspection (SI) and were based on the elevation and the firing trajectory from the battery. The MRS is located within the municipal boundaries of the town of Philipstown, NY, which was established in the late 1770s and was originally owned by Indians. A portion of the MRS is used for a railroad line, which has been in operation since the 1800s. Other past land use was primarily residential, with some recreational and institutional use.

Land Use

The Battery Knox - TD Land MRS spans 12 privately owned parcels that contain residences, a railroad, and a private school. An active railroad line is located on the western side of the MRS adjacent to the Hudson River. The property is used for recreation (including boating, fishing, hiking, and athletics), rail transport, residential, and education.

Site Inspection

The SI field activities at the Battery Knox - TD Land MRS, which took place in spring 2006, included conducting visual surveys along approximately 22 linear miles and collecting five sediment samples and six surface soil samples for MC analysis. No MEC or munitions debris (MD) was observed during the visual surveys (TLI, 2007).

The soil and sediment samples were analyzed for Target Compound List (TCL) explosives and a subset of the Target Analyte List (TAL) metals. Metals were selected for analysis based on the metals known to be associated with the munitions historically used at West Point (antimony, copper, iron, lead, mercury, potassium, and zinc). The analytical results for seven TAL metals and TCL explosives were compared, for evaluation purposes only, against U.S. Environmental Protection Agency (EPA) Region 9 preliminary remediation goals (PRGs) for residential soils (current screening levels at that time).

Trace amounts of explosives were detected in seven samples; however, all of these concentrations were below the corresponding EPA Region 9 PRGs and laboratory reporting limit, except for hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX), which was detected at a level slightly higher than the reporting limit, but still below the PRG. The remaining explosive compounds were not detected at the Battery Knox - TD Land MRS.

Antimony, copper, iron, lead, mercury, potassium, and zinc were detected in the samples collected from the Battery Knox - TD Land MRS. However, with the exception of iron, all concentrations were below the applicable screening criteria. The elevated levels of iron are believed to be naturally occurring in the soils at the MRS. Based on the geology of the area that includes the presence of rocks with highly oxidized iron content, it is assumed that the level of iron in the soil is the result of local geologic conditions.

Remedial Investigation

Between June and July 2011, Weston Solutions, Inc. (WESTON®) performed RI field activities at the Battery Knox - TD Land MRS to assess the nature and extent of MEC and MC in the MRS. Approximately 4.5 acres (3.72 linear miles of transects) were investigated within the Battery Knox - TD Land MRS. The remainder of the MRS was not accessible for investigation because right-of-entry (ROE) permissions were not received from all of the property owners within the MRS; therefore, the RI surveys were limited to the properties for which ROE permissions were received.

No MEC or MD was recovered during the investigations. Thirty-nine non-MD related items were cataloged as cultural debris and included one pipe, one nail, two trash pits (metal scrap,

discarded debris). Cultural debris was recovered between 0 inches and 12 inches below ground surface (bgs).

Six incremental samples (plus one field duplicate and a duplicate/triplicate [independent samples]) were collected from the Battery Knox - TD Land MRS in areas that were most likely to have been impacted by historical artillery training activities, to further evaluate the presence of trace amounts of MC (explosives) identified at the MRS during the SI. Five explosive compounds were positively identified in the incremental samples.

Contaminant Fate and Transport

The Battery Knox - TD Land MRS was evaluated for possible MEC and MC exposure to human and ecological receptors. The results of MEC characterization activities conducted during the RI show that there is a low probability of encountering MEC over the entire MRS. No MEC or MD was observed at the Battery Knox - TD Land MRS during the field activities. Based on the coverage obtained during the RI, there is a 90% confidence level that not more than 0.5 MEC/acre exists within the MRS. Qualitative assessments conducted using the SI and RI results and historical information regarding range use and history suggest that the probability of encountering MEC at the Battery Knox - TD Land MRS is lower than 0.5 MEC/acre. Therefore, the pathways for MEC are considered incomplete.

The surface soil incremental samples did not contain MC concentrations greater than the screening levels that would pose a potential human health risk; therefore, the pathways for human receptors to contact MC are considered incomplete. There is little to no potential for adverse ecological impacts from MC in surface soil at the MRS for several reasons, as supported by the additional discussions in the risk assessment. Explosive compounds 2,6-dinitrotoluene and nitroglycerin were not detected. Some SQLs for these compounds exceeded conservative ESVs, but they did not exceed alternative ESVs. No ESV is available for 3-nitrotoluene, and the compound was detected in only one sample, which is an estimated value. In addition, 3-nitrotoluene is not associated with the munitions used at Battery Knox - TD Land MRS. Therefore, the pathways for ecological receptors to contact MC are considered incomplete.

Revised Conceptual Site Model

The information collected during the RI was used to update the conceptual site model (CSM). The purpose of the CSM is to identify the complete, potentially complete, or incomplete source-receptor interactions for reasonably anticipated future land use activities at the MRS. An exposure pathway is the course a MEC item or MC takes from a source to a receptor.

A MEC source is the location where MEC is situated or is expected to be found. Potential MEC source areas within the Battery Knox - TD Land MRS are areas where unexploded ordnance (UXO) might have resulted from overshots of targets during intentional munitions firing activities. The weapons that might have been used at Battery Knox include 100-lb and 300-lb Parrott guns, an 8-inch converted rifle, and 10-inch muzzle-loaded Rodman guns. No MEC has been historically reported in the MRS.

During the RI field activities, UXO Technicians traversed 4.5 acres of pre-planned transects. The eastern portion of the Battery Knox - TD Land MRS where ROE agreements had been exercised by property owners was accessible during the RI. A portion of the MRS where ROEs were granted was investigated based on a statistical field sampling design (discussed in Section 3.1). Although ROEs were not granted for all areas of the Battery Knox - TD Land MRS, the eastern and central portions of the MRS were inspected during the SI. No MEC or MD was observed or has been historically reported in the Battery Knox - TD Land MRS. Much of the eastern portion of the MRS has exposed bedrock and steep cliffs. MEC and MD in this area would likely be on the ground surface, but no MEC or MD has been reported.

The characterization coverage was determined to be adequate to satisfy the UXO Estimator parameters of 0.5 MEC/acre at a 90% confidence level for the entire Battery Knox - TD Land MRS. The statistical upper bound density of MEC was determined to be 0.652 MEC per acre based on the percentage of area surveyed at the MRS and the actual intrusive investigation results. This means that the investigation was adequate to be 95% confident that there is less than 0.652 MEC per acre within the Battery Knox - TD Land MRS. The average MEC density across the MRS was calculated to be 0.215 MEC/acre and represents the statistical lower bound density of MEC that may be present in the MRS. Although the UXO Estimator results indicate that a

statistical potential for MEC may remain at the Battery Knox - TD Land MRS, no MEC has been found and it is anticipated that no MEC source or explosive safety hazard is present.

Based on the results of the RI field investigations, it is not expected that a MEC source or explosive safety hazard is present in the MRS. Because no MEC source has been identified and because an explosive safety hazard is not anticipated to exist in the MRS, there are no current receptor interactions or anticipated interactions under future land use.

The MC sampling results indicated that no explosive compounds were detected above screening levels in the soil samples at the Battery Knox - TD Land MRS that would pose a potential risk to residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel, and ecological receptors. Therefore, the pathways for human and ecological receptors to contact MC are considered incomplete because no potential MC sources, and thus no potential risk, are known to exist in the Battery Knox - TD Land MRS.

Uncertainties

The primary uncertainty for the RI is related to the statistical calculations performed using UXO Estimator. According to UXO Estimator calculations, at least 5.78 acres would require investigation to be 95% confident that there is less than 0.5 MEC/acre at the Battery Knox - TD Land MRS. The mag and dig coverage was inadequate to meet the 95% confidence level objective (90% confidence was achieved). Mag and dig surveys focused on the 62.5 acres of the Battery Knox - TD Land MRS where ROEs were obtained from private property owners. The remaining 78.5 acres of the MRS (where ROEs were not obtained) were not investigated.

Qualitative evaluations can be made based on available coverage and results, SI results, and historical information. It is unlikely that there were overshots into the Battery Knox - TD Land MRS during training activities because the battery location was 145 feet above the Hudson River and the direction of fire was downward toward the water targets. MEC and MD, if present, would most likely be found in the eastern and central portions of the MRS. The eastern portion of the MRS was investigated during the RI, and the eastern and central portions of the MRS were inspected during the SI. No MEC or MD was observed or has been historically reported in the

Battery Knox - TD Land MRS. Much of the eastern portion of the Battery Knox - TD Land MRS has exposed bedrock and steep cliffs. MEC and MD in this area would likely be on the ground surface, but no MEC or MD has been reported.

Conclusions and Recommendations

Based on the results of the RI field activities, the following conclusions were determined for the Battery Knox - TD Land MRS:

- No MEC or MD was identified in the MRS during RI field activities, no MEC or MD has been historically reported in the Battery Knox - TD Land MRS, and an explosive safety hazard is not anticipated to exist. Incomplete pathways were identified for surface and subsurface soils for all receptors having access to the MRS.
- No MC source was identified during the investigation.

The nature and extent of MEC and MC at the Battery Knox - TD Land MRS have been adequately characterized. Based on these conclusions, no further action under the MMRP is recommended for the Battery Knox - TD Land MRS (WSTPT-004-R-02). Future actions for the Battery Knox - TD Land MRS may include the preparation of a No Further Action Proposed Plan for public review followed by the issuance of a Decision Document.

1. INTRODUCTION

1.1 PROJECT AUTHORIZATION

Weston Solutions, Inc. (WESTON®) was authorized to perform the remedial investigation (RI) at the Battery Knox - TD Land Munitions Response Site (MRS) (WSTPT-004-R-02) under the United States Army Corps of Engineers (USACE), Baltimore District (CENAB) Multiple Award Military Munitions Services (MAMMS) Contract W912DR-09-D-006, Delivery Order 0001. The RI was completed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process outlined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Some of the specific NCP processes that were followed include:

- 40 CFR 300.430(a) – Purpose of the remedy selection process, which is to implement remedies that eliminate, reduce, or control risk to human health and the environment.
- 40 CFR 300.430(b) – Scoping, which includes assembling and evaluating site-specific data and information.
- 40 CFR 300.430(d)(2) – Characterization of the nature of and the threat posed by the hazardous substances.
- 40 CFR 300.800 – The requirement for an administrative record made available to the public.

In accordance with Executive Order 12580, the U.S. Army is the lead agency with support from the State of New York. The RI Report is consistent with the U.S. Environmental Protection Agency (EPA) October 1988 document *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (EPA, 1988) and the U.S. Army Military Munitions Response Program (MMRP) document, *Final Munitions Response Remedial Investigation/Feasibility Study Guidance* (U.S. Army, 2009).

1.2 PURPOSE AND SCOPE

The United States (U.S.) Congress established the MMRP under the Defense Environmental Restoration Program (DERP) to address munitions and explosives of concern (MEC), including unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC) located on current and former defense sites. MMRP-eligible sites include locations other than

operational ranges where UXO, DMM, or MC are known or suspected to be present and where the release occurred prior to 30 September 2002. Properties classified as operational military ranges, permitted munitions disposal facilities, or operating munitions storage facilities are not eligible for the MMRP. The DERP, including the MMRP, typically follows CERCLA and the NCP.

The U.S. Army conducted an inventory of closed, transferred, and transferring (CTT) military ranges and defense sites (also known as the Phase 3 CTT), which meets the requirements of a CERCLA Preliminary Assessment (PA). In the Phase 3 CTT inventory at the U.S. Army Garrison West Point, New York (West Point), 10 closed ranges and 2 transferred areas with the potential for MEC, which includes both UXO and DMM and/or MC, were identified as eligible for action under the MMRP. The Phase 3 CTT Range Inventory Report for West Point (Malcolm Pirnie, 2004) was completed in August 2004.

The next phase of the CERCLA process at West Point was the site inspection (SI). The SI was completed in a two-phase approach. The Historical Records Review (HRR) was the initial step in the MMRP SI. During the HRR, records searches were performed to supplement the information gathered during the Phase 3 CTT and to facilitate decision-making processes to determine the next step for the SI. The Final HRR Report was presented to the Army and stakeholders in March 2006 (TLI Solutions, Inc. [TLI], 2006). Based on the HRR results, one MRS was determined to require no further action (NFA). All other MRSs in the Phase 3 CTT required a field inspection. These field inspections were performed in April, May, and September 2006. The results of the SI (TLI, 2007) indicated that multiple MRSs require further investigation through an RI. The SI report identified 11 MRSs at West Point to be evaluated in the RI phase of the CERCLA process. The April and May 2006 SI field activities are discussed in more detail in Section 1.5.2. As part of the SI, a preliminary conceptual site model (CSM) was developed for West Point in its entirety. Individual CSMs were also developed for each of the MRSs, including the Battery Knox - TD Land MRS.

The purpose of the MMRP RI conducted at the Battery Knox - TD Land MRS (WSTPT-004-R-02) was to determine whether further response action pursuant to CERCLA and the NCP is warranted at this MRS. The RI was designed to determine the nature and extent of MEC and MC and to determine the hazards and potential risks posed to human health and the environment by MEC and MC.

1.3 PROPERTY DESCRIPTION AND PROBLEM IDENTIFICATION

1.3.1 Project Location and Site Description

West Point is located in Orange and Putnam Counties, New York, along the Hudson River. West Point is approximately 50 miles north of New York City and approximately 13 miles south of Newburgh. The installation consists of three parts: (1) Main Post, (2) West Point Military Reservation (WPMR), and (3) Constitution Island. Main Post, or the cantonment, is approximately 2,500 acres and is the academic, administrative, and community area along the Hudson River. The WPMR is generally considered to be the 14,000-acre area to the west of Main Post that serves as the field training facility for the U.S. Army Garrison West Point. The Main Post and the WPMR are separated by Route 9W (Tetra Tech, Inc., 2011).

Both the Main Post and the WPMR lie entirely in Orange County, New York. Directly across the Hudson River from the Main Post is Constitution Island and to the south of the island are the lands that encompass the Battery Knox – TD Land MRS. Constitution Island and Battery Knox - TD Land MRS are located in Putnam County, New York. Battery Knox – TD Land MRS is bounded by the Hudson River and Metro-North railroad tracks to the west and forested, residential, recreational, and institutional areas of Putnam County to the north, south, and east (Tetra Tech, Inc., 2011). **Figure 1-1** provides a regional view of West Point.

The Battery Knox - TD Land MRS encompasses 141 acres located on 12 privately owned parcels on the eastern bank of the Hudson River in Putnam County (**Figure 1-2**). The land is not owned or managed by the Army. The MRS is the land portion of the Battery Knox range fan. The battery was located on the Main Post of West Point on the west bank of the Hudson River. The direction of fire from the battery was east toward potential targets located in the Hudson River. Overshots during firing activities might have impacted the Battery Knox - TD Land MRS. The MRS boundaries were developed as part of the SI and were based on the elevation and the firing trajectory from the battery.

1.3.2 Climate

The climate of the region is characterized as a humid, continental climate. Summers are warm and have periods of high humidity. The semi-permanent Bermuda High brings south to southwest warm and humid air to the area. July is the hottest month, with a mean temperature of

86 degrees Fahrenheit (ºF); and the coldest month of the year is January, which has a mean temperature of 27 ºF. Winters are cold with extended periods of snow cover and are influenced by the cold Hudson Bay air masses. Most winters are characterized by one or more warm periods when soils nearly or completely thaw (Tetra Tech, Inc., 2011).

A third weather pattern that influences the climate of the West Point area is an air mass that flows inland from the North Atlantic Ocean bringing cool, cloudy, and damp weather to the region. Prevailing winds are generally westerly (Tetra Tech, Inc., 2011).

Thunderstorms occur approximately 20 times per year. Tornadoes have a frequency of occurring 3 to 4 times a year in the region, although no significant tornadoes have occurred in the West Point area for more than 20 years. Total annual precipitation is greater than 49.5 inches, with the least amount (approximately 3.5 inches each month) occurring in January and February, and the most occurring in May (approximately 4.9 inches) (Tetra Tech, Inc., 2011).

1.3.3 Geology

West Point and the surrounding area are in the Hudson Highlands, a low, rugged mountain range, that forms a zone of folded and faulted metamorphic and igneous rocks subjected to extensive weathering and erosion. Precambrian-age granite, diorite, gneiss, and schist compose the majority of the crystalline bedrock underlying the area. Granite, the most prevalent rock type in the bedrock, is typically medium-grained and composed of quartz, feldspar, and mica. Granite and pegmatite are igneous rocks and occur as dikes and sills within the gneiss. Igneous rocks on the installation consist of plagioclase feldspar, hornblende, pyroxene, and biotite mica and quartz (Tetra Tech, Inc., 2011).

The metamorphic rocks of the Hudson Highlands exist in sequences. These sequences are composed of a hard, layered, banded rock, gneiss, which is sometimes intruded by igneous rocks. Marble, quartzite, schist, and amphibolite are other metamorphic rocks present in the Highlands area. The metamorphic rocks were deposited as marine sediments, volcanic ashes, and volcanic rocks. During the Precambrian period, these sediments and rocks were possibly subject to three phases of folding—extensive regional metamorphism, partial melting, and magmatic intrusion. The cantonment area, which is bounded by the Hudson River, is underlain by exposed bedrock and glacial alluvium (Tetra Tech, Inc., 2011).

Faults mapped at the surface near and within the habitation area at West Point include the Long Pond, the Crown Ridge, and the Highland Brook faults. The Long Pond fault trends northeast-southwest along the northwestern boundary of the West Point habitation area and the Storm King Highway (NY Route 218) and extends east across the river through Cold Springs located approximately 2 miles north of Battery Knox. Other fractures are reported in Putnam County, where Battery Knox – TD Land MRS is located, striking northeast, approximately parallel to the dominant geologic structures of the Peekskill and Canopus hollows in Putnam Valley and to the more subtle structure of the Breakneck Brook in a part of Philipstown that lies east of Battery Knox – TD Land MRS. A second fracture set strikes northwest, intersecting the first set at an angle. The most dominant fracture systems in western Putnam County have steep dips, meaning that the fracture penetrates downward. Some decompression sheet jointing, approximately parallel to the land surface, has also been noted in the village of Garrison (Chazen, 2004). The village of Garrison is located approximately 0.25 mile south of the Battery Knox - TD Land MRS.

Surficial geologic formations on the installation are outcroppings, talus, and glacial deposits. During glacier retreat, features were formed along the valley walls. The most prominent features are the kame terraces. In all but the flat, marshy areas, bedrock can be observed. A thin veneer layer of Pleistocene-age glacial deposits, both stratified and unstratified, overlies the igneous and metamorphic bedrock sequence. The stratified drift consists primarily of sand and gravel deposited in glacial lakes and streams. The unstratified drift consists of glacial till material, which is mainly large boulders and clay, sand, and gravel deposited directly from glacial ice as it progressed or regressed across the area (Tetra Tech, Inc., 2011).

Site-specific geologic investigations were not conducted for the Battery Knox - TD Land MRS, and information regarding MRS-specific geology is not available from other sources**.** Regional geologic maps (Fisher et al., 1970) indicate that the bedrock geology of the area is garnet-bearing gneiss and interlayered quartzite and contains varying amounts of biotite, garnet, sillimanite and minor marble, amphibolite, and rusty paragneiss.

1.3.4 Topography

The West Point and Battery Knox - TD Land MRS area is best described as having moderately steep hills and numerous escarpments. Areas in between the hills are interspersed with small plains, basins, and narrow valleys with slopes less than 3%. The topography of the surrounding region is undulating and rugged. These characteristics, along with the alluvium and till deposits in the lowland areas and the relatively flat valley bottoms of the region, are the result of glaciation (Tetra Tech, Inc., 2011). The Battery Knox - TD Land MRS ranges in elevation from approximately 0 feet to 147 feet above mean sea level (amsl).

1.3.5 Soils

Figure 1-3 presents the location of each of the 17 specific soil types within the MRS. Seventeen specific soil types, from the following general soil map units exist within the Battery Knox - TD Land MRS (U.S. Department of Agriculture [USDA], accessed 2013):

- Charlton-Chatfield soils are very deep and moderately deep, well drained and somewhat excessively drained. These medium textured soils that are found primarily in the uplands. In the Battery Knox - TD Land MRS, the specific soil types that are part of the Charlton-Chatfield general map unit include very stony Charlton loam (35 to 45% slopes); rolling, very rocky, Charlton-Chatfield complex soils; and hilly, very rock Chatfield-Charlton complex soils.

- Chatfield-Hollis-Rock outcrop soils are moderately deep and shallow, well drained an somewhat excessively drained. These soils are both medium textured and moderately coarse textured soils that are located in areas of rock outcrops and on uplands. In the Battery Knox - TD Land MRS, the specific soil types that are part of Chatfield-Hollis-Rock outcrop general map unit are rolling Chatfield-Hollis-Rock outcrop complex soils, hilly Chatfield-Hollis-Rock outcrop complex soils, and very steep Hollis-Rock outcrop complex soils.

- Riverhead-Knickerbocker soils are very deep, well drained and somewhat excessively drained, medium textured and moderately coarse textured soils. These soils occur mostly on outwash plains and terraces along valley sides. In the Battery Knox - TD Land MRS, the specific soil types that are part of Riverhead-Knickerbocker general map unit are Hinckley gravelly loamy sand (3 to 8% slopes), Knickerbocker fine sandy loam (2 to 8% slopes), and Riverhead loam (0 to 50% slopes).

- Carlisle-Palms-Fluvaquents soils are very deep, very poorly drained, nearly level, organic soils. These soils are somewhat poorly drained to very poorly drained alluvial soils that are located on lowlands and along streams. In the Battery Knox - TD Land MRS, the specific soil types that are part of the Carlisle-Palms-Fluvaquents general

map unit are frequently flooded Fluvaquents-Udifluvents complex soils and mucky peat Ipswich soils.

- Urban land-Charlton-Chatfield soils are very deep and moderately deep, well drained and somewhat excessively drained soils. They are medium textured soils that are located on uplands. In the Battery Knox - TD Land MRS, the specific soil types that are part of the Urban land-Charlton-Chatfield general map unit are smoothed Udorthents and wet substratum Udorthents.

1.3.6 Hydrology

1.3.6.1 Surface Water

A Hudson River tidal flat is contained within the northern section of the Battery Knox - TD Land MRS. The mean tidal range is 2.8 feet, reported at the nearest National Oceanic and Atmospheric Administration (NOAA) tidal station at Newburgh (NOAA, 2006).

References about the Mid-Hudson River Estuary indicate that the tidal flat at the Battery Knox – TD Land MRS is likely freshwater to brackish tidal marsh (Fish and Wildlife Service [FWS], n.d.). Salty sea water also pushes up the estuary, diluted by freshwater runoff as it moves north. In years with average precipitation falling in the usual seasonal patterns, spring runoff holds the leading edge of the dilute sea water and the salt front downriver in the Tappan Zee area of the Hudson River. As runoff slackens in summer, the salt front pushes northward past Battery Knox – TD Land MRS, and farther upriver to Poughkeepsie in periods of drought. The MRS does not contain any additional surface water bodies.

1.3.6.2 Groundwater

Groundwater on West Point and the surrounding area occurs in an unconsolidated aquifer consisting of alluvial deposits and a consolidated bedrock aquifer. Water within the unconsolidated aquifer occurs primarily in the sands and gravels of the stratified drift deposits. These deposits represent the most prolific sources of groundwater; however, the deposits are thin and generally have fairly small well yields that average about 40 gallons per minute (gpm). Water in the unconsolidated aquifer usually occurs under water table conditions. The bedrock formations support wells in Putman County, where the Battery Knox - TD Land MRS is located. Although dry holes can be drilled in any bedrock formation in Putnam County where fractures are missed during drilling, typical median well yields from the 18 bedrock formations in Putnam County are between 7 and 12 gallons per minute and median depths are approximately 275 to

300 feet. A review of well yields in the town of Philipstown indicates that most wells are drilled in the granitic gneiss and only 10% of the bedrock wells have yields over 30 gpm (Chazen, 2004).

Recharge to the aquifer is primarily from local precipitation, but hydrologic communication occurs between the alluvial and the bedrock aquifers, and some upward seepage from the bedrock aquifer occurs in low-lying areas (Tetra Tech, Inc., 2011; TLI, 2007). Recharge occurs into all geologic formations in the region (including the area surrounding Battery Knox - TD Land MRS) with some contribution from upland runoff, which can substantially increase recharge. Once the recharge reaches the water table, which usually lies 20 to 30 feet below grade except near streams, the recharge migrates with other groundwater through pore spaces or fractures toward lower elevations where it eventually re-emerges at grade in local hillside springs and as baseflow to nearby streams and the Hudson River. In general, groundwater follows the same topographic basins as surface water watersheds. Groundwater contributions from aquifers as baseflow to streams are the sole sources of water flow in streams during extended rainless periods (Chazen, 2004). Site-specific groundwater investigations were not conducted for the Battery Knox - TD Land MRS, and literature information was not found regarding the depth to groundwater or the groundwater flow specifically for the Battery Knox – TD Land MRS.

1.3.7 Ecology

The environmental setting of the West Point area is unique in that five physiographic provinces—the Appalachian Plateaus, Folded Appalachians (Valley and Ridge), New England, Piedmont, and Coastal Plain—converge within a 35-mile radius of West Point. West Point and the surrounding area are located in the New England Province in an area known as the Hudson Highlands (Tetra Tech, Inc., 2011).

1.3.7.1 Special Natural Areas

West Point has identified 12 sites that are to be specially managed because of ecological or geological significance, unique geological structure, and/or aesthetic and educational value to the installation; however, the Battery Knox - TD Land MRS is not located within or adjacent to any of the 12 identified sites (Tetra Tech, Inc., 2011).

1.3.7.2 Wetlands

The Battery Knox - TD Land MRS contains low-lying wetlands along the eastern shore of the Hudson River (TLI, 2007). Approximately 9.8 acres of estuarine and marine wetlands are associated with the tidal flat that is in the northern section of the MRS (National Wetland Inventory [NWI], accessed 2013). Additionally, a 0.79-acre freshwater forested/scrub shrub wetland is located in the center of the MRS on a parcel that was not included in the RI surveys because the right-of-entry (ROE) permission was not granted. Refer to Section 3.1 for a discussion of the ROEs.

1.3.7.3 Flora

Vegetation within the Battery Knox - TD Land MRS includes mowed lawn and trees that are characteristic of developed, landscaped areas, as well as mature forested areas. Additional vegetation includes those associated with estuarine and marine wetlands.

1.3.7.4 Fauna

Forty-eight species of mammals, 249 species of birds, 22 species of reptiles, and 18 species of amphibians have been documented on West Point, in addition to many species of fish and invertebrate species (Tetra Tech, Inc., 2011). These species also could occur on the eastern shore of the Hudson River in Putnam County.

1.3.7.5 Ecological Receptors

Potential ecological receptors were provided by West Point and are presented in the overall CSM for West Point. The following list of ecological receptors was modified from the list of receptors in the overall CSM for West Point to include only those species that have the potential to exist in the Battery Knox - TD Land MRS:

- Mammals: Small-footed bat and Indiana bat.
- Birds: Cooper's hawk, Northern goshawk, sharp-shinned hawk, golden eagle, American bittern, red-shouldered hawk, whip-poor-will, common nighthawk, cerulean warbler, Peregrine falcon, common loon, bald eagle, yellow-breasted chat, least bittern, red-headed woodpecker, osprey, pied-billed grebe, vesper sparrow, and golden-winged warbler.

- Reptiles: Eastern wormsnake, spotted turtle, wood turtle, timber rattlesnake, Eastern hognose, and Eastern box turtle.
- Amphibians: Jefferson salamander, blue-spotted salamander, and marbled salamander.
- Fish: Atlantic silverside.
- Insects, Dragonflies, and Damselflies: Lateral bluet, Needham's skimmer.
- S1* Plants: Virginia snakeroot, glomerate sedge, stripe-fruited sedge, and Carolina cranesbill.
- S2* Plants: Long's bittercress, midland sedge, slender crabgrass, violet wood sorrel, Carey's smartweed, and small-flowered crowfoot.
- S2S3* Plants: Cluster sedge, purple milkweed, Emmon's sedge, Bicknell's sedge, Bush's sedge, false hop sedge, weak stellate sedge, yellow harlequin, racemed pinweed, violet bush clover, slender knotweed, and gemmed bladderwort.

*Notes:

S1 = Critically imperiled in New York State because of extreme rarity (5 or fewer sites or very few remaining individuals) or extremely vulnerable to extirpation from New York State due to biological or human factors.

S2 = Imperiled in New York State because of rarity (6 to 20 sites or few remaining individuals) or highly vulnerable to extirpation from New York State due to biological or human factors.

S3 = Rare in New York State (usually 21 to 35 extant sites).

Double Ranks (i.e., S2S3) = The first rank indicates rarity based upon current documentation. The second rank indicates the probable rarity after all historical records and likely habitat have been checked.

An MRS-specific inventory of floral and faunal species was not conducted in the Battery Knox - TD Land MRS. However, the *Integrated Natural Resources Management Plan for the United States Army Garrison – West Point* (Tetra Tech, Inc., 2011) contains an extensive list of species that were documented on West Point, including Constitution Island on the eastern side of the Hudson River.

1.3.8 Sensitive Environmental Resources in the MRS

WESTON submitted a request for review by the New York Natural Heritage Program (NYNHP) to determine whether there are records of any known rare, threatened, and endangered species or species of special concern located within or near the West Point MRSs. In response, the NYNHP identified the following species for the potential to occur within the West Point MRSs: one mammal species (small-footed myotis (bat) [*Myotis leibii*]), two species of birds (bald eagle

[*Haliaeetus leucocephalus*] and the least bittern [*Ixobrychus exilis*]), one reptile species (timber rattlesnake [*Crotalus horridus*]), three fish (shortnose sturgeon [*Acipenser brevirostrum*], Atlantic sturgeon [*Acipenser oxyrhynchus*], and Atlantic silverside [*Menidia menidia*]), and one insect (Needham's skimmer [*Libellula needhami*]). With the exception of the two sturgeon species, the remaining species have the potential to occur in the Battery Knox - TD Land MRS. The shortnose and Atlantic sturgeons are more likely to occur in the deeper sections of the river than they are to occur along the eastern bank, adjacent to the MRS. However, the Atlantic silverside may occur within the tidal flat, which is located within the MRS. Terrestrial species are not likely to occur within the developed areas of the Battery Knox - TD Land MRS. Although it is possible that these species may rely on the forested area for habitat, the NYNHP did not identify any federally threatened or endangered plant species within any of the West Point MRSs, including the Battery Knox - TD Land MRS. The West Point Natural Resource Manager provided information that indicated the northern portion of the Battery Knox - TD Land MRS, in proximity to Constitution Island, is suitable habitat for bald eagle nesting and the timber rattlesnake (WESTON, 2010). However, no bald eagles, bald eagle nests, or timber rattlesnakes were observed during the RI.

1.3.9 Cultural and Archaeological Resources

Because West Point is one of the older training grounds in the United States that is still intact, the grounds and surrounding area contain numerous cultural, archaeological, and historical sites. There are no known cultural or archaeological resources located in the Battery Knox - TD Land MRS.

1.3.10 Current Land Use

The Battery Knox - TD Land MRS spans 12 privately owned parcels that contain residences, a railroad, and a private school. An active railroad line is located on the western side of the MRS adjacent to the Hudson River. The property is used for recreation, including boating, fishing, hiking, and athletics; rail transport; residential; and education.

The land uses for the parcels are presented in the following table:

Battery Knox -TD Land MRS Parcel Information			
Field Investigation Parcel ID	**Parcel ID**	**Land Use**	**Right of Entry Granted**
1	60.-1-3	Railroad	No
2	60.-1-9	Educational	Yes
3	60.-1-8.11	Educational	Yes
4	60.-1-6	Rural vacant	Yes
5	60.-1-8.12	Cultural and Recreational	Yes
6	60.-1-5	Residential	No
7	60.-1-2	Riding Stable/Residential	No
8	60.-1-4	Residential	Yes
9	60.17-1-18	Residential	Yes
10	60.17-1-19	Residential	No
11	60.18-1-4.2	Residential	No
12	60.14-1-3	Residential	No

1.4 PREVIOUS INVESTIGATIONS

1.4.1 Historical Information

Battery Knox contained six gun positions and ammunition magazines, and was established sometime between 1836 and 1850 on a bluff approximately 145 feet above the west bank of the Hudson River. Although the original armament of Battery Knox is not known, four 10-inch Rodman rifles on coastal carriages were installed at the battery during the Civil War era. Battery Knox was rebuilt in 1874, with modifications made to the armament and the orientation of the guns to improve both their defensibility and their ability to cover the river with firepower. By 1892, Battery Knox was armed with one 100-pounder Parrott 6.4-inch caliber rifle, one 300-pounder Parrott 10-inch caliber rifle, one 8-inch converted rifle, and four 10-inch Rodman rifles. At that time, the 10-inch muzzle-loaded Rodman guns were considered obsolete, and the 8-inch muzzle-loaded converted rifle was retained in service only for secondary purposes (TLI, 2006).

When the Rodman guns became outdated, they were retained at Battery Knox, and the Battery became a "ceremonial" or "salute" battery. The 100-pounder Parrott rifle, the 300-pounder Parrott rifle, and the 8-inch converted rifle were removed from Battery Knox between 1906 and 1918. September 12, 1906 correspondence from West Point Headquarters indicates that three guns and carriages were to be removed from Battery Knox. Three of the last four guns remaining at the battery were retained by West Point and transferred with their carriages to Trophy Point. The fourth gun was transferred to the National Park Service and is on display at Fort Point in San Francisco, California. The battery was demolished sometime during the WWII era (TLI, 2006).

The Battery Knox - TD Land MRS was never formally owned or acquired by DoD. The property was previously used by the military as a part of the range of a munitions site, but DoD did not have a formal acquisition agreement, and the area is considered to be a "transferred" range as defined by DoD. The battery itself, located on the Main Post, was demolished during the WWII era; however, firing activities ceased at Battery Knox in the early 1900s. The Battery Knox - TD Land MRS was never used as a range but was a portion of the range overshot area for the targets that were located in the river. The property is located within the town of Philipstown, NY, which was established in the late 1770s and was originally owned by Indians. A portion of the property is used for a railroad line, which has been in operation since the 1800s. Other past land use was primarily residential with some recreational and institutional use. The property is also currently used for residential, recreational, and educational purposes.

1.4.2 Site Inspection Report and Results

The SI field activities at the Battery Knox - TD Land MRS, which were conducted in spring 2006, included visual surveys along approximately 22 linear miles in 9 of the 12 parcels. It was determined that the remaining two parcels would not be surveyed because extensive fill work and landscaping had previously been conducted on these parcels. Five sediment samples and six surface soil samples (including one quality assurance [QA] and one quality control [QC] sample) were collected from the Battery Knox - TD Land MRS. No MEC or MD was observed during the visual surveys.

During the visual survey, each team member walked individual transects, nominally spaced at 10- to 50-foot intervals (based on terrain, ground cover, and vegetation) to identify and record all MEC, MD, and munitions-related materials. Hand-held Global Positioning System (GPS) units

were used to track the visual survey transects. GPS units were accurate to within 15 to 40 feet, depending on satellite availability and the tree canopy. In addition, Schonstedt magnetic locators and hand-held electromagnetic metal detectors were used throughout the visual survey to aid in the identification of metallic items and to ensure the safety of the field teams. At times it was necessary to extend the visual surveys beyond the boundaries of the MRS. Work outside the MRS boundaries was required for several reasons, including the need to circumvent unsafe terrain or dense vegetation and the need to access portions of the MRS from outside locations (TLI, 2007). The visual survey coverage and sample locations are presented in **Figure 1-4**.

Five sediment samples, four surface soil samples, one surface soil QA sample, and one surface soil QC sample were collected from nine locations in the Battery Knox - TD Land MRS. All sediment samples were dry sediments and were collected from drainage areas, not located in wetlands areas where MC might have accumulated if it existed. Because no munitions-related material was identified on the MRS, the samples could not otherwise be biased towards possible contamination source areas. Composite sediment samples consisted of the collection of surface sediments along the length of dry stream channels that drained the MRS.

The soil and sediment samples were analyzed for Target Compound List (TCL) explosives by Method 8330 and a subset of the Target Analyte List (TAL) metals by Methods SW846 6010B and 7471A. Metals were selected for analysis based on the metals known to be associated with the munitions historically used at West Point. The soil and sediment samples were analyzed for antimony, copper, iron, lead, mercury, potassium, and zinc. The analytical results for seven TAL metals and TCL explosives were compared, for evaluation purposes only, against EPA Region 9 preliminary remediation goals (PRGs) for residential soils (current screening levels at that time), where available (TLI, 2007).

Trace amounts of explosives were detected in seven samples, as noted below; however, all of these concentrations were below the corresponding EPA Region 9 PRGs and laboratory reporting limit required by Method SW 8330, except for hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX), which was detected at a level slightly higher than the reporting limit, but still below the PRG. The remaining explosive compounds were not detected at the Battery Knox - TD Land MRS (TLI, 2007).

- 1,3,5-Trinitrobenzene was detected in six samples: USMA-BKTD-SO001 at 0.061 milligram per kilogram (mg/kg), USMA-BKTD-SO002 at 0.11 mg/kg, USMA-BKTD-SO003 at 0.12 mg/kg, USMA-BKTD-SO004 at 1.0 mg/kg, USMA-BKTD-SO005 at 0.14 mg/kg, and USMA-BKTD-SD001 at 0.026 mg/kg, all of which are below the EPA Region 9 PRG of 1,800 mg/kg.

- 1,3-Dinitrobenzene was detected in four samples: USMA-BKTD-SO002 at 0.064 mg/kg, USMA-BKTD-SO003 at 0.072 mg/kg, USMA-BKTD-SO004 at 0.12 mg/kg, and USMA-BKTD-SO005 at 0.15 mg/kg, all of which are below the EPA Region 9 PRG of 6.1 mg/kg.

- 2,4,6-Trinitrotoluene was detected in USMA-BKTD-SO005 at 0.072 mg/kg, which is below the EPA Region 9 PRG of 16.2 mg/kg.

- 2,4-Dinitrotoluene was detected in four samples: USMA-BKTD-SO003 at 0.054 mg/kg, USMA-BKTD-SO005 at 0.052 mg/kg, USMA-BKTD-SD003 at 0.033 mg/kg, and USMA-BKTD-SD004 at 0.074 mg/kg, all of which are below the EPA Region 9 PRG of 120 mg/kg.

- 2-Amino-4,6-dinitrotoluene was detected in USMA-BKTD-SO005 at 0.11 mg/kg. There is no PRG established by EPA for this specific isomer; however, the detected levels are well below the EPA Region 9 PRG for aminodinitrotoluene (12 mg/kg), which is used as the standard for comparison.

- 3-Nitrotoluene was detected two samples: USMA-BKTD-SD003 at 0.081 mg/kg and USMA-BKTD-SO005 at 0.15 mg/kg, both of which are below the EPA Region 9 PRG of 730 mg/kg.

- 4-Amino-2,6-dinitrotoluene was detected in three samples: USMA-BKTD-SO003 at 0.10 mg/kg, USMA-BKTD-SO005 at 0.03 mg/kg, and USMA-BKTD-SD002 at 0.088 mg/kg. There is no EPA-established PRG for this specific isomer; however, the detected levels are well below the EPA Region 9 PRG for aminodinitrotoluene (12 mg/kg), which is used as the standard for comparison.

- RDX was detected in USMA-BKTD-SD004 at 1.2 mg/kg, which is below the EPA Region 9 PRG of 40 mg/kg.

The source of these trace amounts of explosives could not be confirmed because no evidence of military munitions were observed during the visual survey. The identification of RDX in the sample collected at the Battery Knox - TD Land MRS indicates that the explosives may not be related to activities conducted at Battery Knox, because RDX was not used by the Army until after 1939, and the Battery Knox firing activities ceased in the early 1900s. Therefore, the trace of RDX could not have been directly associated with the activities at Battery Knox. The issue regarding the identification of low levels of explosives in the samples was discussed with the

laboratory, the independent data validation firm used by TLI to review the data, and TLI's project chemist. As a result, it was determined that the data provided by the laboratory were accurate (TLI, 2007).

Antimony, copper, iron, lead, mercury, potassium, and zinc were detected in the samples collected from the Battery Knox - TD Land MRS. However, all concentrations were below the applicable screening criteria with the exception of iron, as noted below (TLI, 2007):

- Iron was detected in sample USMA-BKTD-SD005 at 24,700 mg/kg, slightly greater than the EPA Region 9 PRG for iron of 23,000 mg/kg. No munitions-related materials were identified in the area near the location where the sample was collected.

The elevated levels of iron are believed to be naturally occurring in the soils at the MRS. Based on the geology of the area that includes the presence of rocks with highly oxidized iron content, it is assumed that the level of iron in the soil is the result of local geologic conditions. Background data regarding the naturally occurring level of iron in the soil were not available (TLI, 2007).

In addition to analysis for explosives by Method 8330 (HPLC/Ultraviolet [UV]), the two additional samples collected on 7 September 2006 were subjected to confirmatory analysis by Method 8321A (HPLC/Mass Spectrometry [MS]). Method 8321A provides analytical results with less interference and better resolution than Method 8330. The explosives identified in the samples analyzed by Method 8330 were not confirmed through the analysis using Method 8321A. Information was received from EPA Region 2 indicating that Method 8321A is not a method approved by the EPA for the analysis of explosives. Therefore, the analytical results derived from this method were not used in making decisions regarding recommendations for the Battery Knox - TD Land MRS (TLI, 2007).

The SI Report provided the following recommendation for the Battery Knox - TD Land MRS (TLI, 2007):

- During the SI, no evidence of military activities, including MEC, was identified in the Battery Knox - TD Land MRS. In addition, no MC at levels above the screening criteria was identified in the samples. However, trace amounts of explosives were identified in the samples. Because no explanation for the presence of these trace explosives could be determined at the time, the stakeholders requested that further

investigation of the MRS be performed, including additional soil sampling and possible geophysical investigation.

1.4.3 Munitions Response Site Prioritization Protocol Scoring

The Munitions Response Site Prioritization Protocol (MRSPP) reflects the statement in 10 United States Code (U.S.C.) § 2710(b)(2) that the priority assigned should be based on the overall conditions at each location, taking into consideration various factors relating to safety and environmental hazard potential. As required under 10 U.S.C. § 2710(b)(1), the priority assigned to each MRS will be included with the inventory information made publicly available. The requirement for an inventory of MRSs known or suspected of containing UXO, DMM, or MC is found at 10 U.S.C. § 2710(a). The assigned priority will be updated annually to reflect new information that becomes available.

The MRSPP evaluates the following potential explosive safety and environmental hazards:

- Explosive hazards posed by UXO and DMM.
- Hazards associated with the effects of chemical warfare materiel (CWM).
- The chronic health and environmental hazards posed by MC or other chemical constituents.

The Department of Defense (DoD) recognized the different hazards inherent to each class of materials. To address these differences, the MRSPP has three hazard evaluation modules, each of which is specific to one type of hazard:

- Explosives hazards are evaluated using the Explosives Hazard Evaluation (EHE) module.
- CWM-related hazards are evaluated using the Chemical Warfare Materiel Hazard Evaluation (CHE) module.
- Health and environmental hazards posed by MC are evaluated using the Health Hazard Evaluation (HHE) module.

DoD recognized that sufficient data to apply all three of the hazard evaluation modules may not be immediately available for some MRSs. In such cases where data are available for only one or two of the modules, the priority will be assigned based on the modules for which sufficient data are available. This initial priority may change when additional data are collected and all three

modules are evaluated. Modules for which there are insufficient data will be assigned a status of "evaluation pending." Modules for which sufficient data exist to determine that no hazards are present can be assigned an alternative rating of "no known or suspected hazard."

Upon completion of the necessary munitions response at an MRS, the status of "prioritization no longer required" will be assigned. The sequencing of MRSs for environmental restoration activities will be based primarily on the priority assigned using this protocol, but may also reflect other relevant information, such as stakeholder concerns, economic issues, and program management considerations.

The MRSPP for the Battery Knox - TD Land MRS was completed after the SI. The Battery Knox - TD Land MRS was given a Priority 5 (out of 8) based on the potential explosive hazard identified during construction activities. Priority 1 indicates the highest potential hazard and Priority 8 the lowest potential hazard. Under the MRSPP, only MRSs with CWM can be assigned to Priority 1, and no MRS with CWM can be assigned to Priority 8. In the SI, the Battery Knox - TD Land MRS with a priority of 5 was in the middle of the ranking system. The MRSPP was updated based on the RI results and is presented in Section 9.2.

1.5 REMEDIAL INVESTIGATION REPORT ORGANIZATION

The RI Report is organized as follows:

- Section 1 provides the purpose and scope of the project, a description and history of the MRS, and a summary of previous investigations.
- Section 2 includes discussions of the preliminary CSM, preliminary remediation goals, data needs, and data quality objectives (DQOs) used to develop the RI.
- Section 3 provides details on the approach, methods, and procedures used to characterize MEC.
- Section 4 provides the details of the MC sampling.
- Section 5 presents the results of the RI, the MEC and munitions debris (MD) characterization, and the on-site distribution of MEC and MD. Section 5 also includes the preliminary identification of applicable or relevant and appropriate requirements (ARARs).
- Section 6 presents the screening level human health and ecological risk assessments for MC.

- Section 7 presents the MEC and MC fate and transport processes.
- Section 8 includes a revised CSM based on the findings of the RI.
- Section 9 evaluates the potential current and future adverse hazards caused by MEC and MC.
- Section 10 presents the RI summary and conclusions.
- Section 11 provides a list of references used in preparing the report.

SECTION 1
FIGURES

Crows Nest
Constitution Island
Crows Nest Brook
Sinclair Pond Brook
Gees Point
Delafield Pond
Lusk Reservoir
Little Bog Meadow Reservoir
Kinsley Farm Brook
Stony Lonesome Brook
Highland Brook
Dassori Pond
Garrison
Wilkins Pond
Round Pond
Beaver Pond
Hudson River
Mineral Spring Brook
Long Pond
West Point
United States Military Academy
Highland Falls
Popolopen Lake
Long Pond Creek
Cragston Lakes
Highland Mills
Bull Pond
Mine Lake
Stillwell Lake
Cranberry Pond
Lake Georgina
Lake Frederick
Cranberry Brook
Orange County
Putnam County
Fort Montgomery
Central Valley
Putnam County
Westchester County
Camp Smith NY State

Legend

- Installation Boundary
- Battery Knox - TD Land MRS - 141 Acres
- Streams

Imagery Source: ESRI, World Imagery
USAD FSA, NAIP 2009

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Figure 1-1
Regional Location Map
U.S. Army Garrison West Point

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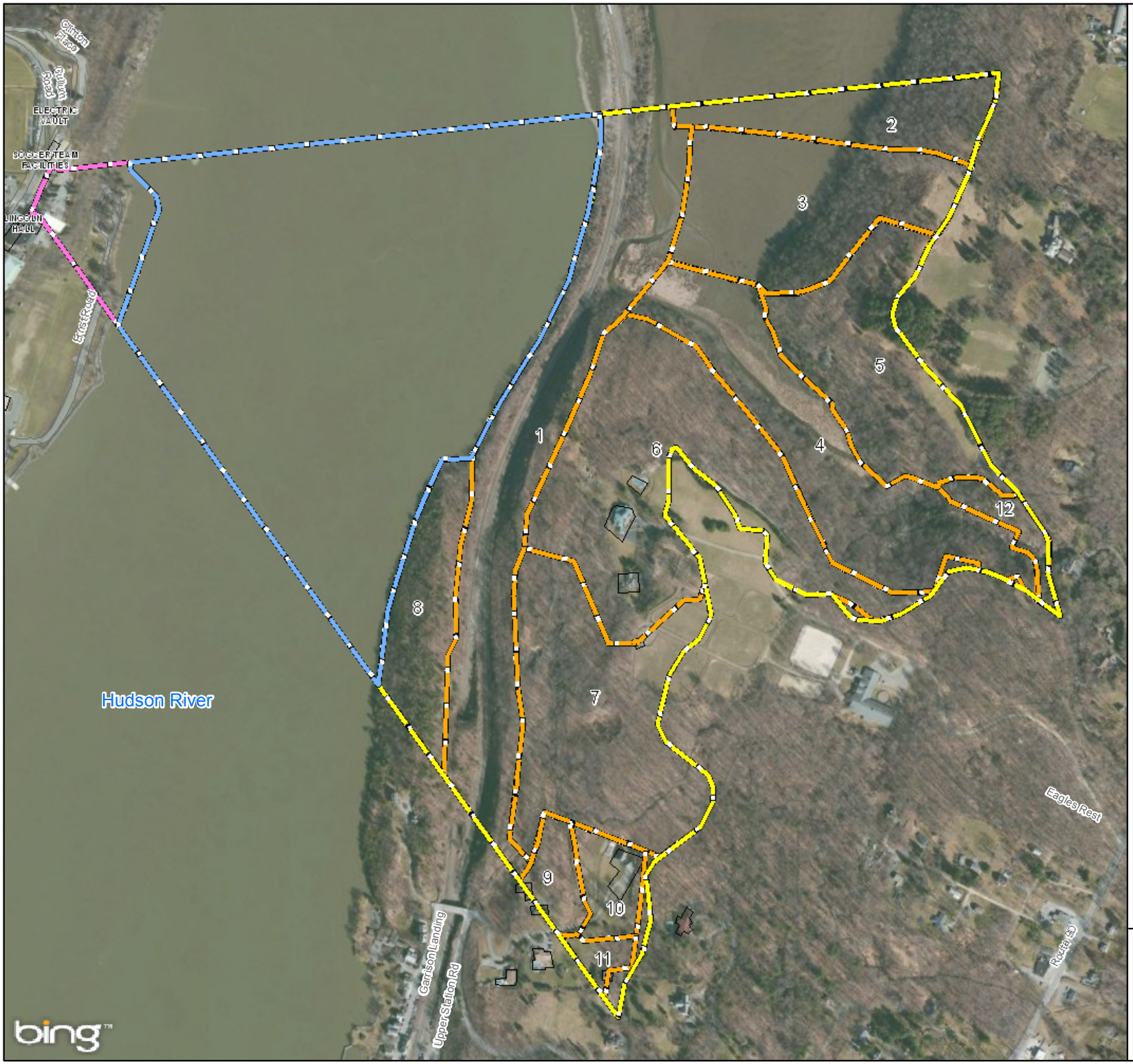
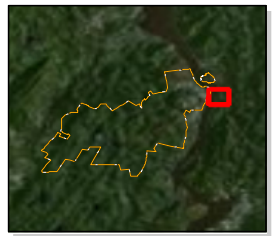


Legend

- Battery Knox MRS (6 Acres)
- Battery Knox - TD River MRS (73 Acres)
- Battery Knox -TD Land MRS (141 Acres)
- Parcel Boundary

1 - 25.28 acres
2 - 7.65 acres
3 - 15.71 acres
4 - 17.5 acres
5 - 14.12 acres
6 - 25.33 acres
7 - 19.47 acres
8 - 7.57 acres
9 - 2.37 acres
10 - 2.9 acres
11 - 1.07 acres
12 2.03 acres



Imagery Source: ESRI, Bing Mapping Service. 2011

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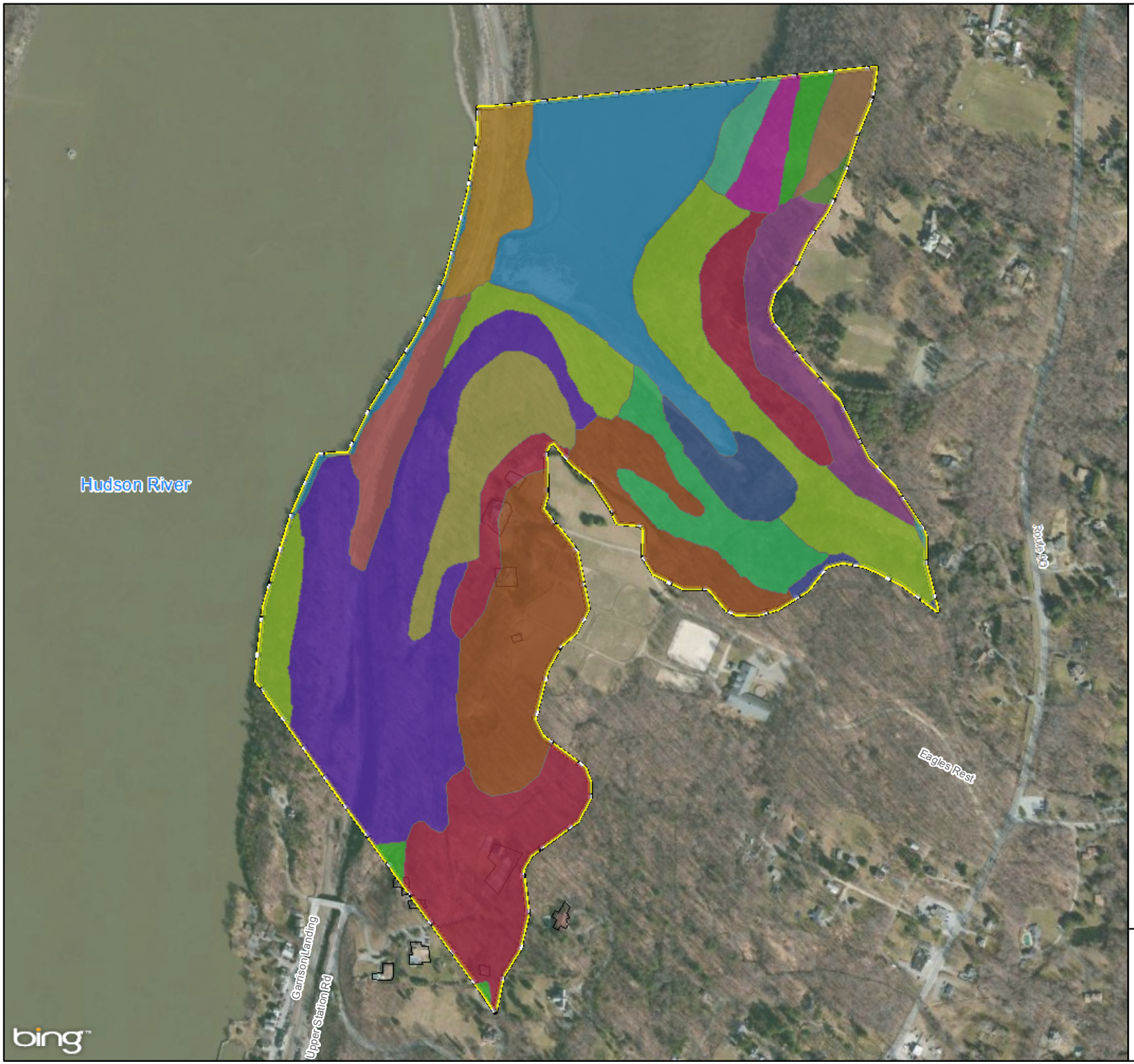
Figure 1-2
Battery Knox-TD Land MRS
(WSTPT-004-R-02)
U.S. Army Garrison West Point

File: Y:\West_Point\mxd\RI\Battery_Knox_DGM_Overall.mxd, 6/18/2013 12:39:21 PM, ricksc

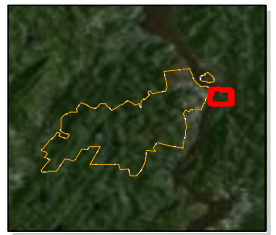


Legend

Battery Knox - TD Land MRS - 141 Acres

Battery Knox Soil Series

- Charlton loam, 35 to 45 percent slopes, very stony
- Charlton-Chatfield complex, rolling, very rocky
- Chatfield-Charlton complex, hilly, very rocky
- Chatfield-Hollis-Rock outcrop complex, rolling
- Chatfield-Hollis-Rock outcrop complex, hilly
- Fluvaquents-Udifluvents complex, frequently flooded
- Hinckley gravelly loamy sand, 3 to 8 percent slopes
- Hollis-Rock outcrop complex, very steep
- Ipswich mucky peat
- Knickerbocker fine sandy loam, 2 to 8 percent slopes
- Riverhead loam, 0 to 3 percent slopes
- Riverhead loam, 3 to 8 percent slopes
- Riverhead loam, 8 to 15 percent slopes
- Riverhead loam, 15 to 25 percent slopes
- Riverhead loam, 25 to 50 percent slopes
- Udorthents, smoothed
- Udorthents, wet substratum
- Water



Imagery Source: ESRI, Bing Mapping Service. 2011

N W E S

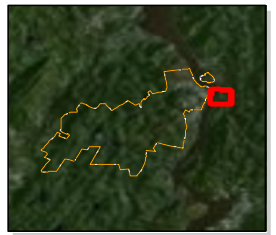
0 300 600 Feet

Figure 1-3
Battery Knox-TD Land MRS
(WSTPT-004-R-02)
Soil Series
U.S. Army Garrison West Point

File: Y:\West_Point\mxd\RI\Battery_Knox_Soils.mxd, 5/22/2013 8:41:47 AM, ricksc

Legend

- MC Sampling Location
- Battery Knox - TD Land MRS - 141 Acres
- Visual Survey



Imagery Source: ESRI, Bing Mapping Service. 2011

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W E
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Figure 1-4
Battery Knox-TD Land MRS
(WSTPT-004-R-02)
SI Results
U.S. Army Garrison West Point

File: Y:\West_Point\mxd\RI\Battery_Knox_SI_Results.mxd, 5/22/2013 8:36:13 AM, ricksc

2. PROJECT REMEDIAL RESPONSE OBJECTIVES

The goal of the RI was to conduct an on-site investigation at the Battery Knox - TD Land MRS to adequately characterize the nature and extent of potential MEC and MC contamination, and to assess any potential risks to human health or the environment that might result from that contamination so that possible remedial alternatives could be developed and assessed. The overall RI approach included the following:

- Developing DQOs and data needs through the Technical Project Planning (TPP) process.
- Delineating the extent of potential MEC and assessing MEC density within the MRS using geophysical surveys.
- Conducting MC sampling at the Battery Knox - TD Land MRS based on the SI results, even though no indications of a MEC release were observed.
- Reporting results through the TPP process throughout the RI to gain stakeholder concurrence.
- Updating the CSM and MRSPP.
- Submitting the RI Report.

The specific processes and procedures used to conduct the investigation are detailed in the Final RI Work Plan (WESTON, 2011a). The characterization approach followed the methods presented and approved in the TPP 1 and TPP 2 meetings (see Section 2.2). The investigation methods are summarized in Section 3 of the RI report, and the RI results are presented in Section 5.

2.1 CONCEPTUAL SITE MODEL AND PROJECT APPROACH

The CSM is used as a planning tool to integrate MRS information from a variety of sources, to evaluate the information with respect to project objectives and data needs, and to respond through an iterative process for further data collection or action. The CSM development should be viewed as a process that reflects the progress of activities at an MRS from initial assessment through closeout. The CSM is divided into three primary components: potential sources, interaction, and receptors for MEC and/or MC, with complete, potentially complete, and incomplete exposure pathways identified for each receptor. Each component is described below:

- Sources — Sources are those areas where MEC or MC has entered (or may enter) the physical system. An objective of the RI is to detect and delineate sources using geophysical surveys and intrusive investigations.

- Interactions — The hazard from MEC and the risk from MC are a result of direct human contact from an activity. Interactions describe ways that receptors come into contact with a MEC and/or MC source. For MC, interactions can include physical transportation of the contaminant and transfer from one media to another through various processes such that media other than the source area can become contaminated. Interactions also include exposure routes (ingestion, inhalation, and dermal contact) for each receptor. For MEC, movement is not typically significant, and interaction will occur only at the source area, limited by access and activity. There can be movement of MEC through natural processes such as frost heave and soil erosion.

- Receptors — A receptor is an organism (human or ecological) that contacts a chemical or physical agent. The pathway evaluation must consider both current and reasonably anticipated future land use because receptors are determined on that basis. Receptors include human receptors, such as residents (adults and children), school children, recreational users (boaters, fishermen, hikers, and athletes), and railroad personnel, and ecological receptors.

The preliminary CSM for the Battery Knox - TD Land MRS was based on information collected during the SI (TLI, 2007). Based on the SI results, MEC exposure pathways are complete because even though no MEC was observed during the SI field activities, the Battery Knox - TD Land MRS is part of a former artillery range fan, and MEC might have been present. The primary exposure mechanism for human and ecological receptors to surface MEC is through handle/tread underfoot. Also, a subsurface pathway may occur because biota may nest or burrow at the MRS (TLI, 2007).

Based on the results of SI soil sampling, MC identified above the EPA Region 9 PRGs at the Battery Knox - TD Land MRS included iron. Although no background data were available, the area is known to have high levels of iron as a result of the highly oxidized iron content of the rocks. The SI assumed that the iron concentrations are the result of the naturally occurring geology and not the result of munitions. Therefore, the pathways of MC to all human and ecological receptors were considered incomplete (TLI, 2007).

Figure 2-1, which depicts the exposure pathways for the Battery Knox - TD Land MRS, indicates that the exposure pathways for human and ecological receptors to contact MEC are complete based on physical evidence or previous investigations. **Figure 2-2** depicts the exposure

pathways for human and ecological receptors to contact MC. This figure demonstrates that the exposure pathways are considered incomplete.

The CSM is updated as new data become available. The data collected during the RI were incorporated into the model, and a revised CSM is presented in Section 8.

2.2 TECHNICAL PROJECT PLANNING

Prior to the initiation of RI field activities, representatives and stakeholders from USACE, West Point, EPA, NYSDEC, WESTON, and TLI participated in two TPP meetings. TPP 1 was conducted on 29 July 2010. At this meeting, the MRS summary and RI approach, objectives, planning documentation, and field investigation and reporting requirements were discussed.

TPP 2 was conducted on 3 February 2011. The project stakeholders reviewed the RI Work Plan and identified and discussed project goals and DQOs. Details regarding the implementation of the MMRP RI were presented and discussed among the group. Based on the results of the second meeting, specific details of the investigation approach for the MRS, including coverage area, survey type (grid versus transect), and quantities, were determined.

2.3 PRELIMINARY REMEDIATION GOALS AND ACTION OBJECTIVES

PRGs are defined to determine the appropriate investigation approach and the effectiveness of remedial actions for both MEC and MC. PRGs are both site- and contaminant-specific and define the conditions considered by stakeholders to be protective of human health and the environment. PRGs are developed for MEC based on MRS requirements and exposure pathways. PRGs for MEC focus on limiting or removing the exposure pathway (U.S. Army, 2009). Similar to the CSM, PRGs may be reevaluated and refined throughout the remedial investigation and feasibility study (RI/FS) process as new information becomes available.

PRGs for MC are developed and refined throughout the CERCLA process based on ARARs, published risk-based screening levels, and/or site-specific risk-based screening levels. Prior to determining whether remedial actions and thus PRGs were necessary for the Battery Knox - TD Land MRS, MC screening values, agreed upon by the TPP Team, were used to identify any unacceptable risks to potential on-site receptors associated with MC exposure.

2.4 DATA QUALITY OBJECTIVES

2.4.1 Overview

DQOs were developed for the Battery Knox - TD Land MRS based on the EPA Quality Assurance (QA)/G-4HW guidance (EPA, 2000). DQOs are qualitative and quantitative statements that define the type, quantity, and quality of data necessary to support the decision-making process during the RI. The DQO process includes the following seven steps:

1. **State the problem:** Provide a concise description of the problem.
2. **Identify the decisions:** Develop decision statements to solve the problem.
3. **Identify inputs to the decision**: Identify information and measurements needed to make the decisions.
4. **Define study boundaries:** Identify conditions such as spatial and temporal boundaries.
5. **Develop a decision rule:** Qualify the decisions to understand data needs.
6. **Specify tolerable limits on decision errors:** Develop performance criteria.
7. **Optimize the design:** Design an effective data collection strategy based on the previous steps.

2.4.2 Battery Knox - TD Land MRS (WSTPT-004-R-02) Data Quality Objectives

The following DQOs were created specifically for the Battery Knox - TD Land MRS and were agreed upon by the stakeholders during the TPP sessions:

1. **State the problem:** This MRS is the land portion of the former Battery Knox Range located on the eastern side of the Hudson River. The direction of fire at the range was east at established targets within the river. Potential munitions overshots from training activities may have impacted the area of the Battery Knox range fan where this MRS is located. No MEC or MD has been observed in this MRS; however, trace amounts of explosives were detected in soil samples collected during the SI. The explosives levels were below the EPA Region 9 PRGs. Further investigation of MC was recommended in the SI. Also, the approximate density of MEC, if present, has not been verified. MC may also be present if a MEC release is detected within the MRS.

2. **Identify the decisions:** The primary decisions for this MRS include:

   - Determine the approximate MEC density in the MRS based on UXO Estimator coverage requirements.

   - If a MEC release is observed in the MRS, characterize the nature and extent of MEC and evaluate MC.

- Evaluate explosives concentrations in soils across the MRS based on SI analytical results.

3. **Identify inputs to the decision:** Several inputs will be acquired during the course of the RI to support the decision. UXO Estimator requires that 5.78 acres be investigated to determine at a 95% confidence level that less than 0.5 MEC/acre is present within the MRS. Digital geophysical mapping (DGM) and mag and dig surveys will be performed along transects and in grids to accomplish the UXO Estimator requirements. All anomalies will be investigated. Intrusive results for MEC, MD, and non-MD will be evaluated in the project Geographical Information System (GIS). If a MEC release is detected, discrete or incremental soil and sediment sampling will be performed to determine whether MC is present. Incremental sampling units will be placed across the MRS to evaluate the potential MC.

4. **Define study boundaries:** This MRS is a 141-acre area bounded to the west by the Hudson River. The eastern MRS boundary is defined by the topography where potential munitions overshots did not reach. The extent of potential MEC and MC observed during the RI will be delineated using DGM, mag and dig, discrete MC sampling, and incremental MC sampling.

5. **Develop a decision rule:** The results of the RI at the Battery Knox - TD Land MRS will be used to:

   - Assess, based on intrusive anomaly investigations, whether MEC density is less than 0.5 MEC/acre in the MRS.

   - Reassess the characterization approach if MEC density is found to be greater than 0.5 MEC/acre or if the CSM is not valid.

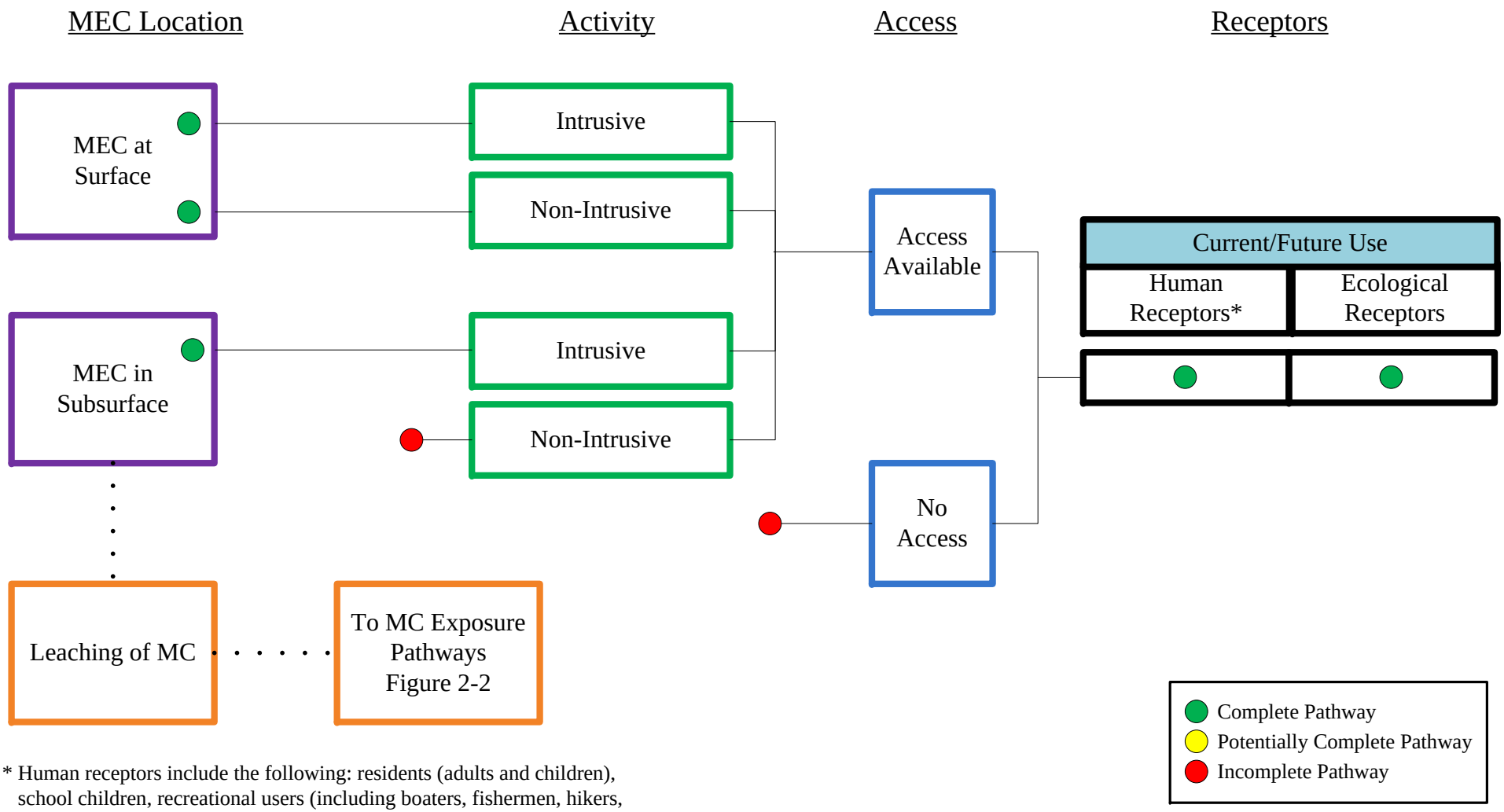
   - Evaluate incremental sampling results for explosives to determine whether MC at this MRS will or will not require further response action.

6. **Specify tolerable limits on decision error:** It is anticipated that a low density of MEC exists at this MRS because no reported findings of MEC have been documented. The characterization approach will confirm that less than 0.5 MEC/acre is present at the MRS. If there is less than 0.5 MEC/acre within the MRS, no additional MEC investigations will be required to validate MEC density. If MEC is identified during intrusive work within the MRS, additional sampling may be warranted to achieve the desired confidence level. Additional sampling will be performed only if the MRS is still assumed to have a low density of MEC consistent with the CSM for the MRS. Additional coverage requirements will be determined by UXO Estimator.

   Elevated MC (explosives) levels in soils across the MRS are not anticipated. Incremental sampling results will support this assumption. If MC concentrations above reporting limits are detected, additional sampling will be performed to determine the nature and extent of MC.

7. **Optimize the design:** DGM surveys using an EM61-MK2 and mag and dig surveys using White's XLT all-metals detectors will be performed across the required 5.78 acres consistent with UXO Estimator assumptions. This includes six 100 foot by 100 foot grids and approximately 3.6 miles of transects. Mag and dig surveys will be used in areas inaccessible to the DGM instrumentation. All anomalies will be investigated to determine the approximate MEC density.

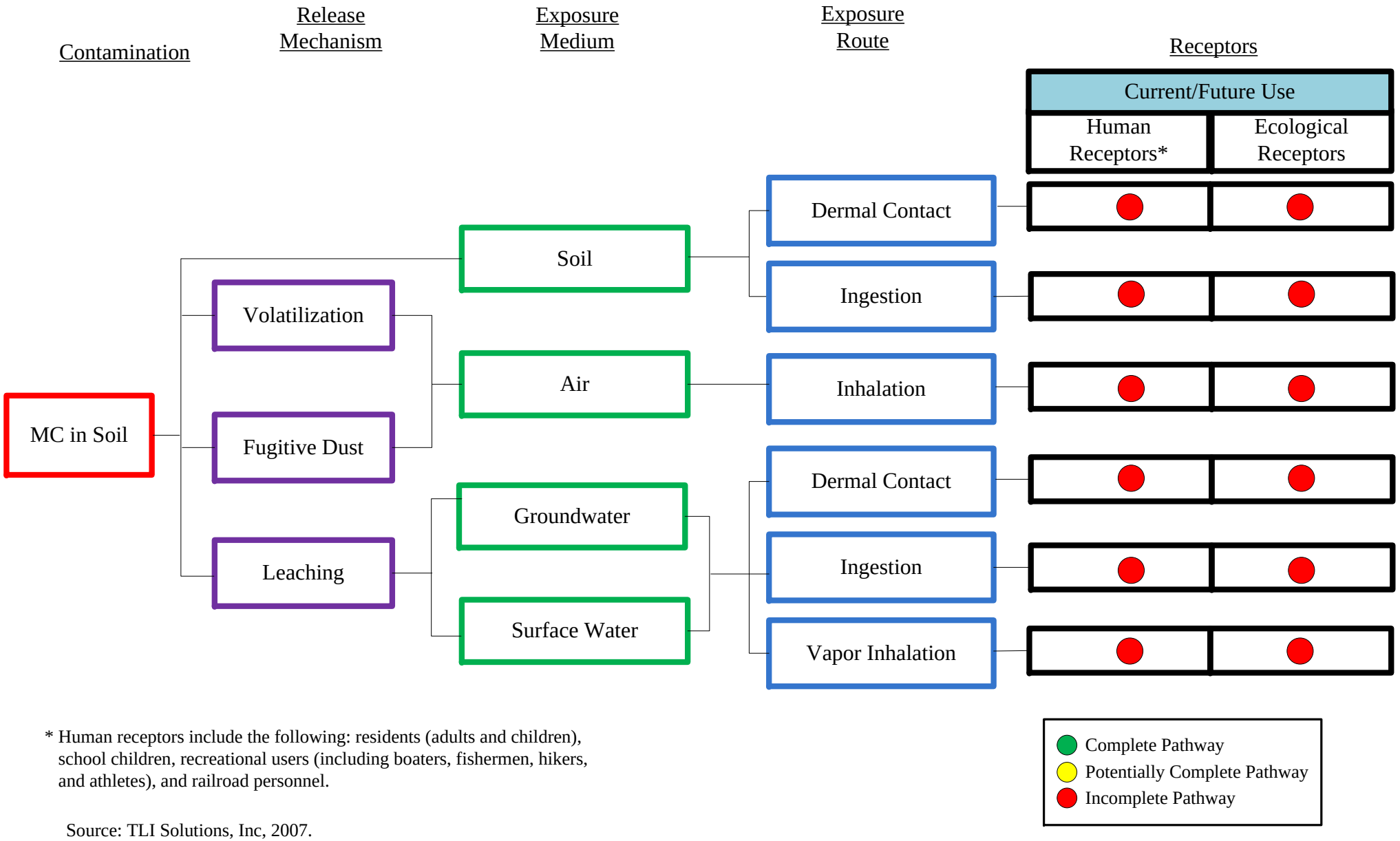
SECTION 2
FIGURES



* Human receptors include the following: residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

Source: TLI Solutions, Inc, 2007.

Figure 2-1
SI Exposure Pathways for
Receptors to MEC, Battery Knox - TD Land MRS



* Human receptors include the following: residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

Source: TLI Solutions, Inc, 2007.

Figure 2-2
SI Exposure Pathways for
Receptors to MC, Battery Knox - TD Land MRS

3. INVESTIGATION AND CHARACTERIZATION OF MUNITIONS AND EXPLOSIVES OF CONCERN

This section provides the comprehensive approach, methods, and operational procedures used for the MEC characterization performed at the Battery Knox - TD Land MRS. The RI field activities were conducted between 27 June and 5 July 2011 (see **Table 3-1**).

Table 3-1 Battery Knox - TD Land MRS RI Field Activities

RI Field Activity	Dates
Mag and Dig Survey	6/27/11 to 7/5/11
Intrusive Investigation	6/27/11 to 7/5/11
MC Sampling	6/27/11, 6/28/11, 7/5/11

3.1 INVESTIGATION COVERAGE REQUIREMENTS

UXO Estimator (Version 2.2) is a software package developed by USACE to assist in designing field sampling plans to determine MEC density for MRSs and to analyze field data after the data have been collected. UXO Estimator calculates the acreage within a MRS that needs to be investigated to determine that a specific MEC density is present across the MRS to a preselected confidence level. The software inputs include the size of the MRS, the anticipated MEC density, and the confidence level to which the anticipated MEC density is to be tested.

A 0.5 MEC/acre density and a 95% statistical confidence at which to test the MEC density hypothesis were selected for the Battery Knox - TD Land MRS. The 0.5 MEC/acre density was chosen by the project team during the project planning phase based on the historical use of the MRS, the results of the SI, and the guidelines provided in the help menu of the UXO Estimator software. Based on these factors, at least 5.78 acres would require investigation to be 95% confident that there is less than 0.5 MEC/acre at the Battery Knox - TD Land MRS.

Because the Battery Knox - TD Land MRS is comprised entirely of privately owned parcels, ROE permissions from the property owners were required for all investigation and sampling activities. The property owners of seven parcels (parcels 1, 6, 7, 9, 10, 11, and 12 shown in **Figure 1-2**), including the two largest tracts of land located in the center of the MRS, did not grant access to their properties. Although several attempts were made by USACE-New York

District and the project team to provide the property owners with information regarding the project and to ensure that the project impact would be minimal, the ROEs were not executed. Therefore, the original sampling strategy, as presented in the RI Work Plan and in the DQOs, was modified (WESTON, 2011c) and subsequently approved by the project team. **Figure 3-1** presents a comparison of the originally proposed sampling strategy and the revised strategy.

UXO Estimator provides a quantitative assessment of the upper bound MEC density. In the case of the Battery Knox - TD Land MRS, this upper bound density is 0.5 MEC/acre, which means that MEC density can range from 0 MEC/acre to 0.5 MEC/acre if no MEC is recovered in the MRS. As part of the post-results analysis, it is important to consider qualitative assessments using all information available from the revised CSM to determine where the actual MEC density falls within the 0 MEC/acre to 0.5 MEC/acre range.

3.1.1 Location Surveys and Mapping

Professional surveying was performed by Beatty & Watson, a New York-licensed surveyor. The survey established control relative to North American Datum 1983 (NAD 83), Universal Transverse Mercator (UTM) coordinate system, in units of U.S. Survey Feet.

3.1.2 Mag and Dig Surveys

Mag and dig transects were selected for the MRS because the terrain and vegetation would have limited the ability to perform DGM surveys. UXO Technicians traversed 3.72 miles of pre-planned transects using GPS as a navigational aid. Each transect was 10 feet wide, equating to approximately a 5-foot wide swath for each UXO Technician or a total of 4.5 acres. Mag and dig surveys were limited to the properties for which ROE permissions were received. As the UXO Technicians navigated along each transect, they used White's XLT all-metals detectors to detect anomalies. Each anomaly was investigated by the UXO Technicians to determine the anomaly source. **Figure 3-1** presents the area surveyed at the Battery Knox - TD Land MRS.

3.1.2.1 Test Strip

The test strip was installed near current H-Block Field and linearly seeded with five items, including one small industry standard object (ISO), two medium ISOs, one inert 37 millimeter (mm) projectile, and one inert 75mm projectile. Item types were confirmed with the USACE QA

Geophysicist prior to construction. On a daily basis, the functionality of the White's XLT detection equipment was verified by passing the equipment over the seed items in the test strip. If the instruments were not operating to specification, the equipment was removed from the project site for repair. **Table 3-2** lists the test strip seed items and descriptions.

Table 3-2 Test Strip Seed Items and Descriptions

Test Strip Seed Item Type	Northing	Easting	Orientation	Depth (inches)	Description
Small ISO[a] (1 inch by 4 inches)	15033479.01	1921684.05	Horizontal	4.2	Part Number[b]: 44615K466 ASTM Specification: A53/A773.
Medium ISO[a] (2 inches by 8 inches)	15033473.57	1921675.82	Horizontal	7.7	Part Number[b]: 44615K529 ASTM Specification: A53/A773.
37mm projectile	15033467.92	1921667.50	Horizontal	4.3	Inert projectile.
75mm projectile	15033462.55	1921659.03	Horizontal	10.7	Inert shrapnel projectile.
Medium ISO[a] (2 inches by 8 inches)	15033457.11	1921650.70	Horizontal	6.8	Part Number[b]: 44615K529 ASTM Specification: A53/A773.

Notes:
[a] ISOs are schedule 40 pipe nipples, threaded on both ends, made from black welded steel and manufactured to an American Society for Testing and Materials (ASTM) specification.
[b] Part number from the McMaster-Carr catalog.

3.2 ANOMALY INVESTIGATION PROCEDURES

Intrusive investigations were conducted at the locations of anomalies detected as part of the mag and dig survey in accordance with the RI Work Plan (WESTON, 2011a), including the approved Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP) and Explosives Site Plan (ESP). Intrusive investigations at selected anomaly locations were performed to positively identify and recover MEC, material potentially presenting an explosive hazard (MPPEH), and MD. All recovered items were treated as MPPEH and were subject to field inspection to determine the nature of recovered anomalies. All items were verified free of explosives hazards prior to being relocated for future disposal.

UXO Technicians performed intrusive operations at each anomaly location using hand tools. The UXO Technicians excavated at the location of the highest detected response until the source of the anomaly was found. The target location was considered clear when a signal source was no longer detected after removal of the conductive item, or the source of the signal was identified to be associated with a cultural feature such as a fence or building.

Exclusion zones during intrusive operations were based on the project munition with the greatest fragmentation distance, which is an 8-inch Parrott gun (USACE, 2010). The minimum separation distance for nonessential personnel was 197 feet.

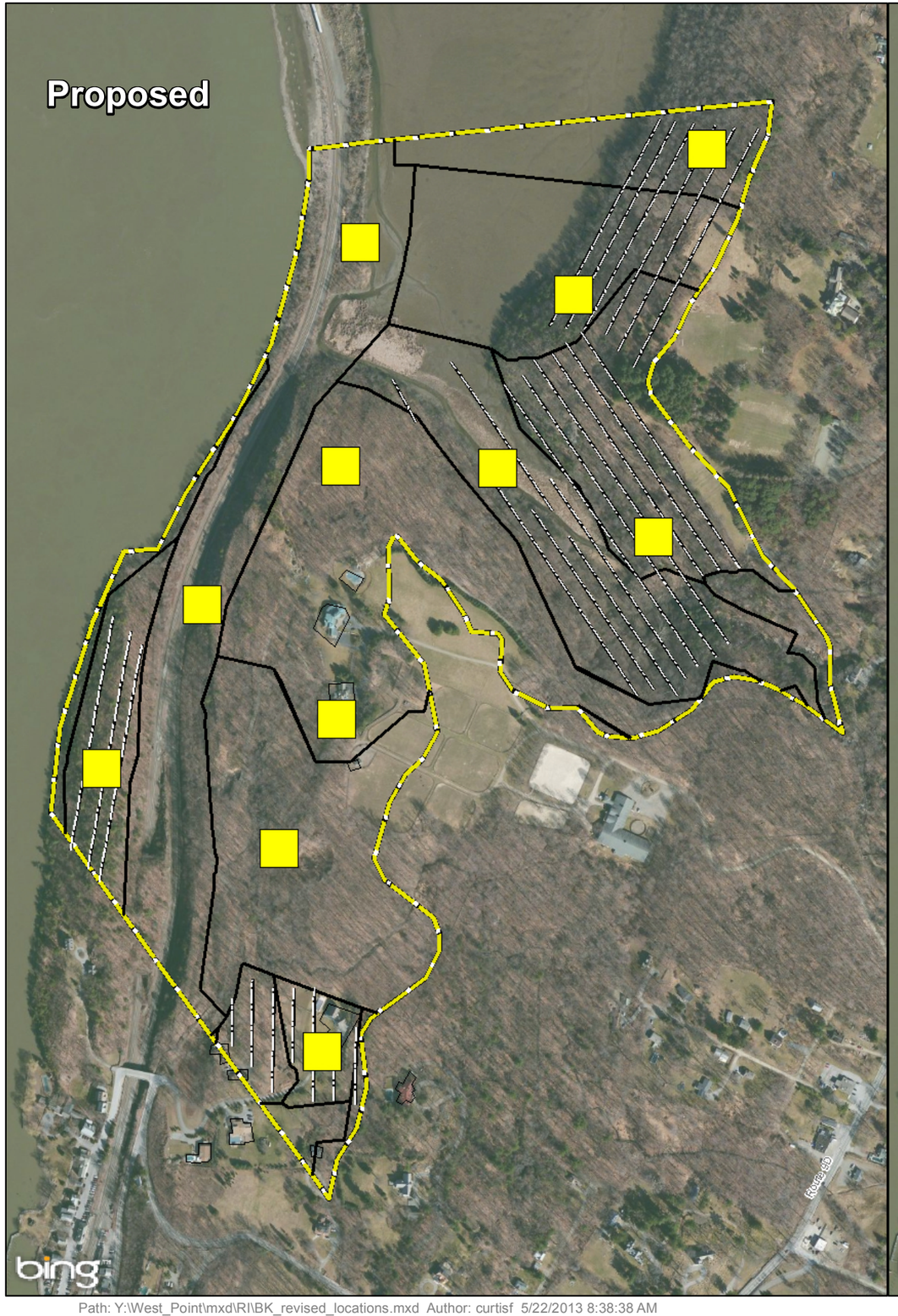
Dig teams used the personal hand-held computers with RespondFast UXO Investigation software to electronically log the target characteristics real-time in the field. Characteristics logged in RespondFast included item category, item type, depth, dig data, and final disposition. The results of the intrusive investigation are provided in the expanded dig lists in **Appendix A.**

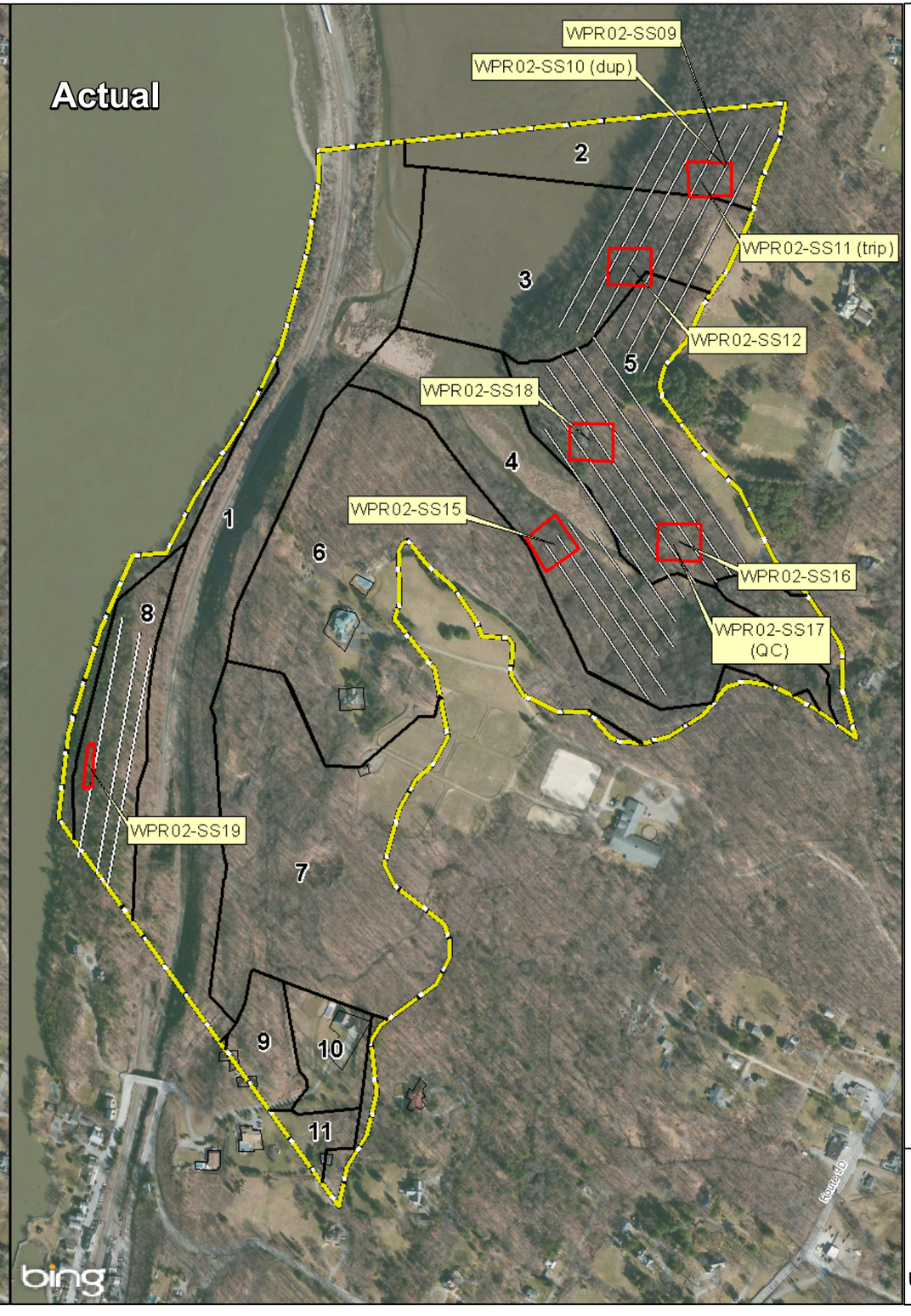
The Senior UXO Supervisor (SUXOS) conducted oversight of all intrusive investigations, and the UXO Quality Control Specialist (UXOQCS) conducted daily QC following target reacquisition and intrusive investigation as documented in the Daily Reports for the RI (see **Appendix B**). Photographs of the equipment are provided in **Appendix C.**

3.2.1 Inspection of Material Potentially Presenting an Explosive Hazard

No MPPEH was recovered from the transects at the Battery Knox - TD Land MRS. Items classified in the field as cultural debris posed no explosive hazard and were transported to a collection point for final disposal.

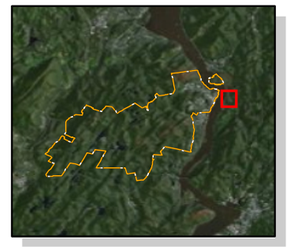
SECTION 3
FIGURE





Legend

- Battery Knox -TD Land - 141 Acres
- Parcels
- Proposed Mag and Dig Transects
- Proposed Sampling Unit
- Actual Mag and Dig Transects
- Incremental Sampling Units



Imagery Source: ESRI, Bing Mapping Service. 2011

N W E S

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Feet

Figure 3-1
Battery Knox-TD Land MRS
(WSTPT-004-R-02)
Proposed and Actual
RI Coverage
U.S. Army Garrison West Point

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4. INVESTIGATION AND CHARACTERIZATION OF MUNITIONS CONSTITUENTS

4.1 PURPOSE OF MUNITIONS CONSTITUENT SAMPLING

As part of the RI, mag and dig surveys were performed to investigate the potential presence of MEC on the ground surface and in the subsurface. The presence of significant amounts of MEC or MD may indicate the potential presence of MC. In addition, the identification of a single MEC item that appears to be a low order detonation, cracked, or leaking may also indicate that a release of MC has occurred. During the RI, MC investigations were initiated when the following criteria were encountered:

- Further investigation of MC based on SI recommendations.
- Further investigation of MC at currently unknown but potential MEC releases identified during geophysical surveys conducted as part of the West Point RI.
- MC sampling at individual MEC item locations where soil staining or visible evidence of a potential MC release is observed.

MC sampling was conducted at the Battery Knox - TD Land MRS during the RI to further evaluate the presence of trace amounts of explosives identified during the SI. No MEC or MD was identified during the mag and dig surveys. The results of the MC characterization are described in Section 5.2.

4.2 REMEDIAL INVESTIGATION MUNITIONS CONSTITUENT SAMPLING

An RI MC sampling scheme based on historical data and on locations where ROEs were obtained was developed prior to field work. The initial sampling scheme was presented in the RI Work Plan, and it was revised based on the locations where ROEs were obtained. These sample placements included areas facing westward toward the firing point, which was on the west side of the Hudson River, and drainages in which potential contaminants may have accumulated over time. In addition, several sampling grids were planned to be placed, prior to field work, in proximity to areas commonly accessed by the general public, including hiking trails and soccer fields. The sampling unit size of 0.5 acre was based on the average size of a residential lot. The number of increments is based on the USACE Interim Guidance Document 09-02,

Implementation of Incremental Sampling of Soil for Military Munitions Response Program (USACE, 2009).

Because the Battery Knox - TD Land MRS is comprised entirely of privately owned parcels, ROE permissions from the property owners were required for all investigation and sampling activities. The property owners of seven parcels, including the two largest tracts of land located in the center of the MRS, did not grant access to their properties. Although several attempts were made by USACE-New York District and the project team to provide the property owners with information regarding the project and to ensure that the project impact would be minimal, the ROEs were not signed. Therefore, the original sampling strategy as presented in the RI Work Plan, which included 11 grids consisting of 0.5 acre each, was modified to conduct sampling in areas where ROEs were received.

To modify the sampling strategy, the project team used Visual Sample Plan (VSP) to calculate the sampling requirements for using incremental sampling at the MRS. VSP results indicated that three incremental samples consisting of 30 increments each would be sufficient to adequately characterize the MRS. Based on input from the NYSDEC and EPA during earlier TPP meetings, the collection of three samples would not provide sufficient data to fully characterize the MRS. Therefore, the number of incremental samples was increased.

Sampling at the Battery Knox - TD Land MRS consisted of six incremental samples (plus one field duplicate and a duplicate/triplicate [independent samples]) collected from sampling units identified prior to field work. Thirty increment locations were identified within the sampling unit using a random number generator. The increment coordinates were then loaded on to GPS units as waypoints for the field team and were also printed on aerial maps that were used in the field. Once in the field, the location of one sampling unit was modified to avoid areas of steep terrain and marsh areas. The southernmost sample unit (Grid 4) was moved to the south side of the stream because the original location was under water. Because the location of sampling unit (Grid 4) was modified, the 30 increment locations selected by a random number generator prior to mobilization could not be used. Therefore, new increment locations were selected by the field team using a grid pattern. A 150-foot by 150-foot grid was established, and samples were collected in five rows of six columns. Each incremental sample consisted of a 0.5-acre sampling

unit from which 30 increments were collected (**Figure 3-1**). Incremental sampling locations and field logbooks are presented in **Appendix D**.

One field team consisting of two environmental scientists and one UXO Technician II performed incremental sampling at the Battery Knox - TD Land MRS. The field team reacquired each increment in accordance with the waypoint data that was loaded into the GPS unit prior to field activity. Once a surface soil increment area was located, the UXO Technician II cleared the area using a metal detector. After the area was deemed safe, the environmental scientists collected a soil sample and placed it into a resealable plastic bag. The RI Work Plan specified that if an area could not be cleared by the UXO Technician II, or if rocks or other debris were in the way, the field team would sample an area located 1 meter away. There were no cases in which the location had to be eliminated because of UXO clearance issues. For some locations, surface features such as tree roots, rocky areas, standing water, or steep drop-offs were found at an increment location that was selected by the random number generator prior to mobilization. In these cases, the incremental sample was collected as close as possible to the original location. All incremental samples were surface samples and were collected from a depth of 0 to 3 inches. Sufficient sample mass, approximately 1 kilogram, was obtained for each sampling unit.

Once all the increments were placed in the resealable plastic bag, the soil contents were labeled, homogenized, sealed, placed on ice, and shipped to the laboratory for analysis. One field duplicate was collected from a sampling unit for QC purposes. A duplicate/triplicate (independent samples) was collected from within one sampling unit to assess the sample collection process. Each incremental sample was collected using new, clean, dedicated, and disposable equipment; therefore, no investigation-derived waste (IDW) (solid or liquid) was generated.

All increments were collected at the surface of the soil; there was no subsurface soil sampling at the Battery Knox - TD Land MRS. The incremental samples were analyzed for explosives. **Table 4-1** summarizes the incremental sampling at the Battery Knox - TD Land MRS.

Table 4-1 Incremental Sample Summary at the Battery Knox - TD Land MRS

MRS	No. of Incremental Samples (Sample Numbers)	Size of Incremental Sampling Unit (acres)	No. of Increments	Analysis
Battery Knox - TD Land	6 samples (plus 1 field duplicate and 1 duplicate/triplicate) WPR02-SS09, WPR02-SS10 (duplicate), and WPR02-SS11 (triplicate) WPR02-SS12 WPR02-SS15 WPR02-SS16 and WPR02-SS17 (field duplicate) WPR02-SS18 WPR02-SS19	0.5	30	Explosives

4.3 ANALYTICAL LABORATORY AND ANALYSES

Explosives were analyzed in surface soil media for the Battery Knox - TD Land MRS as part of the RI. Compounds potentially associated with the MRS were evaluated for MC sampling. Because of the time period during which munitions were used at the MRS, specific nomenclature for the munitions was not available in the historical records; therefore, generic MC information was compiled for these items. Based on the munitions known to have been used in association with the MRS, the explosives most likely to be found at the Battery Knox - TD Land MRS include trinitrotoluene (TNT) and nitroglycerin. These explosives are insoluble in water and do not hydrolyze, volatilize, or bioconcentrate under normal environmental conditions. They also have average adsorption coefficients, suggesting that they will reasonably adsorb to soil and sediments and maintain low soil mobility. Also, the volatilization rate from soil is extremely low. Therefore, TNT, its breakdown products, and nitroglycerin are anticipated to remain in the environment and are good indicators for explosives at the Battery Knox - TD Land MRS. **Table 4-2** lists the specific explosives compounds included in the analyses of the soil samples.

Table 4-2 Surface Soil Explosives

Analyte*	Notes
Nitroglycerin	Known MC associated with munitions
2,4,6-Trinitrotoluene (TNT)	Known MC associated with munitions
2,4-Dinitrotoluene (2,4-DNT)	Breakdown product of TNT
2,6-Dintrotoluene (2,6-DNT)	Breakdown product of TNT
2-Amino-4,6-dinitrotoluene (2-Am-DNT)	Breakdown product of TNT
4-Amino-2,6-dinitrotoluene (4-Am-DNT)	Breakdown product of TNT

Table 4-2 Surface Soil Explosives (Continued)

Analyte*	Notes
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	Not associated with the munitions used at the MRS; however, trace amounts of these explosives were detected during the SI in soil samples collected within the MRS.
Pentaerythritol tetranitrate (PETN)	
1,3,5-Trinitrobenzene	
1,3-Dinitrobenzene	
3-Nitrotoluene	

Note:
*Explosives were analyzed using EPA Method SW-846 3535A/8330B.

Soil samples were submitted for analysis to a DoD Environmental Laboratory Accreditation Program (ELAP)-certified and National Environmental Laboratory Accreditation Conference (NELAC)-accredited laboratory, TestAmerica, Inc., located in South Burlington, VT. The laboratory provided a Level IV data package for validation that met the reporting requirements of *DoD Quality System Manual for Environmental Laboratories Version 4.2* (QSM 4.2) (DoD, 2010). The Level IV data package included all elements required to perform a full data validation, such as sample and QC data, chromatograms, raw data, instrument printouts, chain of custody records, log pages, and instrument calibration data. Samples were analyzed in accordance with the requirements of the analytical method, method-specific requirements of DoD QSM 4.2, and the project's Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) (WESTON, 2011b) to ensure that sample results met project requirements for quality and technical competency. The analytical laboratory results are provided in **Appendix E**.

Data validation was performed by an independent third party, MEC^{x}, LP. The following standard operating procedures and validation guidelines were used to manually validate explosives and metals data.

Explosives data were validated in accordance with the requirements of the following:

- Method 8330B, Nitroaromatics, Nitroamines, and Nitrate Esters by High Performance Liquid Chromatography (HPLC) (EPA, 2006).
- Validation of Data, Nitroaromatics and Nitroamines by HPLC, SW-846 Method 8330A (SOP HW-16, Rev. 2) (EPA Region 2, 2006).
- Data Validation Procedure for Explosives, Nitroaromatics, and Nitroamines (DVP-16, Rev. 0) (MEC^{x}, LP, 2009).

- Standard Operating Procedure for Routine Validation of High Explosive (HE) Analytical Data (SOP-5164, Rev. 0) (LANL, 2008).
- Final Uniform Federal Policy Quality Assurance Project Plan, Remedial Investigation for Military Munitions Response Program Sites, U.S. Army Garrison West Point, West Point, NY (QAPP) (WESTON, 2011b), as presented in Appendix J of the Work Plan, Military Munitions Response Program, Remedial Investigations, U.S. Army Garrison West Point, West Point, NY (WESTON, 2011a).
- USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA, 1999).

4.4 SCREENING LEVELS

MC sample analysis results were compared against the screening levels that were defined in the Final Work Plan prior to RI field work for the Battery Knox - TD Land MRS. Two screening values were used, human health soil screening values and ecological soil screening values. For human health soil screening values, ORNL regional screening levels (RSLs) for residential soils and NYSDEC soil cleanup objectives (SCOs) for residential and unrestricted use were compared for each analyte. Note that the ORNL RSLs, which are updated by ORNL (EPA, 2012) semi-annually, are now used by EPA as risk-based screening benchmarks (in place of the EPA Region 9 PRGs that were used in the SI).

For soil ecological screening values (ESVs), NYSDEC, EPA ecological soil screening level (EcoSSL), EPA Region 5 ecological screening level (ESL), ORNL Benchmark 1, and ORNL Benchmark 2 values were used for comparison to the highest reported value of each analyte. The primary source for the ESVs was the NYSDEC value; if a NYSDEC value was not available, the following hierarchy was used to select the screening value: EPA EcoSSL, EPA Region 5 ESL, ORNL Benchmark 1, ORNL Benchmark 2. For analytes where there was no benchmark available (NBA) in the screening criteria listed in the RI Work Plan, additional research was conducted to identify ESVs. Publications, including U.S. Army Center for Health Promotion and Preventative Medicine (USACHPPM) and scientific reports written by Efroymson et al. (1997a and 1997b) and Kuperman et al. (2006), were evaluated.

Table 4-3 lists the analytes and the lowest of the human health and ecological screening values used for sample comparison. MC sampling and analytical results are described in Section 5.2.

Table 4-3 Screening Levels Battery Knox - TD Land MRS

Analyte	Human Health Soil Screening Value	Human Health Soil Screening Value Method Used	Ecological Soil Screening Value	Ecological Soil Screening Value Method Used[4]
Explosives (µg/kg)				
Nitroglycerin	610	ORNL Residential RSL[1]	3,000	USACHPPM[5]
2,4,6-Trinitrotoluene (TNT)	3,600	ORNL Residential RSL	70	USACHPPM[6]
2,4-Dinitrotoluene (2,4-DNT)	1,600	ORNL Residential RSL	1,280	EPA Region 5 ESL[3]
2,6-Dintrotoluene (2,6-DNT)	1,030	NYSDEC Unrestricted Use SCO[2]	32.8	EPA Region 5 ESL
2-Amino-4,6-dinitrotoluene (2-Am-DNT)	15,000	ORNL Residential RSL	9,000	USACHPPM[7]
4-Amino-2,6-dinitrotoluene (4-Am-DNT)	15,000	ORNL Residential RSL	9,000	USACHPPM[7]
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	5,500	ORNL Residential RSL	21,000	Kuperman et al., 2006[8]
Pentaerythritol tetranitrate (PETN)	NBA	NBA	170,000	USACHPPM[9]
1,3,5-Trinitrobenzene	220,000	ORNL Residential RSL	380	EPA Region 5 ESL
1,3-Dinitrobenzene	610	ORNL Residential RSL	660	EPA Region 5 ESL
3-Nitrotoluene	610	ORNL Residential RSL	NBA	NBA

Notes:
[1] Residential Screening Levels were obtained from ORNL Regional Screening Levels for Chemical Contaminants at Superfund Sites Table (May 2010). The RSLs are shown at a target risk (TR) of 1.0E-6 or a target hazard quotient (THQ) of 0.1.
[2] NYSDEC. 2006. Remedial Program Soil Cleanup Objectives - http://www.dec.ny.gov/regs/15507.html
[3] EPA. 2003. Region 5 RCRA Ecological Screening Levels - http://www.epa.gov/reg5rcra/ca/ESL.pdf
[4] The primary source for the Recommended Screening Value is the NYSDEC value. If a NYSDEC value was not available, the following hierarchy was used to select the screening value: EPA EcoSSL, EPA Region 5 ESL, ORNL Benchmark 1, ORNL Benchmark 2.
[5] USACHPPM, 2000.
[6] USACHPPM, 2001b.
[7] USACHPPM, 2005.
[8] Kuperman et al., 2006.
[9] USACHPPM, 2001a.
NBA=no benchmark available
µg/kg =microgram/kilogram

5. REMEDIAL INVESTIGATION RESULTS

This section presents the MEC characterization results (Section 5.1), MC characterization results (Section 5.2), and the preliminary ARARs (Section 5.3) for the Battery Knox - TD Land MRS.

5.1 RESULTS FOR MUNITIONS AND EXPLOSIVES OF CONCERN CHARACTERIZATION

The following sections present the results of the RI field efforts that were performed to achieve the DQOs defined in Section 2.4 and to delineate the nature and extent of MEC in the surface and subsurface at the Battery Knox - TD Land MRS. As described in Section 3 of the report, the RI field work for MEC characterization involved the following tasks:

- Mag and dig surveys.
- Intrusive investigations at detected anomalies.

The following paragraphs detail the results of these activities.

5.1.1 Mag and Dig Survey Results

Mag and dig transect surveys were limited to the properties within the MRS for which ROE permissions were received. White's XLT instrumentation was used to detect subsurface anomalies for follow-on intrusive investigations. Approximately 4.5 acres (3.72 linear miles) of mag and dig surveys were completed.

No MEC or MD was recovered during the mag and dig transect surveys at the Battery Knox - TD Land MRS.

Thirty-nine non-MD related items were cataloged as cultural debris and included one pipe, one nail, and two trash pits (metal scrap, discarded debris). Cultural debris was recovered between 0 inches and 12 inches below ground surface (bgs). **Figure 5-1** shows the locations of the items recovered from the MRS. The complete dig list is provided in **Appendix A**.

5.1.2 UXO Estimator Analysis Results

Following completion of the investigation activities, the UXO Estimator *Analyze Field Data Module* was used to calculate whether enough investigation had been performed to satisfy the

anticipated density of 0.5 MEC/acre with a 95% statistical confidence. The following inputs were assessed in UXO Estimator:

- **Total number of acres in MRS**: 141 acres (78.5 acres were unavailable during the field work based on unsigned ROEs).
- **Number of acres investigated**: 4.5 acres.
- **Number of MEC recovered in the investigated area**: 0 MEC items recovered.
- **Specify the MEC target density per acre** (same value used to develop DQOs): 0.5 MEC/acre.
- **Specify the desired upper confidence level** (same value used to develop DQOs): 95% confidence.

Results from the mag and dig surveys were evaluated with UXO Estimator software. The mag and dig coverage was inadequate to meet the 95% confidence level objective for the entire 141-acre MRS. A 90% confidence level was achieved. Mag and dig surveys focused on the 62.5 acres of the Battery Knox - TD Land MRS where ROEs were obtained from private property owners. The remaining 78.5 acres of the MRS were not investigated. The UXO Estimator software calculated the statistical upper bound density of MEC to be 0.652 MEC/acre, at a 95% confidence level based on the RI field work. The average MEC density across the MRS was calculated to be 0.215 MEC/acre and represents the statistical lower bound density of MEC that may be present in the MRS. Therefore, it is statistically possible that MEC may be present at the MRS even though no confirmed discoveries have been made to date. However, because no MEC or munitions related material was discovered during the RI field activities, the anticipated MEC density is low.

Qualitative evaluations can be made based on available coverage and results, SI results, and historical information. Overshots into the Battery Knox - TD Land MRS during training activities would have been unlikely because the battery location was 145 feet above the Hudson River and the direction of fire was downward toward the water targets. MEC and MD, if present, would most likely be found in the eastern and central portions of the MRS. The eastern portion of the MRS was investigated during the RI, and the eastern and central portions of the MRS were inspected during the SI. No MEC or MD was observed or has been historically reported in the Battery Knox - TD Land MRS. Much of the eastern portion of the MRS has exposed bedrock

and steep cliffs. MEC and MD in this area would likely be on the ground surface, but no reports have been made. The qualitative assessment supports the UXO Estimator MEC density assessment.

5.2 MUNITIONS CONSTITUENTS CHARACTERIZATION

Sampling was conducted at the Battery Knox - TD Land MRS to evaluate the presence of trace amounts of explosives identified during the SI. Six incremental samples (plus one field duplicate and a duplicate/triplicate) were collected at the Battery Knox - TD Land MRS (WPR02-SS09, WPR02-SS10 [duplicate], WPR02-SS11 [triplicate], WPR02-SS12, WPR02-SS15, WPR02-SS16, WPR02-SS17 [field duplicate], WPR02-SS18, and WPR02-SS19). The field duplicate was collected from a sampling unit for QC purposes. The duplicate/triplicate (independent samples) were collected from within one sampling unit to assess the sample collection process. Each incremental sample was collected and analyzed to identify the presence of MC (if any) and to fully characterize the nature and extent of MC at the MRS. Each incremental sample was collected using new, clean, dedicated, and disposable equipment; therefore, no IDW (solid or liquid) was generated. Analytical results for the Battery Knox - TD Land MRS are provided in **Table 5-1**.

Five explosive compounds were detected in several samples collected from the Battery Knox - TD MRS.

Detections were reported in four samples (WPR02-SS12, WPR02-SS15, WPR02-SS16, and WPR02-SS17) for 2-amino-4,6-dinitrotoluene, ranging from 11 µg/kg to 120 µg/kg. These results were J qualified, indicating the analyte was positively identified; however, the associated numerical value is the approximate concentration of the analyte in the sample. Data qualifiers are discussed in more detail in Section 5.2.1.

Detections were reported in two samples (WPR02-SS12 and WPR02-SS17) for 1,3-dinitrobenzene, ranging from 22 µg/kg to 63 µg/kg. These results were J qualified, indicating the analyte was positively identified; however, the associated numerical value is the approximate concentration of the analyte in the sample.

Table 5-1
Analytical Results for Soil Sampling for MC
Battery Knox - TD Land MRS, U.S. Army Garrison West Point
MMRP Remedial Investigation

Sample ID:	WPR02-SS09			WPR02-SS10			WPR02-SS11			WPR02-SS12			WPR02-SS15			WPR02-SS16			WPR02-SS17			WPR02-SS18			WPR02-SS19		
Lab Sample ID:	200-5816-1			200-5816-2			200-5816-3			200-5816-4			200-5816-5			200-5816-6			200-5816-7			200-5816-8			200-5916-2		
Sample Type:	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
Date Sampled:	6/27/2011			6/27/2011			6/27/2011			6/27/2011			6/28/2011			6/28/2011			6/28/2011			6/28/2011			7/5/2011		
Comments:				Duplicate of SS09			Triplicate of SS09												QC of SS16								
EXPLOSIVES in ug/kg	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**	**Result**	**Qual.**	**Validation Note**
RDX	23	U		23	U		23	U		23	U		23	U		23	U		23	U		34	U		23	U	
1,3,5-Trinitrobenzene	23	U		23	U		23	U		24	U		23	U		90	U		30	J		200	J		54	U	
1,3-Dinitrobenzene	23	U		23	U		23	U		63	J		79	U		23	U		22	J		27	U		310	UJ	H8
Nitroglycerin	1400	U		1400	U		1400	U		1400	U		2900	UJ	H8	8600	UJ	H8	7700	UJ	H8	1400	U		1400	U	
2,4,6-Trinitrotoluene	14	U		14	U		9.3	J		15	U		14	U		14	U		14	U		14	U		20	U	
4-Amino-2,6-dinitrotoluene	23	U		23	U		23	U		23	U		23	U		23	U		23	U		23	U		100	UJ	H8
2-Amino-4,6-dinitrotoluene	23	U		23	U		23	U		120	J		11	J		30	J		36	J		23	U		23	U	
2,6-Dinitrotoluene	14	U		14	U		130	UJ	H8	140	UJ	H8	90	U		140	UJ	H8	110	UJ	H8	210	UJ	H8	400	UJ	H8
2,4-Dinitrotoluene	29	U		28	U		28	U		29	U		28	U		28	U		28	U		28	U		28	U	
3-Nitrotoluene	29	U		28	U		28	U		92	J		28	U		28	U		28	U		28	U		810	UJ	H8
PETN	1700	U		1700	U		1700	U		1700	U		1700	U		1700	U		1700	U		1700	U		7000	UJ	H8

H8 = The analyte was not confirmed on a second dissimilar column or diode array spectrums do not match library.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Detections were reported in two samples (WPR02-SS17 and WPR02-SS18) for 1,3,5-trinitrobenzene, ranging from 30 µg/kg to 200 µg/kg. The results were J qualified, indicating the analyte was positively identified; however, the associated numerical value is the approximate concentration of the analyte in the sample.

A single detection of 2,4,6-trinitrotoluene was reported at 9.3 µg/kg in sample WPR02-SS11; and a single detection of 3-nitrotoluene was reported at 92 µg/kg in sample WPR02-SS12. Results for these two explosives were J qualified, indicating the analyte was positively identified; however, the associated numerical value is the approximate concentration of the analyte in the sample.

The remaining explosives were not detected above the applicable sample quantitation limits (SQLs). Section 6 includes a discussion of the analytical results in comparison to the human health and ecological screening criteria (see **Table 4-3)** and any potential impacts that exceedances may have on human and ecological receptors.

5.2.1 MC Data Quality

As discussed in Section 4.3, 100% of the MC data results were validated by an independent third party, MEC^x, LP, in accordance with the RI Work Plan and UFP-QAPP. In addition, field QC samples were collected and analyzed to assess the quality of the data resulting from the field sampling program as specified in the Work Plan and UFP-QAPP.

Field QC samples specified in the UFP-QAPP include rinsate, field blanks, field duplicates, and triplicates. Field duplicates, which consist of one soil sample split into two parts with each aliquot analyzed by the laboratory for the identical parameters, are collected to estimate sampling and laboratory analysis precision, including sample homogeneity. Precision is measured using routine and duplicate sampling results and is expressed as the relative percent difference (RPD). Calculation of the RPD is described in the UFP-QAPP.

The incremental duplicate/triplicate involves the collection of three individual samples from within the same sampling unit (field sample, duplicate, and triplicate). Each sample is comprised of the appropriate number of unique increments. The collection of random increments from within the sampling unit is performed three separate times to create the routine, duplicate, and

triplicate samples. This approach allows the comparison of three incremental sample results for the same sampling unit to evaluate whether the sampling procedure was accurate. RPD can also be calculated for the incremental duplicate sample.

Matrix spike/matrix spike duplicate (MS/MSD) samples are the introduction of a known concentration of a compound into a sample to provide information about the effect of the sample matrix on the extraction and/or measurement methodology. MS/MSDs are reviewed as part of the data validation process and are discussed in the data validation narrative (see **Appendix E**).

5.2.1.1 Field QC Samples and Sampling QC

Samples for the Battery Knox - TD Land MRS were grouped in two separate sample batches for the purposes of laboratory analyses and validation (also referred to as delivery groups). In addition, field duplicates and incremental duplicate/triplicates were collected on a program-wide basis because some MRSs had one or very few soil samples and samples were batched together where possible. Both field duplicates and incremental duplicate/triplicate samples were collected at the Battery Knox - TD Land MRS and represent field QC for other MRSs at West Point.

High-quality MC data were collected at the Battery Knox - TD Land MRS as evidenced by the following parameters:

- Precision is represented as the RPD between measurements of an analyte in duplicate samples. Sample WPR02-SS17 was collected as a field duplicate of sample WPR02-SS16 at the Battery Knox - TD Land MRS to provide another set of measurements for analysis. RPDs for the detected compounds for the field duplicate were within the goal of less than 50%, as noted in the validation narrative included in **Appendix E** of the RI Report.

- Accuracy was ensured by selecting appropriate data collection instruments, having clearly delineated instructions for their correct use, and following the sampling plan discussed in Section 3.13 of the Final Work Plan and in the MC Sampling Memorandum (Appendix G) and the UFP-QAPP (Appendix J) of the Final Work Plan. The logbooks presented in **Appendix D** of the RI Report document the field sampling procedures used at the Battery Knox - TD MRS. Additionally, an incremental duplicate/triplicate was collected. The incremental duplicate/triplicate involves the collection of three individual samples from within the sampling unit (field sample, duplicate, and triplicate). This approach allows the comparison of three incremental sample results for the same sampling unit to evaluate whether the sampling procedure was accurate. The incremental duplicate/triplicate samples for the Battery Knox - TD Land MRS consisted of samples WPR02-SS09, WPR02-SS10,

and WPR02-SS11. RPD or relative standard deviation can also be calculated for an incremental duplicate/triplicate sample. Samples WPR02-SS09 and WPR02-SS10 did not have reportable detects of explosive chemicals; therefore, RPDs could not be calculated. This information is discussed in the data validation reports provided in **Appendix E**. Rinsate and field blanks were not obtained during the soil investigation because of the use of new, clean, dedicated disposable equipment (i.e., scoops, aluminum pans, and sterile gloves).

- Data representativeness at the Battery Knox - TD Land MRS was accomplished by implementing approved sampling procedures discussed in Section 3.13 of the Final Work Plan and in the MC Sampling Memorandum (Appendix G) and the UFP-QAPP (Appendix J) of the Final Work Plan. The logbooks presented **Appendix D** of this RI Report document the field sampling procedures used at the Battery Knox-TD MRS. Incremental sampling reduces data variability and increases sample representativeness.

- Completeness was achieved because the number of locations sampled equaled the number of planned sample locations as discussed in the MC Sampling Memorandum provided in Appendix G of the Final Work Plan and documented in the logbooks provided in **Appendix D**.

- Comparability of data sets generated for the project was obtained through the implementation of standard sampling procedures discussed in Section 3.13 of the Final Work Plan and in the MC Sampling Memorandum (Appendix G), and the UFP-QAPP (Appendix J) of the Final Work Plan. Additionally, no anomalies occurred regarding sample management. The logbooks presented in **Appendix D** document the field sampling procedures and sample management used at the Battery Knox-TD MRS.

The high-quality data meet the data quality objectives of the RI discussed in Section 3.1.2 of the Final Work Plan and Section 2.6 of the RI Report. These data are sufficient to support the risk assessment and the evaluation of alternatives.

Sample locations were chosen from the properties in the Battery Knox - TD Land MRS where ROEs were obtained based on the surface features most likely to have the highest concentration of MC, if present (such as dry stream beds, low-lying areas) rather than historical range features or munitions-related materials. Therefore, there was no significant impact on the quality of the data as a result of the relocation of one of the sampling units (Grid 4), which is described in Section 4.2.

5.2.1.2 Data Validation Results

The data validation guidelines are listed in Section 4.3. The data validation package for the Battery Knox - TD Land MRS, including validation report narratives for the MRS analytical results, as well as a glossary of QA/QC terms and data qualifier codes, is provided in **Appendix E**. The data validation guidelines ensure that all data meet uniform requirements for accuracy and determine the validity and usability of the data for their intended use. If the data quality parameters for the MRS-specific analyses did not meet the criteria of the EPA and DoD Quality Systems Manual (QSM) Version 4.2 or the laboratory standard operating procedure (SOP), a discussion of the implications regarding the guidelines is included in the data validation narrative.

Based on the results presented in the Data Validation Report (**Appendix E**), no major issues were identified during data validation. The results for some of the incremental samples for the Battery Knox - TD Land MRS showed some non-detects with elevated SQLs (referred to as the limit of quantitation in the data validation report). The reported sample quantitation limit for nitroglycerin is greater than the project human health soil screening level. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analytes in the sample. These values were qualified as UJ due to a poor photodiode array spectral match, which is routinely used for further identification of any detect above the limit of quantitation. A validation note consisting of "H8" code was added to the UJ qualifier (the analyte was not confirmed on a second dissimilar column or the diode array spectrums did not match the library). These UJ values are considered estimated values but are still usable data. For some samples, there was significant matrix interference affecting the baseline of the sample chromatogram, which resulted in adjusted SQLs; and for the samples with reported results, the SQL and the detection limit were qualified with a J. In addition, some data were qualified with a J because of elevated intercolumn RPD. These J values are considered estimated values, but are still usable data values. Using J values for risk assessment is consistent with the allowable use of J qualified data as discussed in the *Guidance for Data Usability for Risk Assessment (Part A)* (EPA, 1991). A more detailed discussion of minor issues is provided in the data validation narrative.

Overall, the data validation showed that the data received from the laboratory were valid and usable for assessing the environmental conditions related to MC. Sufficient usable data were

available for the Battery Knox - TD Land MRS to meet the objectives of the RI and to complete the risk assessment. Refer to Section 6.1.2 for further discussion of data evaluation and usability.

5.3 PRELIMINARY IDENTIFICATION OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

A preliminary identification of ARARs is conducted during RI characterization. The ARARs are used as a "starting point" in determining remedial action objectives and the protectiveness of a remedy to be assessed in an FS.

As the RI/FS process continues, the list of ARARs is further refined. The ARARs are used to establish the appropriate extent of cleanup; to aid in scoping, formulating, and selecting proposed treatment technologies; and to govern the implementation and operation of the selected remedial alternative.

Pursuant to Section 300.400(g) of the NCP, a list of ARARs and other to be considered advisories, criteria, and guidance (TBCs) is developed for a site or sites to identify the requirements that may apply to response actions. CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the NCP provide that the development and evaluation of remedial actions must include remedial alternatives to attain ARARs and to ensure protection of public health and the environment.

ARARs are defined as follows:

- Applicable requirements—Those cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site.

- Relevant and appropriate requirements—Those cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under federal or state law that, while not applicable to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at a CERCLA site.

It is first determined whether an ARAR is applicable for the site. If it is not applicable, then it is determined whether the ARAR is relevant and appropriate. The procedure for determining whether a requirement is relevant and appropriate is a two-step process. First, to determine relevance, it is evaluated whether the requirement addresses problems or situations sufficiently

similar to the circumstances of the proposed response action. Second, for appropriateness, the determination must be made about whether the requirement would also be well-suited to the conditions of the site. In some cases, only a portion of a requirement would be both relevant and appropriate. Once a requirement is deemed relevant and appropriate, it must be attained (or waived). If a requirement is not both relevant and appropriate, it is not an ARAR.

"Applicable requirements" and "relevant and appropriate requirements" are considered to have the same weight under CERCLA. Section 121(d) of CERCLA, requires the attainment of federal ARARs and of state ARARs if the state environmental or facility siting laws are promulgated, are more stringent than federal laws, and are identified by the state in a timely manner.

CERCLA and the NCP also identify the TBC category, which includes nonpromulgated federal and state criteria, advisories, and guidance documents, which are also considered. TBCs do not have the same status as ARARs; however, if no ARAR exists for a substance or particular situation, TBCs may be used to ensure that a remedy is protective.

Generally, ARARs pertain to either contaminant levels or to performance or design standards to ensure protection at all points of potential exposure.

Throughout the RI/FS phase, ARARs are identified and used by taking into account the following:

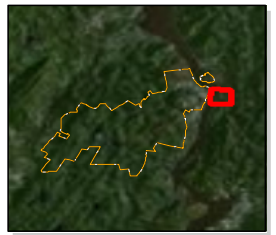
- Contaminants suspected or identified to be at the MRS.
- Chemical analysis performed or scheduled to be performed.
- Types of media (air, soil, groundwater, surface water, and sediment).
- Geology and other MRS characteristics.
- Use of MRS resources and media.
- Potential contaminant transport mechanisms.
- Purpose and application of potential ARARs and TBCs.
- Remedial alternatives considered for MRS cleanup.

Based on the RI results, no ARARs were identified for the Battery Knox – TD Land MRS. No MEC or MD was recovered from the mag and dig transects in the MRS. In addition, no exceedances of screening levels were reported in the MC samples collected from the sampling locations in the MRS. Therefore, because of the lack of an explosive safety hazard, no ARARs are needed to ensure the protection of public health and the environment.

SECTION 5
FIGURE

Legend

- Battery Knox - TD Land MRS - 141 Acres
- Analog Transects
- Cultural Debris



Imagery Source: ESRI, Bing Mapping Service. 2011

N
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Figure 5-1
Battery Knox-TD Land MRS
(WSTPT-004-R-02)
Dig Results
U.S. Army Garrison West Point

File: Y:\West_Point\mxd\RI\Battery_Knox_DGM_Survey_2V.mxd, 5/22/2013 8:40:39 AM, ricksc

6. RISK ASSESSMENT FOR MUNITIONS CONSTITUENTS

6.1 HUMAN HEALTH RISK ASSESSMENT

A human health risk assessment (HHRA) was performed for Battery Knox TD - Land MRS. Based on the revised CSM, which is presented in Section 8, the potential human receptors include residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

6.1.1 Data Evaluation

Sampling at the Battery Knox - TD Land MRS consisted of six incremental samples (plus 1 field duplicate and 1 duplicate/triplicate) collected from an area that was historically defined as the potential overshot area for the impact area associated with the historical Battery Knox Artillery Firing Range. Each incremental sample consisted of 30 increments collected within a 0.5-acre sampling unit, and the incremental samples were analyzed for explosives. **Table 5-1** presents the validated analytical results for the Battery Knox - TD Land MRS surface soil incremental samples. The following five explosives were positively identified: 2-amino-4,6-dinitrotoluene, 1,3-dinitrobenzene, 3-nitrotoluene, 1,3,5-trinitrobenzene, and 2,4,6-trinitrotoluene. A discussion of the results in relation to human health screening levels is provided below.

6.1.2 Selection of Chemicals of Potential Concern

Typically, soil chemicals of potential concern (COPCs) are identified by comparing the maximum detected concentration of each chemical with the recommended human health screening value. According to the laboratory, all the detected analytes had a J qualified value, which indicates an estimated value. The remainder of the results at Battery Knox - TD Land MRS were U and UJ values, indicating the analytes were not detected above their reported SQLs. If there had been any evidence of these chemicals, even at levels below the SQLs, the laboratory would have reported an estimated value.

A screen was performed on the five positively identified explosives and the SQLs for the other analyzed explosives. As presented in **Table 6-1**, the recommended human health screening value is the lowest human health NYSDEC value (NYSDEC, 2006). If a NYSDEC value was not available, the ORNL residential RSL (EPA, 2012) was used. For COPC screening purposes,

Table 6-1
Human Health Soil Screening for MC
Battery Knox - TD Land MRS, U.S. Army Garrison West Point, MMRP Remedial Investigation

Analyte	WPR02-SS09-AVG		WPR02-SS12		WPR02-SS15		WPR02-SS16		WPR02-SS17		WPR02-SS18		WPR02-SS19		ORNL Residential RSL[a]		NYSDEC Residential SCO[b]	NYSDEC Unrestricted Use SCO[b]	Recommended Human Health Screening Value[c]	
Explosives (µg/kg)																				
2-Amino-4,6-Dinitrotoluene	23	U	**120**	**J**	**11**	**J**	**30**	**J**	**36**	**J**	23	U	23	U	15,000	n	NBA	NBA	15,000	n
4-Amino-2,6-Dinitrotoluene	23	U	23	U	23	U	23	U	23	U	23	U	100	UJ	15,000	n	NBA	NBA	15,000	n
1,3-Dinitrobenzene	23	U	**63**	**J**	79	U	23	U	**22**	**J**	27	U	310	UJ	610	n	NBA	NBA	610	n
2,4-Dinitrotoluene	29	U	29	U	28	U	28	U	28	U	28	U	28	U	1,600	c	NBA	NBA	1,600	c
2,6-Dinitrotoluene	130	UJ	140	UJ	90	U	140	UJ	110	UJ	210	UJ	400	UJ	6,100	n	NBA	1,030	1,030	
Nitroglycerin	1,400	U	1,400	U	2,900	UJ	8,600	UJ	7,700	UJ	1,400	U	1,400	U	610	n	NBA	NBA	610	n
3-Nitrotoluene	29	U	**92**	**J**	28	U	28	U	28	U	28	U	810	UJ	610	n	NBA	NBA	610	n
PETN	1,700	U	1,700	U	1,700	U	1,700	U	1,700	U	1,700	U	7,000	UJ	12,000	n	NBA	NBA	12,000	n
RDX	23	U	23	U	23	U	23	U	23	U	34	U	23	U	5,600	c	NBA	NBA	5,600	c
1,3,5-Trinitrobenzene	23	U	24	U	23	U	90	U	**30**	**J**	**200**	**J**	54	U	220,000	n	NBA	NBA	220,000	n
2,4,6-Trinitrotoluene	**9.3**	**J**	15	U	14	U	14	U	14	U	14	U	20	U	3,600	n	NBA	NBA	3,600	n

[a] Residential Screening Levels were obtained from ORNL Regional Screening Levels for Chemical Contaminants at Superfund Sites Table (April 2012). The RSLs are shown at a target risk (TR) of 1.0E-6 or a target hazard quotient (THQ) of 0.1.
[b] NYSDEC. 2006. Remedial Program Soil Cleanup Objectives - http://www.dec.ny.gov/regs/15507.html
[c] The primary source for the Recommended Screening Value is the NYSDEC value. If a NYSDEC value was not available, the ORNL Benchmark was used.
[d] When using the ORNL RSL values, noncarcinogens were reduced by an order of magnitude to yield a risk-based screening level with a THQ of 0.1 to address the additivity of noncancer effects when there is exposure to multiple chemicals. However, because no other chemicals were detected, the THQ can be adjusted upward to 1.0, yielding a site-specific screening level of 6,100 µg/kg.

c = Cancer effects at a target risk of 1.0E-06.
µg/kg = Micrograms per kilogram.
n = Noncancer effects, at a target hazard quotient of 0.1.
NBA = No benchmark available.
RSL = Regional screening level.
SCO = Soil cleanup objectives.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit (SQL).
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
Highlighting indicates that the SQL is equal to or exceeds the recommended Human Health Screening Value. If there had been any evidence of these chemicals, even at levels below the SQLs, the laboratory would have reported an estimated value.
Bolded values are analytical results where chemicals were detected in a sample.

noncarcinogenic RSLs were adjusted to correspond to a target hazard quotient (THQ) of 0.1 rather than 1. This adjustment was done to ensure that chemicals with additive effects were not prematurely eliminated during screening. Where RSLs are available for carcinogenic and noncarcinogenic endpoints and both ingestion and inhalation exposure routes, the lower (i.e., most stringent) value was used for the screening comparison.

The results presented in **Table 6-1** show that no analytes had detections above the recommended human health screening levels. One SQL (810 UJ µg/kg) of 3-nitrotoluene did exceed its benchmark when using the risk-based screening level at a THQ of 0.1 (610 µg/kg); however, at a THQ of 1.0, it did not. However, two SQLs from one location (sample and duplicate) for nitroglycerin (8,600 UJ and 7,700 UJ µg/kg) were above their respective benchmark (6,100 µg/kg at a THQ of 1.0). Note that these samples are qualified as UJ.

6.1.3 Human Health Risk Assessment Summary and Conclusions

No evidence of military munitions was observed during the investigation and sampling. All exceedances of human health screening levels were based on SQLs and qualified as U or UJ, indicating the analytes were not detected above their reported SQLs. Based on results of the HHRA, the surface soil incremental samples did not contain MC concentrations greater than the screening levels that would pose a potential risk to residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

Furthermore, it is not anticipated that the presence of these compounds presents a risk to human health or the environment for the following reasons:

- No evidence of military munitions was observed within any of the incremental sample grids; therefore, it is unlikely that the detected analytes are the result of munitions use.
- Sample results were qualified as U or UJ, indicating the analyte was not detected above the reported SQL.
- Although nitroglycerin was used by the Army during the time when military operations were conducted at the MRS, nitroglycerin is also commonly used in commercial operations.

- 3-Nitrotoluene is not associated with the munitions used at Battery Knox - TD Land MRS. This explosive was not in use by the Army during the time when military operations were conducted at the MRS.

6.2 ECOLOGICAL RISK ASSESSMENT

A focused Screening Level Ecological Risk Assessment (SLERA) was completed to assess the potential adverse impacts on the current and future ecological receptors exposed to MC within the Battery Knox - TD Land MRS. The assessment endpoint for the SLERA is the protection of local populations and communities of biota from exposure to explosive chemicals of potential ecological concern (COPECs) in soil. The CSM for the Battery Knox - TD Land MRS is presented in Section 8.

6.2.1 Ecological Screening Criteria

Average concentrations of chemicals detected in soil at the MRS (based on incremental sampling) were compared to conservative ESVs. All chemicals detected in soil at concentrations greater than ESVs were considered to potentially adversely impact ecological receptors, and were identified as COPECs. The ecological screening criteria are presented in **Table 4-3** and **Table 6-2.**

The ESVs used for comparison to chemicals detected in soil samples were obtained from the NYSDEC Remedial Program Soil Cleanup Objectives, EPA EcoSSLs, EPA Region 5 Resource Conservation and Recovery Act (RCRA) ESLs, information obtained from select ORNL guidance, and additional appropriate guidance, as necessary. The primary source for the recommended screening value is the NYSDEC value. If a NYSDEC value was not available, ecological screening values were selected in accordance with the hierarchy listed above.

If no value was established within the hierarchy presented in the RI Work Plan, additional research was conducted to identify ESVs during the development of the SLERA. ESVs were obtained for the following analytes: 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, nitroglycerin, PETN, RDX, and 2,4,6-trinitrotoluene (**Table 6-2**).

Table 6-2 Screening Level Ecological Risk Assessment Results for Soil

Analyte	Sample Number	Recommended Ecological Screening Value (µg/kg)	Maximum Detected Incremental Sample Value (µg/kg)*	COPEC?
Explosives				
2-Amino-4,6-Dinitrotoluene	WPR02-SS12	9,000[a,b]	120 J	N
4-Amino-2,6-Dinitrotoluene	WPR02-SS19	9,000[a,b]	100 UJ	N
1,3-Dinitrobenzene	WPR02-SS19	660[c]	310 UJ	N
2,4-Dinitrotoluene	WPR02-SS09, WPR02-SS12	1,280[c]	29 U	N
2,6-Dinitrotoluene	WPR02-SS19	32.8[c]	400 UJ (200)	Y
Nitroglycerin	WPR02-SS16	3,000[a,d]	8,600 UJ (4,300)	Y
3-Nitrotoluene	WPR02-SS19	NBA	92 J	Y
PETN	WPR02-SS19	170,000[a,e]	7,000 UJ	N
RDX	WPR02-SS18	21,000[f]	34 U	N
1,3,5-Trinitrobenzene	WPR02-SS18	380[c]	200 J	N
2,4,6-Trinitrotoluene	WPR02-SS19	70[a,g]	20 U	N

Notes:
NBA = no benchmark available.
µg/kg = micrograms per kilogram.
[a]µg/kg/d = microgram per kilogram per day, No Observed Adverse Effect Level (NOAEL).
[b]USACHPPM, 2005.
[c]EPA, 2003.
[d]USACHPPM, 2000.
[e]USACHPPM, 2001a.
[f]Kuperman et al., 2006.
[g]USACHPPM, 2001b.
[*] Second value is half the detection limit.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected, above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

6.2.2 Habitat and Receptors

The Battery Knox - TD Land MRS is composed of approximately 141 acres and is the potential overshot area for the impact area associated with the historical Battery Knox artillery firing range. The firing point was located on the western shore of the Hudson River, and the impact area or targets were placed in the Hudson River. The Battery Knox - TD Land MRS is located outside of the West Point installation boundary, and there is unrestricted access to the MRS. Ecological habitat in the MRS has been disturbed through the development and maintenance of

railroad tracks in the area and private residences. The majority of private property within the MRS is undeveloped, but residential structures are scattered throughout the area. Low-lying wetlands are located along the eastern shore of the Hudson River.

Ecological receptors that could potentially be exposed to MC associated with the Battery Knox - TD Land MRS include terrestrial plants, terrestrial invertebrates, and terrestrial avian and mammalian species, including herbivores, omnivores, and carnivores. A list of the potential ecological receptors for West Point is presented in Section 1.3.7.5.

Although no threatened or endangered species were observed at the Battery Knox - TD Land MRS, habitat is present that could support threatened and endangered species. The West Point Natural Resource Manager provided information that indicated the northern portion of the MRS, in proximity to Constitution Island, is suitable habitat for bald eagle nesting and the timber rattlesnake (WESTON, 2010). However, no bald eagles, bald eagle nests, or timber rattlesnakes were observed during the RI.

6.2.3 Screening of Chemicals of Potential Ecological Concern

Nine samples were collected at the Battery Knox - TD Land MRS, including a field duplicate sample (WPR02-SS17) taken for WPR02-SS16, and a duplicate and triplicate sample (WPR02-SS10 and WPR02-SS11) taken for WPR02-SS09. The following five explosives were positively identified: 2-amino-4,6-dinitrotoluene, 1,3-dinitrobenzene, 3-nitrotoluene, 1,3,5-trinitrobenzene, and 2,4,6-trinitrotoluene (**Table 5-1** and **Table 6-2**). The maximum detected value or the maximum SQL for incremental soil samples at the MRS was compared to appropriate ESVs to determine the three COPECs (3-nitrotoluene, 2,6-dinitrotoluene, and nitroglycerin).

Four explosive compounds (1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 1,3,5-trinitrobenzene, and 2-amino-4,6-dinitrotoluene) were reported as detected in samples collected from the Battery Knox - TD Land MRS (**Table 6-2**). The results were qualified as J, which indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. Results for 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 1,3,5-trinitrobenzene, and 2-amino-4,6-dinitrotoluene were below the applicable ESVs. Therefore, these explosive compounds are not considered COPECs.

The explosive compound 3-nitrotoluene was also detected in one sample at a concentration of 92 µg/kg (**Table 6-2**). The result was qualified as J, which indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. In addition, 3-nitrotoluene was reported as a nondetect in one sample with an SQL of 810 µg/kg. The result was qualified as UJ, which indicates the analyte was not detected above the reported SQL. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. No ESV is available for 3-nitrotoluene; therefore, according to EPA ecological risk assessment protocol, it is considered as a COPEC.

Two explosive compounds (2,6-dinitrotoluene and nitroglycerin) were reported as nondetects with SQLs above ESVs (**Table 6-2**); therefore, these compounds were considered COPECs. The SQLs of 2,6-dinitrotoluene that exceeded the ESVs of 32.8 µg/kg ranged from 90 µg/kg to 400 µg/kg in seven samples. However, the photodiode array spectra were provided by the laboratory for further identification of any detect above the limit of quantification. Any detect above the limit of quantification not supported by photodiode array analysis was qualified as an estimated nondetect, UJ, with the qualification code indicating a poor spectral match. Because values for 2,6-dinitrotoluene were registered as nondetects (U or UJ), half of the reported detection limit was compared to ecological screening criteria. Seven of the samples exceeded the ESV using this approach (WPR02-SS11 through WPR02-SS19). However, these results were below the alternative no observed adverse effect level (NOAEL) value of 700 µg/kg for ingestion exposure by mammals (USACHPPM, 2006).

The SQL for nitroglycerin was reported in one sample and its field duplicate at levels of 8,600 µg/kg and 7,700 µg/kg, respectively, which exceed the ESV of 3,000 µg/kg. Because values for nitroglycerin were registered as nondetects (U or UJ), half of the reported detection limit was compared to ecological screening criteria. Both samples, WPR02-SS16 and WPR02-SS17, exceeded the ESV using this approach. However, these results were below the alternative lowest observed adverse effect level (LOAEL) value of 32,000 µg/kg for ingestion exposure by mammals (USACHPPM, 2000).

6.2.4 Uncertainty Assessment

Concentrations for 2,6-dinitrotoluene and nitroglycerin were reported as nondetects, but the SQLs exceeded the established conservative ESVs, so it remains unclear whether 2,6-dinitrotoluene and nitroglycerin are present and pose a risk of exposure to ecological receptors at the MRS. Concentrations of 3-nitrotoluene were reported as nondetects at the MRS, except for an estimated value of 92 µg/kg, but no ESV is currently available for 3-nitrotoluene. Therefore, it remains uncertain whether 3-nitrotoluene is present at concentrations that pose a risk of exposure to ecological receptors at the MRS.

6.2.5 Summary of Risk

No threatened or endangered species were observed in the areas sampled at the Battery Knox - TD Land MRS.

There is little to no potential for adverse ecological impacts from MC in surface soil for the following reasons:

- The analytical results for 2,6-dinitrotoluene and nitroglycerin were reported as nondetects. Some SQLs exceeded conservative ESVs and thus it is uncertain whether these chemicals exist at the Battery Knox - TD Land MRS at levels of concern. However, the SQLs, did not exceed alternative ESVs.
- No ESV is available for 3-nitrotoluene. This chemical was detected in only one sample, WPR02-SS12, which is an estimated value. In addition, 3-nitrotoluene is not associated with the munitions used at Battery Knox - TD-Land MRS, and the Army did not in use this explosive during the time period when military operations were conducted at the MRS. Therefore, if 3-nitrotoluene is present, it is not the result of military activity. This assessment is supported by the fact that no evidence of military activity was observed during the geophysical survey.

Overall, the risk of exposure to COPECs for ecological receptors at the Battery Knox - TD Land MRS is considered to be minimal.

7. CONTAMINANT FATE AND TRANSPORT

Understanding the fate of the MEC and MC present in or released to the environment is important to evaluate the potential hazards to human health and the environment.

No MEC or MD was observed at the Battery Knox - TD Land MRS during the field activities. Based on the coverage obtained during the RI, there is a 90% confidence level that not more than 0.5 MEC/acre exists within the MRS. Qualitative assessments conducted using the SI and RI results and historical information regarding range use and history suggest that the probability of encountering MEC at the Battery Knox - TD Land MRS is lower than 0.5 MEC/acre. Therefore, the pathways for MEC are considered incomplete.

The surface soil incremental samples did not contain MC concentrations greater than the screening levels that would pose a potential human health risk; therefore, the pathways for human receptors to contact MC are considered incomplete. There is little to no potential for adverse ecological impacts from MC in surface soil at the MRS for several reasons, as supported by the additional discussions in the risk assessment. Explosive compounds 2,6-dinitrotoluene and nitroglycerin were not detected. Some SQLs for these compounds exceeded conservative ESVs, but they did not exceed alternative ESVs. No ESV is available for 3-nitrotoluene, and the compound was detected in only one sample, which is an estimated value. In addition, 3-nitrotoluene is not associated with the munitions used at Battery Knox - TD Land MRS. Therefore, the pathways for ecological receptors to contact MC are considered incomplete.

8. REVISED CONCEPTUAL SITE MODEL

This section presents the revised MEC and MC CSMs for the Battery Knox - TD Land MRS based on the results of the data collected for the RI and the previous information provided in the SI report. The preliminary CSMs are discussed in Section 2.1.

8.1 REVISED MUNITIONS AND EXPLOSIVES OF CONCERN EXPOSURE PATHWAY ANALYSIS

The MEC exposure pathway analyses for the Battery Knox - TD Land MRS are summarized in this section. Each pathway includes a source, interaction, and receptor, with complete, potentially complete, and incomplete exposure pathways identified for each receptor. A pathway is considered complete when a source (MEC) is known to exist and when receptors have access to the MRS while engaging in an activity that results in contact with the source. A pathway is considered potentially complete when a source (MEC) has not been confirmed, but is suspected to exist and when receptors have access to the MRS while engaging in an activity that results in contact with the source. A pathway is considered incomplete if any one of the three components (source, interaction, or receptors) is not present at an MRS.

8.1.1 Source

A MEC source is the location where MEC is situated or is expected to be found. Potential MEC source areas within the Battery Knox - TD Land MRS are areas where UXO might have resulted from overshots of targets during intentional munitions firing activities. The weapons that might have been used at Battery Knox include 100-lb and 300-lb Parrott guns, an 8-inch converted rifle, and 10-inch muzzle-loaded Rodman guns.

The survey activities during the SI field efforts did not identify any MEC or MD. However, the exposure pathway for MEC was determined to be complete for surface and subsurface soils because even though no MEC was observed during the SI field activities, the Battery Knox - TD Land MRS is part of a former artillery range fan, and MEC might have been present.

During the RI field activities, UXO Technicians traversed 4.5 acres of pre-planned transects. The eastern portion of the Battery Knox – TD Land MRS where ROE agreements had been exercised by property owners was accessible during the RI, and a portion of the accessible area was

investigated based on a statistical-based sampling design. In addition, the eastern and central portions of the MRS were inspected during the SI. No MEC or MD was observed or has been historically reported in the Battery Knox – TD Land MRS. Much of the eastern portion of the MRS has exposed bedrock and steep cliffs. MEC and MD in this area would likely be on the ground surface, but no MEC or MD has been reported. The characterization coverage was determined to be adequate to satisfy the UXO Estimator parameters of 0.5 MEC/acre at a 90% confidence level for the entire Battery Knox – TD Land MRS.

8.1.2 Interaction

Interaction describes the ways that receptors come in contact with a source and includes both access and activity considerations. Activity describes the action by which receptors come in contact with a source. Access describes the degree to which a MEC source or an environment containing MEC is available to potential receptors. The Battery Knox - TD Land MRS spans 12 privately owned parcels. An active railroad line is located on the western side of the MRS adjacent to the Hudson River. The property is used for recreation, including boating, fishing, hiking, and athletics; commercial uses associated with the railroad; private residences; and a private school.

A receptor may contact MEC that is on the ground surface simply by walking. A receptor may contact MEC in the subsurface by performing intrusive activities. Activities may occur on the private and commercial properties located in the Battery Knox - TD Land MRS that may disturb surface and subsurface soils.

8.1.3 Receptors

A receptor is an organism (human or ecological) that comes in physical contact with MEC. Human receptors identified for the Battery Knox - TD Land MRS include residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

Potential ecological receptors are presented in Section 1.3.7.5. Ecological receptors are not likely to occur within the developed areas of the Battery Knox - TD Land MRS. However, it is possible that potential receptors may rely on the forested areas for habitat.

8.2 MUNITIONS AND EXPLOSIVES OF CONCERN EXPOSURE CONCLUSIONS

The information collected during the RI was used to update the preliminary MEC CSM for the Battery Knox - TD Land MRS and to identify complete, potentially complete, or incomplete source-receptor interactions for the MRS for current and anticipated future land users.

A statistical approach was taken for the characterization at the Battery Knox - TD Land MRS, and a portion of the MRS was investigated by intrusive investigations. The results of MEC characterization activities conducted during the RI show that there is a low probability of encountering MEC over the entire MRS. No MEC or MD was observed at the Battery Knox - TD Land MRS during the SI or RI field activities or in the past. Based on the coverage obtained during the RI, there is a 95% confidence level that less than 0.652 MEC/acre exists within the MRS. Qualitative assessments conducted using the SI and RI results and historical information regarding range use and history suggest the probability of encountering MEC at the Battery Knox - TD Land MRS is lower than 0.5 MEC/acre.

Based on the results of the RI field investigations, it is not expected that a MEC source or explosive safety hazard is present in the MRS. Because no MEC source has been identified and because an explosive safety hazard is not anticipated to exist in the MRS, the revised CSM for MEC identified incomplete pathways for surface and subsurface soils for all receptors having access to the MRS (**Figure 8-1**).

8.3 REVISED MUNITIONS CONSTITUENTS EXPOSURE PATHWAY ANALYSIS

The MC exposure pathway analyses for the Battery Knox - TD Land MRS are summarized in this section. Each pathway includes a source, interaction, and receptor, with complete, potentially complete, and incomplete exposure pathways identified for each receptor. An exposure pathway for MC requires a source exposure medium (i.e., MC in soil), interaction (release mechanism and exposure route), and receptors. A pathway is considered complete when all components exist and imply potential risk. A pathway is considered potentially complete when data are required to determine whether the pathway is complete or incomplete. An incomplete pathway presents no associated risk and no further data are required. The MC sampling results are discussed in Section 5.2. The complete analytical results and data validation reports are provided in **Appendix E**.

8.3.1 Source

The investigation of the Battery Knox - TD Land MRS without evidence of MEC or MD, soil staining, or a potential MC release suggests that an MC source and the potential risk of encountering MC are not present. MC sampling was conducted at the Battery Knox - TD Land MRS during the RI to further evaluate the presence of trace amounts of explosives identified during the SI. The MC sampling results indicated that no explosive compounds were detected above screening levels in the soil samples at the Battery Knox - TD Land MRS that would pose a potential risk to human and ecological receptors.

The results of the HHRA showed no unacceptable risk to human health based on presence of MC. The sample results were qualified as U or UJ, indicating the analytes were not detected above the reported SQLs. Furthermore, the detected analytes were all below their respective recommended human health screening levels.

The SLERA showed minimal risk due to the presence of MC. There is little to no potential for adverse ecological impacts from MC in surface soil at the Battery Knox - TD Land MRS for several reasons, as supported by the additional discussions in the risk assessment. Explosive compounds 2,6-dinitrotoluene and nitroglycerin were not detected. Some SQLs for these compounds exceeded conservative ESVs, but they did not exceed alternative ESVs. No ESV is available for 3-nitrotoluene, and the compound was detected in only one sample, which is an estimated value. In addition, 3-nitrotoluene is not associated with the munitions used at Battery Knox – TD Land MRS.

8.3.2 Interaction

Interaction describes the ways that receptors come in contact with a source and includes an exposure route with a release mechanism. The Battery Knox - TD Land MRS spans 12 privately owned parcels. An active railroad line is located on the western side of the MRS adjacent to the Hudson River. The property is used for recreation, including boating, fishing, hiking, and athletics; commercial uses associated with the railroad; private residences; and a private school. A human or ecological receptor may contact MC in soil by initial direct contact (exposure route) followed by ingestion or absorption (release mechanisms).

8.3.3 Receptors

A receptor is an organism (human or ecological) that comes in physical contact with MC. Human receptors identified for the Battery Knox - TD Land MRS include residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

Potential ecological receptors are presented in Section 1.3.7.5. Ecological receptors are not likely to occur within the developed areas of the Battery Knox - TD Land MRS. However, it is possible that potential receptors may rely on the forested areas for habitat.

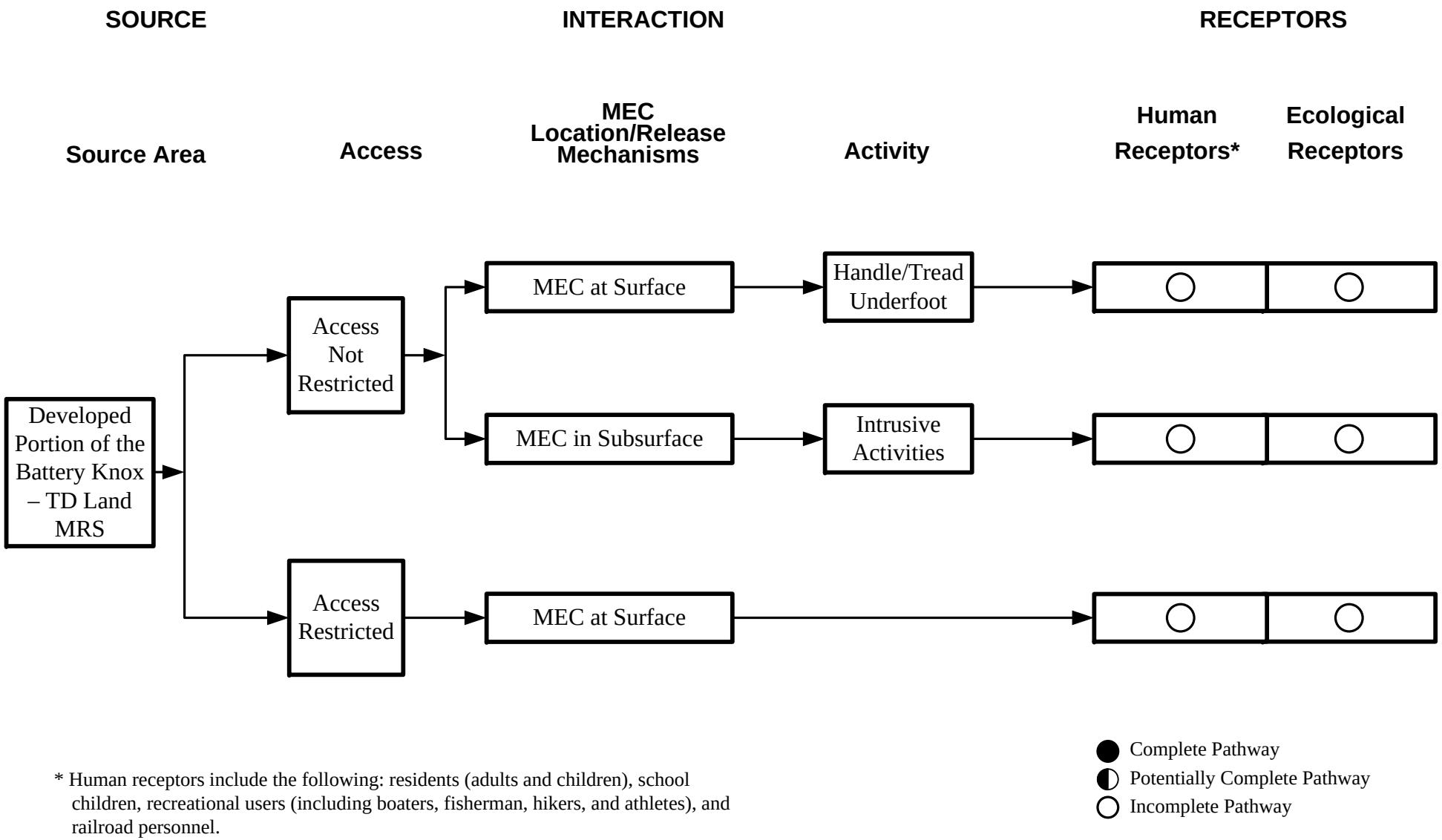
8.4 MUNITIONS CONSTITUENTS EXPOSURE PATHWAY CONCLUSIONS

The analytical results from the incremental samples collected during the RI were used to update the preliminary MC CSM for the Battery Knox - TD Land MRS and to identify complete, potentially complete, or incomplete source-receptor interactions for the MRS for current and anticipated future land users.

The MC sampling results indicated that no explosive compounds were detected above screening levels in the soil samples at the Battery Knox - TD Land MRS that would pose a potential risk to residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel, and ecological receptors. Therefore, the pathways for human and ecological receptors to contact MC are considered incomplete because no potential MC sources, and thus no potential risk, are known to exist in the Battery Knox - TD Land MRS. **Figure 8-2** depicts the MC exposure pathways for the Battery Knox - TD Land MRS.

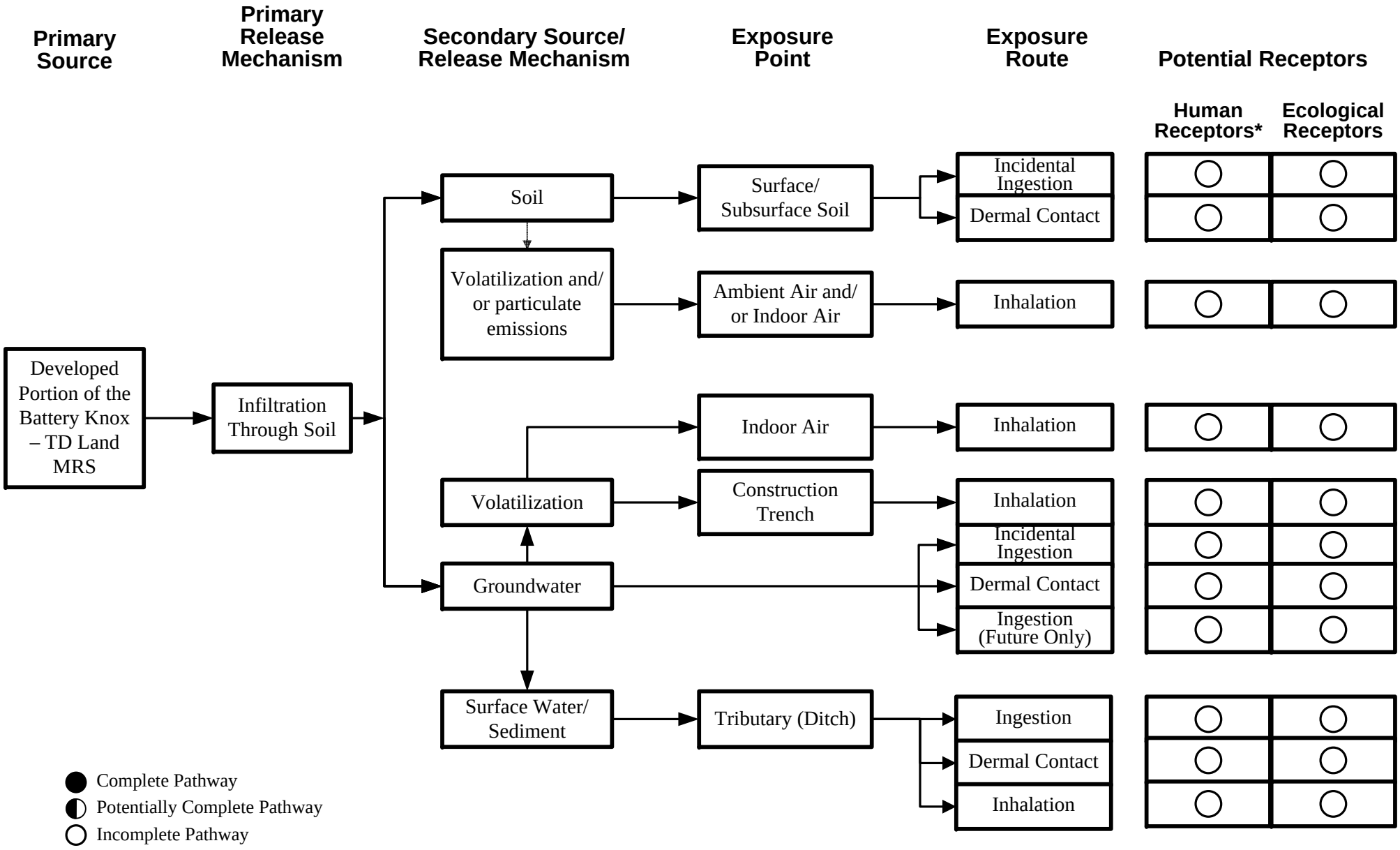
SECTION 8

FIGURES



* Human receptors include the following: residents (adults and children), school children, recreational users (including boaters, fisherman, hikers, and athletes), and railroad personnel.

Figure 8-1
RI Exposure Pathways for Receptors to MEC in the Battery Knox – TD Land MRS



* Human receptors include the following: residents (adults and children), school children, recreational users (including boaters, fisherman, hikers, and athletes), and railroad personnel.

Figure 8-2
RI Exposure Pathways for Receptors to MC in the Battery Knox – TD Land MRS

9. MUNITIONS AND EXPLOSIVES OF CONCERN HAZARD ASSESSMENT AND MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL UPDATE

9.1 MUNITIONS AND EXPLOSIVES OF CONCERN HAZARD ASSESSMENT

The CERCLA process for responding to releases or potential releases of hazardous substances includes the development of site-specific risk assessments appropriate to the requirements of a site. The results of the risk assessments are used to help site managers decide whether a response action is required and to support the risk management decisions that are made through the remedy evaluation, selection, and implementation process.

The CERCLA methodology for human health chemical risk assessment was not designed to address explosive safety hazards at MEC sites. In October 2008, the Technical Working Group for Hazard Assessment, which included representatives from DoD, Department of the Interior, EPA, and others, made available the technical reference document *Interim Munitions and Explosives of Concern Hazard Assessment Methodology* (MEC HA) (EPA, 2008).

The document was designed to be used as the CERCLA hazard assessment methodology for MRSs where an explosive hazard exists from the known or suspected presence of MEC. No MEC has been observed at the Battery Knox - TD Land MRS during the SI, RI, or on any other occasion; therefore, a MEC HA was not conducted.

9.2 MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL SCORING UPDATE

Results from the RI were used to update the MRSPP scoring. Revisions were made to the EHE module because no MEC or MC was found within the Battery Knox - TD Land MRS, which resulted in a revised MRS rating of No Known or Suspected Explosive Hazard. Furthermore, the HHE rating was also revised because, as a result of the RI, there is no known or suspected MC hazard. Based on the MRSPP ranking system, the Battery Knox - TD Land MRS is no longer ranked among the priorities, but rather, has an overall module rating of No Known or Suspected Hazard. The revised MRSPP forms are provided in **Appendix F**.

10. SUMMARY AND CONCLUSIONS

This section summarizes the results and conclusions of the RI activities conducted at the Battery Knox - TD Land MRS located at West Point. The RI was designed to determine the nature and extent of MEC and MC and to determine the potential hazards and risks posed to human health and the environment by MEC and MC. The RI also provided additional data to assist in determining what remedial alternatives, if any, are necessary. As a result of the characterization activities conducted at the Battery Knox - TD Land MRS, the objectives of the RI have been satisfied.

10.1 SUMMARY OF REMEDIAL INVESTIGATION ACTIVITIES

The preliminary CSM for the Battery Knox - TD Land MRS aided in developing data needs and DQOs as documented in the Final RI Work Plan. In general, the data needs and DQOs for the Battery Knox - TD Land MRS focused on characterizing the nature and extent of MEC and MC that may be present in the MRS because Battery Knox was used for defense of the Hudson River and for training of West Point cadets. The characterization activities to support the data needs and DQOs were used to gather information to evaluate whether there are unacceptable potential risks to human health and the environment associated with MEC and/or MC to determine whether further action is required under the CERCLA process.

UXO Estimator was used to develop a statistically comprehensive characterization strategy. Surveys were performed at the MRS in June and July 2011 to assess the nature and extent of MEC in the MRS. Mag and dig transect surveys were performed as part of the RI field work. A total of 4.5 acres (3.72 linear miles of transects) were investigated in the Battery Knox - TD Land MRS. UXO Technicians investigated all anomalies that were detected in the MRS.

No MEC or MD was recovered in the MRS. Thirty-nine non-MD related items were cataloged as cultural debris and included one pipe, one nail, and two trash pits (metal scrap, discarded debris). Cultural debris was recovered between 0 inches and 12 inches bgs.

MC sampling was conducted at the Battery Knox - TD Land MRS during the RI to further evaluate the presence of trace amounts of explosives identified during the SI. Six incremental samples (plus one field duplicate and a duplicate/triplicate) were collected and analyzed to

identify the presence of MC (if any) and to fully characterize the nature and extent of MC. The MC sampling results indicated that five explosive compounds were detected at levels below the analytical reporting limit, which are considered estimated values.

10.2 RISK ASSESSMENT

No evidence of military munitions was observed during the investigation and sampling. The results of the HHRA showed that all exceedances of human health screening levels were based on SQLs and qualified as U or UJ, indicating the analytes were not detected above their reported SQLs. Based on the results of the HHRA, the surface soil incremental samples did not contain MC concentrations greater than the screening levels that would pose a potential risk to residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel.

The SLERA showed minimal risk due to the presence of MC. There is little to no potential for adverse ecological impacts from MC in surface soil at the Battery Knox - TD Land MRS for several reasons, as supported by the additional discussions in the risk assessment. Explosive compounds 2,6-dinitrotoluene and nitroglycerin were not detected. Some SQLs for these compounds exceeded conservative ESVs, but they did not exceed alternative ESVs. No ESV is available for 3-nitrotoluene, and the compound was detected in only one sample, which is an estimated value. In addition, 3-nitrotoluene is not associated with the munitions used at Battery Knox – TD Land MRS.

10.3 REVISED CONCEPTUAL SITE MODEL

A discussion of the preliminary CSM, based on the available data and historical information compiled prior to the RI activities is presented in Section 2.1. The information collected during the RI was used to update the CSM (Section 8). The purpose of the CSM is to identify the complete, potentially complete, or incomplete source-receptor interactions for reasonably anticipated future land use activities at the MRS. An exposure pathway is the course a MEC item or MC takes from a source to a receptor. Each pathway includes a source, interaction, and receptor.

The Battery Knox - TD Land MRS is the land portion of the Battery Knox range fan. The battery was located on the Main Post of West Point on the west bank of the Hudson River. The direction of fire from the battery was east and downward toward potential targets located in the Hudson River. Overshots during firing activities might have impacted the Battery Knox - TD Land MRS. The weapons that might have been used at Battery Knox include 100-lb and 300-lb Parrott guns, an 8-inch converted rifle, and 10-inch muzzle-loaded Rodman guns.

No MEC or MD was observed during the RI or has been historically reported in the Battery Knox - TD Land MRS. A statistical approach was developed to assess the potential MEC density within the Battery Knox - TD Land MRS. UXO Estimator was used to develop the appropriate coverage necessary to make high confidence assessments. No MEC was identified on the ground surface or in the subsurface within the 4.5 acres where mag and dig surveys were conducted. These results were then re-assessed in UXO Estimator. The statistical upper bound density of MEC was determined to be 0.652 MEC per acre based on the percentage of the area surveyed at the Battery Knox - TD Land MRS and the actual intrusive investigation results. This means that the investigation was adequate to be 95% confident that there is less than 0.652 MEC per acre within the MRS. The average MEC density across the Battery Knox - TD Land MRS was calculated to be 0.215 MEC/acre and represents the statistical lower bound density of MEC that may be present in the MRS. Although the UXO Estimator results indicate that a statistical potential for MEC may remain at the Battery Knox - TD Land MRS, no MEC has been found and it is anticipated that no MEC source or explosive safety hazard is present. The revised CSM for MEC identified incomplete pathways for surface and subsurface soils for all receptors having access to the MRS.

MC sampling was conducted at the Battery Knox - TD Land MRS during the RI to further evaluate the presence of trace amounts of explosives identified during the SI. The MC sampling results indicated that no explosive compounds were detected above screening levels in the soil samples at the Battery Knox - TD Land MRS that would pose a potential risk to residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel, and ecological receptors. In addition, no evidence of MEC or MD was observed during the mag and dig surveys. Therefore, the pathways for human and

ecological receptors to contact MC are considered incomplete because no potential MC sources, and thus no potential risk, are known to exist in the Battery Knox - TD Land MRS.

10.4 UNCERTAINTIES

The primary uncertainty for the RI is related to the statistical calculations performed using UXO Estimator. According to UXO Estimator calculations, at least 5.78 acres would require investigation to be 95% confident that there is less than 0.5 MEC/acre at the Battery Knox - TD Land MRS. The mag and dig coverage was inadequate to meet the 95% confidence level objective (90% confidence was achieved). Mag and dig surveys focused on the 62.5 acres of the Battery Knox - TD Land MRS where ROEs were obtained from private property owners. The remaining 78.5 acres of the MRS (where ROEs were not obtained) were not investigated.

Qualitative evaluations can be made based on available coverage and results, SI results, and historical information. It is unlikely that there were overshots into the Battery Knox - TD Land MRS during training activities because the battery location was 145 feet above the Hudson River and the direction of fire was downward toward the water targets. MEC and MD, if present, would most likely be found in the eastern and central portions of the MRS. The eastern portion of the Battery Knox - TD Land MRS was investigated during the RI, and the eastern and central portions of the MRS were inspected during the SI. No MEC or MD was observed or has been historically reported in the Battery Knox - TD Land MRS. Much of the eastern portion of the MRS has exposed bedrock and steep cliffs. MEC and MD in this area would likely be on the ground surface, but no MEC or MD has been reported.

10.5 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the RI field activities, the following conclusions were determined for the Battery Knox - TD Land MRS:

- No MEC or MD was identified in the MRS during RI field activities, no MEC or MD has been historically reported in the Battery Knox - TD Land MRS, and an explosive safety hazard is not anticipated to exist. Incomplete pathways were identified for surface and subsurface soils for all receptors having access to the MRS.
- No MC source was identified during the investigation.

The nature and extent of MEC and MC at the Battery Knox - TD Land MRS have been adequately characterized. Based on these conclusions, no further action under the MMRP is recommended for the Battery Knox - TD Land MRS (WSTPT-004-R-02). Future actions for the Battery Knox - TD Land MRS may include the preparation of a No Further Action Proposed Plan for public review followed by the issuance of a Decision Document.

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APPENDIX A
DIG LIST

Mag and Dig Results -Battery Knox MRS

Contractor:	WESTON	Date:	7/5/2011
Project Name:	West Point RI	Coordinate System:	UTM
Project Location:	West Point	Survey Area ID:	Battery Knox MRS

Area Type	Location ID	Easting Coord. (ft/m)	Northing Coord. (ft/m)	Date	Categorized As	Item Type	Depth	Approx. weight (lbs-oz/kg-g)	Quantity
Transect	BK-27	1931840.53	15036174.59	06/27/2011	Cultural Debris	Metal Scrap	6	1.00	1
Transect	BK-27	1931750.57	15035983.41	06/27/2011	Cultural Debris	Metal Scrap	0	0.50	1
Transect	BK-27	1931694.34	15035923.43	06/27/2011	Cultural Debris	Metal Scrap	5	2.00	1
Transect	BK-27	1931555.64	15035627.29	06/27/2011	Cultural Debris	Metal Scrap	7	1.00	1
Transect	BK-27	1931405.69	15035387.38	06/27/2011	Cultural Debris	Metal Scrap	2	1.00	1
Transect	BK-26	1931431.93	15035634.79	06/27/2011	Cultural Debris	Pipe	1	2.00	1
Transect	BK-26	1931578.13	15035818.47	06/27/2011	Cultural Debris	Metal Scrap	6	0.50	1
Transect	BK-25	1931716.83	15036219.58	06/27/2011	Cultural Debris	Metal Scrap	5	0.50	1
Transect	BK-24	1931548.14	15036155.85	06/27/2011	Cultural Debris	Metal Scrap	0	0.50	1
Transect	BK-24	1931428.18	15035897.19	06/27/2011	Cultural Debris	Metal Scrap	1	1.00	1
Transect	BK-24	1931326.97	15035604.80	06/27/2011	Cultural Debris	Metal Scrap	0	1.50	1
Transect	BK-24	1931255.74	15035507.33	06/27/2011	Cultural Debris	Metal Scrap	0	2.00	1
Transect	BK-21	1931244.50	15035357.39	06/27/2011	Cultural Debris	Metal Scrap	2	0.50	1
Transect	BK-21	1931480.66	15035008.76	06/28/2011	Cultural Debris	Metal Scrap	5	0.50	1
Transect	BK-20	1931645.60	15034626.40	06/28/2011	Cultural Debris	Trash Pit	3	3.00	1
Transect	BK-20	1931424.43	15034941.29	06/28/2011	Cultural Debris	Metal Scrap	12	0.50	1
Transect	BK-20	1931364.46	15035068.74	06/28/2011	Cultural Debris	Nail	2	0.10	1
Transect	BK-19	1931266.99	15035154.96	06/28/2011	Cultural Debris	Metal Scrap	1	0.50	1
Transect	BK-18	1931068.31	15035241.18	06/28/2011	Cultural Debris	Metal Scrap	6	0.50	1
Transect	BK-18	1931214.51	15035050.00	06/28/2011	Cultural Debris	Metal Scrap	6	0.50	1
Transect	BK-18	1931349.46	15034843.82	06/28/2011	Cultural Debris	Metal Scrap	3	0.50	1
Transect	BK-17	1931454.42	15034555.17	06/28/2011	Cultural Debris	Metal Scrap	3	0.50	1
Transect	BK-16	1931338.21	15034682.63	06/28/2011	Cultural Debris	Metal Scrap	4	1.00	1
Transect	BK-16	1931353.21	15034592.66	06/28/2011	Cultural Debris	Trash Pit	12	6.00	1
Transect	BK-15	1931274.49	15034551.43	06/28/2011	Cultural Debris	Metal Scrap	2	0.10	1
Transect	BK-14	1931162.03	15034603.91	06/28/2011	Cultural Debris	Metal Scrap	5	0.50	1
Transect	BK-14	1931255.74	15034480.2	06/28/2011	Cultural Debris	Metal Scrap	6	1.00	1
Transect	BK-14	1931383.20	15034277.77	06/28/2011	Cultural Debris	Metal Scrap	7	0.50	1
Transect	BK-15	1931446.93	15034296.52	06/28/2011	Cultural Debris	Metal Scrap	0	0.50	1
Transect	BK-15	1931465.67	15034352.75	06/28/2011	Cultural Debris	Metal Scrap	0	0.50	1
Transect	BK-21	1931788.05	15034547.68	06/28/2011	Cultural Debris	Metal Scrap	5	0.50	1
Transect	BK-21	1931679.34	15034690.13	06/28/2011	Cultural Debris	Metal Scrap	8	2.00	1
Transect	BK-21	1931668.10	15034765.1	06/28/2011	Cultural Debris	Metal Scrap	5	1.00	1
Transect	BK-2	1929396.41	15034124.08	06/28/2011	Cultural Debris	Metal Scrap	5	0.50	1
Transect	BK-2	1929392.66	15033955.39	06/28/2011	Cultural Debris	Metal Scrap	6	0.50	1
Transect	BK-3	1929411.40	15033786.7	06/28/2011	Cultural Debris	Metal Scrap	0	0.50	1
Transect	BK-2	1929313.94	15033561.78	06/28/2011	Cultural Debris	Metal Scrap	2	0.50	1
Transect	BK-2	1929328.93	15033722.97	06/28/2011	Cultural Debris	Metal Scrap	3	0.50	1
Transect	BK-3	1929336.43	15033426.83	06/28/2011	Cultural Debris	Metal Scrap	2	0.50	1

APPENDIX B
DAILY REPORTS

Note:

In some cases, multiple munitions response sites (MRSs) were investigated on the same day; therefore, information from multiple MRSs may be included in the Daily Reports.

Daily Site Progress Report

MMRP RI - US Army Garrison – West Point

CONTRACT NO. / D.O. NO.:	WORK ORDER NO.:	DATE / TIME ON AND OFF SITE
W912DR-09-D-0006	03886.551.001	06/27/2011 0600 - 1630

WEATHER/TEMPERATURE: Warm and sunny 83 high/67 Low °F

WORK LOCATION: West Point, NY

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☒ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ _____

Comments: UXOSO escorted TLI during sampling activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):
None

PROBLEMS/RESOLUTIONS:
None

DATA TRACKING:

DGM Grids Reacquired**:** None today

Mag and Dig Transects: Battery Knox MRS: BK-T13 (750'), BK-T14 (640'), BK-T15 (570'), BK-T16 (920'), BK-T17 (1060'), BK-T18 (870'), BK-T19 (1100'), BK-T22 (930'), BK-T23 (930'), BK-T24 (940'), BK-T25 (960'), BK-T26 (1020'), BK-T27 (1080')

Mag and Dig Grids: None today

Comments: None

FURTHER DISCUSSION (List Topic and Comment):

Planned activities for 06/28/11: Mag and Dig transects in Battery Knox MRS.

PREPARED BY:	SIGNATURE:
Brian Junck – Site Geophysicist	

UXO technician surveying a transect in Battery Knox MRS.

Cultural Debris (horseshoe) recovered from transect BK-T25 in Battery Knox MRS.

Daily UXO SUXOS Site Report

CONTRACT NO. / REQ. NO.:W912DR-09-D-0006 Delivery Order: 0001	DATE: 27 June 2011

WORK LOCATION: West Point, NY (MMRP Remedial Investigation)

WORK COMPLETED:

- ☒ Mag and Dig activities.
- ☐ Survey work.
- ☐ Brush clearing.
- ☐ Grid QC List.
- ☐ Grid QA (CENAB).
- ☒ UXO Technician Escort activities.
- ☐ Magazine secured
- ☐ Equipment Maintenance
- ☐ Reacquire Anomaly
- ☒ Safety briefing given

Comments:

PROBLEMS/RESOLUTIONS:

DAILY ACTIVITIES:

Total Number of grids completed MRS :

Total Transect completed MRS: MRS Battery Knox - BK-T13(750 ft), BK-T14 (640 ft), BK-T15 (570 ft), BK-T16 (920 ft), BK-T17 (1060 ft), BK-T18 (870 ft), BK-T19 (1100 ft), BK-T22 (930 ft), BK-T23 (930 ft), BK-T24 (940 ft), BK-T25 (960 ft), BK-T26 (1020 ft), and BK-T27 (1080 ft). Total Battery Knox transect cleared (11,770 ft).

Cultural Debris, Munitions Debris, and UXO:

Grid CD: 0 lbs
Grid MD: 0 lbs
Grid UXO: 0
Transect CD: 14 lbs
Transect MD: 0 lbs
Transect UXO: 0

Total Number of Areas QC / QA (List Areas): None

UXO items located: None

UXO Daily Total: None

Remarks:

TLI (MC sampling) on-site. 180 Incremental Samples collected. TLI hung door hangers in housing area's Lusk Reservoir, and Redoubt No 2

GEO Team supported Transect GPS navigation Battery Knox.

Team 1: Brian Addison, Chris George, Donald Koetje, Cindy Grassmyer

Team 2: Terry Wilson, Roger Perkins

Geo Team: Brian Junck, Paul Novak

PREPARED BY:	SIGNATURE:
Brian Grassmyer	Brian Grassmyer

Daily Health & Safety Report

General Information:

MMRP Remedial Investigation, West Point, NY **Report #15** **Date: 6/27/2011**
Contract #: W912DR-09-D-006 **Delivery Order: 0001**
Start Time: 0600 **End Time: 1630**
Project Manager: John Gerhard

Weather Conditions:

High Temp: 83	**Low Tem: 67**		**Precipitation:** None	**Lightning:** None
Winds: Light to heavy at times	**Sunrise: 0525**	**Sunset: 2033**	**Humidity: 92-52%**	

Site Personnel:

SUXOS:	**UXOSO/UXOSQC:**
Brian Grassmyer	**Bruce Carnal**

Detail Of Daily Events:

Daily safety meeting given by UXOSO. Topics covered were a review of safe driving practices in and around Cold Springs especially on foggy mornings, history of the area and its relation to possible munitions we could find, PPE in the woods.

Escorted TLI in the morning at BK Area and observed Teams in the woods. Paul Novak received bites from ground hornets but did not require any further treatment.

Received drums from Columbine and sorted Cultural Debris/Scrap.

I CERTIFY THAT THE ABOVE REPORT IS COMPLETE, CORRECT AND IN STRICT COMPLIANCE WITH THE SPECIFIC HEALTH AND SAFETY PLAN.

UXO Safety Officer

Safety Meeting Attendance Log

Date:	6/27/2011	Time:	0600	Contract Number:	W912DR-09-D-0006
Delivery Order Number:	0001	Location:	West Point, New York		
Weather Conditions:	Temp: 67 High: 83 Sunrise: 5:25 Sunset: 8:33 Humidity: 92-52% (thru the day)				

I. Safety Meeting Topic (Briefly describe):	Review of safe driving practices in and around Cold Springs and its foggy mornings, History of the area and its relation to munitions, PPE in the woods.

II. Attendees:	

Name	Signature	Company
Elbert Caraballo		USACE Baltimore
John Gerhard		Weston
Brian Grassmyer		Weston
Brian ~~Junck~~ Addison		Weston
Paul Novak		Weston
Bruce Carnal		Weston
Brian ~~Addison~~ Junck		Weston
Terry Wilson		Weston
Roger Perkins		Weston
Chris George		Weston
Donald Koetje		Weston
Cindy Grassmyer		Weston
Dave Ahlborn		TLI
Rebecca Pisha		TLI

Name	Signature	Company

III. Verification:

I certify that the personnel listed on this roster received the briefing described above. Site personnel not attending this meeting will be briefed before beginning their assigned duties.

Site Safety Officer

Date 6/27/11

Daily Site Progress Report

MMRP RI - US Army Garrison – West Point

CONTRACT NO. / D.O. NO.:	WORK ORDER NO.:	DATE / TIME ON AND OFF SITE
W912DR-09-D-0006	03886.551.001	06/28/2011 0600 - 1630

WEATHER/TEMPERATURE: Warm and sunny 83 high/67 Low °F

WORK LOCATION: West Point, NY

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☒ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ _____

Comments: UXOSO escorted TLI during sampling activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):
None

PROBLEMS/RESOLUTIONS:
None

DATA TRACKING:

DGM Grids Reacquired**:** None today

Mag and Dig Transects: Battery Knox MRS: BK-T12 (750'), BK-T20 (1100'), BK-T21 (1120')

Mag and Dig Grids: Artillery Firing Range MRS: AFR-06

Comments: None

FURTHER DISCUSSION (List Topic and Comment):

Planned activities for 06/29/11: Mag and Dig transects in Siege Battery MRS (Constitution Island).

PREPARED BY:	SIGNATURE:
Brian Junck – Site Geophysicist	

UXO technicians setting up a grid in Artillery Firing Range MRS.

Rifle Grenade Flare M18A1 (munitions debris) recovered from grid AFR-06 in Artillery Firing Range MRS.

Slap Flare (munitions debris) recovered from grid AFR-06 in Artillery Firing Range MRS.

Daily UXO SUXOS Site Report

CONTRACT NO. / REQ. NO.:W912DR-09-D-0006 Delivery Order: 0001 | **DATE: 28 June 2011**

WORK LOCATION: West Point, NY (MMRP Remedial Investigation)

WORK COMPLETED:

- ☒ Mag and Dig activities.
- ☐ Survey work.
- ☐ Brush clearing.
- ☐ Grid QC List.
- ☐ Grid QA (CENAB).
- ☒ UXO Technician Escort activities.
- ☐ Magazine secured
- ☐ Equipment Maintenance
- ☐ Reacquire Anomaly
- ☒ Safety briefing given

Comments:

PROBLEMS/RESOLUTIONS:

DAILY ACTIVITIES:

Total Number of grids completed MRS : Artillery Firing Range MRS grids AFR-06 completed.

Total Transect completed MRS: MRS Battery Knox - BK-T12 (750 ft), BK-T20 (1100 ft), BK-T21 (1120 ft). Total Battery Knox transects cleared (2970 ft).

Cultural Debris, Munitions Debris, and UXO:
Grid CD: .5 lbs
Grid MD: 11.5 lbs (8 pieces of frag, 1 ea Slap Flare canister empty, and 1 ea Rifle Grenade Illumination M18A1
Grid UXO: 0
Transect CD: 1 lbs
Transect MD: 0 lbs
Transect UXO: 0

Total Number of Areas QC / QA (List Areas): None

UXO items located: None

UXO Daily Total: None

Remarks:

TLI (MC sampling) on-site. 120 Incremental Samples collected. Weston provided UXO Tech Escort support.

GEO Team supported Transect GPS navigation Battery Knox.

Team 1: Brian Addison, Chris George, Donald Koetje, Cindy Grassmyer

Team 2: Terry Wilson, Roger Perkins

Geo Team: Brian Junck, Paul Novak

PREPARED BY:
Brian Grassmyer

SIGNATURE:
Brian Grassmyer

Daily Health & Safety Report

General Information:

MMRP Remedial Investigation, West Point, NY **Report #16** **Date: 6/28/2011**
Contract #: W912DR-09-D-006 **Delivery Order: 0001**
Start Time: 0700 **End Time: 1730**
Project Manager: John Gerhard

Weather Conditions:

High Temp: 83	**Low Tem: 67**		**Precipitation:** None	**Lightning:** None
Winds: Light to heavy at times	**Sunrise: 0525**	**Sunset: 2033**	**Humidity: 92-52%**	

Site Personnel:

SUXOS:	**UXOSO/UXOSQC:**
Brian Grassmyer	**Bruce Carnal**

Detail Of Daily Events:

Daily safety meeting given by UXOSO. Topics covered were a review of treatment of insect bites and observation to mitigate reactions, care when digging and wearing gloves to prevent cuts, sorting of scrap and MD and who is responsible.

Completed the Generic On Site QA Checklist iaw ACE EM 385-1-97 to ensure that we were in compliance. Brian Addison and Donnie Koetje bit by hornets from a tree nest but did not require any further attention or first aid.

Completed the documentation of the QC for NAF and did a QC and documentation of TH.

I CERTIFY THAT THE ABOVE REPORT IS COMPLETE, CORRECT AND IN STRICT COMPLIANCE WITH THE SPECIFIC HEALTH AND SAFETY PLAN.

UXO Safety Officer

Safety Meeting Attendance Log

Date:	6/28/2011	Time:	0700	Contract Number:	W912DR-09-D-0006
Delivery Order Number:	0001	Location:	West Point, New York		
Weather Conditions:	Temp: 68 High: 85 Sunrise: 5:25 Sunset: 8:33 Humidity: 92-57% (thru the day) Possible PM T-Storms.				

I. Safety Meeting Topic (Briefly describe):	Treatment of insect bites and observation to mitigate reactions. Care when digging and wearing of gloves to prevent cuts on metal/sharp objects. Sorting of scrap and MD.

II. Attendees:	

Name	Signature	Company
Elbert Caraballo		USACE Baltimore
John Gerhard		Weston
Brian Grassmyer		Weston
Brian Junck		Weston
Paul Novak		Weston
Bruce Carnal		Weston
Brian Addison		Weston
Terry Wilson		Weston
Roger Perkins		Weston
Chris George		Weston
Donald Koetje		Weston
Cindy Grassmyer		Weston
Dave Ahlborn		TLI
Rebecca Pisha		TLI

Name	Signature	Company

III. Verification:

I certify that the personnel listed on this roster received the briefing described above. Site personnel not attending this meeting will be briefed before beginning their assigned duties.

_____ _____

Site Safety Officer Date

Daily UXO QC Site Report

West Point, NY

CONTRACT NO. / D.O. NO.:		DATE:
W912DR-09-0006		6/28/11

WORK LOCATION: NAF and TH

WORK COMPLETED:

- ☑ Mag and Dig activities.
- ☑ Grid QC List (List Grids).
- ☐ Grid QA (CENAB-List Grids)
- ☑ Observed sweeping procedures
- ☐ UXO Technician Escort activities.
- ☐ GPO prove out of equipment
- ☑ Equipment Maintenance
- ☑ Equipment QC

Comments: NAF and TH QC done. List of points QC'd attached.

PROBLEMS/RESOLUTIONS:

No problems encountered.

DAILY ACTIVITIES:

Total Number Grids QC (List Grids): NAF.

Total Number of Excavation Areas QA (List Grids): NAF

Equipment QC (List Equipment): White XLT, MXT

Equipment maintenance (list equipment): White XLT , MXT performed IVS

Comments: Passed QC.

PREPARED BY:	SIGNATURE:
Bruce A. Carnal	Bruce A Carnal

Points QC'd for North Athletic Field 6/22/11 thru 6/24/11

2118	1668	509	1176
2074	1639	494	1187
2084	1590	585	1223
1999	1458	556	1203
1982	1308	546	1322
1952	1155	642	1471
1741	1309	639	1512
1641	1282	636	1539
1634	1554	654	1972
1735	1593	655	2271
1711	1583	731	
1517	1626	750	
1392	1133	892	
1334	1145	855	
1092	1023	834	
321	1010	780	
225	1018	773	
131	783	754	
169	505	812	
164	608	949	
141	397	961	
183	386	1021	
203	335	1053	
1656	378	1081	
1666	476	1142	

Points QC'd for Target Hill Area 6/28/11:

1-17
1-32
1-36
2-05
3-05
4-27
4-31
4-35
4-36
5-62
5-76
5-115
5-122
6-19
6-20
6-49
6-54
6-112
7-48
7-51
7-131
7-138
7-170
7-177
7-199

Daily Site Progress Report

MMRP RI - US Army Garrison – West Point

CONTRACT NO. / D.O. NO.:	WORK ORDER NO.:	DATE / TIME ON AND OFF SITE
W912DR-09-D-0006	03886.551.001	06/29/2011 0700 - 1700

WEATHER/TEMPERATURE: Warm and sunny 80 high/61 Low °F

WORK LOCATION: West Point, NY

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities).
- ☐ DGM activities (List grids).
- ☒ Reacquisition of DGM anomaly targets (List grids).
- ☒ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ _____

Comments:

MATERIALS DELIVERED (Amount, Condition, and Purpose):
None

PROBLEMS/RESOLUTIONS:
None

DATA TRACKING:

DGM Grids Reacquired**:** Lusk Reservoir MRS: LR-01

Mag and Dig Transects: Siege Battery MRS: SB-T14 (1500'), BK-T15 (1760'), BK-T16 (1920'), BK-T17 (1920')

Mag and Dig Grids: Artillery Firing Range MRS: AFR-08

Comments: Grids QC: AFR-10, FCW-05, FCW-07, FCW-08, FCW-09, SB-06

FURTHER DISCUSSION (List Topic and Comment):

Planned activities for 06/30/11: Mag and Dig transects in Redoubt No2 MRS, intrusive investigation in Lusk Reservoir MRS, Grid LR-01.

PREPARED BY:	SIGNATURE:
Brian Junck – Site Geophysicist	

UXO technician surveying a transect in Siege Battery MRS (Constitution Island).

Munitions Debris (frag) recovered from Siege Battery MRS on Constitution Island.

Daily UXO SUXOS Site Report

CONTRACT NO. / REQ. NO.:W912DR-09-D-0006 Delivery Order: 0001	DATE: 29 June 2011

WORK LOCATION: West Point, NY (MMRP Remedial Investigation)

WORK COMPLETED:

- ☒ Mag and Dig activities.
- ☐ Survey work.
- ☐ Brush clearing.
- ☐ Grid QC List.
- ☐ Grid QA (CENAB).
- ☐ UXO Technician Escort activities.
- ☐ Magazine secured
- ☐ Equipment Maintenance
- ☒ Reacquire Anomaly
- ☒ Safety briefing given

Comments:

PROBLEMS/RESOLUTIONS:

DAILY ACTIVITIES:

Total Number of grids completed MRS : Artillery Firing Range MRS grids AFR-08 completed.

Total Transect completed MRS: Constitution Island - MRS Siege Battery Transects SB-T14 (1500 ft), SB-T15 (1760 ft), SB-T16 (1920 ft), and SB-T17 (1920 ft). Total Siege Battery transects cleared (7100 ft).

Cultural Debris, Munitions Debris, and UXO:
Grid CD: 11 lbs
Grid MD: 2 lbs (4 pieces of Frag)
Grid UXO: 0
Transect CD: 0 lbs
Transect MD: 27 lbs (24 pieces of Frag)
Transect UXO: 0

Total Number of Areas QC / QA (List Areas): None

UXO items located: None

UXO Daily Total: None

Remarks:

TLI (MC sampling) on-site. Hanging 300 stickers and making the 24 hr phone notice to the residents for Lusk Reservoir/Redoubt No 2.

GEO Team reacquires anomalies at Lusk Reservoir.

Team 1: Brian Addison, Chris George, Donald Koetje, Cindy Grassmyer

Team 2: Terry Wilson, Roger Perkins

Geo Team: Brian Junck, Paul Novak

PREPARED BY:	SIGNATURE:
Brian Grassmyer	Brian Grassmyer

Daily Health & Safety Report

General Information:

MMRP Remedial Investigation, West Point, NY **Report #17** **Date: 6/29/2011**
Contract #: W912DR-09-D-006 **Delivery Order: 0001**
Start Time: 0700 **End Time: 1730**
Project Manager: John Gerhard

Weather Conditions:

High Temp: 80	**Low Tem: 61**		**Precipitation:** None	**Lightning:** None
Winds: Light to heavy at times	**Sunrise: 0525**	**Sunset: 2033**	**Humidity: 79-54%**	

Site Personnel:

SUXOS:	**UXOSO/UXOSQC:**
Brian Grassmyer	**Bruce Carnal**

Detail Of Daily Events:

Daily safety meeting given by UXOSO. Topics covered were fire prevention and extinguishing procedures, Siting of fire extinguishers on the jobsite and possible ordnance to be found on Constitution Island.

Went with Teams to Constitution Island. Made contact with the caretaker and was given info on the Island.

Made contact with Mr. Jensen at the Museum and finalized the turn over of four empty/solid rounds to them.

Did the QC on grids AFR10, FCW05, FCW07, FCW08, FCW09, AND SB06. All passed.

I CERTIFY THAT THE ABOVE REPORT IS COMPLETE, CORRECT AND IN STRICT COMPLIANCE WITH THE SPECIFIC HEALTH AND SAFETY PLAN.

Bruce A Carnal

UXO Safety Officer

Safety Meeting Attendance Log

Date:	6/29/2011	Time:	0700	Contract Number:	W912DR-09-D-0006
Delivery Order Number:	0001	Location:	West Point, New York		
Weather Conditions:	Temp: 61 High: 80 Sunrise: 5:25 Sunset: 8:33 Humidity: 79-54% (thru the day)				

I. Safety Meeting Topic (Briefly describe):	Fire prevention and extinguising proceedures, siting of fire extinguishers at the job site, possible ordnance to be found in the Constitution Island area.

II. Attendees:	

Name	Signature	Company
Elbert Caraballo		USACE Baltimore
John Gerhard		Weston
Brian Grassmyer		Weston
Brian Junck		Weston
Paul Novak		Weston
Bruce Carnal		Weston
Brian Addison		Weston
Terry Wilson		Weston
Roger Perkins		Weston
Chris George		Weston
Donald Koetje		Weston
Cindy Grassmyer		Weston
Dave Ahlborn		TLI
Rebecca Pisha		TLI

Name	Signature	Company

III. Verification:

I certify that the personnel listed on this roster received the briefing described above. Site personnel not attending this meeting will be briefed before beginning their assigned duties.

Site Safety Officer _____ Date _____

Daily UXO QC Site Report

West Point, NY

CONTRACT NO. / D.O. NO.:		DATE:
W912DR-09-0006		6/29/11

WORK LOCATION: FCW Area.

WORK COMPLETED:

- ☑ Mag and Dig activities.
- ☑ Grid QC List (List Grids).
- ☐ Grid QA (CENAB-List Grids)
- ☑ Observed sweeping procedures
- ☐ UXO Technician Escort activities.
- ☐ GPO prove out of equipment
- ☑ Equipment Maintenance
- ☑ Equipment QC

Comments: Six grids QC'd, 10%-15%.

PROBLEMS/RESOLUTIONS:

No problems encountered.

DAILY ACTIVITIES:

Total Number Grids QC (List Grids): AFR10, FCW05, FCW07, FCW08, FCW09, SBO6.

Total Number of Excavation Areas QA (List Grids): AFR10, FCW05, FCW07, FCW08, FCW09, SB06.

Equipment QC (List Equipment): White MXT

Equipment maintenance (list equipment): White MXT performed IVS

Comments: All grids passed QC. Any items encountered were cultural debris.

PREPARED BY:	SIGNATURE:
Bruce A. Carnal	Bruce A Carnal

Daily Site Progress Report

MMRP RI - US Army Garrison – West Point

CONTRACT NO. / D.O. NO.:	WORK ORDER NO.:	DATE / TIME ON AND OFF SITE
W912DR-09-D-0006	03886.551.001	07/05/2011 0700 - 1700

WEATHER/TEMPERATURE: Warm and sunny 80 high/61 Low °F

WORK LOCATION: West Point, NY

WORK COMPLETED:

- ☒ Mag and Dig activities).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomalies (List grids).
- ☐ Intrusive Investigation of DGM anomalies (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ _____

Comments:

MATERIALS DELIVERED (Amount, Condition, and Purpose):
None

PROBLEMS/RESOLUTIONS:
None

DATA TRACKING:

DGM Grids Reacquired: None today

DGM Grids Intrusively Investigated**:** None today

Mag and Dig Transects: Redoubt No2 MRS: BK-T01 (950'), BK -T02 (950'), BK -T03 (950')

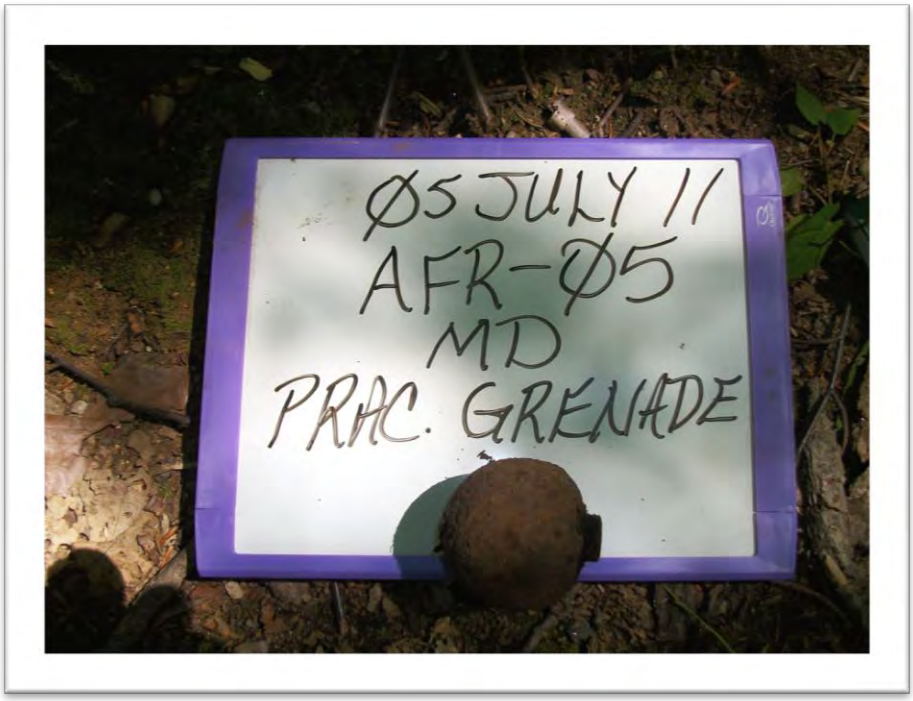
Mag and Dig Grids: Artillery Firing Range MRS: AFR-05, AFR-07

Comments: None

FURTHER DISCUSSION (List Topic and Comment):

Planned activities for 07/06/11: Mag and Dig transects and intrusive investigation of grid SB-09 in Siege Battery MRS.

PREPARED BY:	SIGNATURE:
Brian Junck – Site Geophysicist	



M69 Practice Grenade (munitions debris) recovered from Grid AFR-07 in Artillery Firing Range MRS

UXO Technician investigating an anomaly in grid AFR-05 in Artillery Firing Range MRS

Daily UXO SUXOS Site Report

CONTRACT NO. / REQ. NO.:W912DR-09-D-0006 Delivery Order: 0001	DATE: 05 July 2011

WORK LOCATION: West Point, NY (MMRP Remedial Investigation)

WORK COMPLETED:

- ☒ Mag and Dig activities.
- ☐ Survey work.
- ☐ Brush clearing.
- ☐ Grid QC List.
- ☐ Grid QA (CENAB).
- ☒ UXO Technician Escort activities.
- ☐ Magazine secured
- ☐ Equipment Maintenance
- ☒ Reacquire Anomaly
- ☒ Safety briefing given

Comments:

PROBLEMS/RESOLUTIONS:

DAILY ACTIVITIES:

Total Number of grids completed MRS : MRS Artillery Firing Range grids AFT-05 and AFR-07 completed.

Total Transect completed MRS: MRS Battery Knox Transects BK-T01 (950 ft), BK-T02 (950 ft), Bk-T03 (950 ft). Total Battery Knox transects cleared (2850 ft).

Cultural Debris, Munitions Debris, and UXO:
Grid CD: 3 lbs
Grid MD: 3 lbs (2 pieces of Frag and 1 ea Practice Grenade M69)
Grid UXO: 0
Transect CD: 16 lbs
Transect MD: 0 lbs
Transect UXO: 0

Total Number of Areas QC / QA (List Areas): None

UXO items located: None

UXO Daily Total: None

Remarks:

TLI (MC sampling) on-site. Collected 30 Incremental Samples at MRS Battery Knox. Hanging evacuation door stickers.

GEO Team supported GPS navigation for Battery Knox and reacquires anomalies Siege Battery grid SB-09.

Team 1: Brian Addison, Chris George, Donald Koetje, Cindy Grassmyer

Team 2: Terry Wilson, Roger Perkins

Geo Team: Brian Junck, Paul Novak

PREPARED BY:	SIGNATURE:
Brian Grassmyer	Brian Grassmyer

Daily Health & Safety Report

General Information:

MMRP Remedial Investigation, West Point, NY **Report #19** **Date: 7/05/2011**
Contract #: W912DR-09-D-006 **Delivery Order: 0001**
Start Time: 0700 **End Time: 1730**
Project Manager: John Gerhard

Weather Conditions:

High Temp: 89	**Low Tem: 67**		**Precipitation:** None	**Lightning:** None
Winds: Light.	**Sunrise: 0529**	**Sunset: 2032**	**Humidity: 90-38%**	

Site Personnel:

SUXOS:	**UXOSO/UXOSQC:**
Brian Grassmyer	**Bruce Carnal**

Detail Of Daily Events:

Daily safety meeting given by UXOSO. Topics covered were tick transmitted diseases as laid out in FLD 43 and dangerous wild animals that might be found in the woods, namely wild pigs or boars.

Went to Knox Battery Impact Area, Mr. Scotts' property, for the remaining transects. Encountered no problems other than the TLI personnel and their escort encountering a ground hornet nest.

Sorted and verified muntions debris and scrap and relegated them to their cooresponding barrels.

I CERTIFY THAT THE ABOVE REPORT IS COMPLETE, CORRECT AND IN STRICT COMPLIANCE WITH THE SPECIFIC HEALTH AND SAFETY PLAN.

UXO Safety Officer

Safety Meeting Attendance Log

Date:	7/05/2011	Time:	0700	Contract Number:	W912DR-09-D-0006
Delivery Order Number:	0001	Location:	West Point, New York		
Weather Conditions:	Temp: 67 High: 86 Sunrise: 5:29 Sunset: 8:32 Humidity: 90-38% (thru the day)				

I. Safety Meeting Topic (Briefly describe):	Tick transmitted diseases and dangerous wild animals (namely ferral/wild pig).

II. Attendees:	

Name	Signature	Company
Elbert Caraballo		USACE Baltimore
John Gerhard		Weston
Brian Grassmyer		Weston
Brian Junck		Weston
Paul Novak		Weston
Bruce Carnal		Weston
Brian Addison		Weston
~~Terry Wilson~~		Weston
Roger Perkins		Weston
Chris George		Weston
Donald Koetje		Weston
Cindy Grassmyer		Weston
Paul Murray		Weston
Dave Ahlborn		TLI

DAILY FIELD REPORT

The following information will be recorded daily by the Team Leader. The Daily Field Reports will be provided to the Weston PM within 24 hours.

Project: West Point RI	**Date: 27June 2011**
Time of Arrival at Site: 0555	Time of Safety Brief: 0605
Team Leader: Dave Ahlborn	Team Members: Rebecca Pisha

Weather/Site Conditions:

High temp in the upper 70s. Mostly sunny with some mid-level cumulus and moderate to high humidity throughout the day.

No weather related work delays.

SI Activities Conducted:

AM – Accompanied WESTON field personnel to Phillipstown Park to stage for survey of Battery Knox – TD. Spoke to head of maintenance at St. Basil's Academy (Greek Ladies of Philaptoches) to inform them that the WESTON Team would be performing RI activities on their property over the next few days. The WESTON Team was offered the option to stage on academy grounds if it would assist in accessing the MRS. TLI personnel initiated collection of two incremental samples (IS); one on St. Basil Academy property and one on property owned by the Open Land Conservancy.

PM – Completed sampling activities and returned to USMA. Prepared and attached 48-hours notice door hangers for approximately 20 units in the Lusk and Redoubt 2 housing areas scheduled for evacuation on 30 June 2011. Mailed 2-week notice letters to next group of residents.

Items Identified at Site:

N/A

Visitors to Site:

Name	Organization
None	

Issues Encountered and Resolutions:

The first set of evacuations is 30 June and the next group scheduled for evacuation is on 6 July in the Lee housing area. However, the scheduled 48-hour notification using door hangers would have to take place either the afternoon of Sunday 3 July or the morning of Monday 4 July. How should we proceed?

Actions to be Taken:

IS should be completed at Battery Knox-TD on Tuesday 28 June 2011, with the exception of Mr. Scott's property scheduled for Tuesday 5 July 2011, pending no weather delays. The TLI Team also plans to conduct evacuation notification support activities throughout the week of 27 June 2011.

Time of Departure from Site: 1630

DAILY FIELD REPORT

The following information will be recorded daily by the Team Leader. The Daily Field Reports will be provided to the Weston PM within 24 hours.

Project: West Point RI	**Date: 28June 2011**
Time of Arrival at Site: 0755	Time of Safety Brief: 0755
Team Leader: Dave Ahlborn	Team Members: Rebecca Pisha

Weather/Site Conditions:

High temp in the low 80's. Mostly sunny with some afternoon scattered cumulus and moderate to high humidity throughout the day.

No weather related work delays.

SI Activities Conducted:

AM – Met WESTON field personnel at Phillipstown Park (Battery Knox – TD) and received daily safety briefing. Collected 3 incremental samples (IS) on both sides of the creek (name unknown) on Phillipstown Park property. Terrain was steep, rocky, and slippery for all sample locations. The southernmost sample grid was moved because it was located in the stream. Only one IS sample remains to be collected in Battery Know-TD on the Scott property.

PM – Met with Weston field personnel to discuss evacuation notifications needed for the remainder of the week. Completed over 300 two-week stickers for placement on residents over the next few days.

Items Identified at Site:

N/A

Visitors to Site:

Name	Organization
None	

Issues Encountered and Resolutions:

None.

Actions to be Taken:

Placement of two-week notification stickers on residential units slated for 11, 12, and/or 13 July 2011. Call residence scheduled for 30 June 2011 evacuation.

Conduct sampling as directed by WESTON field personnel.

Time of Departure from Site: 1500

DAILY FIELD REPORT

The following information will be recorded daily by the Team Leader. The Daily Field Reports will be provided to the Weston PM within 24 hours.

Project: West Point RI	**Date: 5 July 2011**
Time of Arrival at Site: 0600	Time of Safety Brief: 0710
Team Leader: Dave Ahlborn	Team Members:

Weather/Site Conditions:

High temp in the Mid-High 80's, approximately 55-65% humidity, clear skies, and light winds from WNW.

No weather related work delays.

SI Activities Conducted:

AM – Conducted final scheduled incremental sample (IS) on Scott property located in Battery Knox-TD MRS.

PM – Placed 48-hour door hangers on 30 units in the Lee Housing Area. Picked up TLI colleague Jason Lord at Westchester County Airport to begin his tour of duty.

Prepared evacuation notices for week of 5-8 July and 19 July 2011.

Items Identified at Site:

N/A

Visitors to Site:

Name	Organization
Gene Barber	TLI

Issues Encountered and Resolutions:

None.

Actions to be Taken:

Continue placement of 2-week notification stickers on residential units slated for evacuation on 19 July 2011.

Place 48-hour notifications for units scheduled to be evacuated on 8 July 2011.

Support intrusive investigations by assisting with securing safety exclusion zone.

Mail notification letters as necessary.

Conduct sampling as directed by WESTON field personnel.

Time of Departure from Site: 1600

APPENDIX C
PHOTOGRAPH LOG

Photo No. 01	**Date:** 6/27/2011
Description: UXO technician surveying a transect in Battery Knox MRS.	
Photo No. 02	**Date:** 6/27/2011
Description: Cultural Debris (horseshoe) recovered from transect BK-T25 in Battery Knox MRS.	

Photo No. 03	**Date:** 6/27/2011
Description: Cultural Debris recovered from transect BK-T25 in Battery Knox MRS.	
Photo No. 04	**Date:** 6/27/2011
Description: UXO technician surveying a transect in Battery Knox MRS.	

Photo No. 05	**Date:** 6/27/2011	
Description: Black Rat Snake witnessed in Battery Knox MRS.		
Photo No. 06	**Date:** 6/27/2011	
Description: Example of steep slope and limited accessibility present in the Battery Knox MRS.		

Photo No. 07	**Date:** 6/27/2011
Description: UXO technicians investigating an anomaly.	
Photo No. 08	**Direction:** South
Description: Sample location WPR02-SS09 and duplicate/triplicate, vegetation and terrain within sampling unit.	

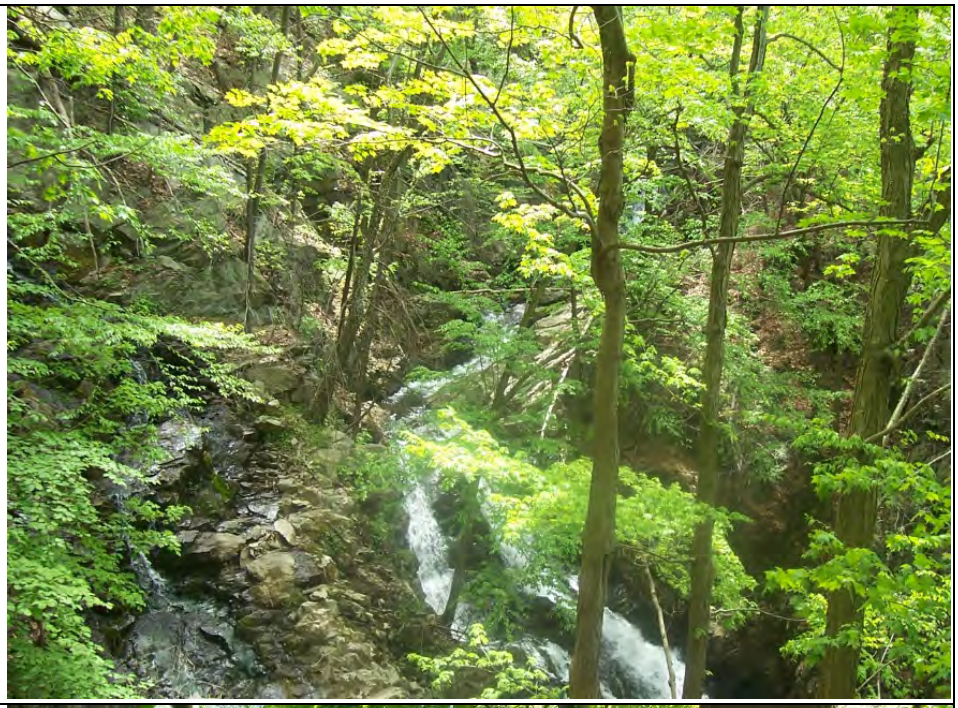
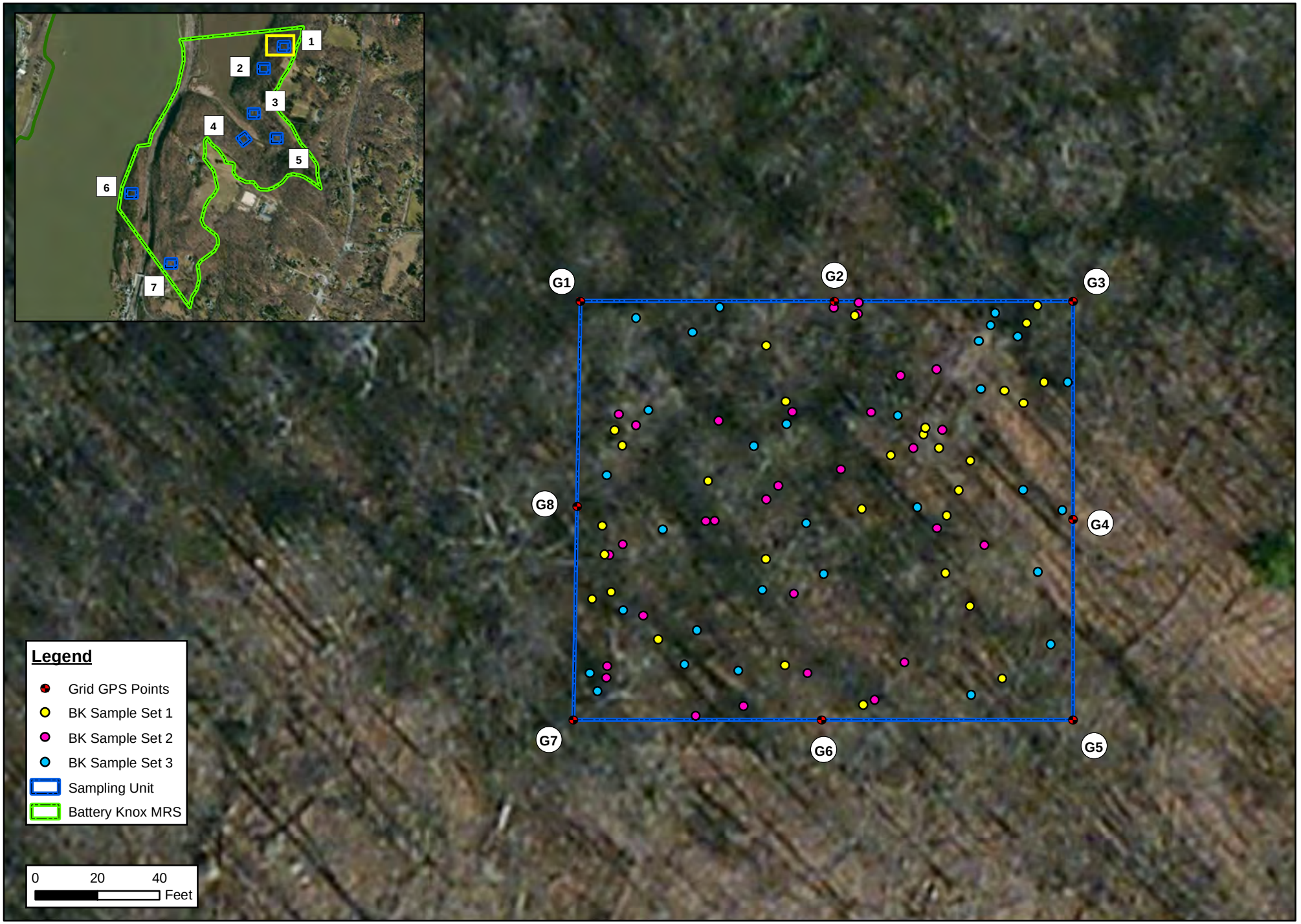
Photo No. 09	**Direction:** East
Description: Sample location WPR02-SS16, vegetation and terrain with sampling unit.	
Photo No. 10	**Date:** 6/28/2011
Time: 1903	
Description: IS location within sampling unit WPR02-SS15.	

Photo No. 11	**Date:** 6/28/2011
Time: 1132	
Description: IS location within sampling unit WPR02-SS16 and WPR02–SS17 (QC), facing east.	
Photo No. 12	**Date:** 6/28/2011
Time: 1130	
Description: IS location within sampling unitWPR02-SS16 and WPR02–SS17 (QC).	

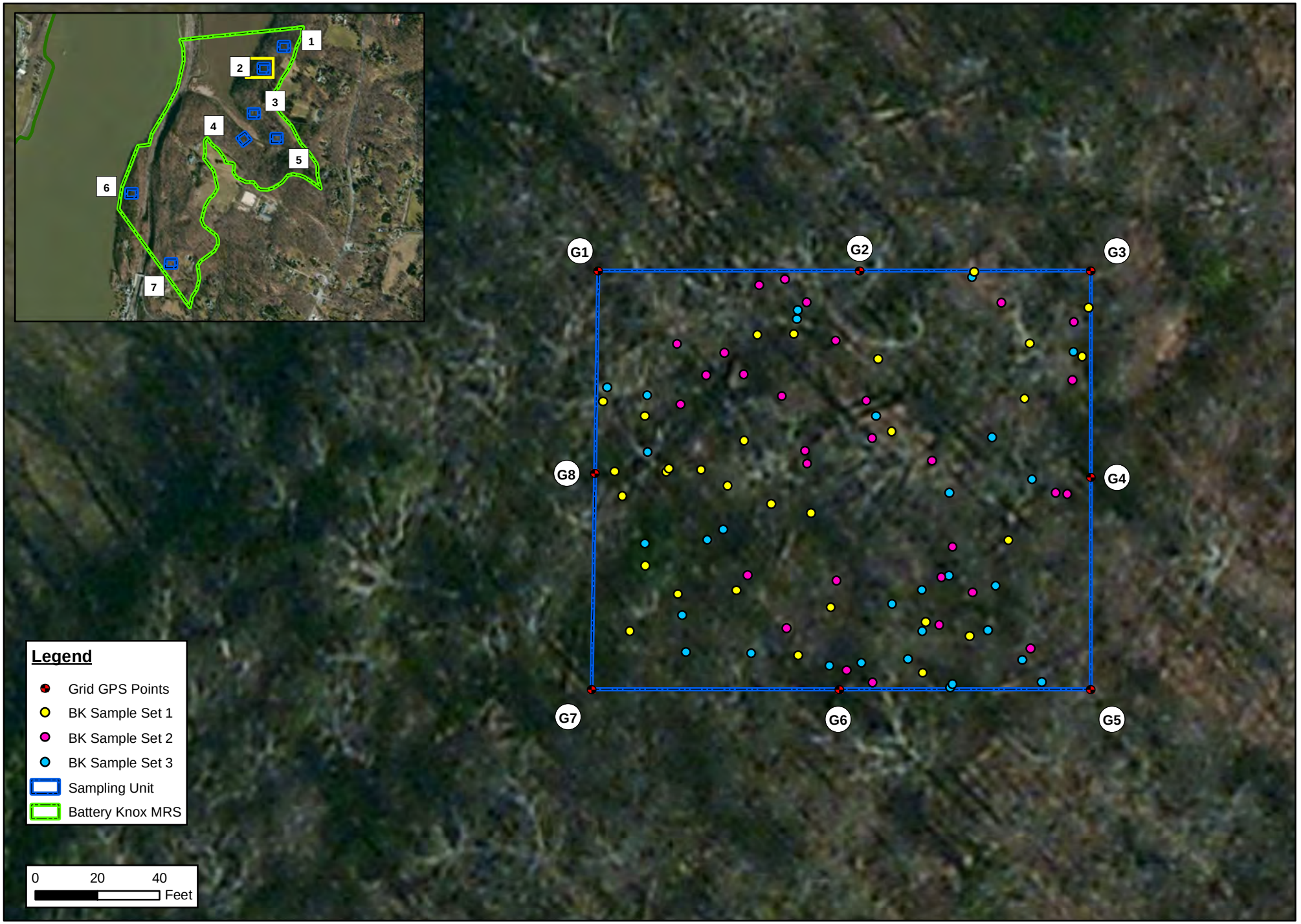
Photo No. 13	**Date:** 6/28/2011
Time: 1201	
Description: Team members collecting increment within sampling unit WPR02-SS18 at Battery Knox TD.	
Photo No. 14	**Date:** 6/28/2011
Time:	
Description: Overlook from Battery Knox TD.	

APPENDIX D
MC SAMPLING LOCATIONS AND FIELD LOGBOOKS

Battery Knox Sample Locations (Grid 1)
United States Military Academy, NY



Battery Knox Sample Locations (Grid 2)
United States Military Academy, NY



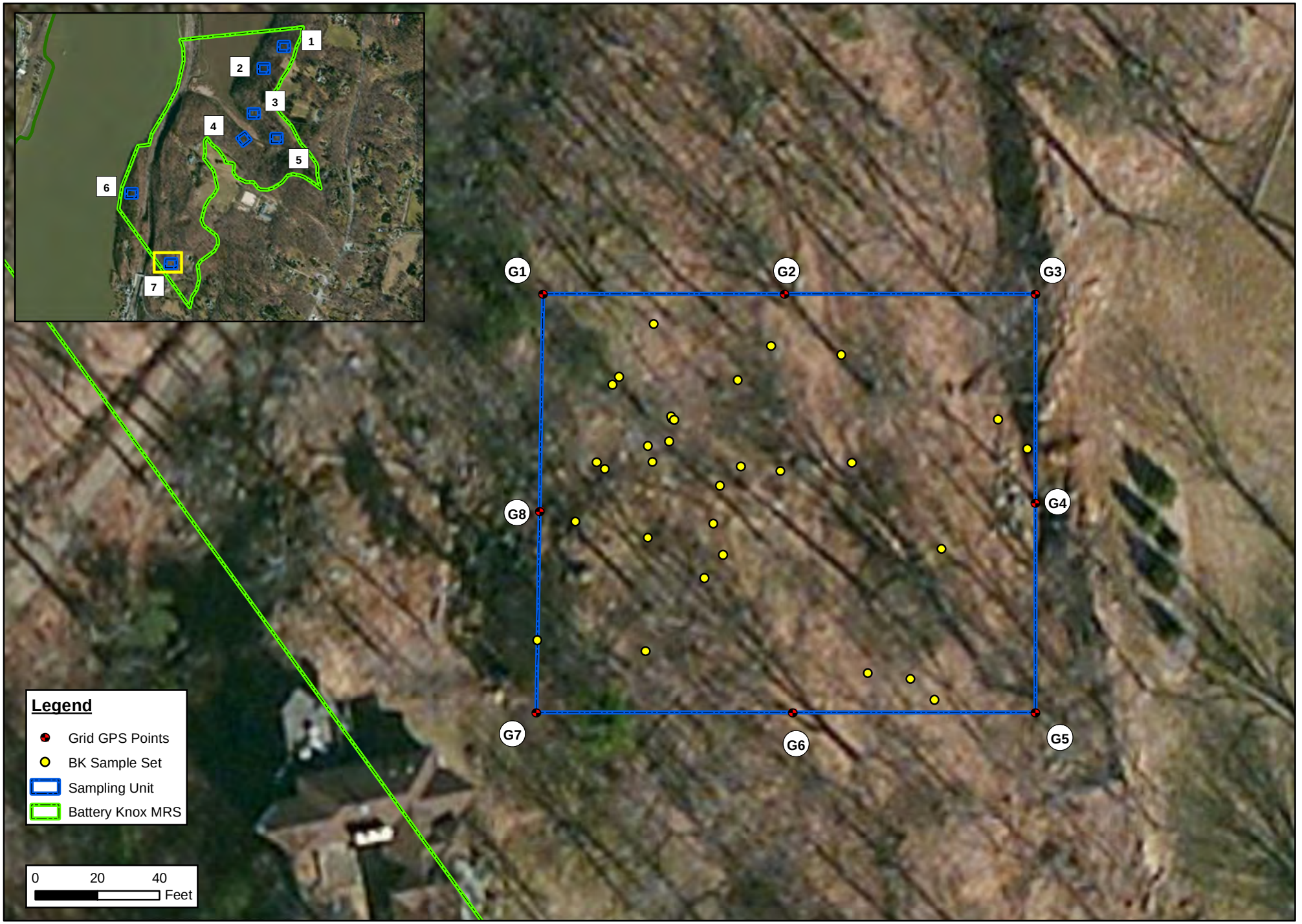
Battery Knox Sample Locations (Grid 3)
United States Military Academy, NY

Battery Knox Sample Locations (Grid 4)
United States Military Academy, NY

Battery Knox Sample Locations (Grid 5)
United States Military Academy, NY

Battery Knox Sample Locations (Grid 6)
United States Military Academy, NY

Battery Knox Sample Locations (Grid 7)
United States Military Academy, NY



"Rite in the Rain®"
ALL-WEATHER WRITING PAPER

Name DAVID AHLBORN
(TLI SOLUTIONS)

Address

Phone

Project WEST POINT
REMIDIAL INVESTIGATION
IDC SAMPLING

LOG #1

Westonsolutions

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

CONTENTS

MFH - MILITARY FAMILY HOUSING

MONDAY 20 JUNE 11

0800: Arrive Weston Staging Area
- Site safety brief from Bruce Casani (Weston UXO safety)
= Asked about hospital route
= site comm.
= Tick situation - none yet.

0830: Depart for corps office

0915: Arrive corps office
- JEFF Swanborn not available

0930: Depart corps office & conduct MRS location & access recon.
- no access to Target Hill due to possible MEC item identified earlier

- Drive by Keller medical center

MONDAY 20 June 11

: Return to Corps office

1015: meet w/ JEFF Swanborn & pick-up cases of field equipment & review some of public relations / evaluation proceeds

1135: Depart for Pass & ID to obtain post contractor badge.

1240: Depart Pass & ID / Post to try & find mid-Hudson Valley
- check road access to various off-post MRSs

1310: Depart West Point / Highland Falls for Newburgh to shop for additional field / sampling equipment

1700: Return to billets organize gear & misc. admin.

2230: COB. W. [signature]

Tuesday 21 June 11

Ø6ØØ: Arrive Weston Staging Area

Ø6Ø5: Daily Safety Briefing:
- weather: high 82°F w/ possible thundershowers in PM
- munitions recovered by op.
- Poison Oak / Poison Ivy

Ø62Ø: Depart staging area for Siege Bottom

Ø645: Arrive Trophy Point & prep for incremental sampling (IS)
- sample grid located in & around amphitheater (former firing point for Siege Bottom)

Ø65Ø: Initiate IS #WPRØ7-SSØ1
- NAV. to pre-selected/random sampling point (30 over 5½ acre) using Garmin 76 CSX
- sampling team consists of Mary Franquemont (TLI), Rebecca Pisha (TLI), Dave Ahlborn (TLI) w/ UXO escort Bruce Carnal (Weston SSHO)

- UXO escort sweeps each sample location prior to collection of soil sample using decontaminated stainless aluminum IS tool
- Grass & organic matter removed
- two sample taken & placed in single zip-lock bag to accommodate field duplicate sampling requirements

085Ø: 30 samples collected & soils homogenized & splitting into 2 samples:
WPRØ7-SSØ1 time Ø7ØØ
WPRØ7-SSØ2 time Ø71Ø

- Decontaminate sampling tool using spray bottle containing bottled purified water to remove soils stuck to tool

- Soils collected were:
Dark in color, high in organic materials (which TLI attempted to remove) Fine grained, very little to no clays.

- return to vehicles & stow gear, catch-up on logs

0920: Depart trophy point for Pass & ID Building to get Mary F. ID badge

1110: Return to Weston/Trailer staging area & split soil sample in two
- sample double bagged in 1 gallon zip lock bags & labeled w/ sample number, date of sample & time sample was collected (see previous page)

1130: Break for lunch while awaiting John Gerhart (Weston project manager)

1200: meet w/ John G. to discuss:
- upcoming evacuation procedures, including:

= posting evacuation procedures letter in mail w/ installation commanders cover/intro letter (still awaiting approval which should come at any time)

= Posting 2-week notification stickers on front and back doors of affected housing units (Lusk & McDonald are first areas to be impacted)

= placement of 48-hour door hanger notices

= a phone call to all affected residents 24-hours prior to actual evacuation

- a work in progress as far as check-out procedures & morning check-points, etc.
- pets to remain in-doors if left at residence(s)

Tuesday 21 June 11

- JOHN G. stated that most if not all residences have been called by West chester office since letter approval has been late in ~~coming~~ now coming.

- Evacuation procedures letters are ready to post we are just waiting on approval.

- Analytical sampling decisions (discrete & spiked & lab) (i.e. other than IS) will be on a case by case basis & determined by what's recovered by the teams in the field

- TLI personnel will collect samples w/ input from Weston Tech personnel

- Holding off on placement of 2-week notification stickers

Tuesday 21 June 11

until Evac. procedures letter is approved (waiting for call from JEFF Sandborn (USACE - Balt.) we'll only put stickers on doors until after letters are dropped off at post office

- Adjust GPS defaults

1245: Depart Weston staging area for Lusk sampling grid
- no way point available

1255: Depart for Catholic Cemetery (Artillery Firing Range)

1330: Arrive Artillery Firing range (Catholic cemetery) & prep. for IS sampling WPR01-SS03

: Initiate sampling w/ same personnel as earlier
- Grid/sample area approx. 1/2 acres therefore 30 sample locations (predetermined) identified.

- Grid soils & terrain survey
  = soils moist to very wet due to some surface run off
  = dark in color w/ some areas of high organic matter, while other areas are coarse grained sands w/ gravel & little organics
  = dense weed cover over 85-90% of sampling area
  = slopes to SE - gently
  = stone retaining walls (of unknown age) along western boundary & cuts across southern portion of area

1430: Sampling completed WPR Ø1-SSØ3 thru

1515: Place ~~2-week~~ 2 week notice stickers at Lusk & Stony Lonesome II housing

1550: complete sticker placement

1630: Depart for Billets - begin admin

2035: COB.

W. [illegible] 21 June 2011

0550: Arrive western staging area

0600: DAILY SAFETY BRIEFING:
WEATHER: temp. high of 80 w/ 74% humidity
- possible lighting storms (DBAD) fall hazard)
- ticks 2 → 2 on field personnel (not attached)
- MC reviewed ID - French rifle grenade adapter & seacoast artillery
- daily field ops

0615: Equipment check / prep

0635: Depart staging area for Lusk Reservoir firing point

0640: Arrive parking area below Lusk Reservoir firing point, & prep for sample collection WPR Ø9-SSØ4

0645: Initiate sampling for WPA09 - SS04
- sample location checklist:
~~1 2 3 4 5 6 7 8 9 10~~
~~11 12 13 14 15 16 17 18 19 20~~
~~21 22 23 24 25 26 27 28 29 30~~

moved point S22 ≈ 5 ft to East to get off rock face (no soil)

moved point S25 ≈ 10 ft ~~W~~ WA to East to get off paved road.

moved point S4 4 ft. West off edge of paved road

moved point S6 6 ft west off edge of paved road

moved S21 3 ft East off rock face

moved S2 ≈ 4 ft East of ~~f~~ of rock face

moved point S20 4 feet East off rock face

moved point S24 2 feet NW due to subsurface anomaly (likely Aluminum can)

0820: Final sample collected
- return to vehicle to return equip + ICS sample

Photograph MRS conditions (camera #6)
photo no. 1 - NW portion of Decision Unit (looking SW)
photo no. 2 - central portion of Decision Unit (looking to SE + up-slope)
photo no. 3 - sample location no. 22 (north to ~~left~~ right WA of photo.
photo no. 4 - rock face in center of ~~DE~~ Decision unit (looking East)

Photo Nr. 5 – paved road dissecting western portion of Decision Chart (looking south)

– Take break

0930: starts to rain / thunder

0955: Return to western staging area
– rains / thunder increase, lighting right on top of staging area

1100: Rain stops.

1105: Depart for Harriman to get copies of MMRP notification fliers

1245: Arrive Phillipstown & break for lunch

1315: Begin placing flyers on front doors along:

* HW 9D
* Grassi ~~Rd~~ LN
* Upper Station Rd.
* Lewis LN.
* Garrison Landing (commercial area)
* Dock St.
* Lower Station Rd.

WOA residents up to (north) Indian Brook Rd., wood sat notes

1500: completed placement of MMRP notifications
– Depart for billets

1600: Arrive in Beacon
– equipment check
– misc. admin

2030: END.

22 June 2011

Ø555: Arrive Weston Staging Area

Ø6Ø5: DAILY SAFETY BRIEFING
- MD FINDS IN Ft. Clinton (civil war era)
- slips, trips, falls (wet surfaces)
- Humidity High → drink fluids
- DAILY ASSIGNMENT
- Thundershowers in afternoon

Ø615: Depart for Howard Falls for ICB

Ø645: Return to staging area

Ø655: Depart WESTON STAGING AREA for Redoubt #2

Ø7ØØ: Arrive Redoubt #2 prep for sampling

Ø7Ø5: Initiate sampling for WPR1Ø-SSØ5

- cloud cover, drizzly

- Tree canopy interfering w/ GPS signal. Sampling team maps all sample points by distance & vector

- Undergrowth of ferns & seedlings, dense leaf cover w/ areas of rock outcrops

- Decision units slope was down to northwest

- High organic content at surface. Cut through top organics to access soils below

- Pin flagged all points prior to sampling (after sweep by UXO TECH) → Eric C. (UXO safety) departs site (following sample sweeps) for ≤15 minutes to meet SUXOS @ staging area

Ø9Ø3: Last sample point collected
- DECON & STORE GEAR

Ø920: DEPART FOR STAGING AREA

Ø925: ARRIVE STAGING AREA
- coordinate w/ Weston regarding UXO escort for sampling at Artillery Range (base of ski slope)

Ø94Ø: DEPART FOR SKI AREA w/ WESTON UXO TECH (ARS = Artillery Firing Range)
- Plan to meet NY state regulators & USACE rep @ 1000 hrs

1ØØØ: ARRIVE SKI AREA PARKING AREA & prep for sampling
- RAIN & THUNDER

1Ø2Ø: LIGHTNING HOLD
- MEET BRIEFLY w/ USACE rep (Jeff Sanborn) & NY state Environmental Dept. of Conservation

& NY State Dept. of HEALTH to discuss purpose & procedures of IS

1Ø45: USACE & NY REPS DEPART FOR USMAPS

1145: DEPART SKI SLOPE for Weston staging AREA

12ØØ: Arrive staging area & wait out lightning hold
- Break for lunch

1325: Return to ski slope & initiate IS sampling
- place inc flags, sweep sample points by UXO tech, collect soils
- Decision unit split ~~by~~ by paved road - upper part is open grassy area at base of slope & lower area adjacent to running creek w/ dense veg. on both banks.

24 JUNE ADDENDUM: CALLED & LEFT A MESSAGE w/ Mr. Scott ??; conducting FIELD WORK ON 5 JULY.

- upper area very wet (w/ rills of running water)
- Flags in lower area moved due to original placement in stream or other inaccessible areas

16Ø5: Depart for Weston Staging Area to drop off UXO tech
- call Mr. Scott to set-up 5 July field inspection (left a message)

1620: Arrive staging area & wait for Weston personnel to assist in finding bldg. 221

165Ø: Depart for Lee Housing to determine if bldg 221 is vacant
- A has contents / B vacant

173Ø: Pick-up TCI personnel at ~~that~~ sky slope - depart for Beacon

2110: COB. [signature]

Ø55Ø: Arrive Weston staging Area

Ø6Ø5: Daily Safety Brief
- Safe driving procedures
- Weather related info.
- Thunderstorms possible mid-day
- Daily assignments
  = Ft. Clinton
  = Vehicle Inspections

Ø615: Initial prep. of COC for samples to be shipped later today
- Prepare stickers for placement of military family residents

Ø82Ø: Depart for Garrison Station

Ø85Ø: Arrive Garrison Station

- Receive call from Mr. Scott regarding coordinating access to his property. Set-up a

time to meet face to face to DISCUSS RI FY BRS Activities on his property

0925: MET w/ MR. Scott AT his home to verify time of field work = 0700, Access & parking on his property

0945: DEPART for USMA & staging AREA
- purchase ICE for sample shipment

1030: Arrive staging AREA
- talk to JOHN Gerhart (WESTON PM) regarding MRS. Smith refusal for ROE [margin: WDA VAA phone]
- PACK soil samples
- Verify MFH notification residence ~~list~~ list WDA
- examine residential database / spreadsheets to determine residence for evAC week of 27 June 11.

1215: Break for lunch

1305: Initiate posting of 2-week evacuation stickers on ~~residents~~ residences in LEE AREA Family Housing AREA (officers Housing)

1430: Break - Away from tagging residences for EVAC to meet carrier (who will take soil sample to FED-EX)

1440: Arrive WESTON staging AREA & prepare soil samples for shipment

1515: Carrier Arrives @ staging AREA (after talking him in - missed the turn off)
- sign over custody of samples to carrier & place chain-of-custody in cooler.

FRIDAY 24 JUN 11

1525: met briefly w/ Brian Grossmeyer (Weston SVXOS) re: next weeks evacuation & sampling activities.

1545: Returned to LG15 Housing Area & continue w/ placement of 2-week evacuation stickers

1705: complete placement of EVAC stickers on designated residences
- Depart USMA for Billets

1745: Arrive Billets & conduct misc. ADMIN tasks (e.g. daily report, etc.)

2020: COB.

W. [signature] 24 June 2011

SATURDAY 25 JUNE 11

NO project related activities conducted.

W. [signature] 25 June 2011

Sunday 26 June 11

Conducted misc. administrative tasks (e.g. inventoried sampling equipment, check residential database against excavation schedule, purchase misc. field gear)

W [signature] 26 June 11

Monday 27 JUNE 11

0555: Arrive Weston Staging Area

0605: Daily Safety Brief:
- Weather high ~83°F / ~50% RH
- Local traffic & defensive driving
- Anticipate all kinds of conditions
- work in woods
- transect intervals
- communications protocols
- discuss carry-out of battery, Knox-TD & panels

- coordinate initiation of field activities w/ Weston Field Personnel

0640: Depart for Phillipstown Park (east side of Hudson)
- stop for ice in Ft. Montgomery

0720: Arrive at Phillipstown park - gates locked. Park opens at 0800.

MONDAY 27 JUNE

0725: DEPART FOR ST. BASILS ACADEMY TO ADVISE THEM OF THE PRESENCE OF FIELD PERSONNEL & DETERMINE ACCESSABILITY TO SURVEY AREA

0730: ARRIVE @ ST. BASILS & SPEAK TO RICK (LAST NAME NOT PROVIDED) (GROUNDS KEEPER/MAINTENANCE)
- RICK TRIED TO CONTACT MR. TO ADVISE HIM OF AN PRESENCE (RICK LEFT A MESSAGE)
- RICK ALLOWED US TO STAGE BEHIND THE CAPITAL FACILITY IF WE NEEDED.

0750: RETURN TO PHILLIPSTOWN PARK
- PARK OPENED & WESTON PERSONNEL STAGED
- COORDINATE TRANSECT SURVEYS & ADVISE THAT COPPERHEADS MAY BE LOCATED DOWN WATER'S EDGE (PER RICK, ST. BASIL'S)

MONDAY 27 JUNE

0805: DEPART PHILLIPSTOWN PARK FOR ST. BASILS TO ADVISE RICK THAT WE WON'T BE STAYING AT THEIR FACILITY TODAY & TO LET HIM KNOW THAT WE SHALL BE AT THE AREA BY COB WEDNESDAY (29 JUNE)

0815: DEPART ST. BASIL'S
- DOWN LOAD GPS POINTS
- SEARCH ALONG 9D & SEE IF THERE ARE OTHER ACCESS POINTS INTO SURVEY PARCELS (STOP FOR COFFEE)

0940: PHILLIPSTOWN PARK
- FUEL FOR I5
- WESTON PERSONNEL DETERMINE MANY OF TRANSECTS ARE LOCATED IN WETLANDS AT BASE OF SLOPE (NORTHERN AREA)

1000: DEPART PHILLIPSTOWN PARK FOR GRID 1 (NE CORNER OF BOTTOM KNOX - TD)

MONDAY 27 June 11

1020: Initiate sample location ID (place pin flags)
- 5 1/2 acre sample grid = 30 sample locations
- Primary, Duplicate (taken 24" to west of primary) & Triplicate (collected 24" north of primary grid)
- Grid located ~~under~~ in forested area w/ little to no undergrowth
- 2 small streams bisect grid from SE (upper slope) to NW - Dry stream beds
- small rock outcrops scattered throughout the grid
- Gentle slope from East to West w/ an increase in slope along grid western edge

- soils: moist, fine grain w/ some clays, high in organics dark/coffee colored

GRID LOCATED in SW corner of Ft. Dix's ACADEMY

MONDAY 27 June 11

- Leaf debris covers majority of site. Disposal plastic scoop used to brush away leaf/organic matter at surface prior to collecting soil
- roots & other large pieces of organics removed prior to homogenization

1135: Final sample collected
- homogenize sample
- check sample No. & time

1155: Return to vehicle & stow gear
- check e-mails for tasking

1200: Break for lunch
- confirm next sample locations
- confirm ROE status for all parcels

1230: Prepare for sampling @ OB/OD area extension (requested would be performed on Monday or Wednesday)

MONDAY 27 June 11

1300: Navigate to SE (closest) corner of sampling grid & begin to set pin flags

1320: Sample locations flagged

1325: initiate sampling
- SET primary sample location on Grid 5'/2 ACRES in size
- STEEP WNW facing slope (~35-45% Grade)
- Grid covered w/ rock outcrops & many downed trees throughout the grid
- NE corner of Grid covered w/ small sapling, remainder of Grid covered w/ mature trees
- leaves & rocks throughout the grid
- stainless steel trowel used to rake away leaves & cut through surface root masses prior to sampling

MONDAY 27 June 11

- Duplicate sample collected 2ft west of primary & Triplicate sample collected 2ft inches north of primary
- Soil is dark color w/ high organic content, some stones (fine grained) & some clays

1425: Sampling completed
Primary WPRØZ-5512
Duplicate WPRØZ-5513
Triplicate WPRØZ-5514

- Homogenize soils & remove any visible organics (twigs, roots, bark, etc)

1435: Return to vehicles & break for lunch
- Temps in low 80's w/ moderate humidity, clear

1440: Depart for USNA & western sampling area

MONDAY 27 JUNE 11

1520: Arrive staging area
- prepare 4B-hang door hangers for Lusk (3 units) & [illegible] 2 (16 units) housing areas → 30 June [illegible]

1620: Depart staging area
- drop [illegible] / [illegible] notification letters at Post Office
- place door hangers at Lusk housing
- place door hangers at [illegible] 2 housing

1630: Depart USMA for Billets

1705: Arrive at Billets
- misc. admin, including daily report.

2135: Comp.

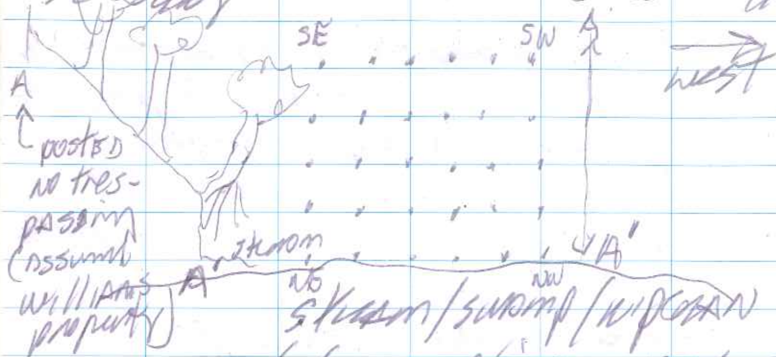
[signature] 27 June 11

TUESDAY 28 June 11

0800: Arrive [illegible] & meet [illegible] / Field personnel
- safety brief (fall, UXO safety) & daily assignment
- prepare for IS at Battery Knox-TD

0815: Depart for Grid #4
- traverse rock face to get to base of cliff along stream bed.
- follow creek to narrow area to cross over to south side
- travel west to estimated grid location
- Grid located in stream / [illegible] area, therefore move Grid up-slope, and establish approx. 150 × 150 ft. Grid & establish 30 sampling points (5 rows of 6) approx. 20 feet apart (see figure)
- Grid located on slope @ 40-50 percent grade
- moderately forested w/ snags & dead fall.

NOTE: GRID LOCATION & SAMPLING METHODOLOGY selected due to terrain/footing & MEC concerns associated w/ [illegible] not



0855: Initiate sampling for WPR02-SS15
- Soil dark in color w/ high organic content
- less organics on steeper slopes
- soils fine grained sand w/ some areas of clay
- used deconned stainless steel trowel to cut organic matting & get to soil (deconned w/ purified water before leaving grid)
- sample collected from A. Posted no-trespassing sign (assumed to be Williams property) to water's edge

0935: sample collection completed

0950: Homogenize sample, decon trowel w/ water & depart for next sampling point

- take break at falls

1025: Locate SW corner of Grid #5
- located on a small knoll approx. 3/4 of the way up the slope of stream bed
- moderately forested but w/ dense undergrowth
- East & west sides of grid slope off (≈ 35-45%) w/ cliff on West.

1035: Initiate sampling for WPR02-SS16
- Soils high in organic matter w/ areas of fine grained sands & clays a few inches below the root/organic mat.
- collected 2 trowels of soil to accommodate lab duplicate sample (stainless steel trowel used because of veg. mat.)

Tuesday 23 June 11

- areas of rock outcrops, moderately wooded, w/ leaf on most causing almost the entire Grid

1105: complete sampling of WPR02-SS16, homogenize & split sample into WPR02-SS17 (w/ sample type & photograph grid sample location and grid overview

- traverse slope NW to next sampling grid

1130: Arrive SB corner of Grid 3 & prepare for IS collection

1135: initiate collection of IS WPR02-SS18

- Grid located on upper portion of slope leading to stream bed below.
- moderately forested w/ very little undergrowth

Tuesday 23 June 11

- leaf cover over almost the entire grid except for areas of rock outcrop & steep slope

- move sample locations along Grids western edge because this boundary is a rocky cliff approx 40-50 ft high

- Southern SDGS is a steep slope (approx. 50-60%) w/ rock outcrops

- soils rich w/ high organics matter
- stainless steel trowel used to cut through organic mat to access soils
- soils have remained w/ some clays. more soils visible (w/ less organics on steeper slopes)
- sample team navigate from point to point w/ GPS tech clearing each hole prior to dig.

- sample team moved sample points on western boundary to [illegible] because they were located over rock cliff face.

12Ø5: Sampling completed. Homogenizing sample & decon trowel

1215: Depart for vehicle

124Ø: Depart Phillipstown park for WSMA

131Ø: Arrive Weston Staging Area
- speak to Ryan Steinperwalt (Weston) & discuss sampling status, evacuation notification status (1) what's been done & (2) what will be done over the next few days. Ryan indicated that 48 hr hanger for 7/6/11 evacuations will be placed on units on Friday 7/1/11 rather than work the weekend.

Ryan also indicated that 24 hour calls would be made by Weston staff in Westchester.

135Ø: Take a late lunch

145Ø: Return to Weston Staging Area & obtain 2-week stickers

1500: Depart Weston staging area for Millets

1540: Arrive Beacon
- off load equipment
- Double bag soil samples
- Prepare 300+ 2-week evacuation stickers
- Daily Report [illegible]
- Discuss ~~[illegible]~~ EVAC procedures w/ Weston [illegible] PMs

2130: COB.

[signature] 28 June 11

WEDNESDAY 29 JUNE 11

0655: Arrive WESTON STAGING AREA

0705: Daily Safety Brief:
- Fire Prevention & Fire Fighting (for brush gardening)
- Poss. MEC on Constitution Is.
- Weather Low 80's & 50% RH
- Daily work assignments

- Prepare for making 24-hr EVACUATION calls

0910: Initiate 24-hour phone calls to Residents in Lusk (3 units) & Stony Lonesome II (10)

0905: calls completed to 13 residents
- update master EVAC spreadsheet & contact info spreadsheet from WDA

0950: SEND updated spreadsheets to JOHN G. (Weston PM)
- print off materials for today's EVAC Notices

WEDNESDAY 29 June 11

1005: spoke w/ JOHN G. (Weston PM) reporting 2 week out notice mailings & contacting resident who phone was "out-of-service"

1015: JOHN G. called back & stated that Weston has got phone contact w/ resident & an additional visit is not necessary.

1020: Depot for Grey Ghost meet to attach 2-week EVAC notice stickers.

- IDENTIFY housing areas to initiate sticker placement

1050: Initiate placement of stickers at OLD Bunker Housing Area

- some residents unaware of EVACUATION

1325: complete units dated 11 on 12 July

- Break for lunch
- Get Gas
- check units stickered vs database
- Talk to John G. re: EVACs.

1450: continue w/ sticker placement in LBIS & Greyghost housing areas

1610: complete stickering for July 11, 12, 12 or 13, 11 or 12.

- Depart for billets
- Prepare 2-week stickers for July 14 & for July 14 or 13
- Update EVAC database
- Daily Report

2040: COB.

[signature] 29 June 11

0655: Arrive Western Staging Area

0700: Daily Safety Brief:
- EVACUATIONS & EXCLUSION AREAS (entry into EZ)
- Communications
- Briefed EVAC. check-point procedures.
- Daily DIG ASSIGNMENT

0720: Depart staging area for Lusk Residential

0730: Establish check point for Lusk Housing @ intersection of Schofield Place & Stewart Pl.

0755: Check residences
- 62A getting ready to leave

0800: All residents out of Lusk Housing

0805: CSM Powell asked for my contact info & was asked to check in EVAC because check-

point was not manned when CMS Mahoney (colleague) left his residence.

- fairly regular vehicle traffic & some joggers through area

- Patrol along Sedgefield Rd. to keep traffic / pedestrian moving through EZ.

0950: Weston Field crew completes day & exits exclusion zone at Stony Lonesome II housing

1020: Rebecca arrives @ desk

1025: Brian Grossmyer (SUXOS) calls to advise that 3.5" fuzed cannonball found & all calls have been made (may be 1300 until resolved)
— no MEC = no sampling

1215: Break for Lunch

1220: spoke to CSM Mahoney re: checkpoint. No one there so he was concerned that no one had his contact info.
- nice / pleasant conversation.

1245: Secure from Lunch.

1335: All clear reported
- contacted all ~~resid~~ [above: Alex] residents that it was all clear (last resident contacted @ 1340)

1350: Drop [above: EVAC. NOA] letters off @ Post office

1415: Drop off evacuation procedures at 308B Alexander (new residences)
- initiate placement of 2-week notification stickers for July 13

SPEAK w/ RESIDENTS OF 309 A ALEXANDER PLACE BY ACCIDENT (THIS UNIT

MC SAMPLING

	MC	METALS	SAMPLE #
AFR	*	—	WPR.01
BK-D	*	Pb, Hg*	WPR02
Ft. CL	*	Pb, Hg*	WPR03
G. GHOST	*	Sb, Cd, Cr, Co, Cu, Pb, MN, Ni, Ti, Va, Zn	WPR04
LOOK	*	—	WPR09
Michie	*	Pb	WPR05
NAE	*	Pb, Hg*	WPR05
R#2	*	—	WPR10
SEA	*	Pb, Hg*	WPR06
Suggs	*	Pb, Hg*	WPR07
Target Hill	*	Pb, Hg*	WPR08

* only if MSC found

WO # 03896.551.001.0302/PO # 0075133

"Rite in the Rain®"
ALL-WEATHER WRITING PAPER

Name Rebecca Pisha

Address

Phone 720-984-2399

Project West Point R1

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

Note: No notes taken on pgs 1 or 2 - they fell out of logbook.

20 Jun 11

0700 Left house in Beacon.
0750 Arrive Weston trailer for safety brief.
0800 Safety brief with Bruce Conrad.
0810 Sign safety plan/visitor's log. Met SUXOS Brian Grassmyer
0830 Headed over to Jeff Sanborn's office to retrieve gear. meeting @ 0600 tomorrow for safety brief.
0915 Arrive Jeff Sanborn's office to collect sampling equipment and get info on worker I.D cards. Not in office. Called and left message. Drove around West Point to familiarize w/ site locations. Identified location of Keller Army Hosp.
1015 Arrive back at DPW to pick up equipment.
1130 Headed to pass & I.D. to get contractor I.D.s.
1230 Receive Contractor I.D. badge.
1235 Visit MP to inquire about

20 Jun 11

vehicle pass. Out to lunch. Provided w/ contact name and phone number.

1240 Left post to find Mid-Hudson Medical Center.
144 Main St, Highland Falls.
Found address - no signage
Seems like a private practice?
for Medical center; only Dr. names.

1310 Going to get supplemental field supplies & find Fed-Ex.

1315 Cornwall Hospital. (back-up to Mid-Hudson) @ Laurel and ~~Pine~~ 218.

1330 Stopped for lunch.

1500 Found Airport FedEx

1515 Buying field supplies

1640 Pick up Mary from train station

1700 Return to House

P.J. Silva
20 Jun 11

21 Jun 11

0520 Leave house for West Point.

0600 Arrive @ Weston Trailer

0605 Safety brief
High 82°F; 65-80% humidity, chance thunderstorms this afternoon. Currently overcast, 60°F

0645 Arrive at parking area to perform IS at Siege Battery. Waiting for UXO support.

0647 UXOSO arrives

0650 Begin collecting Siege Battery IS. Sample time=0700 no. WPR07-SS01. 1/2 acre/30 increment sampling unit. Collected field duplicate time=0710 WPR07-SS02. Soil of fine texture. Holds together well; crumbles easily. Moist, but not wet. Some vegetative matter. See map for locations.

0845 Completed sampling unit.

0930 Going to get Mary's contractor I.D.

1115 Arrive Weston Trailer to split duplicate sample.

21 Jun 11

1130 Stop for lunch. Meeting John Gerhard at 1200 to discuss evacuation plans.

1200 Meets w/ John.

Next week - Redoubt and Lusk.

Lusk { 61 - Command Sgt Major
62
63

Pets indoors or take with you.

Redoubt { 3152
3150
3148
3146

June 30 evacuation date.

Total 14 residences

Put stickers on front and back doors (if can gain access)

If questioned, introduce selves - working for Baltimore Corps on munitions investigation.

Mary, Dave, and I to spend afternoon placing stickers.

Given statement cards to provide to residents.

1230 John placed a call to

21 Jun 11

Jeff Sanborn to make sure okay to place stickers. Msg. Waiting 10 minutes for return call.

1245 Decided to sample Lusk firing point before placing stickers to give Jeff time to respond. Left trailer.

1300 Arrive @ Lusk. to take 15 of firing point. GPS units not loaded w/ these waypoints.

1310 Going to "Sacred Heart" in Artillery Firing Range to take 15.

1320 Arrive at site. Extremely dense veg.

1330 Begin sampling WPR001-0003 1/4 acre; 30 increments. Soil coarse to fine, clayey; moist to wet. Lots of leaf deadfall and vegetative matter on surface.

1430 Completed sampling wet.

1440 Going to pick up sample

21 Jun 11

coders from Jeff Seaborn's office. before we place the evacuation stickers.

1347 Photograph 1 → camera 6
Facing west
UXO50 clearing sample location.

1348 Photo 2 → camera 6
Facing west
Field sampling team collecting soil increment.

1450 Arrive DPW.
Mary received message from John Gerhard that Jeff delivered coders to trailer.

1510 Arrive Weston trailer.
Paul from Weston going to help with stickers.

1515 Headed to Lusk/Redoubt
3150 B Heath Loop in Redoubt moving out 6/24/11.
For Redoubt - putting notices on all units in building, even if not on list. (3146, 3148)
3146 B, C, & D and 3148 A vacant.

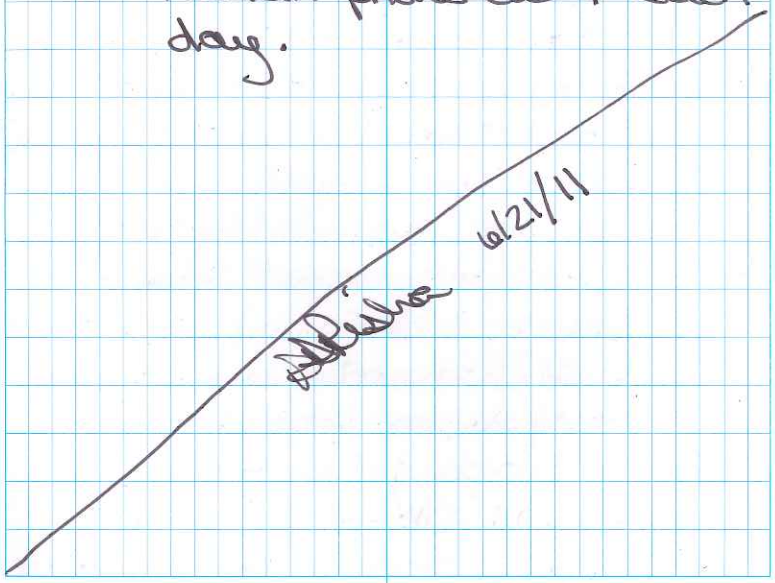
6/21/11

1550 Completed stickers.
Headed to trailer to drop off Paul and pick up coders.
Shipping procedures 3.1.3.9 of RI WP.

1600 Arrive at Weston trailer
Wrap up day

1630 Left West Point

2030 Downloaded data from cameras and to GPS units.
Restart photos at "1" each day.



6/22/11

0520 Rolling out

0550 Arrive on post.

0600 High 80°F; 92%-74% humidity high chance thunderstorms - watch for falling debris in forests from winds
Currently 66°F; 92%; overcast
Daily Safety brief
wifi Key @ trailer weston splutions headed to Lusk and Rebuilt to collect 15 today

0630 Arrive at parking lot for Lusk 15

0645 Begin 18 no. WPR09-0004 0.3 acre unit; 30 increments

0820 Completed 18 unit.
Soil light and fluffy; rich in organic matter; dark brown in color. Had to often clear increment location from deadfall or lichens.

0928 Photograph 1 - camera 6
Facing SW
Lusk reservoir sampling unit on west side of fence

6/22/11

0929 Photograph 2 - camera 6
Facing SE
Lusk reservoir sampling unit looking up the slope towards the firing point

0929 Photograph 3 - camera 6
Lusk reservoir sampling unit increment location - increment 22

0931 Photograph 4 - camera 6
Facing E
Lusk reservoir sampling unit looking up the slope.
Note: ≈ 60% grade; 30ft high

0936 Photograph 5 - camera 6
Facing S
Paved road that bisects the Lusk Reservoir sampling unit.

0930 Began raining - storm moving in. Dark skies, heavy rain, lightning, thunder.

0936 Headed to Weston trailer
Protocol is to wait 30 minutes after last sighted lightening before going back out in the field.

6/22/11

1106 Storm has passed. Headed out to Garrison to hand out flyers notifying public of work at Battery Knox next week.

1230 Stop for lunch at Phillipstown Park.

1315 Began placing notices on doors of residences and businesses in Garrison. Bounded by Hudson River, Indian Brook, Highway 9D, and Upper Station. Met Mr. Peter Bergen - Garrison volunteer fire department - who stated that dialing 911 on a cell phone will get Orange County. Suggested the following:
Peter Bergen - volunteer fire dept
Putnam County *911*
(845) 424-3600
(845) 225-4414 (dispatchers)

1500 Completed notifications. Total of 85 were distributed.

1600 Arrive at Beacon house

1815 Downloaded photos from camera. 6

~~Status~~ 6/22/11

6/23/11

0525 Left Beacon house.

0557 Arrive at Weston trailer

0604 Safety Brief
Humidity ungodly today turning to thunderstorms later this afternoon.

0610 Going to Highland Falls to get ice for the sample cooler

0705 Begin collecting Redoubt #2
IS no. WPR10-5505
1/2 acre ; 30 increments

1 2 3 4 5 6 7 8 9 10 11 12 13
14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30

Moved increment 22 ~ 4ft to the NW due to a log.
The GPS unit was jumping all over making navigation to a waypoint difficult. Changed procedure to placing pinflags by direction and distance from last waypoint. UX050 cleared all pinflags and then was called away

6/23/11

from site. Continued taking IS. ~~Comp~~

0905 Completed IS WPR10-SS05. Soil was extremely rich in organic matter. Humus type soil, dark brown in color, moist. Consistent in size, fine texture. Some pockets of clay.

0920 Left site after decanning equipment and double-bagging soil sample.

0925 Arrive Weston trailer

1000 Arrive Artillery Firing Range (Silver Depository) to collect triplicate IS no WPR01-SS06.
WPR01-SS07 (duplicate)
WPR01-SS08 (triplicate)
1/2 acre; 30 increments (each)

1030 Weather delay - must wait at least half hour to begin sampling.

1020 Regulators arrive to observe IS procedure.

1045 Regulators left due to

6/23/11

weather delay. Plan on coming back after weather delay is over. Have explained procedure and answered all of their questions.

1107 Rain/thunder/lightening only getting worse. Going to golf dash for cover.

1144 Headed to Weston trailer.

1200 Arrive trailer.

1325 Approved to perform IS at AFR.

6/23/11

- Primary 23 moved 12ft north due to ~~drop~~ pavement
- Primary 4 moved 8ft to the south due to fence and vegetation
- Primary 7 and 17 moved 5ft to the south so metal fence would not interfere with metal detector
- Same with triplicate 14
- Primary 20 moved 8ft SW due to drop off to rushing creek.
- Duplicate 12 & 22 & 23 moved 18 ft to the SW because located in stream
- Triplicate 18 and Duplicate 10 moved 20 ft N due to stream
- Triplicate 24 → 12 ft NW
- P14 and D21 and T30 → 30ft NW
- T1, T29, T26 → 15ft NW
- ~~P11~~, P8, T17 → 25ft N

6/23/11

- D14, T11, T4 → 10ft S
- D4 → 20ft S
- P26 → 25ft S

Dave left site to take UXO to trailer

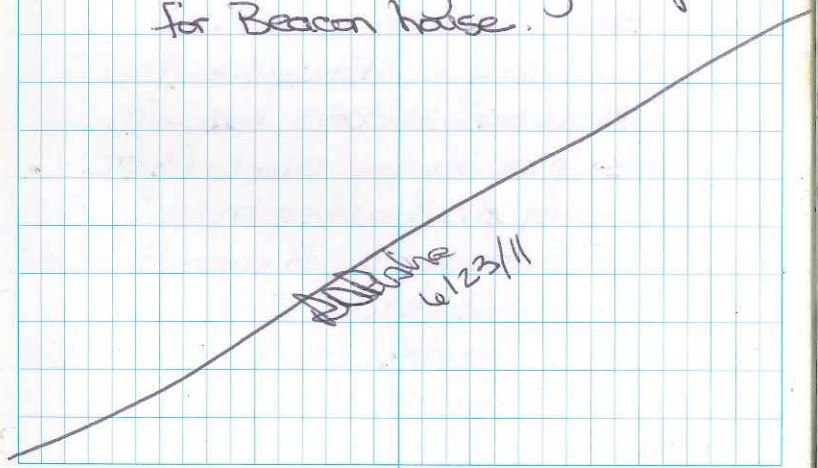
0610 Begin collecting IS no.
WPR10-SS06

1625 WPR10-SS07

1640 WPR10-SS08

1710 Completed sampling unit, duplicate, and triplicate. Rained for 3 hours today so ground (soil) was wet. Soil was very fine, clay-like. some veg

1730 Left Artillery Firing Range for Beacon house.



6/24/11

0518 Left house in Beacon
0548 Arrive on post / Weston trailer
0605 Daily safety brief
Thunderstorms moving in this morning and again later this afternoon.
Identified a 8" Butler round yesterday near the hospital / school. EOD was called in and it was B.I.P.
0615 Complete chain of custody form for the 15 being picked up by courier today at 1500 for FedEx delivery to TestAmerica lab in Burlington, VT.
Also filling in dates for the evacuation stickers we will be placing on West Point housing this afternoon.
~ 75 residences; 8 garages front and back.
0850 Arrive Garrison station to drop Mary off to return home
0937 Arrive Mr. Phillip Scott

06/24/11

property to discuss logistics for the field effort to be conducted on July 5. Will arrive at 0700. Given permission to stage 3 or 4 vehicles on the turnaround between the main house lawn and the orchard on the west side of the property.
0945 Headed back to Weston trailer.
1027 Arrive at Weston trailer to complete sample container after stopping for ice.
1030 Prepare samples and cooler for shipment
1140 Create list of houses that need to have evacuation notices posted
1215 Stop for lunch
1300 Begin posting evacuation notices in Lee Housing Area.
1430 Return to Weston trailer to meet courier for sample cooler.

6/24/11

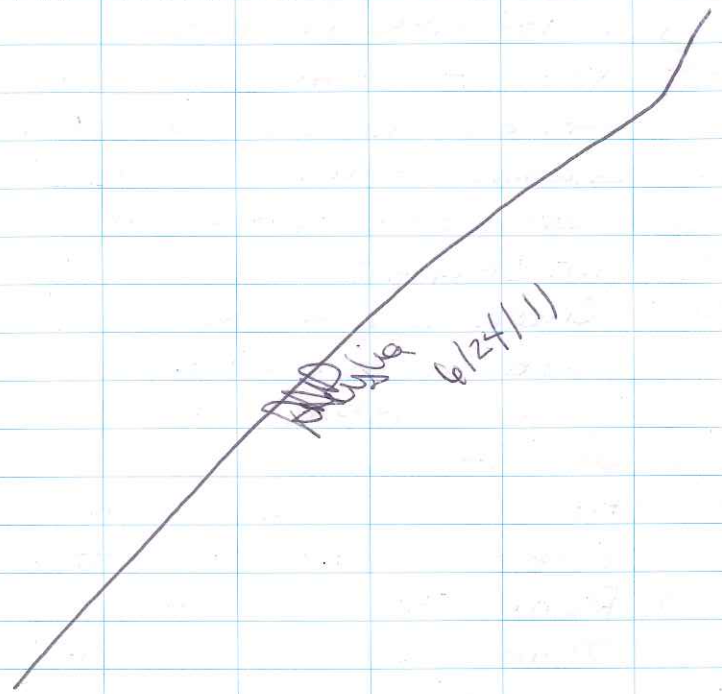
1515 Courier arrived. Signed custody over to them.

1530 Met with Brian Grassmyer (SUXOSO) regarding plan for next week.

1545 Return to Lee Housing to finish posting evacuation notices.

1703 Complete evacuation notices. Heading back to Beacon.

1746 Arrive Beacon house



6/25/11

0525 Leave Beacon house

0555 Arrive Weston trailer High 83 humidity 92% → 52% no real chance of rain.

0605 Safety brief

0638 Leave for Battery Knox - TD on other side of river

0720 Arrive Phillipstown Park. Gate closed, doesn't open until 8am.

0725 Arrive St. Basil. Check in at office. OK to stage here.

0739 Headed back to Phillipstown Park to get rest of crew.

0742 Park opened - Weston group already setting up.

0800 Return to St. Basil to let them know not staging but will still be in the area.

0815 Begin loading GPS units and checking ROEs.

0940 Prep for BK1

1000 Headed out to collect trips

1020 Arrive at SE corner of BK Grid1

6/27/11

1020 Photograph 1 ~~RDP~~ see pg 25
Facing NW
BK Grid 1 ~~before placement of flags~~ RDP 15 unit location
White flags = primary

~~1 2 3 4 5 6 7 8 9 10 11~~
~~12 13 14 15 16 17 18 19 20 21~~
~~22 23 24 25 26 27 28 29 30~~

Orange = duplicate

1 2 3 4 5 ~~6 7 8~~ 9 10 11
12 13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30

1055 Completed placing primary flags. Will take duplicates 2 ft to the west and triplicates 25 ft to the N of each primary location

1045 (P) WPR02 - SS09
1112 (D) WPR02 - SS10
1135 (T) WPR02 - SS11
} sample times

1100 Begin collecting samples.
1135 Complete triplicate sample
1300 Begin placing flags for BK Grid 2

6/27/11

~~1 2 3 4 5 6 7 8 9 10 11 12 13~~
~~14 15 16 17 18 19 20 21 22 23 24~~
~~25 26 27 28 29 30~~

1320 Begin collecting triplicate sample (P) WPR02 - SS12
1345 (D) WPR02 - SS13
1408 (T) WPR02 - SS14
1425 Complete triplicate sample for BK Grid 2

Both of the previous sets of samples were flagged by using the GPS unit to navigate to the SE corner of the the 15 unit (GS) and placing the flags by distance and direction from the previous location based on the numbered sample locations provided on the field map. This was done due to dense vegetation and canopy causing inaccuracy in the GPS. Once all flags were placed, the samples were collected with the duplicate 2 ft west of the primary and the triplicate 25 ft N.

6/27/11

Dense vegetation with lots of downed trees and leaf clutter at both Grids one and two. The soil at both locations was variable, sometimes dark and rich in organic matter, sometimes light colored and clay/sand mixture. All soil was moist. Fine particles

1440 Leave Battery Knox-TD to go to Weston trailer and pick up 48-hour notice door hangers to place on houses being evacuated on 6/30.

1520 Arrive Weston trailer. Handwrite door hangers

1625 Complete door hangers. Leave West Point for Beacon.

1700 Arrive at Beacon house

See next page for photo descriptions

6/27/11

1020 Photograph 1
Facing NW
Battery Knox-TD 1S Grid 1

1119 Photograph 2
Sampling team collecting soil in Battery Knox Grid 1

1121 Photograph 3
Same as 2

1142 Photograph 4
Increment location, with duplicate and triplicate, in Battery Knox Grid 1

1337 Photograph 5
Facing E
Battery Knox-TD Grid 2. Note steep ascent and vegetation.

[redacted]
6/27/11

6/28/11

0745 Leave Beacon house for Phillipstown Park

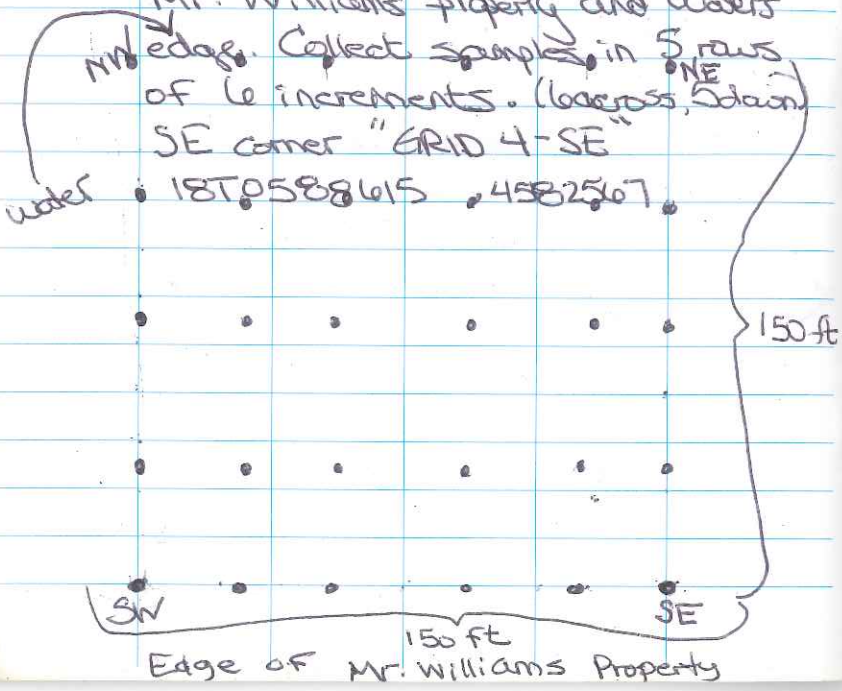
0800 Arrive Phillipstown Park

0805 Safety brief

0810 Head out to collect sample from Grid 4 - Battery Knox - TA

0850 Determined that Grid 4 is in water. Moved Grid to S side of "creek", below Mr. Williams property, Established a grid 150 ft x 150 ft between Mr. Williams property and waters edge. Collect samples in 5 rows of 6 increments. (6 across, 5 down) SE corner "GRID 4-SE"

water 18T 0588615 4582567



6/28/11

0836 Photo 1
Terrain conditions encountered while navigating to Grid 4

0840 Photo 2
Waterfall on way to Grid 4

0901 Photo 3
Facing SW
UXO support and sampling collecting soil increment from Grid 4. Note yellow "No Tresspassing" sign on tree.

0902 Photo 4
Facing S
No Tresspassing posted on private property

0902 Photo 5
Facing NW
Battery Knox - Grid 4 location

~~0903 Photo 6 - Same~~

0855 Begin collecting IS for Grid 4
No: NPR02-5515

0935 Complete sample.
Moist, high in organic except on steep exposure where sandy/clay mixture. Very fine grained.

6/28/11

0946 Heading over to Grid 5.

1026 Arrive SW corner (G7) of Battery Knox Grid 5. Looks okay to sample here - terrain and vegetation wise. Will navigate to sample locations by direction and distance to points provided on field map. Canopy too dense for accurate GPS - jumps around a lot.

1030 Begin collecting Battery Knox - TD Grid 5 IS no. WPRØ2-5516. Will collect duplicate sample here.
1035 as sample time

1106 Complete Grid 5 IS / duplicate Duplicate sample No. WPRØ2-5517* sample time 1053.

1115 Heading to SE corner of Grid 3

1127 Arrive G7 of Battery Knox - TD Grid 3

1135 Begin collecting soil sample for Battery Knox Grid 3. IS No. WPRØ2-5518.

6/28/11

Soil is damp, dark, rich in organics and fine grained at Grid 3. Soil was same at Grid 4 except had more clay (no clay present in Grid 3).

1205 Complete IS for Battery Knox - TD Grid 3. Rocky precipace and
~~1137~~ 45% slope on western edge.

0903 Photo 6
Battery Knox - TD IS location for Grid 4

1131 Photograph 7
Toadstool/mushroom near Grid 5.
Swiss army knife is 3".

1132 Photograph 8
Facing E
Battery Knox - TD Grid 5 IS location

1132 Photograph 9
Facing S
Same

1133 Increment location within IS unit @
Photo 10 Battery Knox - TD Grid 5.

6/28/11

1310 Arrive Weston trailer to drop UXO off and get assignment for rest of the afternoon.
Spoke with Ryan S. and Brian J.
Will write out the evacuation notices for the week of July 11 this afternoon and start placing them tomorrow morning.
Will do 7/11, 7/12, and 7/13 only so don't get ahead.

1350 Leave Weston trailer – lunch break

1139 Photo 11 - Facing S
Sampler and UXO collecting increment within Battery Knox-TD Grid 3

1140 Photo 12 - Facing W
Battery Knox-TD Grid 3 IS location

1144 Photo 13
3" deep vegetative mat removed from increment location in Battery Knox-TD Grid 3

6/28/11

1201 Photo 14
Team members collecting increment from Battery Knox-TD Grid 3.
Note steep slope.

1450 Arrive Weston trailer to pick up evacuation notice stickers

1458 Leave post to write out 310 evacuation notices at Beacon house

Evacuation Day	Number
7/11 - 7/12	74 x 2 = 148
7/12	1 x 2 = 2
7/12 - 7/13	24 x 2 = 48
7/13	55 x 2 = 110
	Total = 308

2130 Done for the night after updating master list.

BSR Wise 6/28/11

6/29/11

0620 Leave for West Point

During sampling, some increments had to be moved due to anomalies rocks, etc.

Grid 2 - S18 → 5 ft E.

Grid 3 - S3 → 20 ft E, rocky precipice

S6 → 55 ft E, over edge of cliff

S20 → 45 ft E "

S22 → 20 ft E "

S10 → 35 ft E "

Grid 5 - S23 → 8 ft E, thicket

S9 → 3 ft N, anomaly

S18 → 2 ft ESE, anomaly

S3 → 5 ft S, creek

S19 → 4 ft S, creek

0656 Arrive Weston trailer

0705 Daily safety brief

80°F; humidity 54%

ordnance

fire safety

0710 Prep for evac calls

0810 Dave making 24-hour notice calls. I'm making updates to master database.

6/29/11

Dave had to use his cell because the phone in the Weston trailer had very bad reception

0906 Dave completed 24-hour evac calls. Majority were messages on VM.

0956 Completed spreadsheet updates and printed out list of houses receiving 2-wk notification today.

1020 Leave Weston trailer to place stickers at Grey Ghost housing.

1104 Arrive Old Brick Family Housing

1323 Complete evac duties → 7/11 or 12

Break for lunch / Get gas

1411 Check residential printout against electronic database

1449 Headed back over to Grey Ghosts

1605 Complete evac notices for day

Headed back to Beacon for writing evac notices for the July 14.

Wrote out 108 evac notices

2030 Done for the night

6/30/11

0656 Arrive Weston trailer
0705 Daily safety brief
First day of evacuations
Don't start work until everyone is out. Stop work if someone enters zone. Be patient!
0730 Arrive corner of Heath Loop and Continental Road to begin check out process.
0807 Bruce checking units not checked-out yet. No one present.
0815 Set up at one end of exclusion zone; Bruce at other.
0938 Received call from safety (Bruce). That transects were complete and ok to call people to return to their homes.
1000 Complete phone calls
1015 Complete removing stickers
1020 Arrive Lusk ~~Weston~~ found munitions item.
1212 Break for lunch
1245 Leave for Weston trailer to printout evac lists for 13/14/15 July.

6/30/11

1331 Complete prep for evac notices. Begin placing 2-wk evac notices.
1643 Complete posting 2-wk evac notices.
Headed to Beacon to prep soil samples.
1806 Completed soil sample prep. Have departed for FedEx.
1810 Update master database

APPENDIX E
ANALYTICAL AND DATA VALIDATION REPORTS

ANALYTICAL LABORATORY REPORTS

ANALYTICAL REPORT

Job Number: 200-5816-1

SDG Number: 5816

Job Description: West Point MAMMS

For:
Weston Solutions, Inc.
1400 Weston Way
PO BOX 2653
West Chester, PA 19380

Attention: John Gerhard

Approved for release.
James W Madison
Project Manager I
07/20/11 3:21 PM

James W Madison
Project Manager I
jim.madison@testamericainc.com
07/20/2011

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CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: West Point MAMMS

Report Number: 200-5816-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

General Report Information
This data report has two distinct sections. The initial section contains sample results and QC summary information presented by the laboratories LIMS system. The second section contains the same information, presented on EPA CLP-Like reporting forms. For dual column GC methods, a separate reporting form is provided for each analytical column, showing the results obtained from that column. The final results that the laboratory selected to report are listed in normal font on the CLP forms. The confirming result is listed in italic font on the CLP forms. The LIMS reports at the front of the package do not include italics.

RECEIPT
The samples were received on 07/01/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

EXPLOSIVES
Samples WPR02-SS09, WPR02-SS10, WPR02-SS11, WPR02-SS12, WPR02-SS15, WPR02-SS16, WPR02-SS17 and WPR02-SS18 were were air dried, processed through a sieve and then ground in a puck mill. Incremental Subsamples were then removed from each sample to provide aliquots that were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 07/08/2011 and analyzed on 07/13/2011.

All explosives by method 8330 are reported from the C18 column, which is listed in the LIMS system result section as the Primary result. The confirmation results are from the Biphenyl column, and are listed in italic font on the CLP reporting forms.

No difficulties were encountered during the explosives analyses.

All quality control parameters were within the acceptance limits.

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Analysis Batch Number: 21368

Lab Sample ID: MB 200-21109/12-A Client Sample ID:

Date Analyzed: 07/13/11 12:25 Lab File ID: 12JUL111532_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.43	Baseline Event	chirgwinb	07/15/11 13:40
2,6-Dinitrotoluene	20.93	Peak not found by the data system	chirgwinb	07/15/11 13:40
3-Nitrotoluene	23.88	Peak not found by the data system	chirgwinb	07/15/11 13:40

Lab Sample ID: 200-5816-1 Client Sample ID: WPR02-SS09

Date Analyzed: 07/13/11 13:40 Lab File ID: 12JUL111532_041.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.62	Peak not found by the data system	chirgwinb	07/15/11 13:43
4-Amino-2,6-dinitrotoluene	20.16	Peak not found by the data system	chirgwinb	07/15/11 13:43

Lab Sample ID: 200-5816-2 Client Sample ID: WPR02-SS10

Date Analyzed: 07/13/11 14:17 Lab File ID: 12JUL111532_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.62	Baseline Event	chirgwinb	07/15/11 13:45
4-Amino-2,6-dinitrotoluene	20.17	Baseline Event	chirgwinb	07/15/11 13:45
2,6-Dinitrotoluene	20.85	Baseline Event	chirgwinb	07/15/11 13:45
3-Nitrotoluene	23.98	Peak not found by the data system	chirgwinb	07/15/11 13:45

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Analysis Batch Number: 21368

Lab Sample ID: 200-5816-3 Client Sample ID: WPR02-SS11

Date Analyzed: 07/13/11 14:55 Lab File ID: 12JUL111532_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.69	Peak not found by the data system	chirgwinb	07/15/11 13:47
4-Amino-2,6-dinitrotoluene	20.16	Baseline Event	chirgwinb	07/15/11 13:47
2,6-Dinitrotoluene	20.86	Baseline Event	chirgwinb	07/15/11 13:47
3-Nitrotoluene	23.97	Peak not found by the data system	chirgwinb	07/15/11 13:47

Lab Sample ID: 200-5816-4 Client Sample ID: WPR02-SS12

Date Analyzed: 07/13/11 15:32 Lab File ID: 12JUL111532_071.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.21	Baseline Event	chirgwinb	07/15/11 13:52
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 13:52
1,3-Dinitrobenzene	17.22	Baseline Event	chirgwinb	07/15/11 13:52
2,4,6-Trinitrotoluene	19.70	Baseline Event	chirgwinb	07/15/11 13:52
4-Amino-2,6-dinitrotoluene	20.01	Peak not found by the data system	chirgwinb	07/15/11 13:52
2-Amino-4,6-dinitrotoluene	20.51	Baseline Event	robinsonw	07/18/11 09:50
PETN	25.00	Peak not found by the data system	chirgwinb	07/15/11 13:52

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Analysis Batch Number: 21368

Lab Sample ID: 200-5816-5 Client Sample ID: WPR02-SS15

Date Analyzed: 07/13/11 16:10 Lab File ID: 12JUL111532_081.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.20	Baseline Event	chirgwinb	07/15/11 13:56
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 13:56
1,3-Dinitrobenzene	17.47	Baseline Event	chirgwinb	07/15/11 13:56
Nitroglycerin	19.12	Baseline Event	chirgwinb	07/15/11 13:56
2-Amino-4,6-dinitrotoluene	20.62	Baseline Event	chirgwinb	07/15/11 13:56
3-Nitrotoluene	23.96	Baseline Event	chirgwinb	07/15/11 13:56

Lab Sample ID: 200-5816-6 Client Sample ID: WPR02-SS16

Date Analyzed: 07/13/11 16:47 Lab File ID: 12JUL111532_091.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.22	Baseline Event	chirgwinb	07/15/11 14:01
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 14:01
1,3-Dinitrobenzene	17.47	Baseline Event	chirgwinb	07/15/11 14:01
Nitroglycerin	19.14	Baseline Event	chirgwinb	07/15/11 14:01
4-Amino-2,6-dinitrotoluene	20.09	Peak not found by the data system	chirgwinb	07/15/11 14:01
2-Amino-4,6-dinitrotoluene	20.52	Peak not found by the data system	chirgwinb	07/15/11 14:01
2,6-Dinitrotoluene	20.86	Peak not found by the data system	chirgwinb	07/15/11 14:01
3-Nitrotoluene	23.96	Peak not found by the data system	chirgwinb	07/15/11 14:01
PETN	24.83	Peak not found by the data system	chirgwinb	07/15/11 14:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Analysis Batch Number: 21368

Lab Sample ID: 200-5816-7 Client Sample ID: WPR02-SS17

Date Analyzed: 07/13/11 17:25 Lab File ID: 12JUL111532_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.20	Baseline Event	chirgwinb	07/15/11 14:05
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 14:05
1,3-Dinitrobenzene	17.46	Peak not found by the data system	chirgwinb	07/15/11 14:05
Nitroglycerin	19.14	Baseline Event	chirgwinb	07/15/11 14:05
2,4,6-Trinitrotoluene	19.75	Peak not found by the data system	chirgwinb	07/15/11 14:05
4-Amino-2,6-dinitrotoluene	20.10	Peak not found by the data system	chirgwinb	07/15/11 14:05
3-Nitrotoluene	23.97	Baseline Event	chirgwinb	07/15/11 14:05
PETN	24.89	Baseline Event	chirgwinb	07/15/11 14:05

Lab Sample ID: 200-5816-8 Client Sample ID: WPR02-SS18

Date Analyzed: 07/13/11 18:02 Lab File ID: 12JUL111532_111.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.23	Baseline Event	chirgwinb	07/15/11 14:08
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 14:08
1,3-Dinitrobenzene	17.43	Baseline Event	robinsonw	07/18/11 09:57
2,4,6-Trinitrotoluene	19.74	Peak not found by the data system	chirgwinb	07/15/11 14:08
4-Amino-2,6-dinitrotoluene	20.40	Baseline Event	chirgwinb	07/15/11 14:09
3-Nitrotoluene	24.12	Baseline Event	chirgwinb	07/15/11 14:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Analysis Batch Number: 21368

Lab Sample ID: GB 200-20821/11-B Client Sample ID:

Date Analyzed: 07/13/11 18:40 Lab File ID: 12JUL111532_121.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.45	Baseline Event	chirgwinb	07/15/11 14:10
2,6-Dinitrotoluene	20.99	Peak not found by the data system	chirgwinb	07/15/11 14:10
3-Nitrotoluene	23.94	Peak not found by the data system	chirgwinb	07/15/11 14:10

Lab Sample ID: 200-5816-6 MS Client Sample ID: WPR02-SS16 MS

Date Analyzed: 07/13/11 19:17 Lab File ID: 12JUL111532_131.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	14.37	Baseline Event	chirgwinb	07/15/11 14:13
1,3,5-Trinitrobenzene	16.13	Baseline Event	chirgwinb	07/15/11 14:13
1,2-Dinitrobenzene	16.44	Baseline Event	chirgwinb	07/15/11 14:13
Tetryl	18.51	Baseline Event	chirgwinb	07/15/11 14:13
2,4,6-Trinitrotoluene	19.70	Baseline Event	chirgwinb	07/15/11 14:13
4-Amino-2,6-dinitrotoluene	20.19	Baseline Event	chirgwinb	07/15/11 14:13
2-Amino-4,6-dinitrotoluene	20.58	Baseline Event	chirgwinb	07/15/11 14:13
2,6-Dinitrotoluene	20.90	Baseline Event	chirgwinb	07/15/11 14:13
2,4-Dinitrotoluene	21.16	Baseline Event	chirgwinb	07/15/11 14:13

Lab Sample ID: 200-5816-6 MSD Client Sample ID: WPR02-SS16 MSD

Date Analyzed: 07/13/11 19:54 Lab File ID: 12JUL111532_141.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	14.38	Baseline Event	chirgwinb	07/15/11 14:15
1,3,5-Trinitrobenzene	16.14	Baseline Event	chirgwinb	07/15/11 14:15
1,2-Dinitrobenzene	16.45	Baseline Event	chirgwinb	07/15/11 14:15

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 12535

Lab Sample ID: IC 200-12535/4 Client Sample ID:

Date Analyzed: 01/24/11 14:36 Lab File ID: 24JAN111214_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.59	Baseline Event	hammondr	01/25/11 11:48
2,6-diamino-4-nitrotoluene	4.59	Baseline Event	hammondr	01/25/11 11:48
HMX	5.50	Baseline Event	hammondr	01/25/11 11:48

Lab Sample ID: ICRT 200-12535/5 Client Sample ID:

Date Analyzed: 01/24/11 15:10 Lab File ID: 24JAN111214_051.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.19	Baseline Event	hammondr	01/25/11 11:46
PETN	15.46	Baseline Event	hammondr	01/25/11 11:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 21370

Lab Sample ID: LCS 200-21109/13-A Client Sample ID:

Date Analyzed: 07/13/11 13:22 Lab File ID: 12JUL111530_031.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	9.52	Baseline Event	chirgwinb	07/15/11 14:39
1,2-Dinitrobenzene	11.40	Baseline Event	chirgwinb	07/15/11 14:39
4-Amino-2,6-dinitrotoluene	11.90	Baseline Event	chirgwinb	07/15/11 14:39
2-Amino-4,6-dinitrotoluene	12.12	Baseline Event	chirgwinb	07/15/11 14:39
PETN	15.38	Baseline Event	chirgwinb	07/15/11 14:39

Lab Sample ID: 200-5816-1 Client Sample ID: WPR02-SS09

Date Analyzed: 07/13/11 13:56 Lab File ID: 12JUL111530_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	21.88	Peak not found by the data system	chirgwinb	07/15/11 14:43

Lab Sample ID: 200-5816-2 Client Sample ID: WPR02-SS10

Date Analyzed: 07/13/11 14:30 Lab File ID: 12JUL111530_051.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	18.59	Baseline Event	chirgwinb	07/15/11 14:46
2,4,6-Trinitrotoluene	21.89	Baseline Event	chirgwinb	07/15/11 14:46

Lab Sample ID: 200-5816-3 Client Sample ID: WPR02-SS11

Date Analyzed: 07/13/11 15:05 Lab File ID: 12JUL111530_061.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene	17.26	Peak not found by the data system	chirgwinb	07/15/11 14:47
2,4,6-Trinitrotoluene	21.84	Peak not found by the data system	robinsonw	07/18/11 10:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 21370

Lab Sample ID: 200-5816-4 Client Sample ID: WPR02-SS12

Date Analyzed: 07/13/11 15:39 Lab File ID: 12JUL111530_071.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	15.16	Peak not found by the data system	chirgwinb	07/15/11 14:52
3-Nitrotoluene	16.22	Peak not found by the data system	chirgwinb	07/15/11 14:52
2,6-Dinitrotoluene	17.01	Baseline Event	chirgwinb	07/15/11 14:52
1,3,5-Trinitrobenzene	18.53	Baseline Event	chirgwinb	07/15/11 14:52
2,4-Dinitrotoluene	19.31		chirgwinb	07/15/11 14:52
2,4,6-Trinitrotoluene	21.86	Baseline Event	chirgwinb	07/15/11 14:52

Lab Sample ID: 200-5816-5 Client Sample ID: WPR02-SS15

Date Analyzed: 07/13/11 16:13 Lab File ID: 12JUL111530_081.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	9.65	Baseline Event	chirgwinb	07/15/11 14:56
1,2-Dinitrobenzene	11.42	Baseline Event	chirgwinb	07/15/11 14:56
2-Amino-4,6-dinitrotoluene	12.19	Baseline Event	chirgwinb	07/15/11 14:56
2,6-Dinitrotoluene	17.28	Peak not found by the data system	chirgwinb	07/15/11 14:56
2,4-Dinitrotoluene	19.33		chirgwinb	07/18/11 11:56

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 21370

Lab Sample ID: 200-5816-6 Client Sample ID: WPR02-SS16

Date Analyzed: 07/13/11 16:47 Lab File ID: 12JUL111530_091.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	9.66		chirgwinb	07/15/11 15:03
4-Amino-2,6-dinitrotoluene	11.84	Peak not found by the data system	chirgwinb	07/15/11 15:03
2-Amino-4,6-dinitrotoluene	12.21	Baseline Event	chirgwinb	07/15/11 15:03
3-Nitrotoluene	16.28	Peak not found by the data system	chirgwinb	07/15/11 15:03
2,6-Dinitrotoluene	17.11	Peak not found by the data system	chirgwinb	07/15/11 15:03
1,3,5-Trinitrobenzene	18.65	Baseline Event	chirgwinb	07/15/11 15:03
2,4-Dinitrotoluene	19.31		chirgwinb	07/15/11 15:03

Lab Sample ID: 200-5816-7 Client Sample ID: WPR02-SS17

Date Analyzed: 07/13/11 17:21 Lab File ID: 12JUL111530_101.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	9.67	Peak not found by the data system	robinsonw	07/18/11 10:24
4-Amino-2,6-dinitrotoluene	11.81	Baseline Event	chirgwinb	07/15/11 15:08
2-Amino-4,6-dinitrotoluene	12.22	Baseline Event	chirgwinb	07/15/11 15:08
1,3,5-Trinitrobenzene	18.55	Baseline Event	chirgwinb	07/15/11 15:08
2,4-Dinitrotoluene	19.30	Baseline Event	robinsonw	07/18/11 10:24
2,4,6-Trinitrotoluene	21.85	Baseline Event	chirgwinb	07/15/11 15:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 21370

Lab Sample ID: 200-5816-8 Client Sample ID: WPR02-SS18

Date Analyzed: 07/13/11 17:56 Lab File ID: 12JUL111530_111.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	6.67	Baseline Event	chirgwinb	07/15/11 15:14
1,2-Dinitrobenzene	11.42	Baseline Event	chirgwinb	07/15/11 15:14
2,6-Dinitrotoluene	17.34	Baseline Event	chirgwinb	07/15/11 15:14
1,3,5-Trinitrobenzene	18.49	Baseline Event	chirgwinb	07/15/11 15:14
2,4-Dinitrotoluene	19.30		robinsonw	07/18/11 10:25

Lab Sample ID: 200-5816-6 MS Client Sample ID: WPR02-SS16 MS

Date Analyzed: 07/13/11 19:04 Lab File ID: 12JUL111530_131.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	6.53	Baseline Event	chirgwinb	07/15/11 15:16
Nitroglycerin	9.54	Baseline Event	chirgwinb	07/15/11 15:16
1,2-Dinitrobenzene	11.42	Baseline Event	chirgwinb	07/15/11 15:16
4-Amino-2,6-dinitrotoluene	11.92	Baseline Event	chirgwinb	07/15/11 15:16
PETN	15.36	Baseline Event	chirgwinb	07/15/11 15:16

Lab Sample ID: 200-5816-6 MSD Client Sample ID: WPR02-SS16 MSD

Date Analyzed: 07/13/11 19:38 Lab File ID: 12JUL111530_141.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	9.55	Baseline Event	chirgwinb	07/15/11 15:17
1,2-Dinitrobenzene	11.42	Baseline Event	chirgwinb	07/15/11 15:17
4-Amino-2,6-dinitrotoluene	11.92	Baseline Event	chirgwinb	07/15/11 15:17
2-Amino-4,6-dinitrotoluene	12.15	Baseline Event	chirgwinb	07/15/11 15:17
PETN	15.37	Baseline Event	chirgwinb	07/15/11 15:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Analysis Batch Number: 21370

Lab Sample ID: CCV 200-21370/15 Client Sample ID:

Date Analyzed: 07/13/11 20:12 Lab File ID: 12JUL111530_151.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	15.38	Baseline Event	chirgwinb	07/14/11 09:22

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-5816-1	WPR02-SS09	Solid	06/27/2011 1045	07/01/2011 1020
200-5816-2	WPR02-SS10	Solid	06/27/2011 1112	07/01/2011 1020
200-5816-3	WPR02-SS11	Solid	06/27/2011 1135	07/01/2011 1020
200-5816-4	WPR02-SS12	Solid	06/27/2011 1320	07/01/2011 1020
200-5816-5	WPR02-SS15	Solid	06/28/2011 0855	07/01/2011 1020
200-5816-6	WPR02-SS16	Solid	06/28/2011 1035	07/01/2011 1020
200-5816-6MS	WPR02-SS16	Solid	06/28/2011 1035	07/01/2011 1020
200-5816-6MSD	WPR02-SS16	Solid	06/28/2011 1035	07/01/2011 1020
200-5816-7	WPR02-SS17	Solid	06/28/2011 1053	07/01/2011 1020
200-5816-8	WPR02-SS18	Solid	06/28/2011 1135	07/01/2011 1020

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nitroaromatics and Nitramines (HPLC)	TAL BUR	SW846 8330B	
Soil Extraction Procedure	TAL BUR		SW846 8330
Grinding and Incremental Sampling	TAL BUR		SW846 8330B/Grind&MIS

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Method	Analyst	Analyst ID
SW846 8330B	Chirgwin, Bradley W	BWC

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS09**

Lab Sample ID: 200-5816-1
Client Matrix: Solid

Date Sampled: 06/27/2011 1045
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.51 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1340			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		23	U	8.5	95
1,3-Dinitrobenzene		23	U	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		7.2	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U	6.7	95
2,6-Dinitrotoluene		14	U	5.9	95
2,4-Dinitrotoluene		29	U	15	95
3-Nitrotoluene		29	U M	25	95
PETN		1700	U	810	4800

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	90		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS09**

Lab Sample ID: 200-5816-1
Client Matrix: Solid

Date Sampled: 06/27/2011 1045
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.51 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1356			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
2,4,6-Trinitrotoluene		22	M J	6.3	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	87		40 - 140

revised results

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS10**

Lab Sample ID: 200-5816-2
Client Matrix: Solid

Date Sampled: 06/27/2011 1112
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1417			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		23	U	8.5	95
1,3-Dinitrobenzene		23	U	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		9.2	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U	6.6	95
2,6-Dinitrotoluene		~~140~~ 14	U M	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	91		40 - 140

Revised 12/20/11 JLW

Client: Weston Solutions, Inc.

superseded by revised page 21

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS10**

Lab Sample ID: 200-5816-2
Client Matrix: Solid

Date Sampled: 06/27/2011 1112
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1417			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		23	U	8.5	95
1,3-Dinitrobenzene		23	U	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		9.2	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U	6.6	95
2,6-Dinitrotoluene		140	M	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	91		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS10**

Lab Sample ID: 200-5816-2
Client Matrix: Solid

Date Sampled: 06/27/2011 1112
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1430			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
2,4,6-Trinitrotoluene		19	M J	6.3	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS11**

Lab Sample ID: 200-5816-3
Client Matrix: Solid

Date Sampled: 06/27/2011 1135
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1455			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		23	U	8.5	95
1,3-Dinitrobenzene		23	U	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		9.3	J M	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U	6.6	95
2,6-Dinitrotoluene		130	M J	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	90		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS11**

Lab Sample ID: 200-5816-3
Client Matrix: Solid

Date Sampled: 06/27/2011 1135
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1505			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
2,4,6-Trinitrotoluene		11	J M	6.3	95
2,6-Dinitrotoluene		15	M J	5.9	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	91		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS12**

Lab Sample ID: 200-5816-4
Client Matrix: Solid

Date Sampled: 06/27/2011 1320
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.52 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1532			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		24	M J	8.5	95
1,3-Dinitrobenzene		63	M J	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		15	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		120	M	6.7	95
2,6-Dinitrotoluene		140	J	5.9	95
2,4-Dinitrotoluene		29	U	15	95
3-Nitrotoluene		92	J M	25	95
PETN		1700	U M	810	4800

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	88	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS12**

Lab Sample ID: 200-5816-4
Client Matrix: Solid

Date Sampled: 06/27/2011 1320
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.52 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1539			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		92	M J	8.5	95
1,3-Dinitrobenzene		42	J	8.0	95
2,4,6-Trinitrotoluene		230	M J	6.3	95
2-Amino-4,6-dinitrotoluene		87	J M	6.7	95
2,6-Dinitrotoluene		80	M J	5.9	95
3-Nitrotoluene		79	J M	25	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS15**

Lab Sample ID: 200-5816-5
Client Matrix: Solid

Date Sampled: 06/28/2011 0855
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1610			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		23	U M	8.5	95
1,3-Dinitrobenzene		79	M J	8.0	95
Nitroglycerin		2900	M J	580	1900
2,4,6-Trinitrotoluene		14	U	6.3	95
4-Amino-2,6-dinitrotoluene		23	U	9.5	95
2-Amino-4,6-dinitrotoluene		11	J M	6.6	95
2,6-Dinitrotoluene		90	M J	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	90	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS15**

Lab Sample ID: 200-5816-5
Client Matrix: Solid

Date Sampled: 06/28/2011 0855
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1613			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3-Dinitrobenzene		33	J	8.0	95
Nitroglycerin		4800	M J	580	1900
2-Amino-4,6-dinitrotoluene		11	J M	6.6	95
2,6-Dinitrotoluene		21	M J	5.9	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	88	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS16**

Lab Sample ID: 200-5816-6
Client Matrix: Solid

Date Sampled: 06/28/2011 1035
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.54 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1647			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		90	M J	8.4	95
1,3-Dinitrobenzene		17	M J	8.0	95
Nitroglycerin		8600	M	580	1900
2,4,6-Trinitrotoluene		14	U	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		30	J M	6.6	95
2,6-Dinitrotoluene		140	M J	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U M	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	89	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS16**

Lab Sample ID: 200-5816-6
Client Matrix: Solid

Date Sampled: 06/28/2011 1035
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.54 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1647			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		29	M J	8.4	95
1,3-Dinitrobenzene		36	J	8.0	95
Nitroglycerin		9800	M	580	1900
2-Amino-4,6-dinitrotoluene		27	J M	6.6	95
2,6-Dinitrotoluene		21	M J	5.9	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	88	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS17**

Lab Sample ID: 200-5816-7
Client Matrix: Solid

Date Sampled: 06/28/2011 1053
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.55 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1721			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		24	J M	8.4	95
1,3-Dinitrobenzene		32	J	8.0	95
Nitroglycerin		18000	M J	580	1900
2,4,6-Trinitrotoluene		91	M J	6.3	95
2-Amino-4,6-dinitrotoluene		24	J M	6.6	95
2,6-Dinitrotoluene		23	J	5.9	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	90	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS17**

Lab Sample ID: 200-5816-7
Client Matrix: Solid

Date Sampled: 06/28/2011 1053
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.55 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1725			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		30	J M	8.4	95
1,3-Dinitrobenzene		22	J M	8.0	95
Nitroglycerin		7700	M J	580	1900
2,4,6-Trinitrotoluene		8.9	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		36	J	6.6	95
2,6-Dinitrotoluene		110	J	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U M	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	89	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS18**

Lab Sample ID: 200-5816-8
Client Matrix: Solid

Date Sampled: 06/28/2011 1135
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21370	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.54 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1756			Injection Volume:	450 uL
Prep Date:	07/08/2011 1556			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		58	M J	10	95
1,3,5-Trinitrobenzene		290	M	8.4	95
1,3-Dinitrobenzene		62	J	8.0	95
2,4,6-Trinitrotoluene		23	J	6.3	95
2,6-Dinitrotoluene		56	M J	5.9	95

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Client Sample ID: **WPR02-SS18**

Lab Sample ID: 200-5816-8
Client Matrix: Solid

Date Sampled: 06/28/2011 1135
Date Received: 07/01/2011 1020

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21109	Initial Weight/Volume:	10.54 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/13/2011 1802			Injection Volume:	150 uL
Prep Date:	07/08/2011 1556			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		34	J	10	95
1,3,5-Trinitrobenzene		200	M	8.4	95
1,3-Dinitrobenzene		27	M J	8.0	95
Nitroglycerin		1400	U	580	1900
2,4,6-Trinitrotoluene		11	M J	6.3	95
4-Amino-2,6-dinitrotoluene		23	U M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U M	6.6	95
2,6-Dinitrotoluene		210	J	5.9	95
2,4-Dinitrotoluene		28	U	15	95
3-Nitrotoluene		28	U M	25	95
PETN		1700	U	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	93	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Surrogate Recovery Report

8330B Nitroaromatics and Nitramines (HPLC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-5816-1	WPR02-SS09		90
200-5816-1	WPR02-SS09	87	
200-5816-2	WPR02-SS10		91
200-5816-2	WPR02-SS10	95	
200-5816-3	WPR02-SS11		90
200-5816-3	WPR02-SS11	91	
200-5816-4	WPR02-SS12		88M
200-5816-4	WPR02-SS12	94	
200-5816-5	WPR02-SS15		90M
200-5816-5	WPR02-SS15	88M	
200-5816-6	WPR02-SS16		89M
200-5816-6	WPR02-SS16	88M	
200-5816-7	WPR02-SS17		89M
200-5816-7	WPR02-SS17	90M	
200-5816-8	WPR02-SS18		93M
200-5816-8	WPR02-SS18	104M	
MB 200-21109/12-A			92M
MB 200-21109/12-A		94	
GB 200-20821/11-B			92M
GB 200-20821/11-B		89	
LCS 200-21109/13-A			95
LCS 200-21109/13-A		100M	
200-5816-6 MS	WPR02-SS16 MS		92M
200-5816-6 MS	WPR02-SS16 MS	87M	
200-5816-6 MSD	WPR02-SS16 MSD		92M
200-5816-6 MSD	WPR02-SS16 MSD	87M	

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Method Blank - Batch: 200-21109

Method: 8330B
Preparation: 8330

Lab Sample ID:	MB 200-21109/12-A	Analysis Batch:	200-21368	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21109	Lab File ID:	12JUL111532_021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.52 g
Analysis Date:	07/13/2011 1225	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/08/2011 1557			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
RDX	23	U	10	95
1,3,5-Trinitrobenzene	23	U	8.5	95
1,3-Dinitrobenzene	23	U	8.0	95
Tetryl	29	U	15	95
Nitroglycerin	1400	U	580	1900
2,4,6-Trinitrotoluene	14	U	6.3	95
4-Amino-2,6-dinitrotoluene	23	U	9.5	95
2-Amino-4,6-dinitrotoluene	23	U	6.7	95
2,6-Dinitrotoluene	14	U M	5.9	95
2,4-Dinitrotoluene	29	U	15	95
3-Nitrotoluene	29	U M	25	95
PETN	1700	U	810	4800

Surrogate	% Rec		Acceptance Limits
1,2-Dinitrobenzene	92	M	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	94	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	89	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Grinding Blank - Batch: 200-21109

Method: 8330B
Preparation: 8330

Lab Sample ID:	GB 200-20821/11-B	Analysis Batch:	200-21368	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21109	Lab File ID:	12JUL111532_121.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.52 g
Analysis Date:	07/13/2011 1840	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/08/2011 1556			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
RDX	23	U	10	95
1,3,5-Trinitrobenzene	23	U	8.5	95
1,3-Dinitrobenzene	23	U	8.0	95
Tetryl	29	U	15	95
Nitroglycerin	1400	U	580	1900
2,4,6-Trinitrotoluene	14	U	6.3	95
4-Amino-2,6-dinitrotoluene	23	U	9.5	95
2-Amino-4,6-dinitrotoluene	23	U	6.7	95
2,6-Dinitrotoluene	14	U M	5.9	95
2,4-Dinitrotoluene	29	U	15	95
3-Nitrotoluene	29	U M	25	95
PETN	1700	U	810	4800

Surrogate	% Rec		Acceptance Limits
1,2-Dinitrobenzene	92	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Lab Control Sample - Batch: 200-21109

Method: 8330B
Preparation: 8330

Lab Sample ID:	LCS 200-21109/13-A	Analysis Batch:	200-21368	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21109	Lab File ID:	12JUL111532_031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.62 g
Analysis Date:	07/13/2011 1303	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/08/2011 1557			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
RDX	1880	1870	99	70 - 135	
1,3,5-Trinitrobenzene	1880	1870	99	75 - 125	
1,3-Dinitrobenzene	1880	1750	93	80 - 125	
Tetryl	1880	1770	94	10 - 150	J
Nitroglycerin	37700	36600	97	60 - 150	
2,4,6-Trinitrotoluene	1880	1880	100	55 - 140	
4-Amino-2,6-dinitrotoluene	1880	1870	99	80 - 125	
2-Amino-4,6-dinitrotoluene	1880	1840	98	80 - 125	
2,6-Dinitrotoluene	1880	1840	98	80 - 120	
2,4-Dinitrotoluene	1880	1850	98	80 - 125	J
3-Nitrotoluene	1880	1880	100	75 - 120	J
PETN	37700	37900	101	45 - 145	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	95	40 - 140

Surrogate	% Rec		Acceptance Limits
1,2-Dinitrobenzene	100	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
1,2-Dinitrobenzene	87	M	87	M	40 - 140

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-21109

Method: 8330B
Preparation: 8330

MS Lab Sample ID:	200-5816-6	Analysis Batch:	200-21368	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21109	Lab File ID:	12JUL111532_131.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.55 g
Analysis Date:	07/13/2011 1917			Final Weight/Volume:	100 mL
Prep Date:	07/08/2011 1556			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	200-5816-6	Analysis Batch:	200-21368	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21109	Lab File ID:	12JUL111532_141.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.53 g
Analysis Date:	07/13/2011 1954			Final Weight/Volume:	100 mL
Prep Date:	07/08/2011 1556			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
RDX	93	91	70 - 135	3	20	M	M
1,3,5-Trinitrobenzene	98	92	75 - 125	5	20	M	M
1,3-Dinitrobenzene	92	88	80 - 125	4	20	M	
Tetryl	91	88	10 - 150	3	20	M J	J
Nitroglycerin	97	95	60 - 150	2	20		
2,4,6-Trinitrotoluene	99	96	55 - 140	3	20	M	
4-Amino-2,6-dinitrotoluene	85	82	80 - 125	4	20	M	
2-Amino-4,6-dinitrotoluene	90	86	80 - 125	4	20	M	
2,6-Dinitrotoluene	94	90	80 - 120	4	20	M	
2,4-Dinitrotoluene	94	92	80 - 125	2	20	M J	J
3-Nitrotoluene	98	95	75 - 120	3	20	J	J
PETN	99	96	45 - 145	3	20		

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
1,2-Dinitrobenzene	92	M	92	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-21109

Method: 8330B
Preparation: 8330

MS Lab Sample ID:	200-5816-6	Units: ug/Kg	MSD Lab Sample ID:	200-5816-6	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	07/13/2011 1917		Analysis Date:	07/13/2011 1954	
Prep Date:	07/08/2011 1556		Prep Date:	07/08/2011 1556	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
RDX	23	U	1900	1900	1770	M	1730	M
1,3,5-Trinitrobenzene	90	J	1900	1900	1950	M	1850	M
1,3-Dinitrobenzene	17	J	1900	1900	1760	M	1690	
Tetryl	25	J	1900	1900	1750	M J	1700	J
Nitroglycerin	8600		37900	38000	45500		44800	
2,4,6-Trinitrotoluene	14	U	1900	1900	1880	M	1830	
4-Amino-2,6-dinitrotoluene	23	J	1900	1900	1630	M	1580	
2-Amino-4,6-dinitrotoluene	30	J	1900	1900	1740	M	1670	
2,6-Dinitrotoluene	140		1900	1900	1920	M	1850	
2,4-Dinitrotoluene	28	U	1900	1900	1780	M J	1740	J
3-Nitrotoluene	28	J	1900	1900	1910	J	1850	J
PETN	1700	J	37900	38000	40300		39100	

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

Lab Section	Qualifier	Description
HPLC/IC		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-21109					
GB 200-20821/11-B	Grinding Blank	T	Solid	8330	
LCS 200-21109/13-A	Lab Control Sample	T	Solid	8330	
MB 200-21109/12-A	Method Blank	T	Solid	8330	
200-5816-1	WPR02-SS09	T	Solid	8330	
200-5816-2	WPR02-SS10	T	Solid	8330	
200-5816-3	WPR02-SS11	T	Solid	8330	
200-5816-4	WPR02-SS12	T	Solid	8330	
200-5816-5	WPR02-SS15	T	Solid	8330	
200-5816-6	WPR02-SS16	T	Solid	8330	
200-5816-6MS	Matrix Spike	T	Solid	8330	
200-5816-6MSD	Matrix Spike Duplicate	T	Solid	8330	
200-5816-7	WPR02-SS17	T	Solid	8330	
200-5816-8	WPR02-SS18	T	Solid	8330	
Analysis Batch:200-21368					
GB 200-20821/11-B	Grinding Blank	T	Solid	8330B	200-21109
LCS 200-21109/13-A	Lab Control Sample	T	Solid	8330B	200-21109
MB 200-21109/12-A	Method Blank	T	Solid	8330B	200-21109
200-5816-1	WPR02-SS09	T	Solid	8330B	200-21109
200-5816-2	WPR02-SS10	T	Solid	8330B	200-21109
200-5816-3	WPR02-SS11	T	Solid	8330B	200-21109
200-5816-4	WPR02-SS12	T	Solid	8330B	200-21109
200-5816-5	WPR02-SS15	T	Solid	8330B	200-21109
200-5816-6	WPR02-SS16	T	Solid	8330B	200-21109
200-5816-6MS	Matrix Spike	T	Solid	8330B	200-21109
200-5816-6MSD	Matrix Spike Duplicate	T	Solid	8330B	200-21109
200-5816-7	WPR02-SS17	T	Solid	8330B	200-21109
200-5816-8	WPR02-SS18	T	Solid	8330B	200-21109
Analysis Batch:200-21370					
GB 200-20821/11-B	Grinding Blank	T	Solid	8330B	200-21109
LCS 200-21109/13-A	Lab Control Sample	T	Solid	8330B	200-21109
MB 200-21109/12-A	Method Blank	T	Solid	8330B	200-21109
200-5816-1	WPR02-SS09	T	Solid	8330B	200-21109
200-5816-2	WPR02-SS10	T	Solid	8330B	200-21109
200-5816-3	WPR02-SS11	T	Solid	8330B	200-21109
200-5816-4	WPR02-SS12	T	Solid	8330B	200-21109
200-5816-5	WPR02-SS15	T	Solid	8330B	200-21109
200-5816-6	WPR02-SS16	T	Solid	8330B	200-21109
200-5816-6MS	Matrix Spike	T	Solid	8330B	200-21109
200-5816-6MSD	Matrix Spike Duplicate	T	Solid	8330B	200-21109
200-5816-7	WPR02-SS17	T	Solid	8330B	200-21109
200-5816-8	WPR02-SS18	T	Solid	8330B	200-21109

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
Sdg Number: 5816

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
SDG: 5816

Laboratory Chronicle

Lab ID: 200-5816-1 **Client ID:** WPR02-SS09

Sample Date/Time: 06/27/2011 10:45 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-1-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-1-B		200-21368	200-21109	07/13/2011 13:40	1	TAL BUR	BWC
P:8330	200-5816-A-1-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-1-B		200-21370	200-21109	07/13/2011 13:56	1	TAL BUR	BWC

Lab ID: 200-5816-2 **Client ID:** WPR02-SS10

Sample Date/Time: 06/27/2011 11:12 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-2-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-2-B		200-21368	200-21109	07/13/2011 14:17	1	TAL BUR	BWC
P:8330	200-5816-A-2-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-2-B		200-21370	200-21109	07/13/2011 14:30	1	TAL BUR	BWC

Lab ID: 200-5816-3 **Client ID:** WPR02-SS11

Sample Date/Time: 06/27/2011 11:35 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-3-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-3-B		200-21368	200-21109	07/13/2011 14:55	1	TAL BUR	BWC
P:8330	200-5816-A-3-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-3-B		200-21370	200-21109	07/13/2011 15:05	1	TAL BUR	BWC

Lab ID: 200-5816-4 **Client ID:** WPR02-SS12

Sample Date/Time: 06/27/2011 13:20 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-4-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-4-B		200-21368	200-21109	07/13/2011 15:32	1	TAL BUR	BWC
P:8330	200-5816-A-4-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-4-B		200-21370	200-21109	07/13/2011 15:39	1	TAL BUR	BWC

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
SDG: 5816

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Lab ID: 200-5816-5 **Client ID:** WPR02-SS15

Sample Date/Time: 06/28/2011 08:55 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-5-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-5-B		200-21368	200-21109	07/13/2011 16:10	1	TAL BUR	BWC
P:8330	200-5816-A-5-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-5-B		200-21370	200-21109	07/13/2011 16:13	1	TAL BUR	BWC

Lab ID: 200-5816-6 **Client ID:** WPR02-SS16

Sample Date/Time: 06/28/2011 10:35 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-6-D		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
P:8330	200-5816-A-6-D		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-6-D		200-21368	200-21109	07/13/2011 16:47	1	TAL BUR	BWC
A:8330B	200-5816-A-6-D		200-21370	200-21109	07/13/2011 16:47	1	TAL BUR	BWC

Lab ID: 200-5816-6 **Client ID:** WPR02-SS16

Sample Date/Time: 06/28/2011 10:35 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-6-E MS		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-6-E MS		200-21370	200-21109	07/13/2011 19:04	1	TAL BUR	BWC
P:8330	200-5816-A-6-E MS		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-6-E MS		200-21368	200-21109	07/13/2011 19:17	1	TAL BUR	BWC

Lab ID: 200-5816-6 **Client ID:** WPR02-SS16

Sample Date/Time: 06/28/2011 10:35 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-6-F MSD		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-6-F MSD		200-21370	200-21109	07/13/2011 19:38	1	TAL BUR	BWC
P:8330	200-5816-A-6-F MSD		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-6-F MSD		200-21368	200-21109	07/13/2011 19:54	1	TAL BUR	BWC

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
SDG: 5816

Laboratory Chronicle

Lab ID: 200-5816-7 **Client ID:** WPR02-SS17

Sample Date/Time: 06/28/2011 10:53 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-7-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-7-B		200-21370	200-21109	07/13/2011 17:21	1	TAL BUR	BWC
P:8330	200-5816-A-7-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-7-B		200-21368	200-21109	07/13/2011 17:25	1	TAL BUR	BWC

Lab ID: 200-5816-8 **Client ID:** WPR02-SS18

Sample Date/Time: 06/28/2011 11:35 Received Date/Time: 07/01/2011 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5816-A-8-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-8-B		200-21370	200-21109	07/13/2011 17:56	1	TAL BUR	BWC
P:8330	200-5816-A-8-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	200-5816-A-8-B		200-21368	200-21109	07/13/2011 18:02	1	TAL BUR	BWC

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	MB 200-21109/12-A		200-21368	200-21109	07/08/2011 15:57	1	TAL BUR	CGC
A:8330B	MB 200-21109/12-A		200-21368	200-21109	07/13/2011 12:25	1	TAL BUR	BWC
P:8330	MB 200-21109/12-A		200-21370	200-21109	07/08/2011 15:57	1	TAL BUR	CGC
A:8330B	MB 200-21109/12-A		200-21370	200-21109	07/13/2011 12:48	1	TAL BUR	BWC

Lab ID: GB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	GB 200-20821/11-B		200-21370	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	GB 200-20821/11-B		200-21370	200-21109	07/13/2011 18:30	1	TAL BUR	BWC
P:8330	GB 200-20821/11-B		200-21368	200-21109	07/08/2011 15:56	1	TAL BUR	CGC
A:8330B	GB 200-20821/11-B		200-21368	200-21109	07/13/2011 18:40	1	TAL BUR	BWC

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
SDG: 5816

Laboratory Chronicle

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	LCS 200-21109/13-A		200-21368	200-21109	07/08/2011 15:57	1	TAL BUR	CGC
A:8330B	LCS 200-21109/13-A		200-21368	200-21109	07/13/2011 13:03	1	TAL BUR	BWC
P:8330	LCS 200-21109/13-A		200-21370	200-21109	07/08/2011 15:57	1	TAL BUR	CGC
A:8330B	LCS 200-21109/13-A		200-21370	200-21109	07/13/2011 13:22	1	TAL BUR	BWC

Lab References:
TAL BUR = TestAmerica Burlington

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm) GC Column (2): Biphenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB2 #	12DNB1 #
WPR02-SS09	200-5816-1		90
WPR02-SS09	200-5816-1	87	
WPR02-SS10	200-5816-2		91
WPR02-SS10	200-5816-2	95	
WPR02-SS11	200-5816-3		90
WPR02-SS11	200-5816-3	91	
WPR02-SS12	200-5816-4		88 M
WPR02-SS12	200-5816-4	94	
WPR02-SS15	200-5816-5		90 M
WPR02-SS15	200-5816-5	88 M	
WPR02-SS16	200-5816-6		89 M
WPR02-SS16	200-5816-6	88 M	
WPR02-SS17	200-5816-7		89 M
WPR02-SS17	200-5816-7	90 M	
WPR02-SS18	200-5816-8		93 M
WPR02-SS18	200-5816-8	104 M	
	MB 200-21109/12-A		92 M
	MB 200-21109/12-A	94	
	GB 200-20821/11-B		92 M
	GB 200-20821/11-B	89	
	LCS 200-21109/13-A		95
	LCS 200-21109/13-A	100 M	
WPR02-SS16 MS	200-5816-6 MS		92 M
WPR02-SS16 MS	200-5816-6 MS	87 M	
WPR02-SS16 MSD	200-5816-6 MSD		92 M
WPR02-SS16 MSD	200-5816-6 MSD	87 M	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-140

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Matrix: Solid Level: Low Lab File ID: 12JUL111532_031.d

Lab ID: LCS 200-21109/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
RDX	1880	1870	99	70-135	
1,3,5-Trinitrobenzene	1880	1870	99	75-125	
1,3-Dinitrobenzene	1880	1750	93	80-125	
Tetryl	1880	1770	94	10-150	J
Nitroglycerin	37700	36600	97	60-150	
2,4,6-Trinitrotoluene	1880	1880	100	55-140	
4-Amino-2,6-dinitrotoluene	1880	1870	99	80-125	
2-Amino-4,6-dinitrotoluene	1880	1840	98	80-125	
2,6-Dinitrotoluene	1880	1840	98	80-120	
2,4-Dinitrotoluene	1880	1850	98	80-125	J
3-Nitrotoluene	1880	1880	100	75-120	J
PETN	37700	37900	101	45-145	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Matrix: Solid Level: Low Lab File ID: 12JUL111532_131.d

Lab ID: 200-5816-6 MS Client ID: WPR02-SS16 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
RDX	1900	23 U	1770	93	70-135	M
1,3,5-Trinitrobenzene	1900	90 J	1950	98	75-125	M
1,3-Dinitrobenzene	1900	17 J	1760	92	80-125	M
Tetryl	1900	25 J	1750	91	10-150	M J
Nitroglycerin	37900	8600	45500	97	60-150	
2,4,6-Trinitrotoluene	1900	14 U	1880	99	55-140	M
4-Amino-2,6-dinitrotoluene	1900	23 U	1630	85	80-125	M
2-Amino-4,6-dinitrotoluene	1900	30 J	1740	90	80-125	M
2,6-Dinitrotoluene	1900	140	1920	94	80-120	M
2,4-Dinitrotoluene	1900	28 U	1780	94	80-125	M J
3-Nitrotoluene	1900	28 U	1910	98	75-120	J
PETN	37900	1700 U	40300	99	45-145	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Matrix: Solid Level: Low Lab File ID: 12JUL111532_141.d

Lab ID: 200-5816-6 MSD Client ID: WPR02-SS16 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
RDX	1900	1730	91	3	20	70-135	M
1,3,5-Trinitrobenzene	1900	1850	92	5	20	75-125	M
1,3-Dinitrobenzene	1900	1690	88	4	20	80-125	
Tetryl	1900	1700	88	3	20	10-150	J
Nitroglycerin	38000	44800	95	2	20	60-150	
2,4,6-Trinitrotoluene	1900	1830	96	3	20	55-140	
4-Amino-2,6-dinitrotoluene	1900	1580	82	4	20	80-125	
2-Amino-4,6-dinitrotoluene	1900	1670	86	4	20	80-125	
2,6-Dinitrotoluene	1900	1850	90	4	20	80-120	
2,4-Dinitrotoluene	1900	1740	92	2	20	80-125	J
3-Nitrotoluene	1900	1850	95	3	20	75-120	J
PETN	38000	39100	96	3	20	45-145	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: MB 200-21109/12-A

Matrix: Solid Date Extracted: 07/08/2011 15:57

Lab File ID:(1) 12JUL111532_021.d Lab File ID:(2) 12JUL111530_021.d

Date Analyzed:(1) 07/13/2011 12:25 Date Analyzed:(2) 07/13/2011 12:48

Instrument ID:(1) CH1208 Instrument ID:(2) CH1488

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) Biphenyl ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-21109/13-A	07/13/2011 13:03	07/13/2011 13:22
WPR02-SS09	200-5816-1	07/13/2011 13:40	07/13/2011 13:56
WPR02-SS10	200-5816-2	07/13/2011 14:17	07/13/2011 14:30
WPR02-SS11	200-5816-3	07/13/2011 14:55	07/13/2011 15:05
WPR02-SS12	200-5816-4	07/13/2011 15:32	07/13/2011 15:39
WPR02-SS15	200-5816-5	07/13/2011 16:10	07/13/2011 16:13
WPR02-SS16	200-5816-6	07/13/2011 16:47	07/13/2011 16:47
WPR02-SS17	200-5816-7	07/13/2011 17:25	07/13/2011 17:21
WPR02-SS18	200-5816-8	07/13/2011 18:02	07/13/2011 17:56
	GB 200-20821/11-B	07/13/2011 18:40	07/13/2011 18:30
WPR02-SS16 MS	200-5816-6 MS	07/13/2011 19:17	07/13/2011 19:04
WPR02-SS16 MSD	200-5816-6 MSD	07/13/2011 19:54	07/13/2011 19:38

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Sample No.: CCVRT 200-21368/1 Date Analyzed: 07/13/2011 11:48

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 12JUL111532_011.d Heated Purge: (Y/N) N

Calibration ID: 4446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.44		
UPPER LIMIT				16.54		
LOWER LIMIT				16.34		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-21368/1		07/13/2011 11:48	12JUL111532_011.d	16.44		
MB 200-21109/12-A		07/13/2011 12:25	12JUL111532_021.d	16.43		
LCS 200-21109/13-A		07/13/2011 13:03	12JUL111532_031.d	16.44		
200-5816-1	WPR02-SS09	07/13/2011 13:40	12JUL111532_041.d	16.43		
200-5816-2	WPR02-SS10	07/13/2011 14:17	12JUL111532_051.d	16.44		
200-5816-3	WPR02-SS11	07/13/2011 14:55	12JUL111532_061.d	16.43		
200-5816-4	WPR02-SS12	07/13/2011 15:32	12JUL111532_071.d	16.44		
200-5816-5	WPR02-SS15	07/13/2011 16:10	12JUL111532_081.d	16.44		
200-5816-6	WPR02-SS16	07/13/2011 16:47	12JUL111532_091.d	16.44		
200-5816-7	WPR02-SS17	07/13/2011 17:25	12JUL111532_101.d	16.44		
200-5816-8	WPR02-SS18	07/13/2011 18:02	12JUL111532_111.d	16.44		
GB 200-20821/11-B		07/13/2011 18:40	12JUL111532_121.d	16.45		
200-5816-6 MS	WPR02-SS16 MS	07/13/2011 19:17	12JUL111532_131.d	16.44		
200-5816-6 MSD	WPR02-SS16 MSD	07/13/2011 19:54	12JUL111532_141.d	16.45		
CCV 200-21368/15		07/13/2011 20:32	12JUL111532_151.d	16.44		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Sample No.: CCVRT 200-21370/1 Date Analyzed: 07/13/2011 12:14

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm)

Lab File ID (Standard): 12JUL111530_011.d Heated Purge: (Y/N) N

Calibration ID: 4454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB		
				RT #		
CONTINUING CALIBRATION SURROGATE				11.39		
UPPER LIMIT				11.49		
LOWER LIMIT				11.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-21370/1		07/13/2011 12:14	12JUL111530_011.d	11.39		
MB 200-21109/12-A		07/13/2011 12:48	12JUL111530_021.d	11.40		
LCS 200-21109/13-A		07/13/2011 13:22	12JUL111530_031.d	11.40		
200-5816-1	WPR02-SS09	07/13/2011 13:56	12JUL111530_041.d	11.41		
200-5816-2	WPR02-SS10	07/13/2011 14:30	12JUL111530_051.d	11.41		
200-5816-3	WPR02-SS11	07/13/2011 15:05	12JUL111530_061.d	11.41		
200-5816-4	WPR02-SS12	07/13/2011 15:39	12JUL111530_071.d	11.41		
200-5816-5	WPR02-SS15	07/13/2011 16:13	12JUL111530_081.d	11.42		
200-5816-6	WPR02-SS16	07/13/2011 16:47	12JUL111530_091.d	11.41		
200-5816-7	WPR02-SS17	07/13/2011 17:21	12JUL111530_101.d	11.42		
200-5816-8	WPR02-SS18	07/13/2011 17:56	12JUL111530_111.d	11.42		
GB 200-20821/11-B		07/13/2011 18:30	12JUL111530_121.d	11.42		
200-5816-6 MS	WPR02-SS16 MS	07/13/2011 19:04	12JUL111530_131.d	11.42		
200-5816-6 MSD	WPR02-SS16 MSD	07/13/2011 19:38	12JUL111530_141.d	11.42		
CCV 200-21370/15		07/13/2011 20:12	12JUL111530_151.d	11.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS09 Lab Sample ID: 200-5816-1

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 13:40 Date Analyzed (2): 07/13/2011 13:56

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		19.62	19.60	19.80	7.2		100.1
	2		21.88	21.57	21.77	22		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS10 Lab Sample ID: 200-5816-2

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 14:17 Date Analyzed (2): 07/13/2011 14:30

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		19.62	19.60	19.80	9.2		69.8
	2		21.89	21.57	21.77	19		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS11 Lab Sample ID: 200-5816-3

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 14:55 Date Analyzed (2): 07/13/2011 15:05

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		19.69	19.60	19.80	9.3		17.1
	2		21.84	21.57	21.77	11		
2,6-Dinitrotoluene	1		20.86	20.79	20.99	130		158.2
	2		17.26	17.01	17.21	15		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS12 Lab Sample ID: 200-5816-4

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 15:32 Date Analyzed (2): 07/13/2011 15:39

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.21	16.03	16.23	24		116.7
	2		18.53	18.23	18.43	92		
1,3-Dinitrobenzene	1		17.22	17.28	17.48	63		40.3
	2		13.77	13.71	13.91	42		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	15		175.6
	2		21.86	21.57	21.77	230		
2-Amino-4,6-dinitrotoluene	1		20.51	20.47	20.67	120		32.7
	2		12.21	12.01	12.21	87		
2,6-Dinitrotoluene	1		20.84	20.79	20.99	140		56.5
	2		17.01	17.01	17.21	80		
3-Nitrotoluene	1		23.97	23.99	24.19	92		14.7
	2		16.22	16.29	16.49	79		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS15 Lab Sample ID: 200-5816-5

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 16:10 Date Analyzed (2): 07/13/2011 16:13

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3-Dinitrobenzene	1		17.47	17.28	17.48	79		83.5
	2		13.76	13.71	13.91	33		
Nitroglycerin	1		19.12	19.16	19.36	2900		50.7
	2		9.65	9.42	9.62	4800		
2-Amino-4,6-dinitrotoluene	1		20.62	20.47	20.67	11		6.9
	2		12.19	12.01	12.21	11		
2,6-Dinitrotoluene	1		20.86	20.79	20.99	90		124.5
	2		17.28	17.01	17.21	21		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 Lab Sample ID: 200-5816-6

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 16:47 Date Analyzed (2): 07/13/2011 16:47

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.22	16.03	16.23	90		102.1
	2		18.65	18.23	18.43	29		
1,3-Dinitrobenzene	1		17.47	17.28	17.48	17		72.2
	2		13.75	13.71	13.91	36		
Nitroglycerin	1		19.14	19.16	19.36	8600		12.9
	2		9.66	9.42	9.62	9800		
2-Amino-4,6-dinitrotoluene	1		20.52	20.47	20.67	30		10.1
	2		12.21	12.01	12.21	27		
2,6-Dinitrotoluene	1		20.86	20.79	20.99	140		148.1
	2		17.11	17.01	17.21	21		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MS Lab Sample ID: 200-5816-6 MS

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 19:17 Date Analyzed (2): 07/13/2011 19:04

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.37	14.27	14.47	1770		1.0
	2		6.53	6.42	6.62	1750		
1,3,5-Trinitrobenzene	1		16.13	16.03	16.23	1950		14.6
	2		18.35	18.23	18.43	1680		
1,3-Dinitrobenzene	1		17.38	17.28	17.48	1760		8.9
	2		13.83	13.71	13.91	1610		
Tetryl	1		18.51	18.41	18.61	1750		68.4
	2		19.43	19.31	19.51	3570		
Nitroglycerin	1		19.26	19.16	19.36	45500		7.6
	2		9.54	9.42	9.62	42200		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	1880		1.1
	2		21.69	21.57	21.77	1860		
4-Amino-2,6-dinitrotoluene	1		20.19	20.09	20.29	1630		4.6
	2		11.92	11.79	11.99	1560		
2-Amino-4,6-dinitrotoluene	1		20.58	20.47	20.67	1740		7.4
	2		12.14	12.01	12.21	1610		
2,6-Dinitrotoluene	1		20.90	20.79	20.99	1920		12.1
	2		17.13	17.01	17.21	1700		
2,4-Dinitrotoluene	1		21.16	21.06	21.26	1780		66.9
	2		19.43	19.31	19.51	3570		
3-Nitrotoluene	1		24.09	23.99	24.19	1910		51.9
	2		16.42	16.29	16.49	3240		
PETN	1		24.82	24.72	24.92	40300		36.5
	2		15.36	15.28	15.48	27900		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MSD Lab Sample ID: 200-5816-6 MSD

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 19:54 Date Analyzed (2): 07/13/2011 19:38

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.38	14.27	14.47	1730		0.8
	2		6.53	6.42	6.62	1710		
1,3,5-Trinitrobenzene	1		16.14	16.03	16.23	1850		6.2
	2		18.35	18.23	18.43	1740		
1,3-Dinitrobenzene	1		17.38	17.28	17.48	1690		6.3
	2		13.84	13.71	13.91	1580		
Tetryl	1		18.52	18.41	18.61	1700		72.3
	2		19.44	19.31	19.51	3620		
Nitroglycerin	1		19.27	19.16	19.36	44800		9.0
	2		9.55	9.42	9.62	41000		
2,4,6-Trinitrotoluene	1		19.71	19.60	19.80	1830		1.5
	2		21.69	21.57	21.77	1850		
4-Amino-2,6-dinitrotoluene	1		20.20	20.09	20.29	1580		2.5
	2		11.92	11.79	11.99	1540		
2-Amino-4,6-dinitrotoluene	1		20.59	20.47	20.67	1670		2.1
	2		12.15	12.01	12.21	1640		
2,6-Dinitrotoluene	1		20.91	20.79	20.99	1850		6.0
	2		17.13	17.01	17.21	1740		
2,4-Dinitrotoluene	1		21.17	21.06	21.26	1740		70.2
	2		19.44	19.31	19.51	3620		
3-Nitrotoluene	1		24.10	23.99	24.19	1850		57.2
	2		16.42	16.29	16.49	3340		
PETN	1		24.83	24.72	24.92	39100		28.6
	2		15.37	15.28	15.48	29300		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS17 Lab Sample ID: 200-5816-7

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 17:25 Date Analyzed (2): 07/13/2011 17:21

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.20	16.03	16.23	30		22.4
	2		18.55	18.23	18.43	24		
1,3-Dinitrobenzene	1		17.46	17.28	17.48	22		36.5
	2		13.79	13.71	13.91	32		
Nitroglycerin	1		19.14	19.16	19.36	7700		78.0
	2		9.67	9.42	9.62	18000		
2,4,6-Trinitrotoluene	1		19.75	19.60	19.80	8.9		164.2
	2		21.85	21.57	21.77	91		
2-Amino-4,6-dinitrotoluene	1		20.52	20.47	20.67	36		39.7
	2		12.22	12.01	12.21	24		
2,6-Dinitrotoluene	1		20.85	20.79	20.99	110		132.2
	2		17.12	17.01	17.21	23		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS18 Lab Sample ID: 200-5816-8

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 18:02 Date Analyzed (2): 07/13/2011 17:56

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.27	14.27	14.47	34		53.9
	2		6.67	6.42	6.62	58		
1,3,5-Trinitrobenzene	1		16.23	16.03	16.23	200		37.4
	2		18.49	18.23	18.43	290		
1,3-Dinitrobenzene	1		17.43	17.28	17.48	27		79.5
	2		13.77	13.71	13.91	62		
2,4,6-Trinitrotoluene	1		19.74	19.60	19.80	11		68.9
	2		21.67	21.57	21.77	23		
2,6-Dinitrotoluene	1		20.85	20.79	20.99	210		116.0
	2		17.34	17.01	17.21	56		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: Lab Sample ID: LCS 200-21109/13-A

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/13/2011 13:03 Date Analyzed (2): 07/13/2011 13:22

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.37	14.27	14.47	1870		6.2
	2		6.53	6.42	6.62	1990		
1,3,5-Trinitrobenzene	1		16.14	16.03	16.23	1870		4.1
	2		18.34	18.23	18.43	1950		
1,3-Dinitrobenzene	1		17.38	17.28	17.48	1750		2.6
	2		13.82	13.71	13.91	1800		
Tetryl	1		18.51	18.41	18.61	1770		74.6
	2		19.42	19.31	19.51	3870		
Nitroglycerin	1		19.26	19.16	19.36	36600		5.1
	2		9.52	9.42	9.62	38600		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	1880		8.6
	2		21.68	21.57	21.77	2050		
4-Amino-2,6-dinitrotoluene	1		20.19	20.09	20.29	1870		4.2
	2		11.90	11.79	11.99	1940		
2-Amino-4,6-dinitrotoluene	1		20.57	20.47	20.67	1840		4.0
	2		12.12	12.01	12.21	1920		
2,6-Dinitrotoluene	1		20.89	20.79	20.99	1840		6.0
	2		17.12	17.01	17.21	1950		
2,4-Dinitrotoluene	1		21.15	21.06	21.26	1850		70.8
	2		19.42	19.31	19.51	3870		
3-Nitrotoluene	1		24.08	23.99	24.19	1880		68.7
	2		16.41	16.29	16.49	3850		
PETN	1		24.81	24.72	24.92	37900		2.0
	2		15.38	15.28	15.48	37100		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS09 Lab Sample ID: 200-5816-1

Matrix: Solid Lab File ID: 12JUL111532_041.d

Analysis Method: 8330B Date Collected: 06/27/2011 10:45

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.51(g) Date Analyzed: 07/13/2011 13:40

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	7.2	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.7
606-20-2	2,6-Dinitrotoluene	14	U	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	29	U M	95	29	25
78-11-5	PETN	1700	U	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_041.d		
Lims ID:	200-5816-A-1-B	Client ID:	WPR02-SS09
Inject. Date:	13-Jul-2011 13:40:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-004		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	4
Lims Batch ID:	21368	Lims Sample ID:	4
Detector:	A-12JUL111532.R041		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 13:43:24

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
7 RDX		14.369				1
9 1,3,5-Trinitrobenzene	16.201	16.130	0.071	1040	0.8662	
$ 10 1,2-Dinitrobenzene	16.432	16.441	-0.009	64249	180.2	
11 1,3-Dinitrobenzene		17.375				1
13 Tetryl		18.513				1
14 Nitroglycerin		19.260				1
15 2,4,6-Trinitrotoluene	19.624	19.704	-0.080	231	0.7587	A
16 4-Amino-2,6-dinitrotoluene	20.158	20.193	-0.035	282	1.02	A
17 2-Amino-4,6-dinitrotoluene		20.567				1
18 2,6-Dinitrotoluene	20.860	20.887	-0.027	7979	19.0	
19 2,4-Dinitrotoluene		21.163				1
22 m-Nitrotoluene	23.972	24.088	-0.116	1537	6.34	M
23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

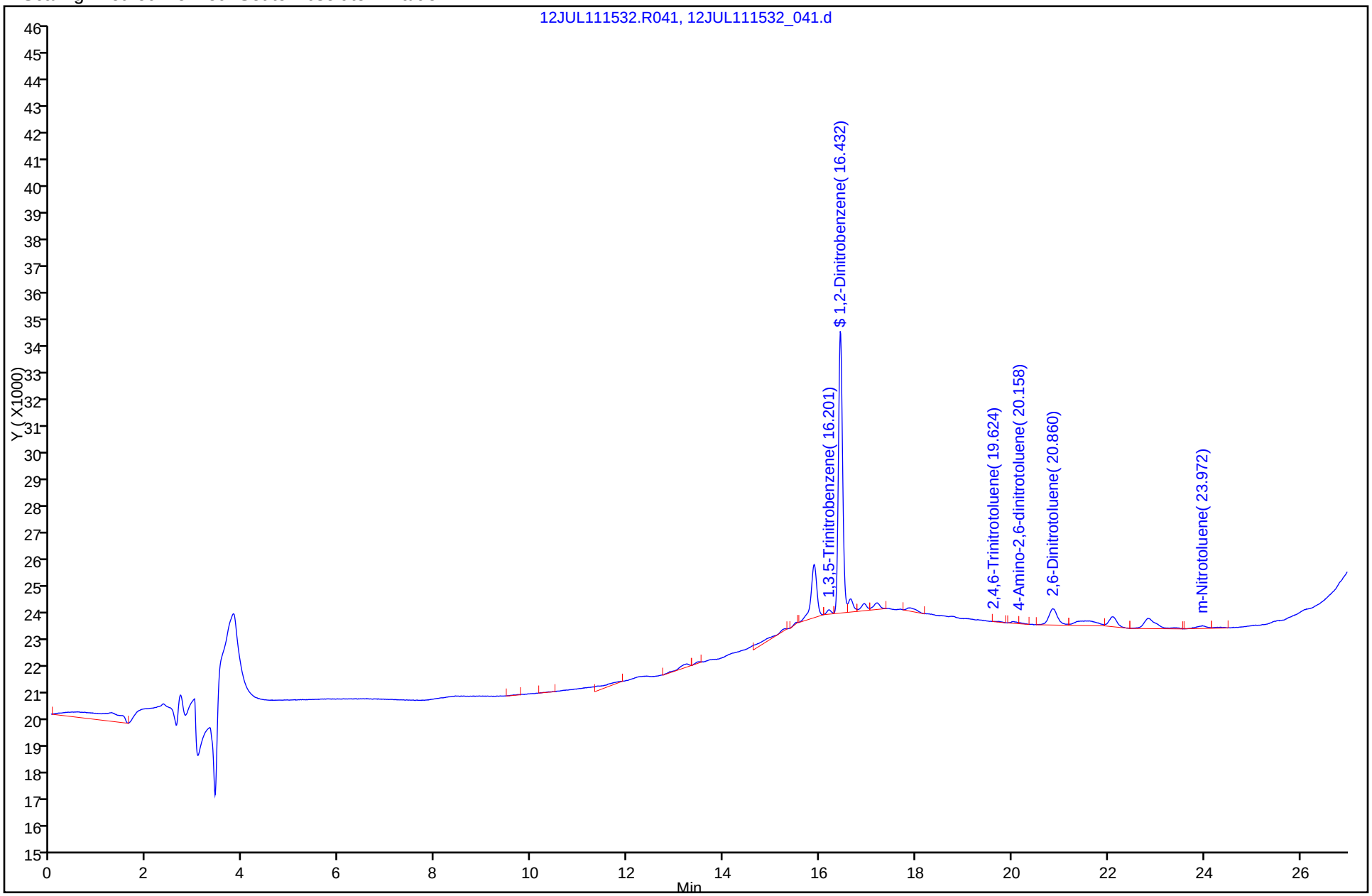
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_041.d

Injection Date:	13-Jul-2011 13:40:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

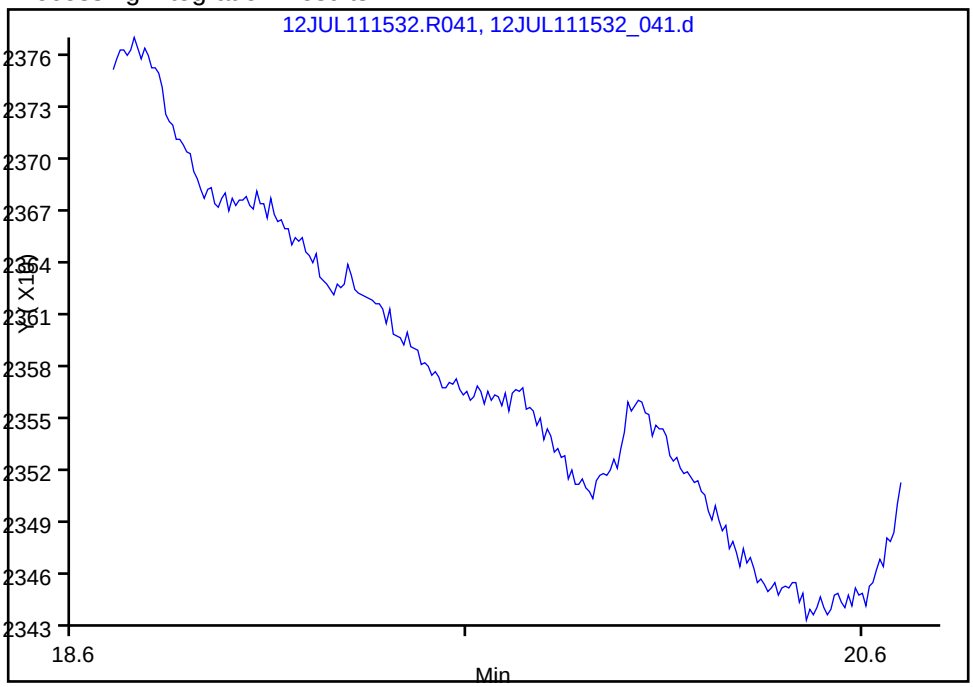
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_041.d		
Injection Date:	13-Jul-2011 13:40:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

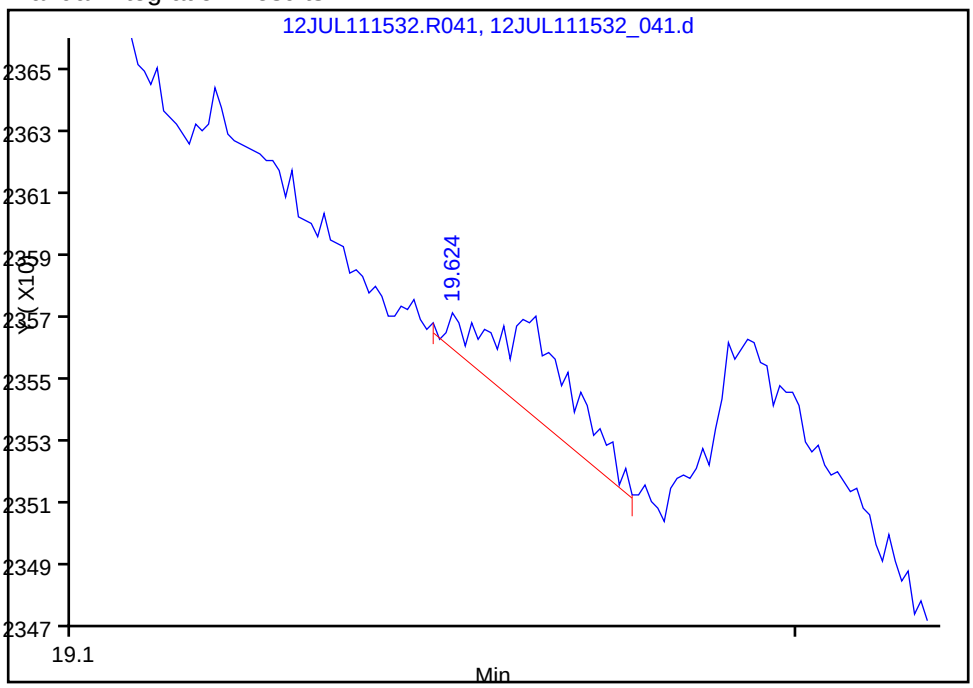
Not Detected
Expected RT: 19.70

Processing Integration Results



Manual Integration Results

RT: 19.62
Response: 231
Amount: 0.758711



Reviewer: chirgwinb, 15-Jul-2011 13:43:24
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

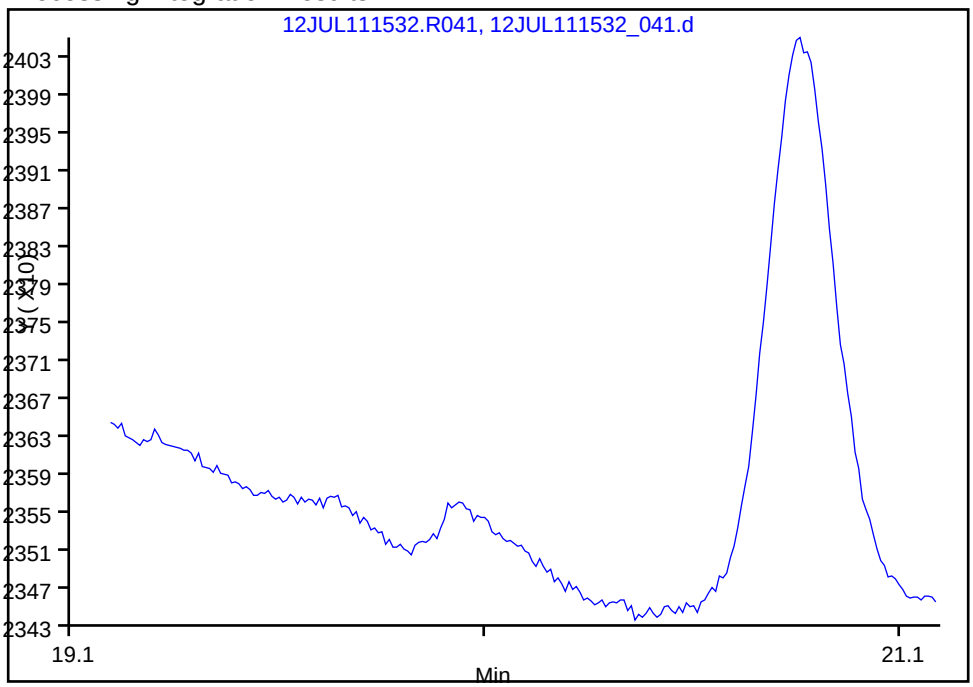
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_041.d		
Injection Date:	13-Jul-2011 13:40:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.16
Response: 282
Amount: 1.016230

Reviewer: chirgwinb, 15-Jul-2011 13:43:24
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

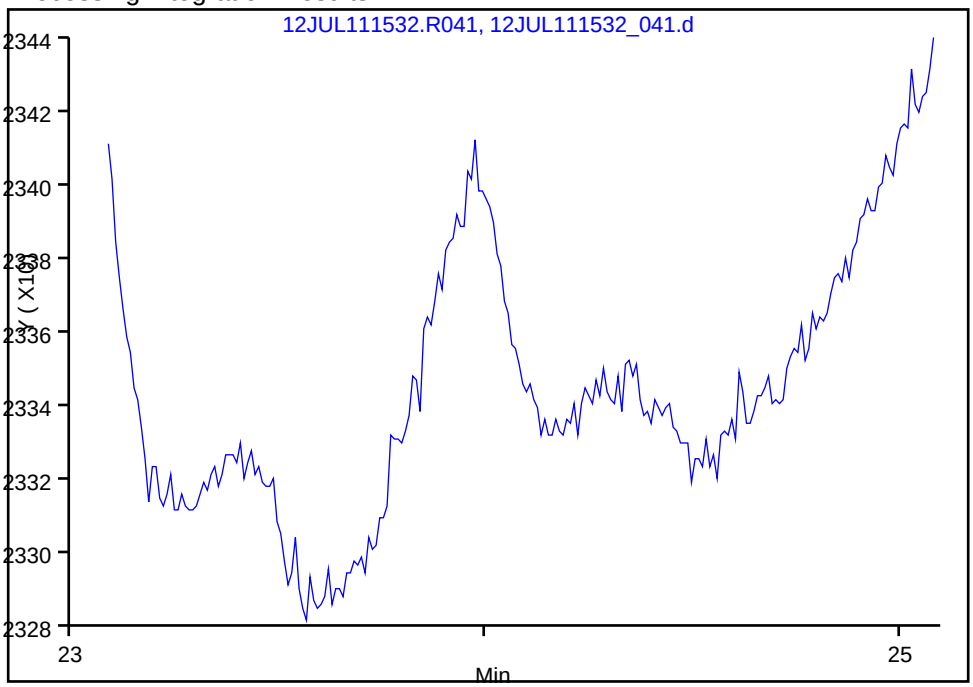
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_041.d		
Injection Date:	13-Jul-2011 13:40:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

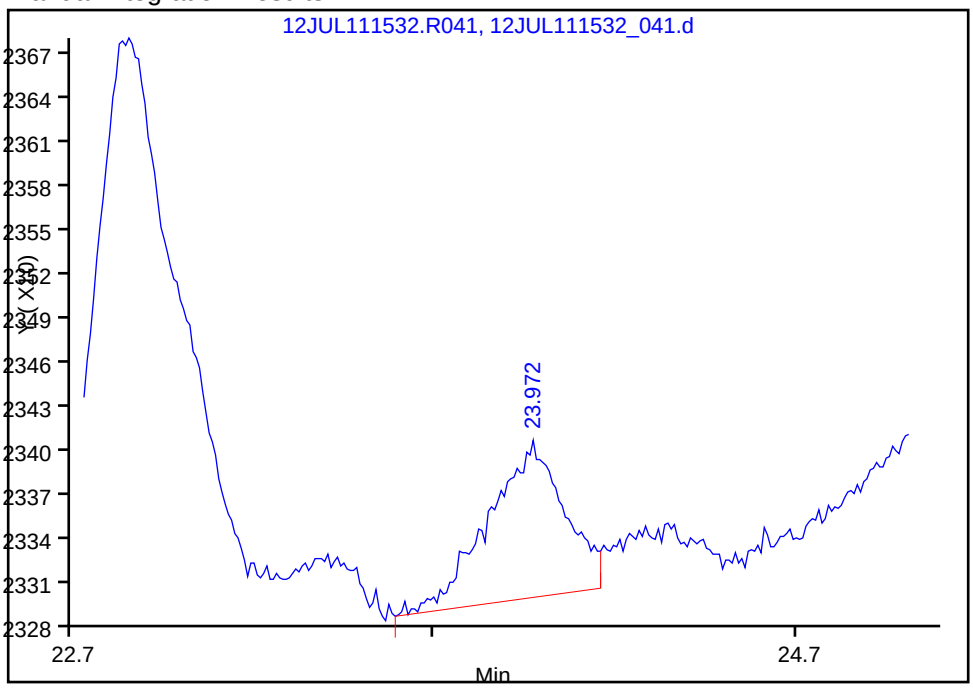
Not Detected
Expected RT: 24.09

Processing Integration Results



Manual Integration Results

RT: 23.97
Response: 1537
Amount: 6.340807



Reviewer: chirgwinb, 15-Jul-2011 13:43:24
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS09 | Lab Sample ID: 200-5816-1

Matrix: Solid | Lab File ID: 12JUL111530_041.d

Analysis Method: 8330B | Date Collected: 06/27/2011 10:45

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.51(g) | Date Analyzed: 07/13/2011 13:56

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	*2,4,6-Trinitrotoluene*	*22*	*M J*	*95*	14	*6.3*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_041.d		
Lims ID:	200-5816-A-1-B	Client ID:	WPR02-SS09
Inject. Date:	13-Jul-2011 13:56:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-004		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	4
Lims Batch ID:	21370	Lims Sample ID:	4
Detector:	A-12JUL111530.R041		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:43:17

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.518				1
	18 Nitroglycerin		9.515				1
$	1 1,2-Dinitrobenzene	11.409	11.391	0.018	104575	174.7	
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene		12.111				1
	3 1,3-Dinitrobenzene	13.783	13.810	-0.027	6232	5.07	
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene		17.109				1
	2 1,3,5-Trinitrobenzene	18.318	18.327	-0.009	1724	1.22	
	7 2,4-Dinitrotoluene		19.412				1
	23 Tetryl		19.412				1
	5 2,4,6-Trinitrotoluene	21.875	21.670	0.205	2302	2.28	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

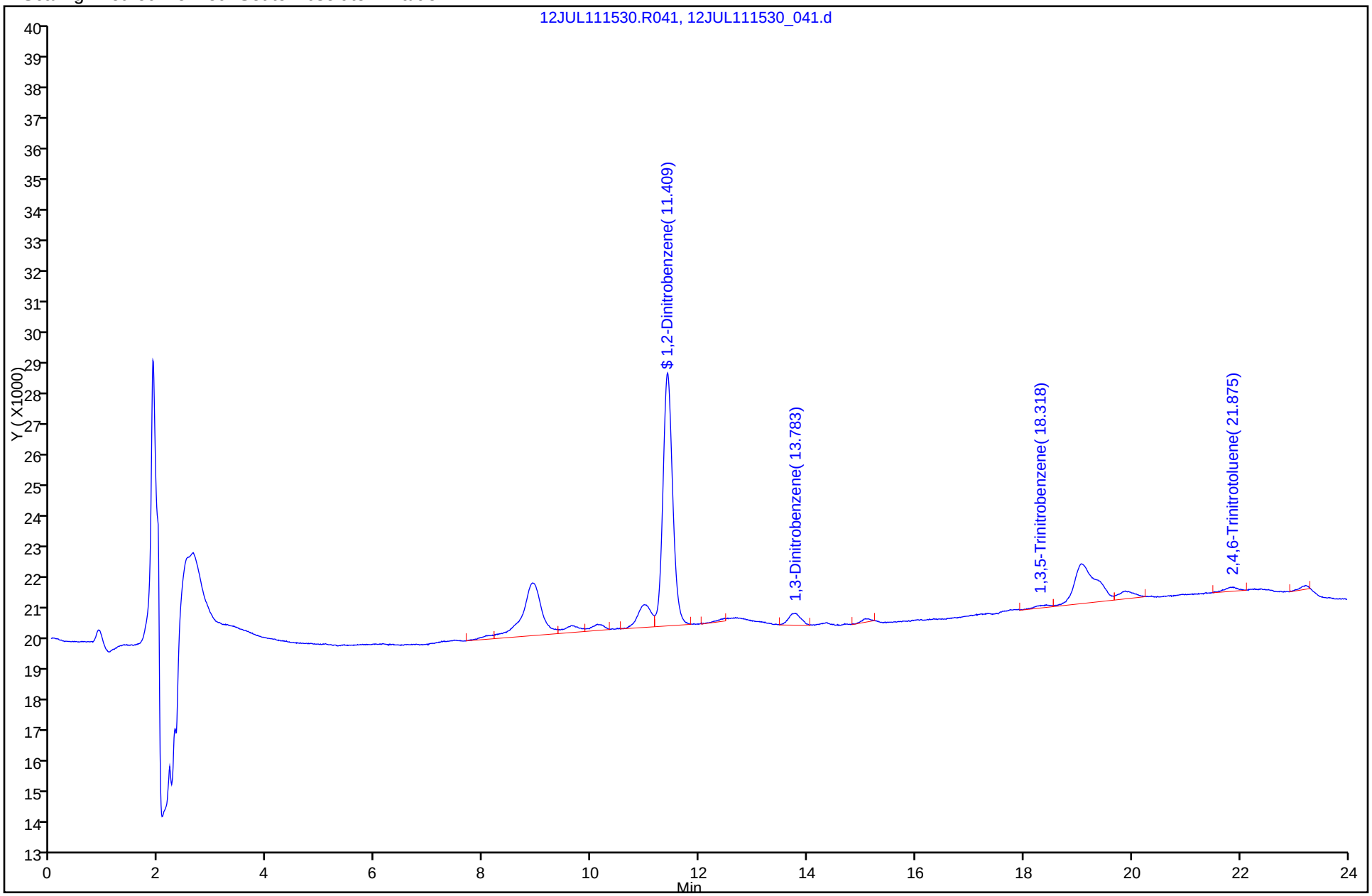
Review Flags
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:11 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_041.d

Injection Date:	13-Jul-2011 13:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:11 Chrom Revision: 1.2 30-Jun-2011 15:02:28

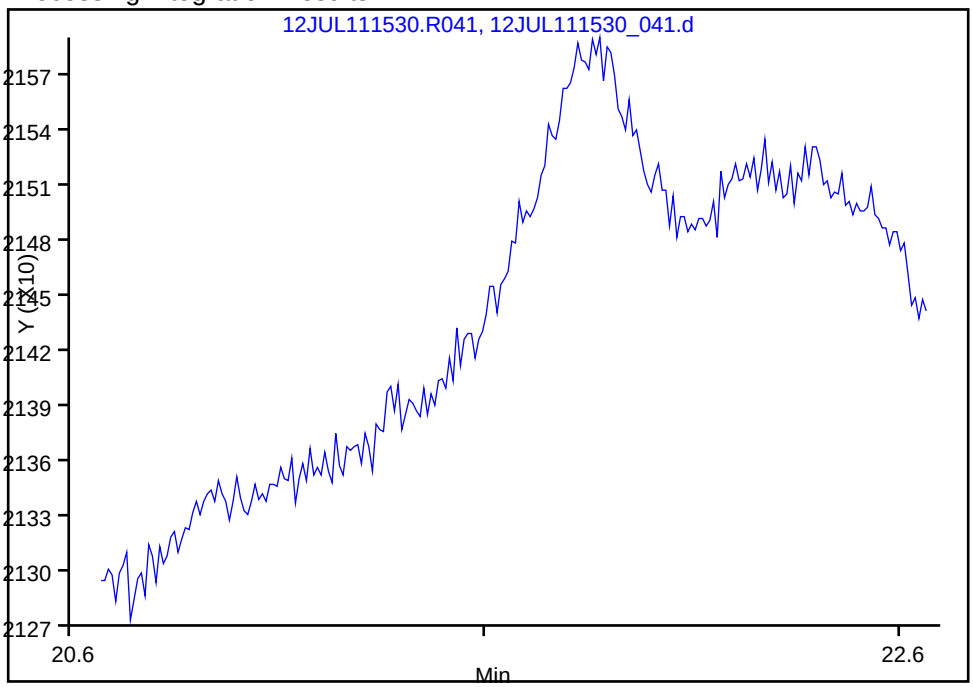
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_041.d		
Injection Date:	13-Jul-2011 13:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS09	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.67

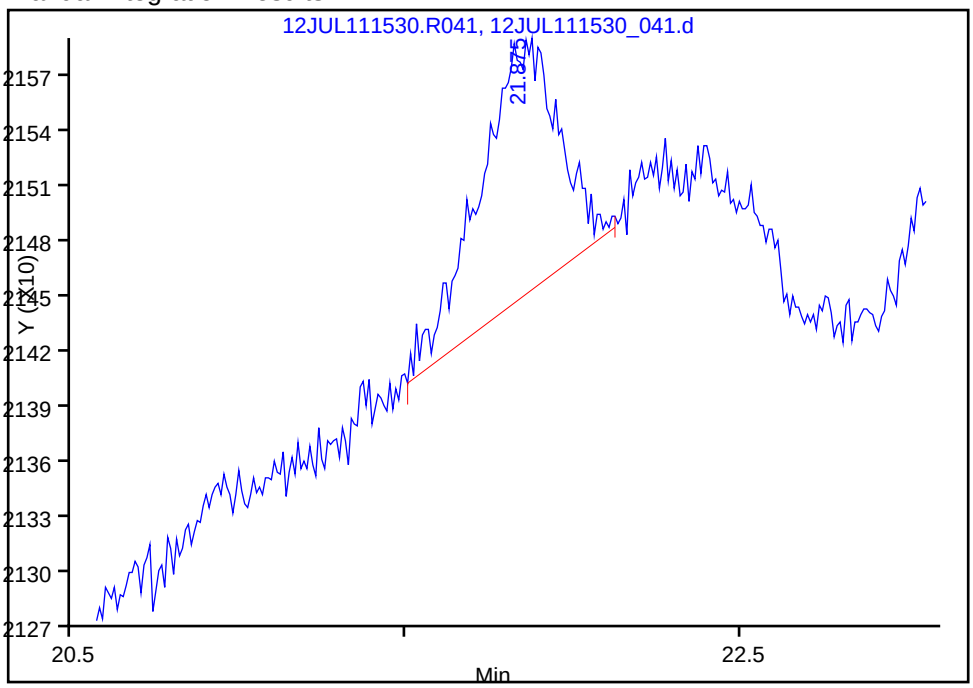
Not Detected
Expected RT: 21.67

Processing Integration Results



Manual Integration Results

RT: 21.87
Response: 2302
Amount: 2.276709



Reviewer: chirgwinb, 15-Jul-2011 14:43:17
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Revised page 77

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS10 | Lab Sample ID: 200-5816-2

Matrix: Solid | Lab File ID: 12JUL111532_051.d

Analysis Method: 8330B | Date Collected: 06/27/2011 11:12

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) | Date Analyzed: 07/13/2011 14:17

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	9.2	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.6
606-20-2	2,6-Dinitrotoluene	14 ~~140~~	UM JMM	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		40-140

Revised 10/31/11
JMM

Superceded by revised p. 77 prior to this page

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS10 Lab Sample ID: 200-5816-2

Matrix: Solid Lab File ID: 12JUL111532_051.d

Analysis Method: 8330B Date Collected: 06/27/2011 11:12

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) Date Analyzed: 07/13/2011 14:17

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	9.2	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.6
606-20-2	2,6-Dinitrotoluene	140	M	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d		
Lims ID:	200-5816-A-2-B	Client ID:	WPR02-SS10
Inject. Date:	13-Jul-2011 14:17:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	21368	Lims Sample ID:	5
Detector:	A-12JUL111532.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 13:45:37

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
7 RDX		14.369				1
9 1,3,5-Trinitrobenzene	16.192	16.130	0.062	1619	1.56	
$ 10 1,2-Dinitrobenzene	16.441	16.441	0.0	64736	181.5	
11 1,3-Dinitrobenzene		17.375				1
13 Tetryl		18.513				1
14 Nitroglycerin		19.260				1
15 2,4,6-Trinitrotoluene	19.615	19.704	-0.089	350	0.9652	A
16 4-Amino-2,6-dinitrotoluene	20.167	20.193	-0.026	252	0.9738	A
17 2-Amino-4,6-dinitrotoluene		20.567				1
18 2,6-Dinitrotoluene	20.851	20.887	-0.036	6197	14.8	M
19 2,4-Dinitrotoluene		21.163				1
22 m-Nitrotoluene	23.981	24.088	-0.107	1495	6.07	A
23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

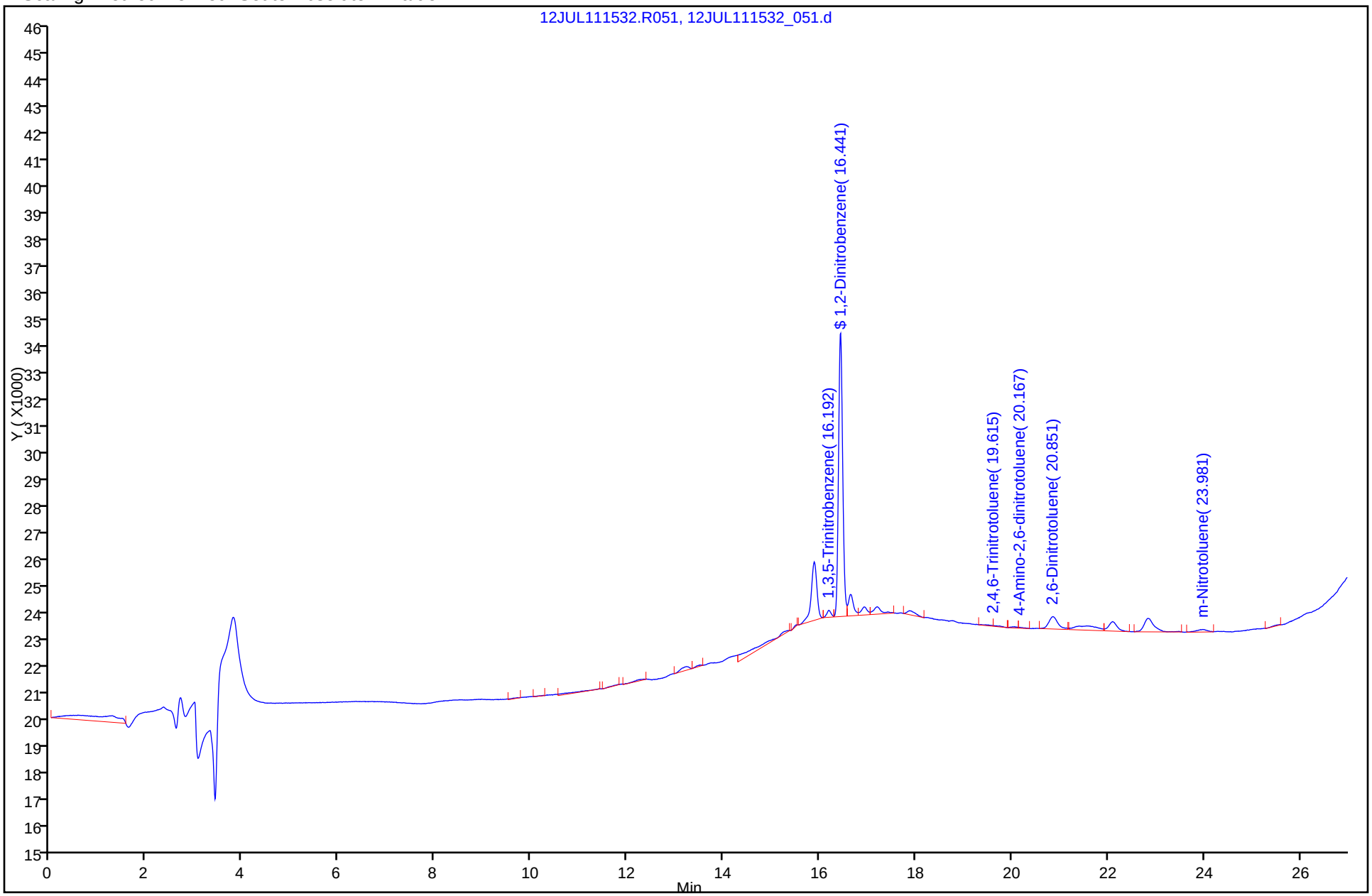
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d

Injection Date:	13-Jul-2011 14:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

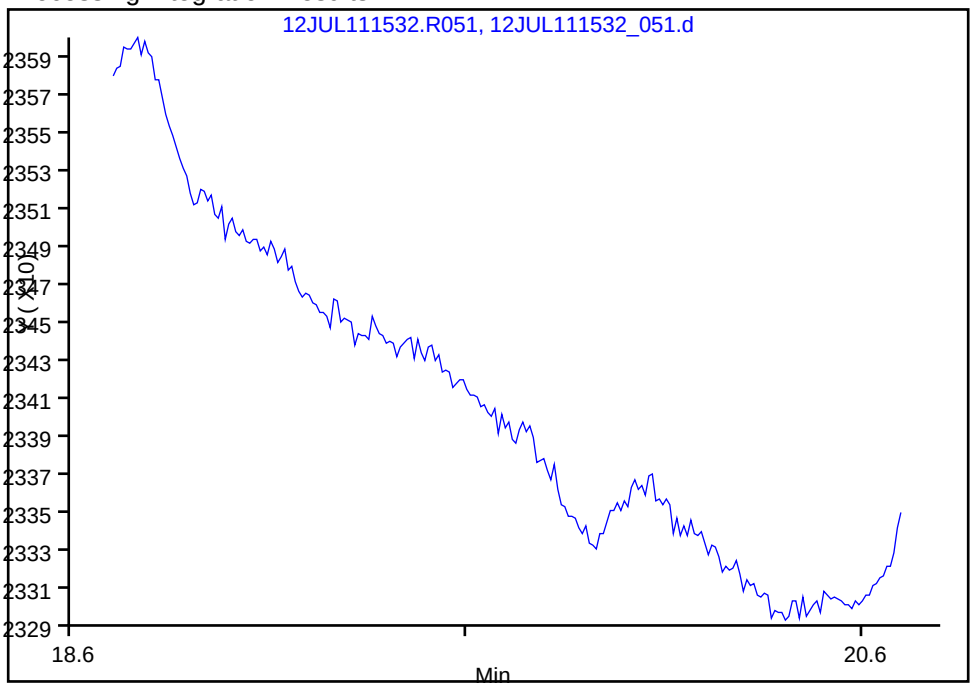
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d		
Injection Date:	13-Jul-2011 14:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

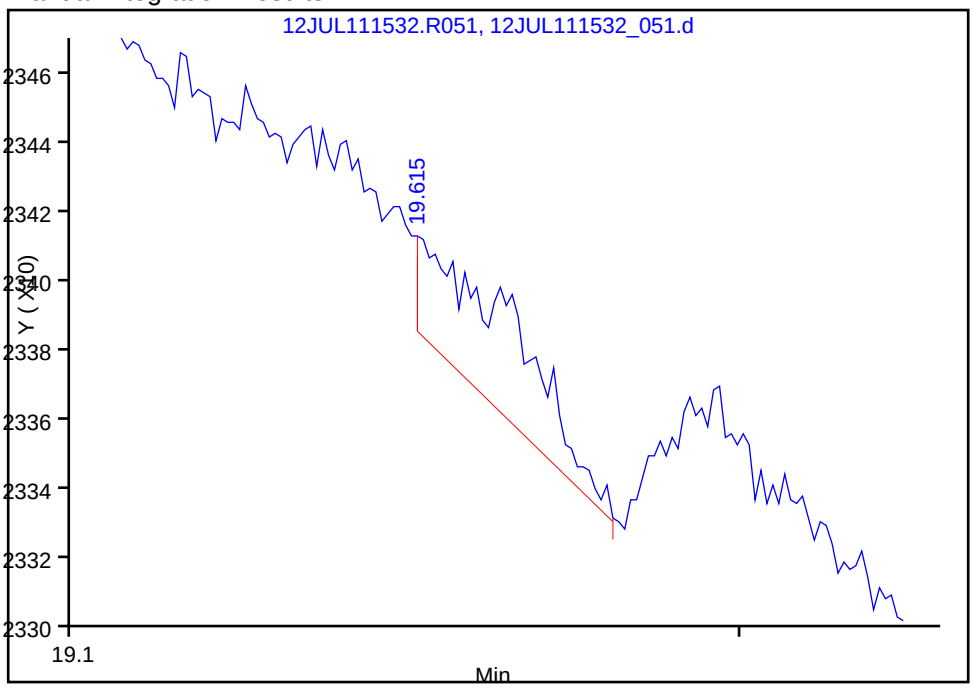
Not Detected
Expected RT: 19.70

Processing Integration Results



Manual Integration Results

RT: 19.62
Response: 350
Amount: 0.965155



Reviewer: chirgwinb, 15-Jul-2011 13:45:37
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

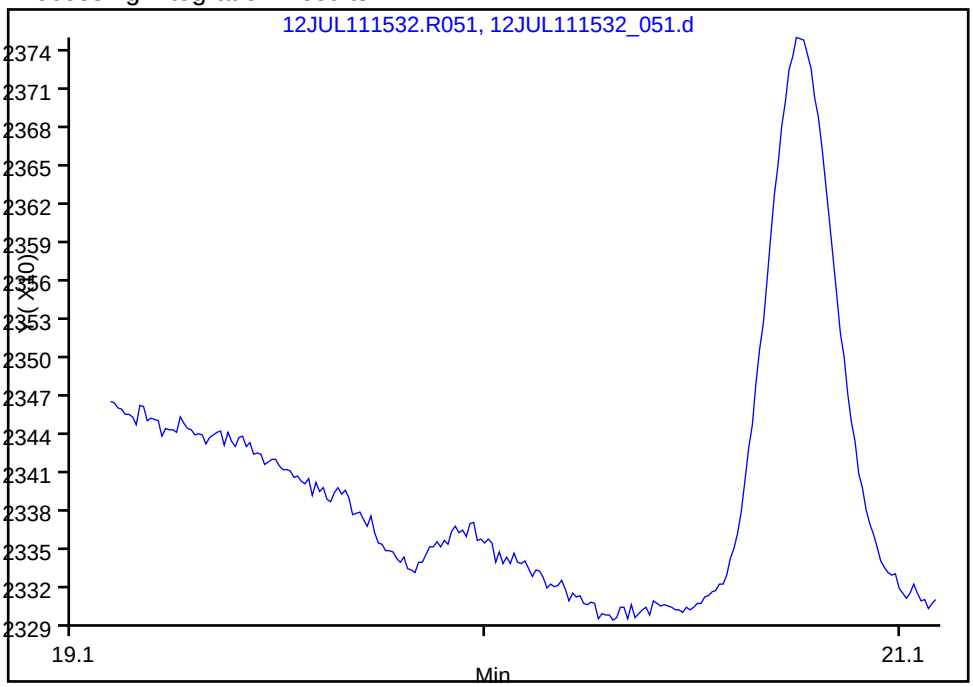
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d		
Injection Date:	13-Jul-2011 14:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

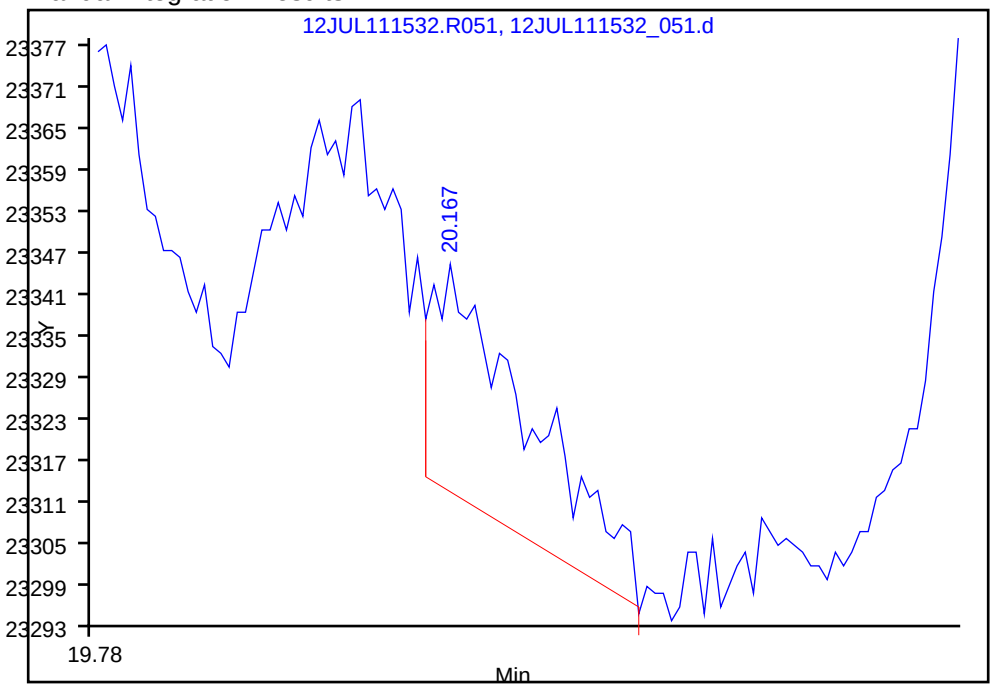
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.17
Response: 252
Amount: 0.973794



Reviewer: chirgwinb, 15-Jul-2011 13:45:37
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

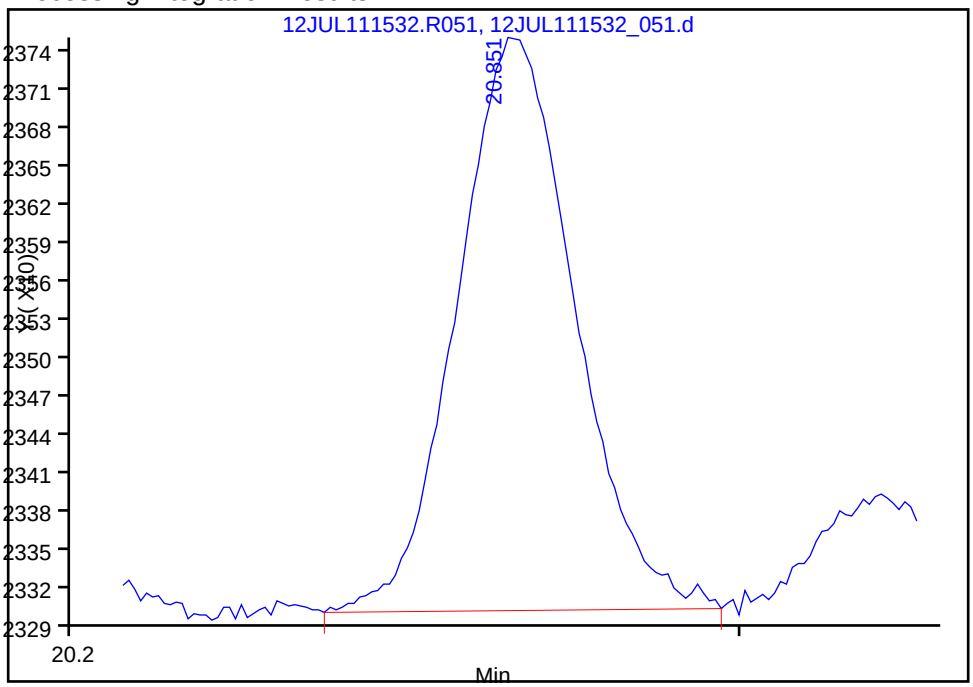
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d		
Injection Date:	13-Jul-2011 14:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

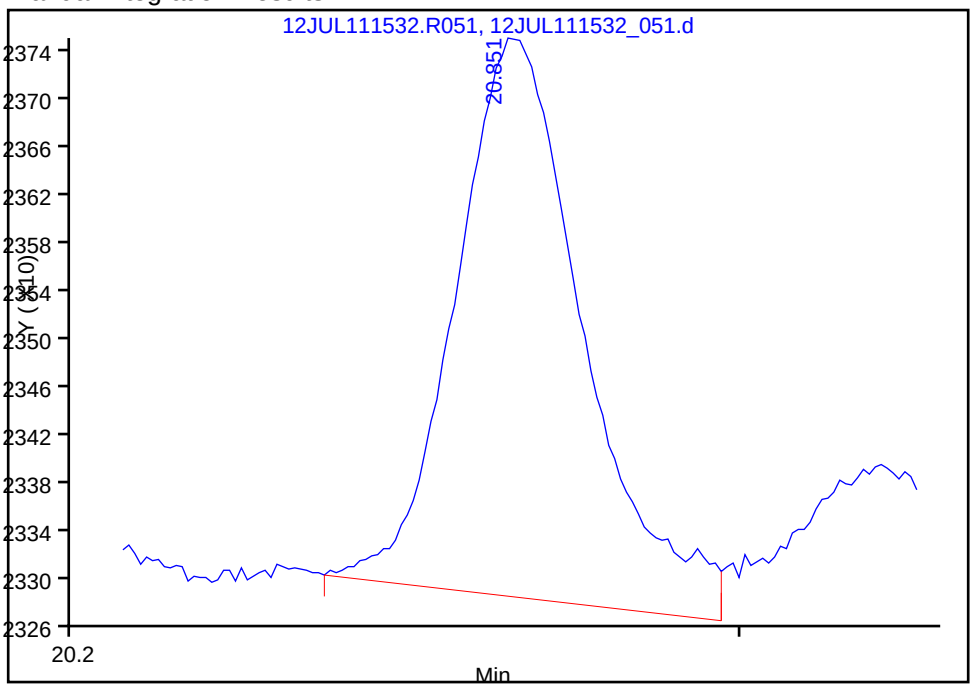
Processing Integration Results

RT: 20.85
Response: 5464
Amount: 13.070129



Manual Integration Results

RT: 20.85
Response: 6197
Amount: 14.786619



Reviewer: chirgwinb, 15-Jul-2011 13:45:37
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:49 Chrom Revision: 1.2 30-Jun-2011 15:02:28

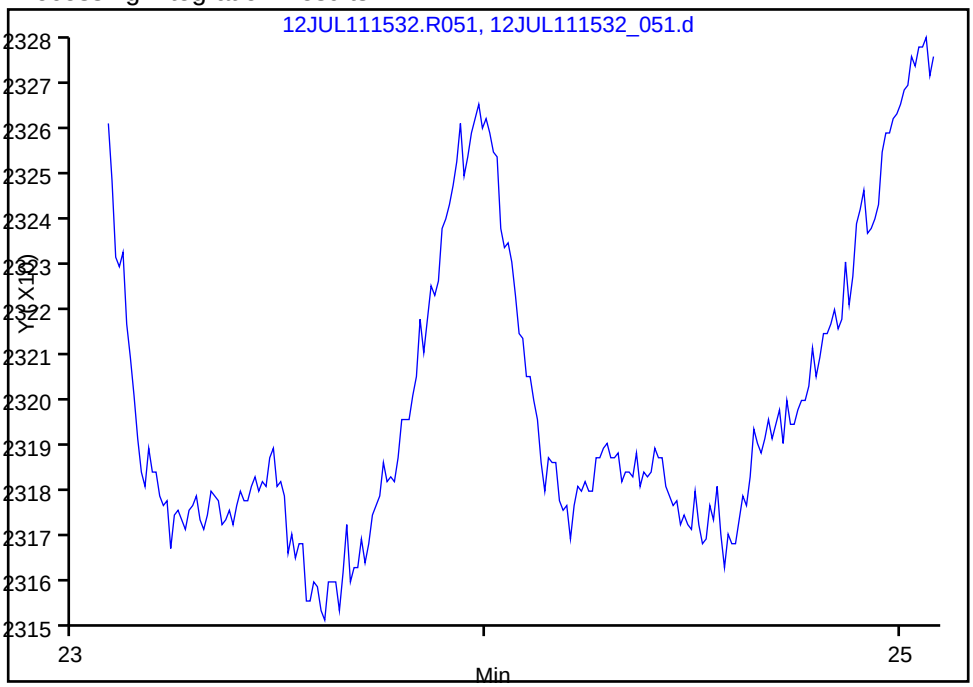
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_051.d		
Injection Date:	13-Jul-2011 14:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

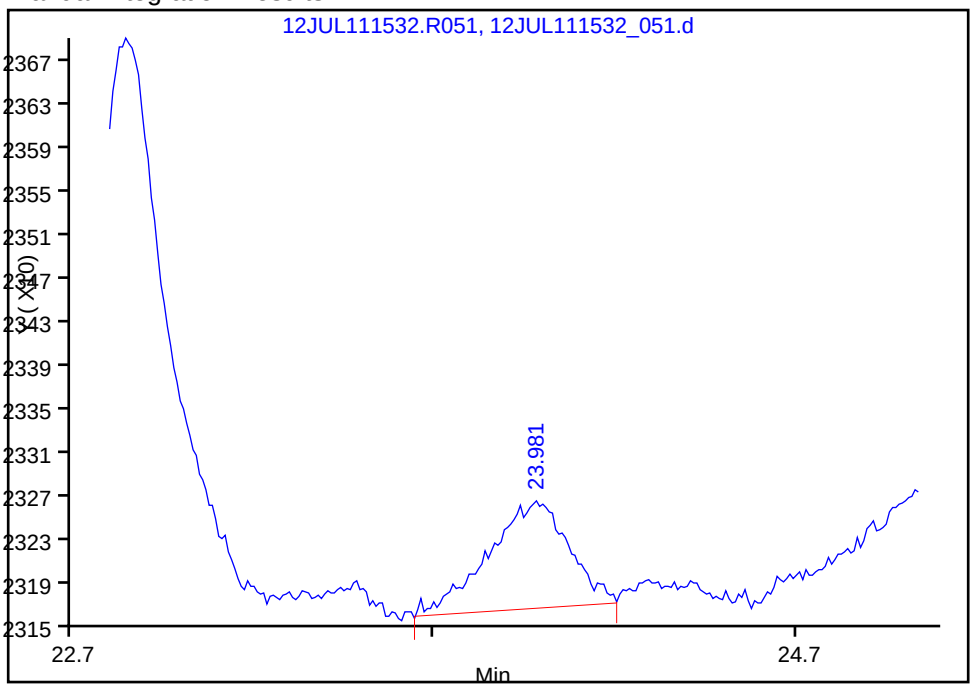
Not Detected
Expected RT: 24.09

Processing Integration Results



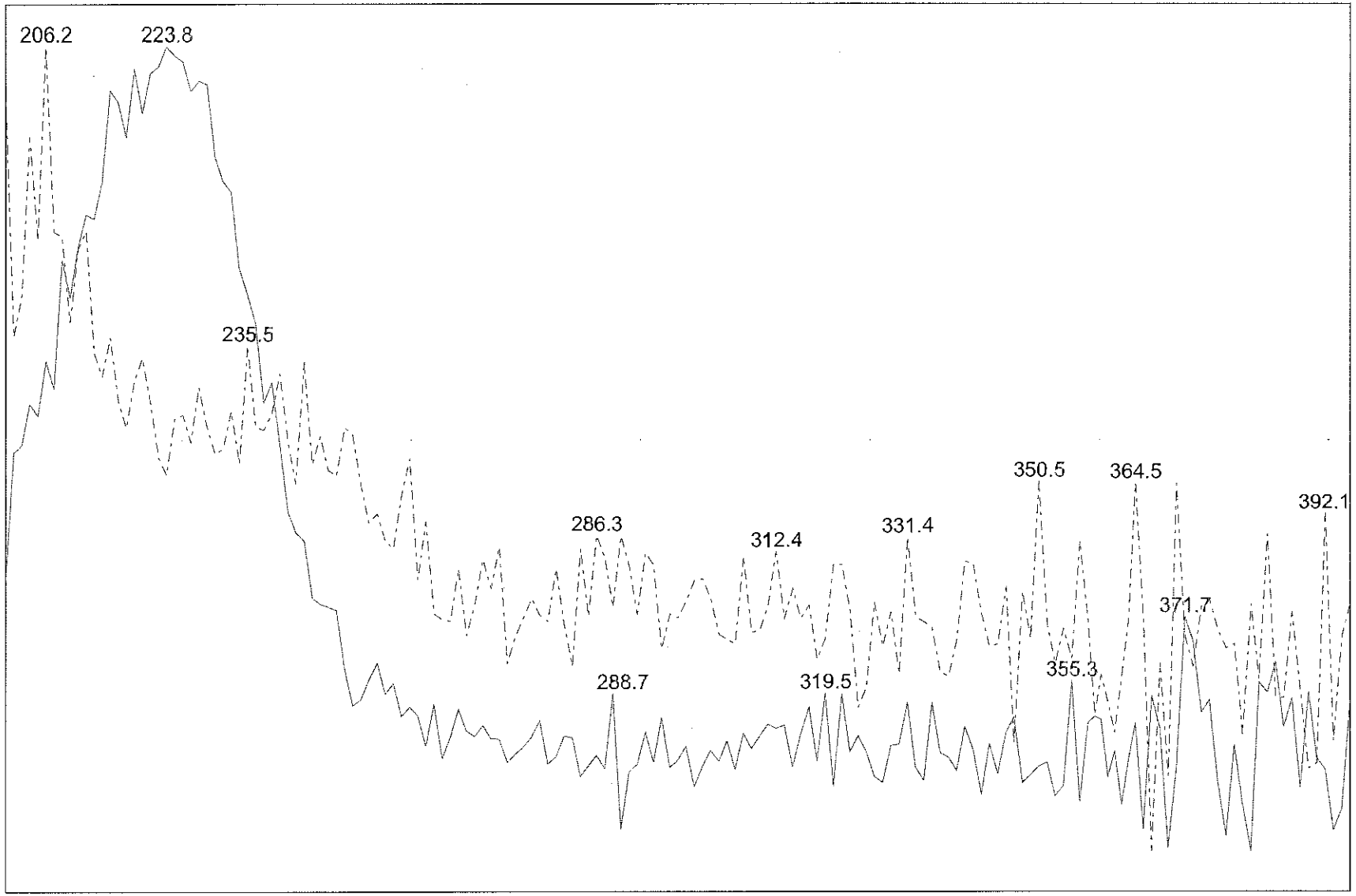
Manual Integration Results

RT: 23.98
Response: 1495
Amount: 6.072223



Reviewer: chirgwinb, 15-Jul-2011 13:45:37
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Spectrum Review Report-TestAmerica Burlington



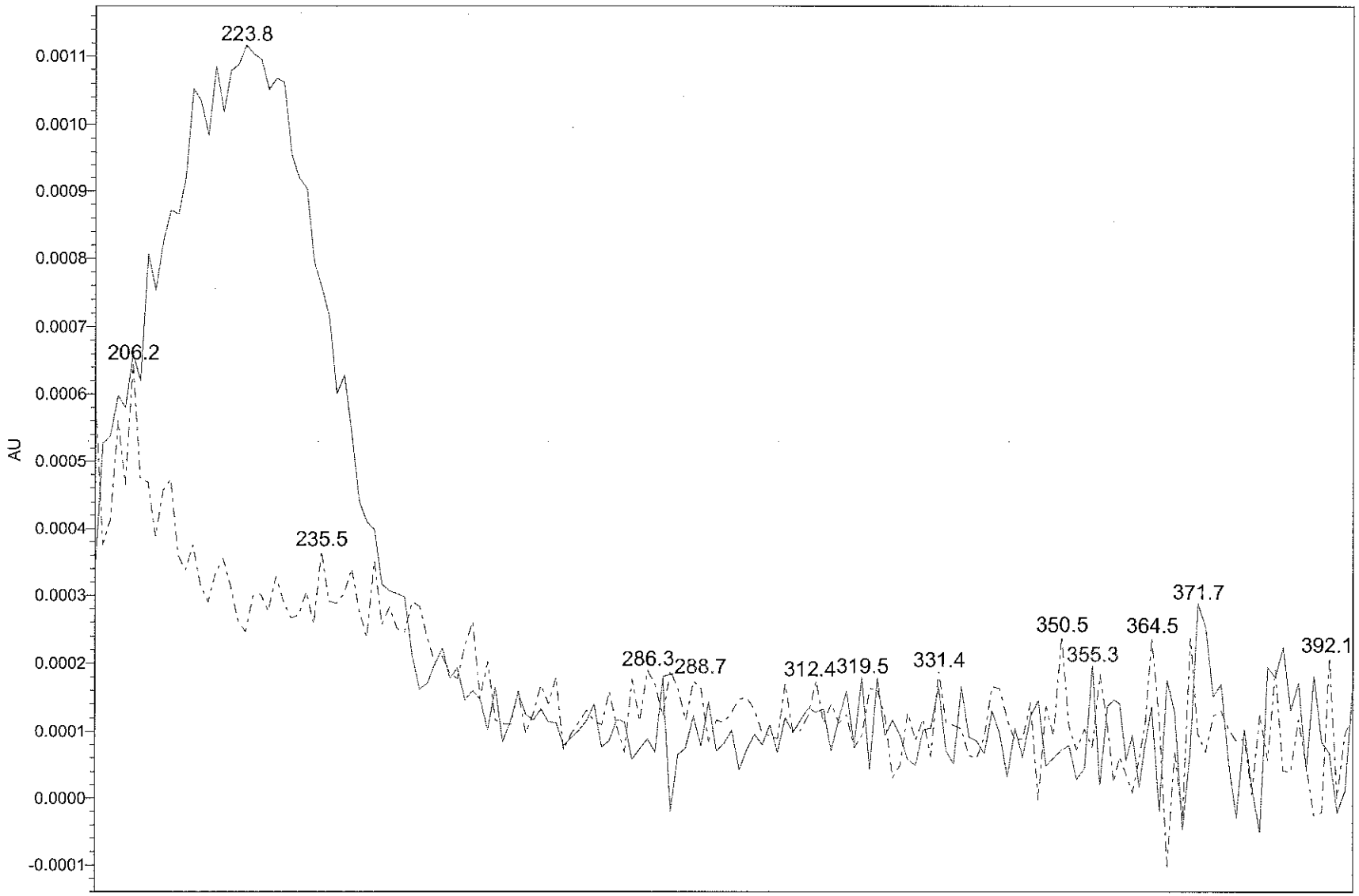
Retention Time: 20.967 LIMS Name: 200-5816-A-2-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-SS10

PDA Addendum for 2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



Retention Time: 20.967 LIMS Name: 200-5816-A-2-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR0Z-5510

PDA Addendum for 2,6-dinitrotoluene

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS10 | Lab Sample ID: 200-5816-2

Matrix: Solid | Lab File ID: 12JUL111530_051.d

Analysis Method: 8330B | Date Collected: 06/27/2011 11:12

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) | Date Analyzed: 07/13/2011 14:30

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	*2,4,6-Trinitrotoluene*	*19*	*M J*	*95*	14	*6.3*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_051.d		
Lims ID:	200-5816-A-2-B	Client ID:	WPR02-SS10
Inject. Date:	13-Jul-2011 14:30:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	5
Lims Batch ID:	21370	Lims Sample ID:	5
Detector:	A-12JUL111530.R051		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:46:17

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.518				1
	18 Nitroglycerin		9.515				1
$	1 1,2-Dinitrobenzene	11.409	11.391	0.018	114150	190.8	
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene		12.111				1
	3 1,3-Dinitrobenzene	13.756	13.810	-0.054	5991	4.90	
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene		17.109				1
	2 1,3,5-Trinitrobenzene	18.585	18.327	0.258	1060	0.7584	A
	7 2,4-Dinitrotoluene		19.412				1
	23 Tetryl		19.412				1
	5 2,4,6-Trinitrotoluene	21.893	21.670	0.223	2074	2.00	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

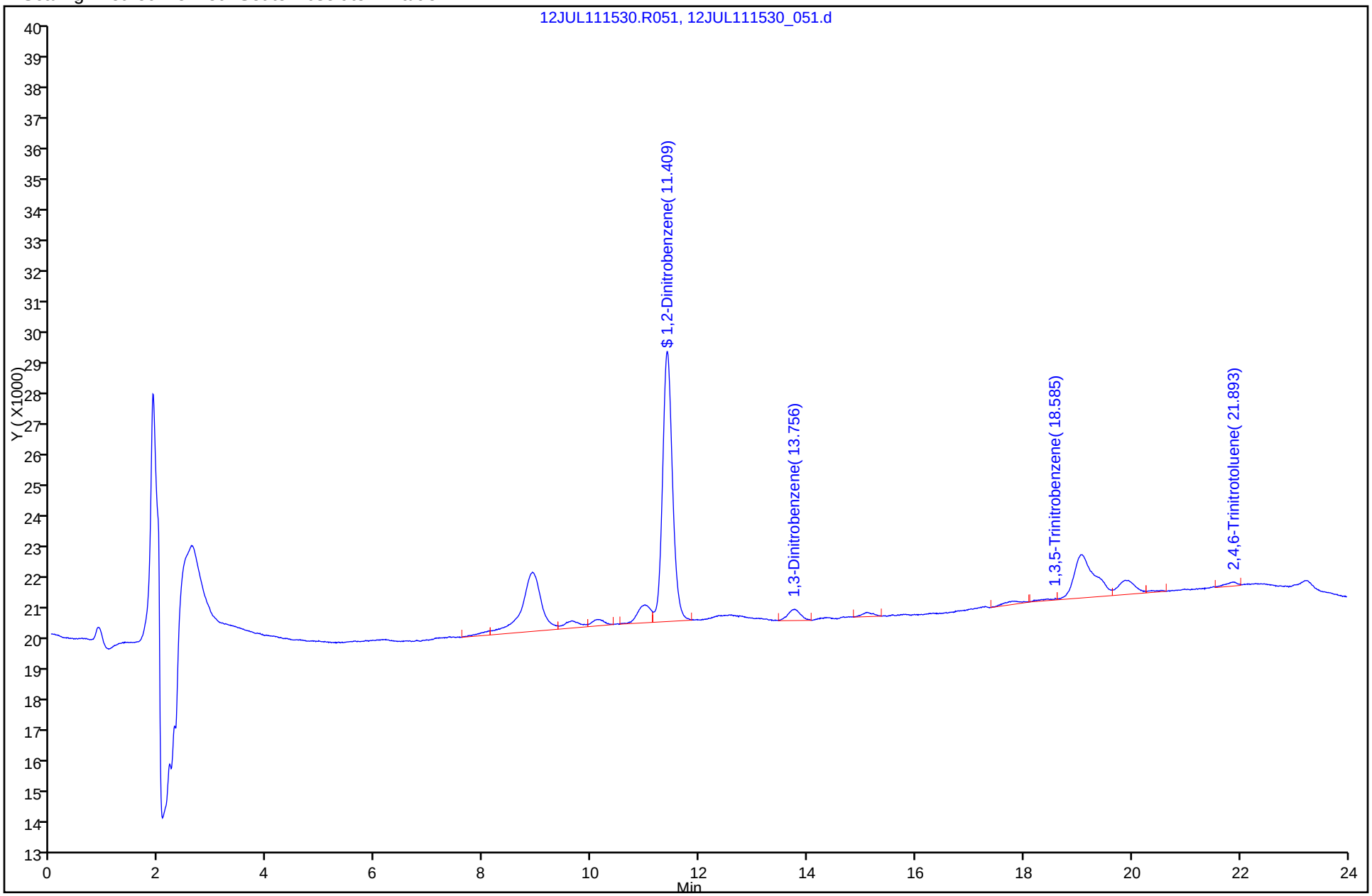
Review Flags
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:11 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_051.d

Injection Date:	13-Jul-2011 14:30:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:11 Chrom Revision: 1.2 30-Jun-2011 15:02:28

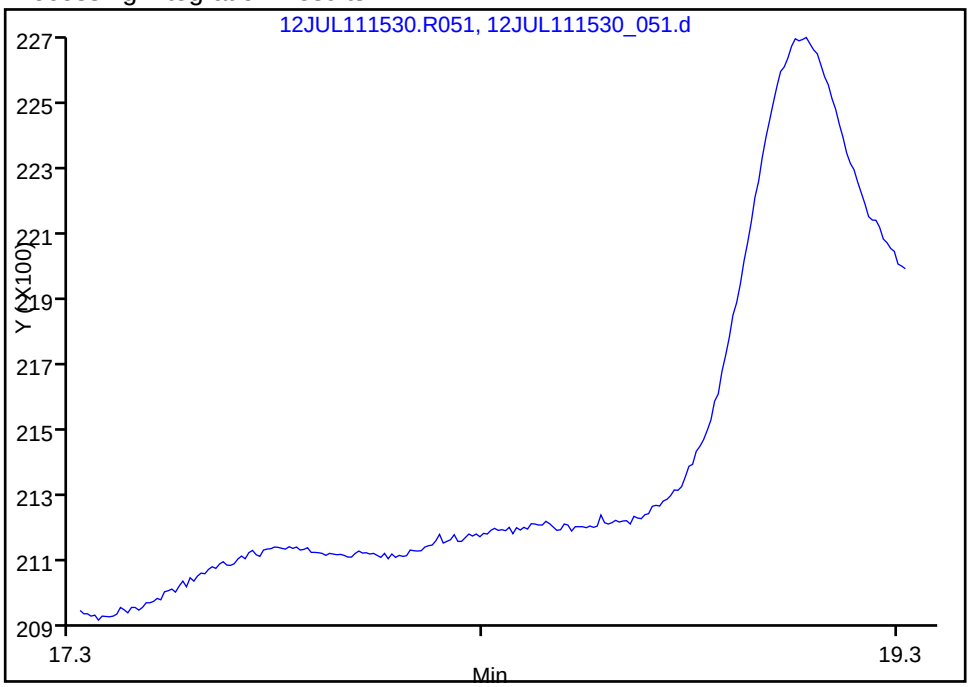
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_051.d		
Injection Date:	13-Jul-2011 14:30:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

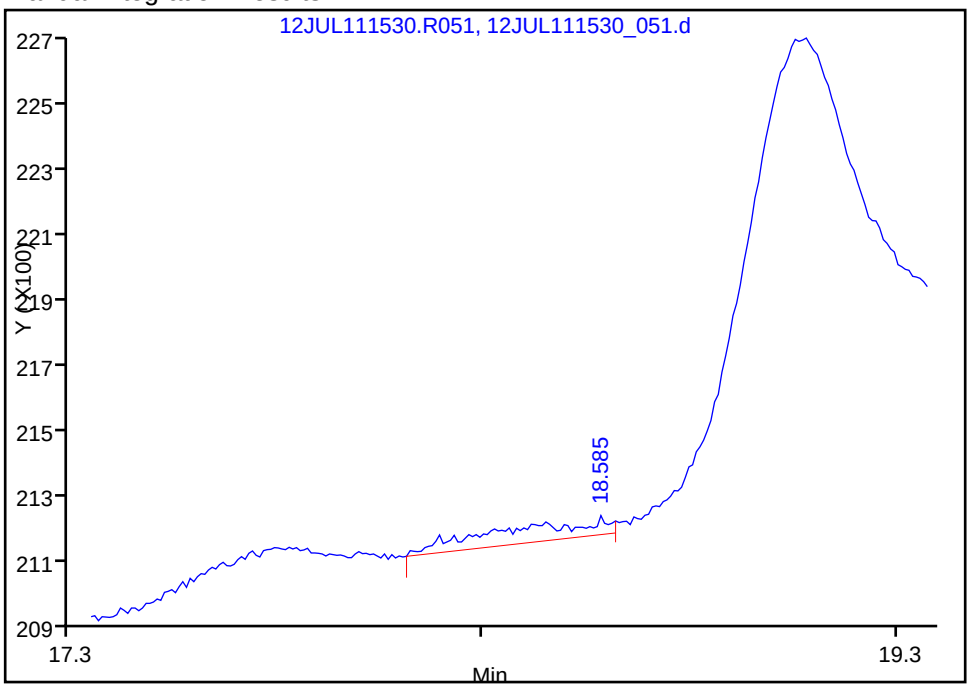
Not Detected
Expected RT: 18.33

Processing Integration Results



Manual Integration Results

RT: 18.58
Response: 1060
Amount: 0.758441



Reviewer: chirgwinb, 15-Jul-2011 14:46:17
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:11 Chrom Revision: 1.2 30-Jun-2011 15:02:28

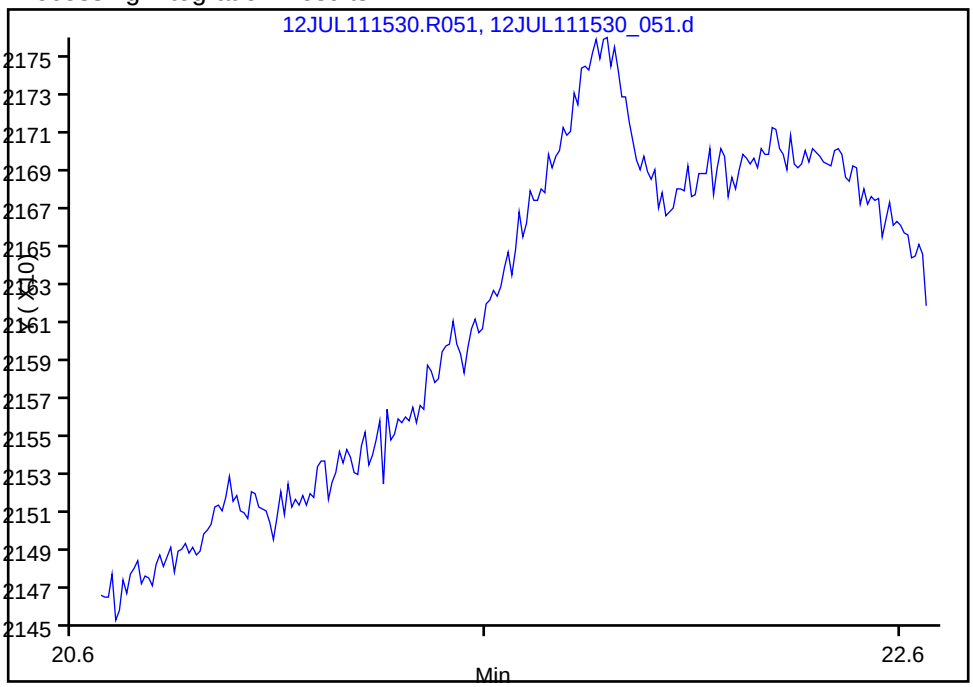
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_051.d		
Injection Date:	13-Jul-2011 14:30:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS10	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.67

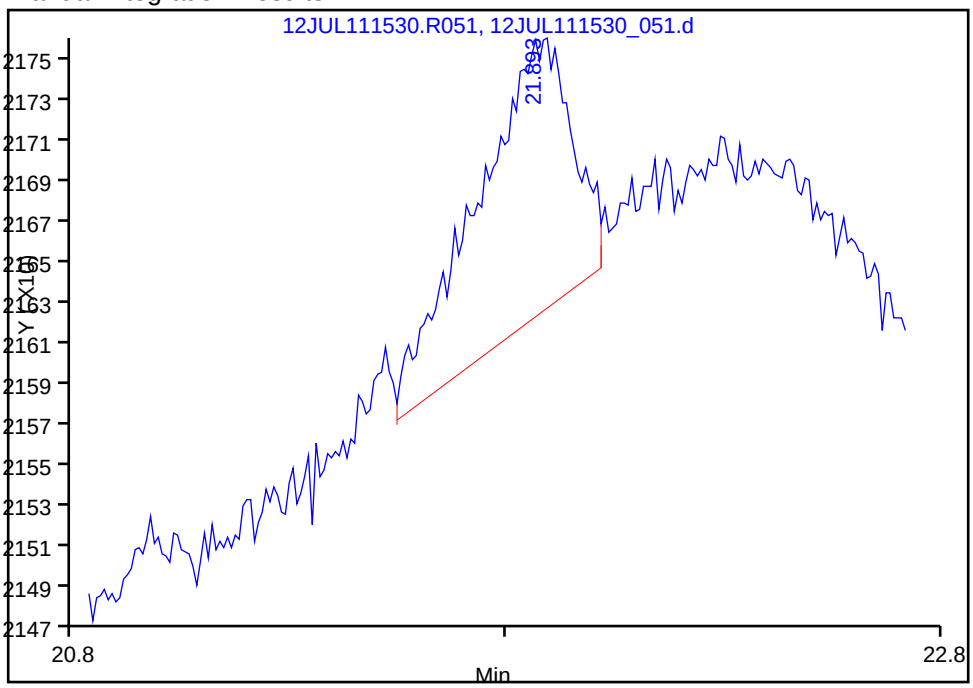
Not Detected
Expected RT: 21.67

Processing Integration Results



Manual Integration Results

RT: 21.89
Response: 2074
Amount: 1.998320



Reviewer: chirgwinb, 15-Jul-2011 14:46:17
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS11 Lab Sample ID: 200-5816-3

Matrix: Solid Lab File ID: 12JUL111532_061.d

Analysis Method: 8330B Date Collected: 06/27/2011 11:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) Date Analyzed: 07/13/2011 14:55

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	9.3	J M	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.6
606-20-2	2,6-Dinitrotoluene	130	M J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d		
Lims ID:	200-5816-A-3-B	Client ID:	WPR02-SS11
Inject. Date:	13-Jul-2011 14:55:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-006		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	6
Lims Batch ID:	21368	Lims Sample ID:	6
Detector:	A-12JUL111532.R061		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 13:47:59

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	7 RDX		14.369				1
	9 1,3,5-Trinitrobenzene	16.192	16.130	0.062	1366	1.26	
$	10 1,2-Dinitrobenzene	16.432	16.441	-0.009	64288	180.3	
	11 1,3-Dinitrobenzene		17.375				1
	13 Tetryl	18.566	18.513	0.053	256	0.3840	A
	14 Nitroglycerin		19.260				1
	15 2,4,6-Trinitrotoluene	19.686	19.704	-0.018	357	0.9773	A
	16 4-Amino-2,6-dinitrotoluene	20.158	20.193	-0.035	312	1.06	A
	17 2-Amino-4,6-dinitrotoluene		20.567				1
	18 2,6-Dinitrotoluene	20.860	20.887	-0.027	5794	13.8	M
	19 2,4-Dinitrotoluene		21.163				1
	22 m-Nitrotoluene	23.972	24.088	-0.116	1513	6.19	A
	23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

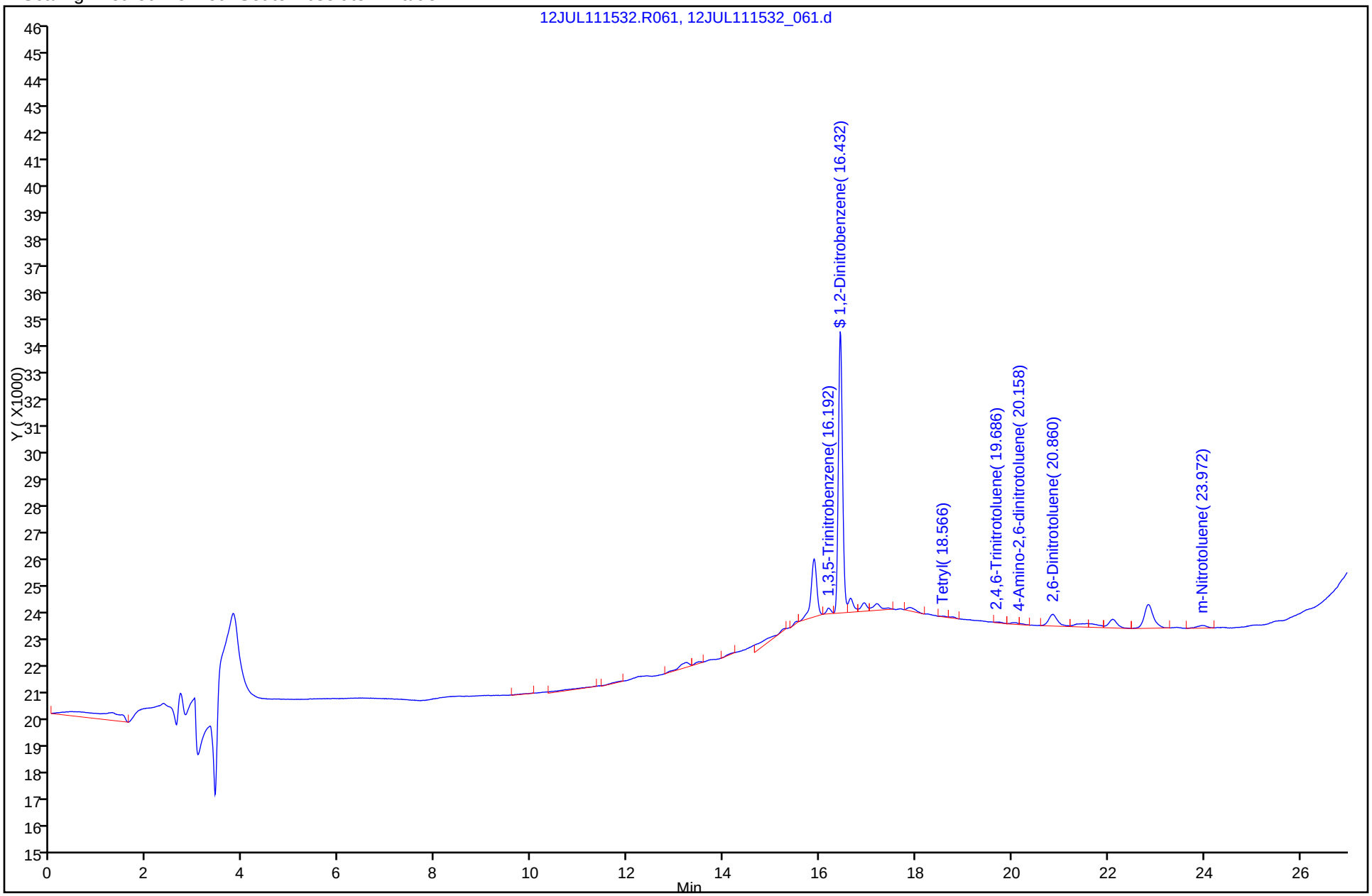
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:50 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d

Injection Date:	13-Jul-2011 14:55:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:50 Chrom Revision: 1.2 30-Jun-2011 15:02:28

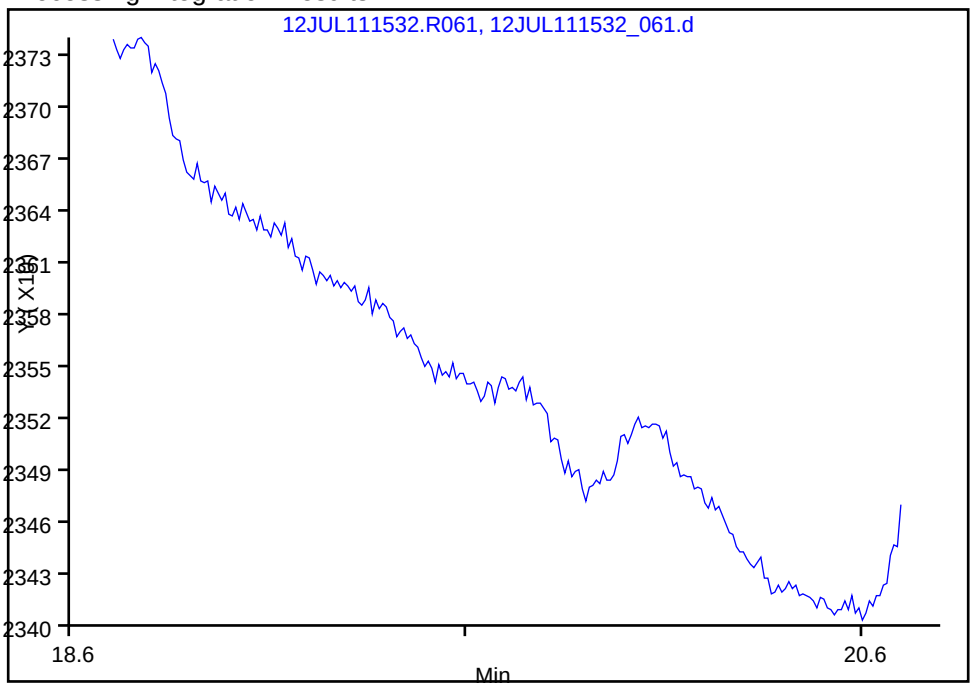
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d		
Injection Date:	13-Jul-2011 14:55:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

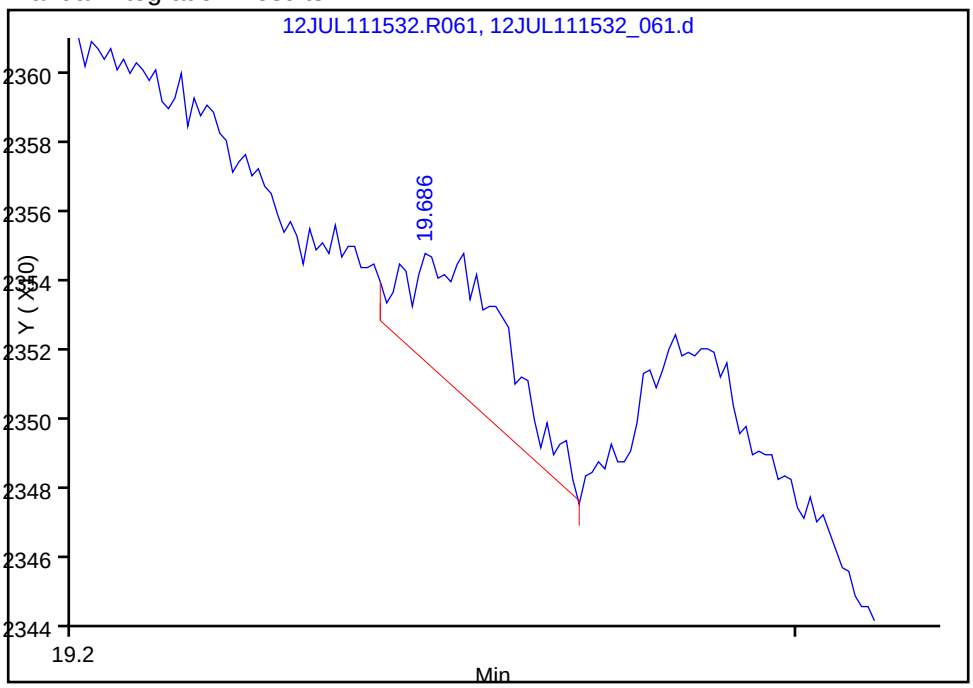
Not Detected
Expected RT: 19.70

Processing Integration Results



Manual Integration Results

RT: 19.69
Response: 357
Amount: 0.977299



Reviewer: chirgwinb, 15-Jul-2011 13:47:59
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:50 Chrom Revision: 1.2 30-Jun-2011 15:02:28

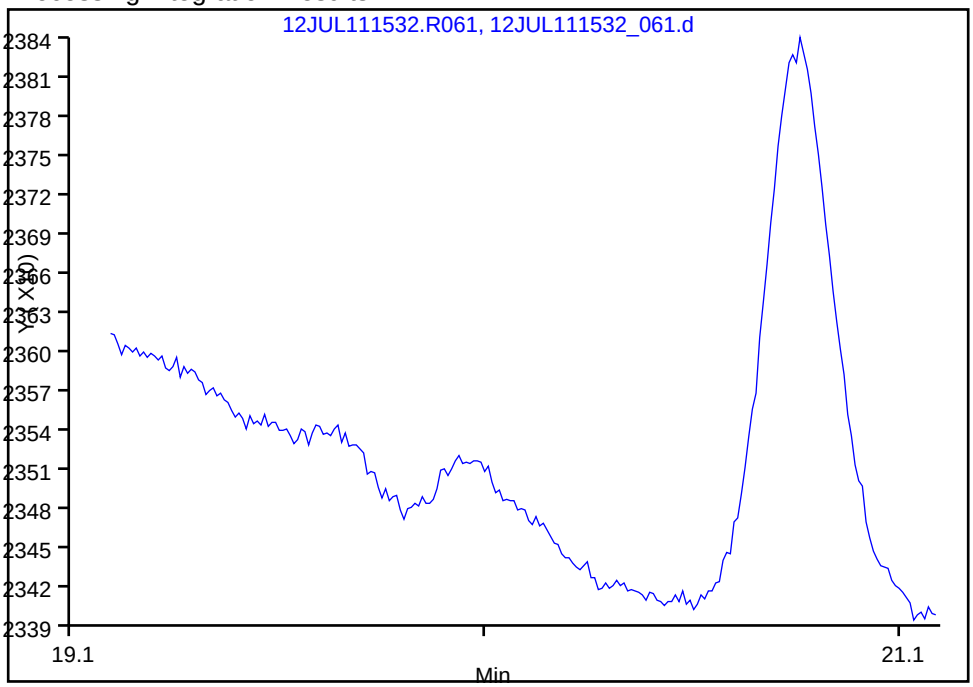
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d		
Injection Date:	13-Jul-2011 14:55:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

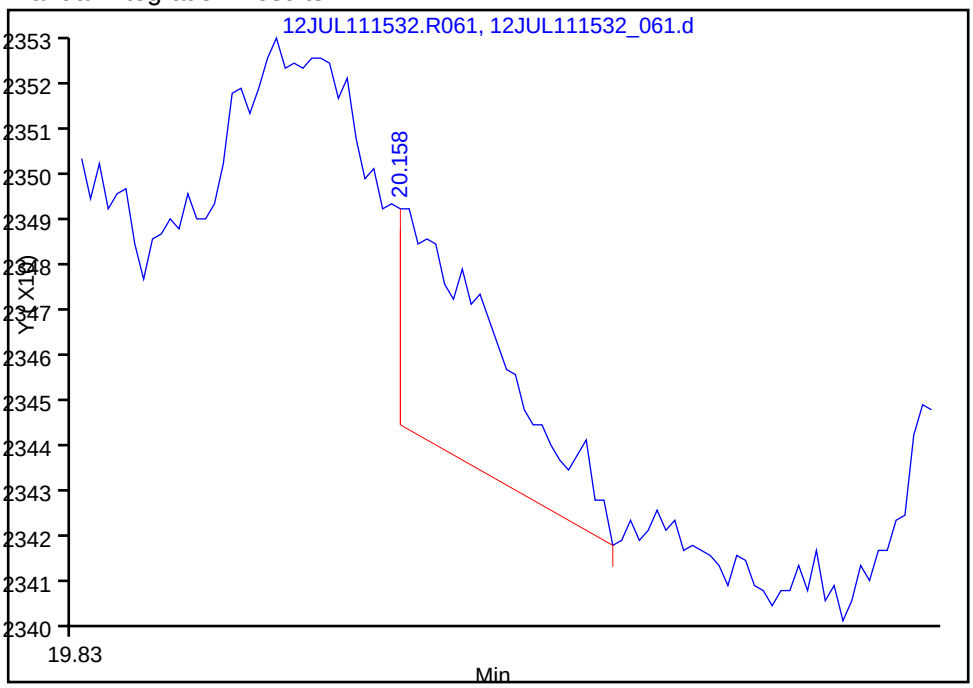
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.16
Response: 312
Amount: 1.058665



Reviewer: chirgwinb, 15-Jul-2011 13:47:59
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:50 Chrom Revision: 1.2 30-Jun-2011 15:02:28

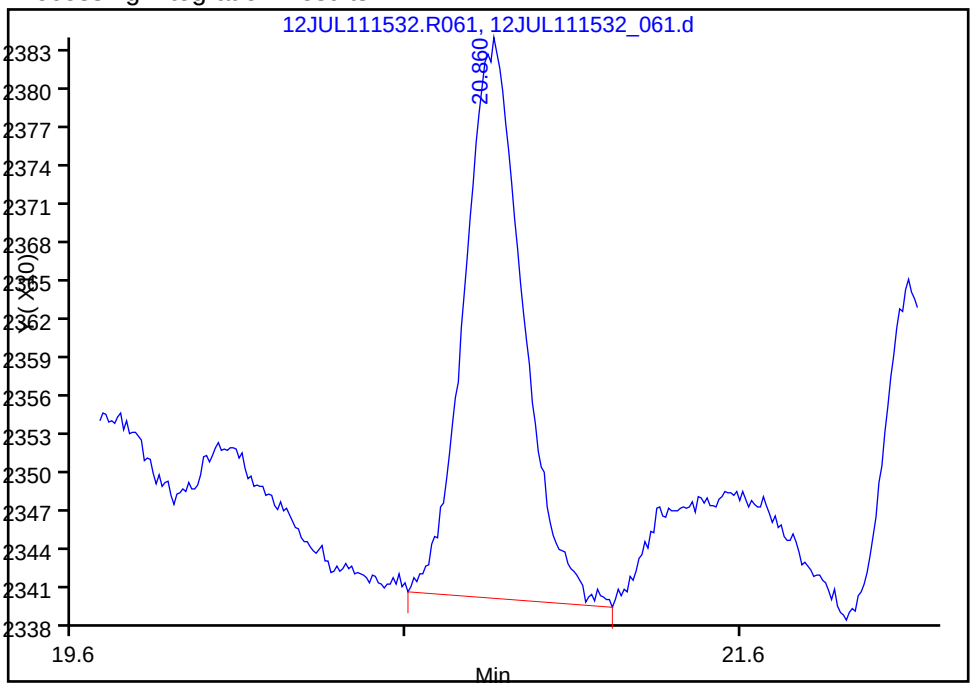
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d		
Injection Date:	13-Jul-2011 14:55:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

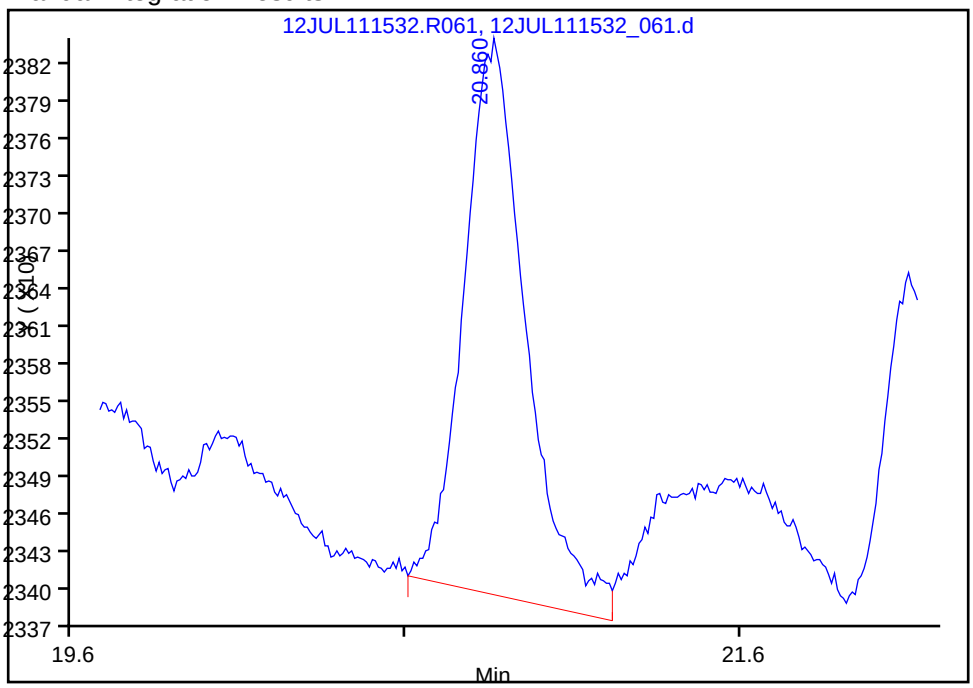
Processing Integration Results

RT: 20.86
Response: 5352
Amount: 12.807855



Manual Integration Results

RT: 20.86
Response: 5794
Amount: 13.842901



Reviewer: chirgwinb, 15-Jul-2011 13:47:59
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:50 Chrom Revision: 1.2 30-Jun-2011 15:02:28

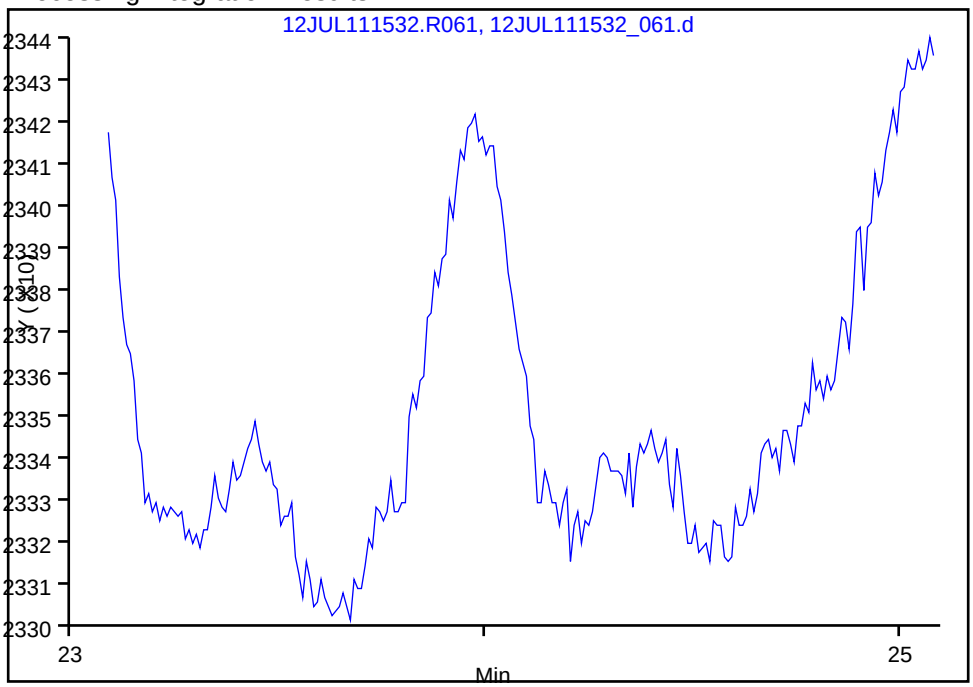
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_061.d		
Injection Date:	13-Jul-2011 14:55:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

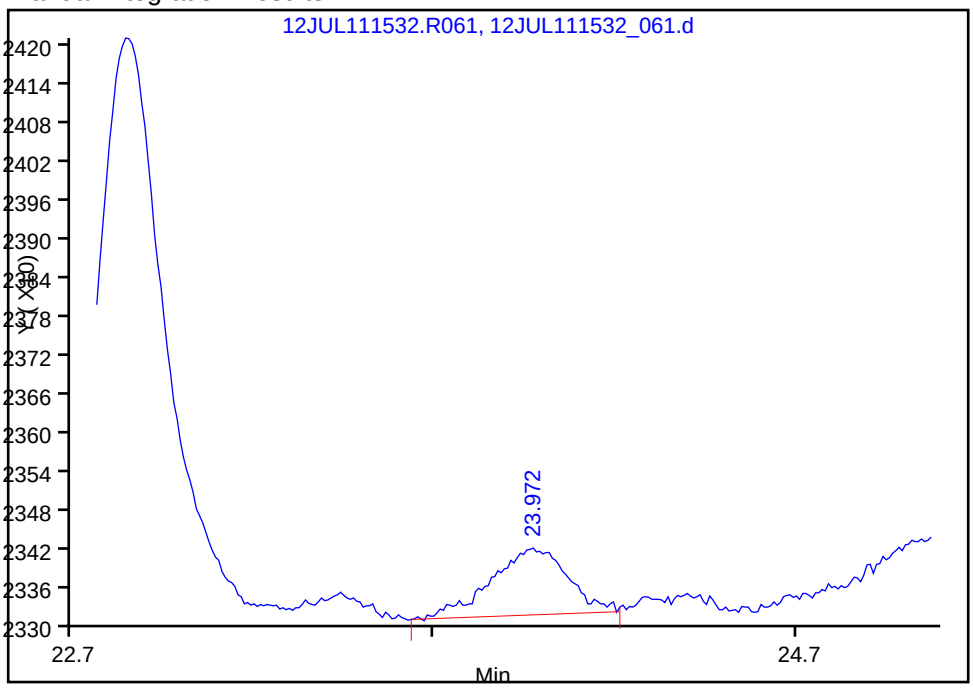
Not Detected
Expected RT: 24.09

Processing Integration Results



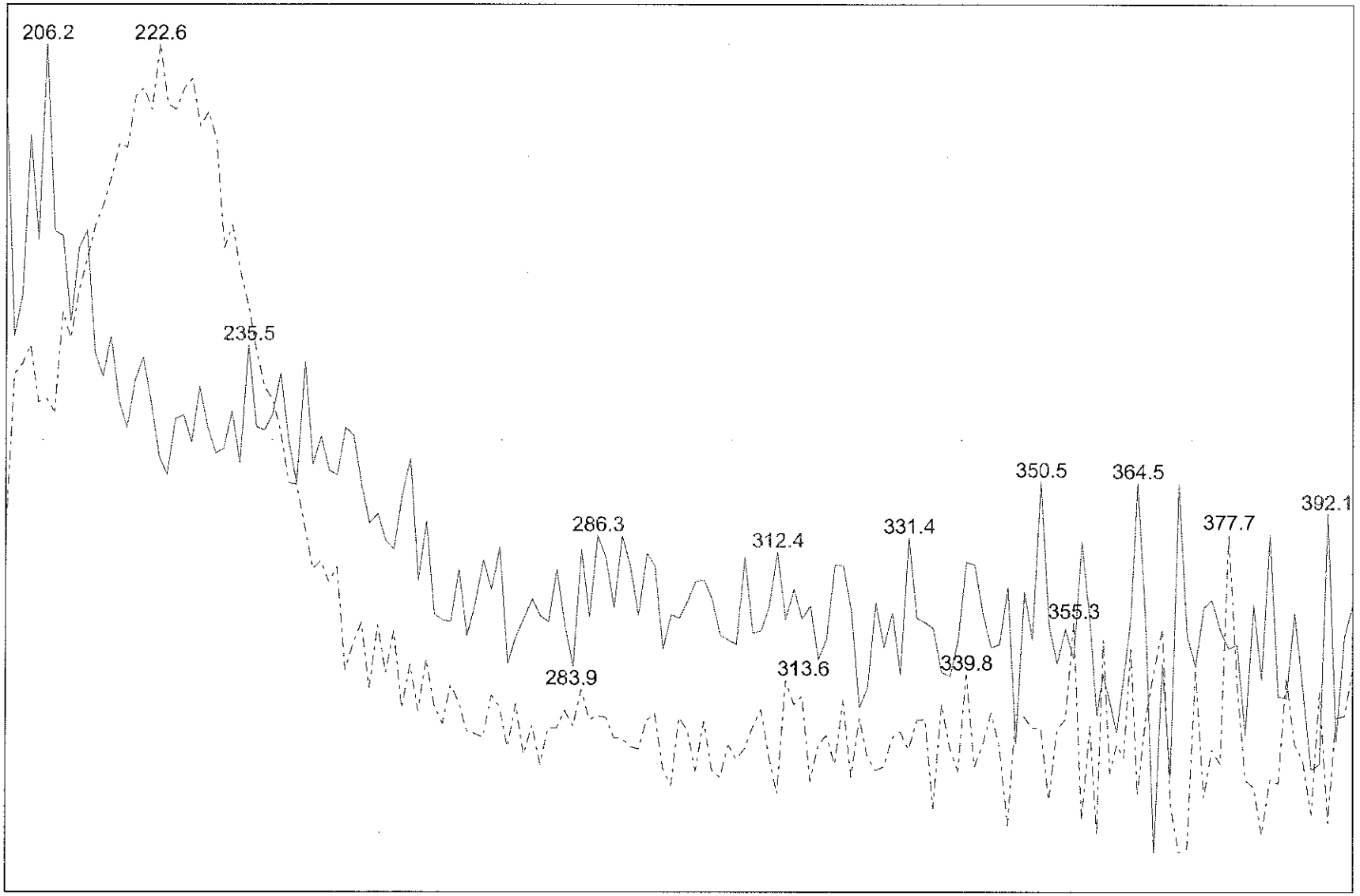
Manual Integration Results

RT: 23.97
Response: 1513
Amount: 6.187330



Reviewer: chirgwinb, 15-Jul-2011 13:47:59
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Spectrum Review Report-TestAmerica Burlington



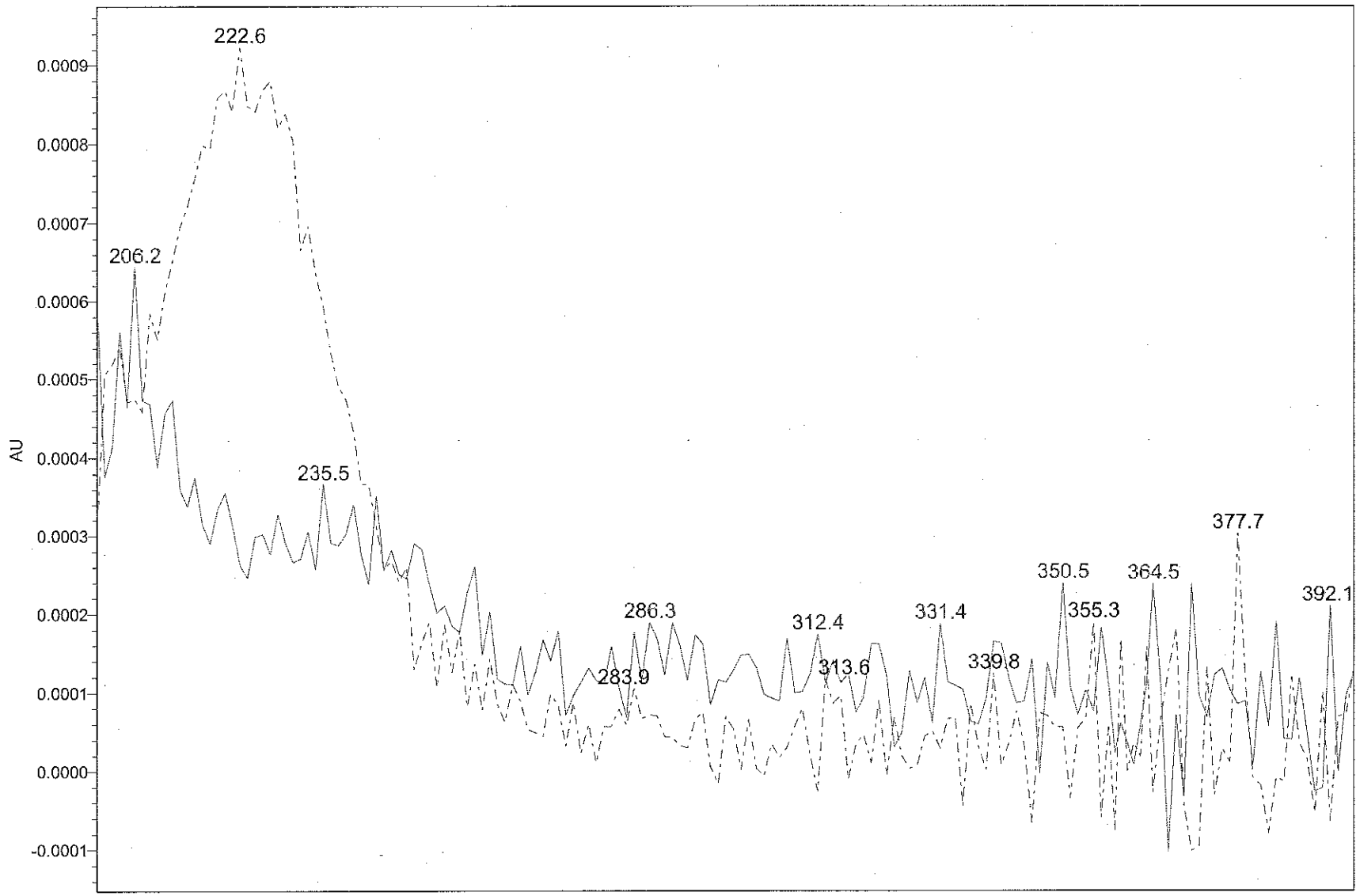
Retention Time: 20.934 LIMS Name: 200-5816-A-3-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-SS11

PDA Addendum for 2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



Retention Time: 20.934 LIMS Name: 200-5816-A-3-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-5511

PDA Addendum for 2,6-dinitrotoluene

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS11 Lab Sample ID: 200-5816-3

Matrix: Solid Lab File ID: 12JUL111530_061.d

Analysis Method: 8330B Date Collected: 06/27/2011 11:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) Date Analyzed: 07/13/2011 15:05

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	*2,4,6-Trinitrotoluene*	*11*	*J M*	*95*	14	*6.3*
606-20-2	*2,6-Dinitrotoluene*	*15*	*M J*	*95*	14	*5.9*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_061.d		
Lims ID:	200-5816-A-3-B	Client ID:	WPR02-SS11
Inject. Date:	13-Jul-2011 15:05:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-006		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	6
Lims Batch ID:	21370	Lims Sample ID:	6
Detector:	A-12JUL111530.R061		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:47:55

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.518				1
	18 Nitroglycerin		9.515				1
$	1 1,2-Dinitrobenzene	11.409	11.391	0.018	108983	182.1	
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene		12.111				1
	3 1,3-Dinitrobenzene	13.756	13.810	-0.054	5074	4.24	
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene	17.260	17.109	0.151	742	1.61	A
	2 1,3,5-Trinitrobenzene		18.327				1
	7 2,4-Dinitrotoluene		19.412				1
	23 Tetryl		19.412				1
	5 2,4,6-Trinitrotoluene	21.839	21.670	0.169	1388	1.16	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

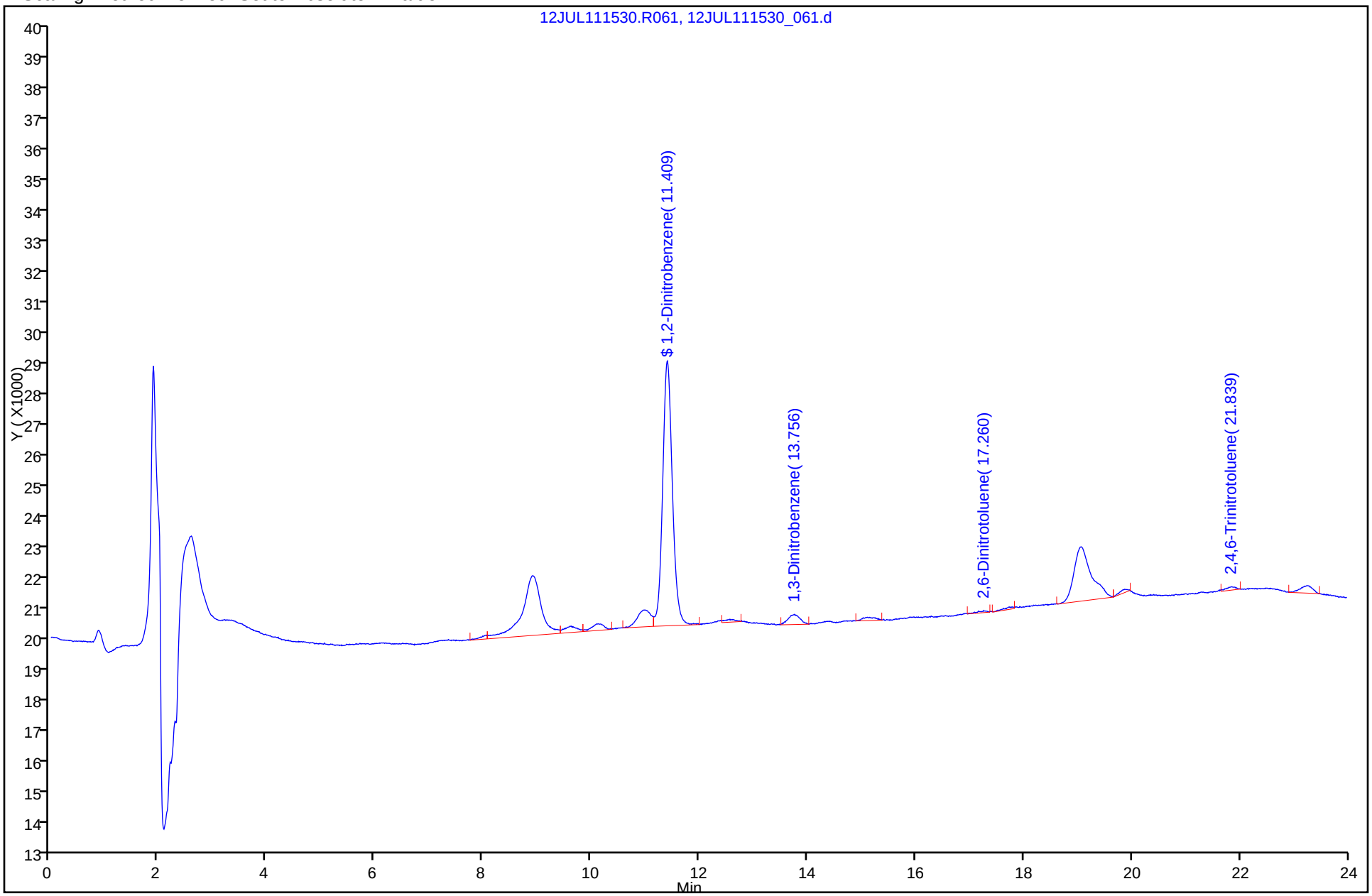
Review Flags
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:12 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_061.d

Injection Date:	13-Jul-2011 15:05:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:12 Chrom Revision: 1.2 30-Jun-2011 15:02:28

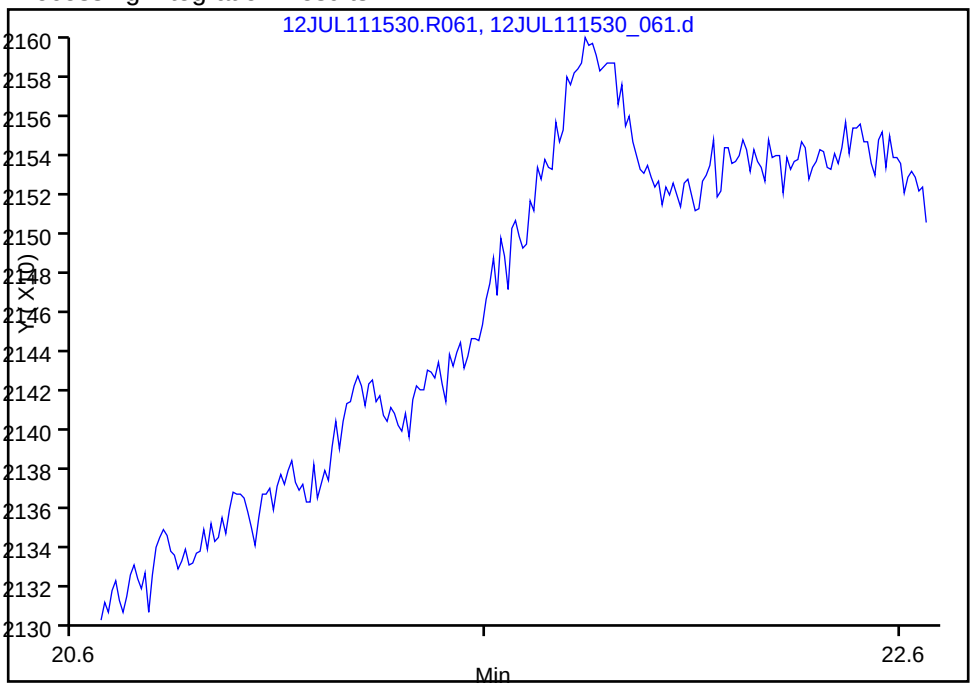
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_061.d		
Injection Date:	13-Jul-2011 15:05:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.67

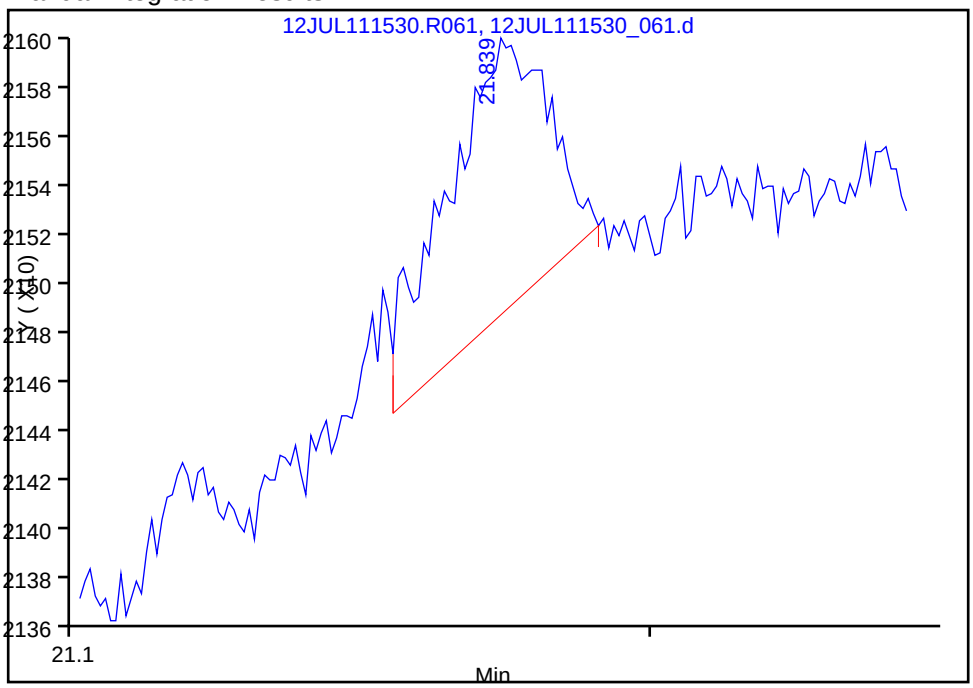
Not Detected
Expected RT: 21.67

Processing Integration Results



Manual Integration Results

RT: 21.84
Response: 1388
Amount: 1.160709



Reviewer: robinsonw, 18-Jul-2011 10:09:24
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:12 Chrom Revision: 1.2 30-Jun-2011 15:02:28

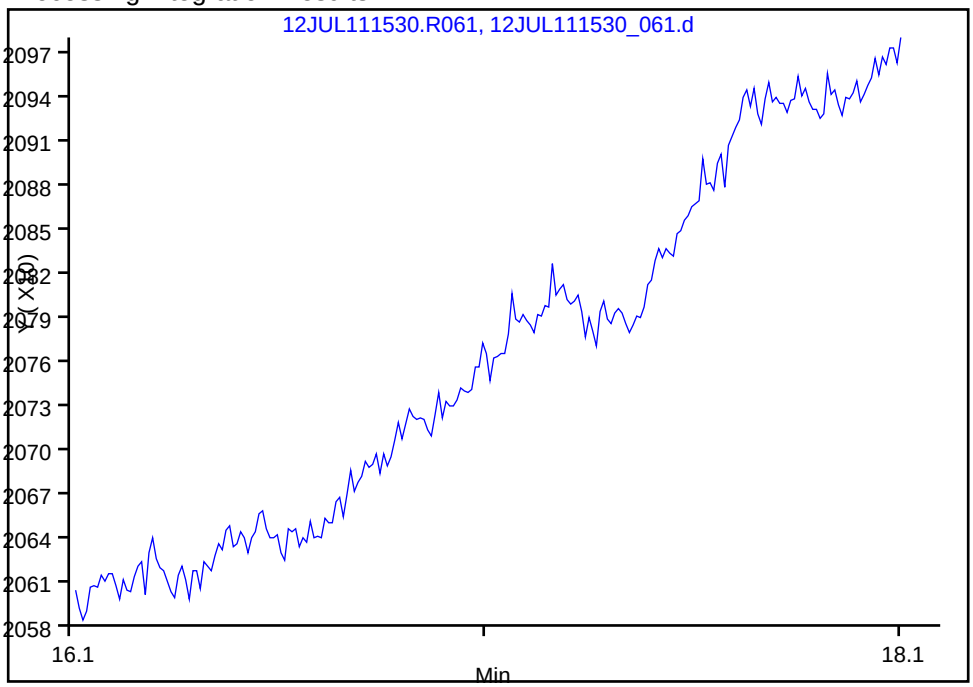
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_061.d		
Injection Date:	13-Jul-2011 15:05:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS11	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

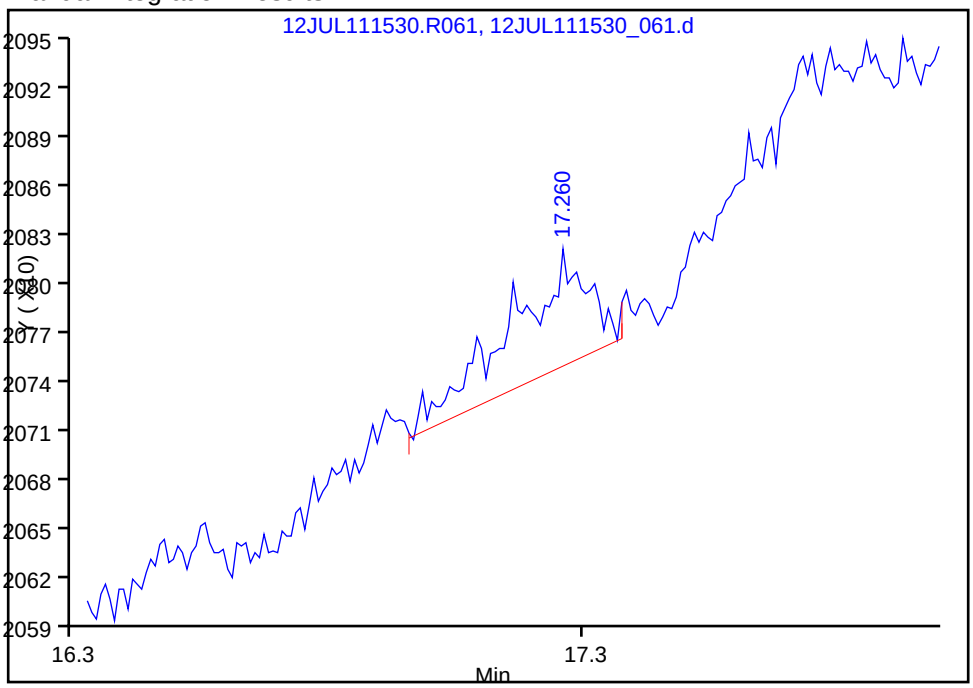
Not Detected
Expected RT: 17.11

Processing Integration Results



Manual Integration Results

RT: 17.26
Response: 742
Amount: 1.609894



Reviewer: chirgwinb, 15-Jul-2011 14:47:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS12 Lab Sample ID: 200-5816-4

Matrix: Solid Lab File ID: 12JUL111532_071.d

Analysis Method: 8330B Date Collected: 06/27/2011 13:20

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.52(g) Date Analyzed: 07/13/2011 15:32

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	24	M J	95	23	8.5
99-65-0	1,3-Dinitrobenzene	63	M J	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	15	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	120	M	95	23	6.7
606-20-2	2,6-Dinitrotoluene	140	J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	92	J M	95	29	25
78-11-5	PETN	1700	U M	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Lims ID:	200-5816-A-4-B	Client ID:	WPR02-SS12
Inject. Date:	13-Jul-2011 15:32:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-007		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	7
Lims Batch ID:	21368	Lims Sample ID:	7
Detector:	A-12JUL111532.R071		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 13:52:54

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	7 RDX		14.369				1
	9 1,3,5-Trinitrobenzene	16.210	16.130	0.080	2436	2.55	M
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	62549	175.4	M
	11 1,3-Dinitrobenzene	17.223	17.375	-0.152	5497	6.65	M
	13 Tetryl	18.459	18.513	-0.054	6741	11.3	M
	14 Nitroglycerin		19.260				1
	15 2,4,6-Trinitrotoluene	19.704	19.704	0.0	681	1.54	M
	16 4-Amino-2,6-dinitrotoluene	20.007	20.193	-0.186	264	0.99	A
	17 2-Amino-4,6-dinitrotoluene	20.513	20.567	-0.054	7792	12.7	A
	18 2,6-Dinitrotoluene	20.842	20.887	-0.045	6283	15.0	
	19 2,4-Dinitrotoluene		21.163				1
	22 m-Nitrotoluene	23.972	24.088	-0.116	2060	9.69	M
	23 PETN	25.004	24.817	0.187	3503	885.5	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

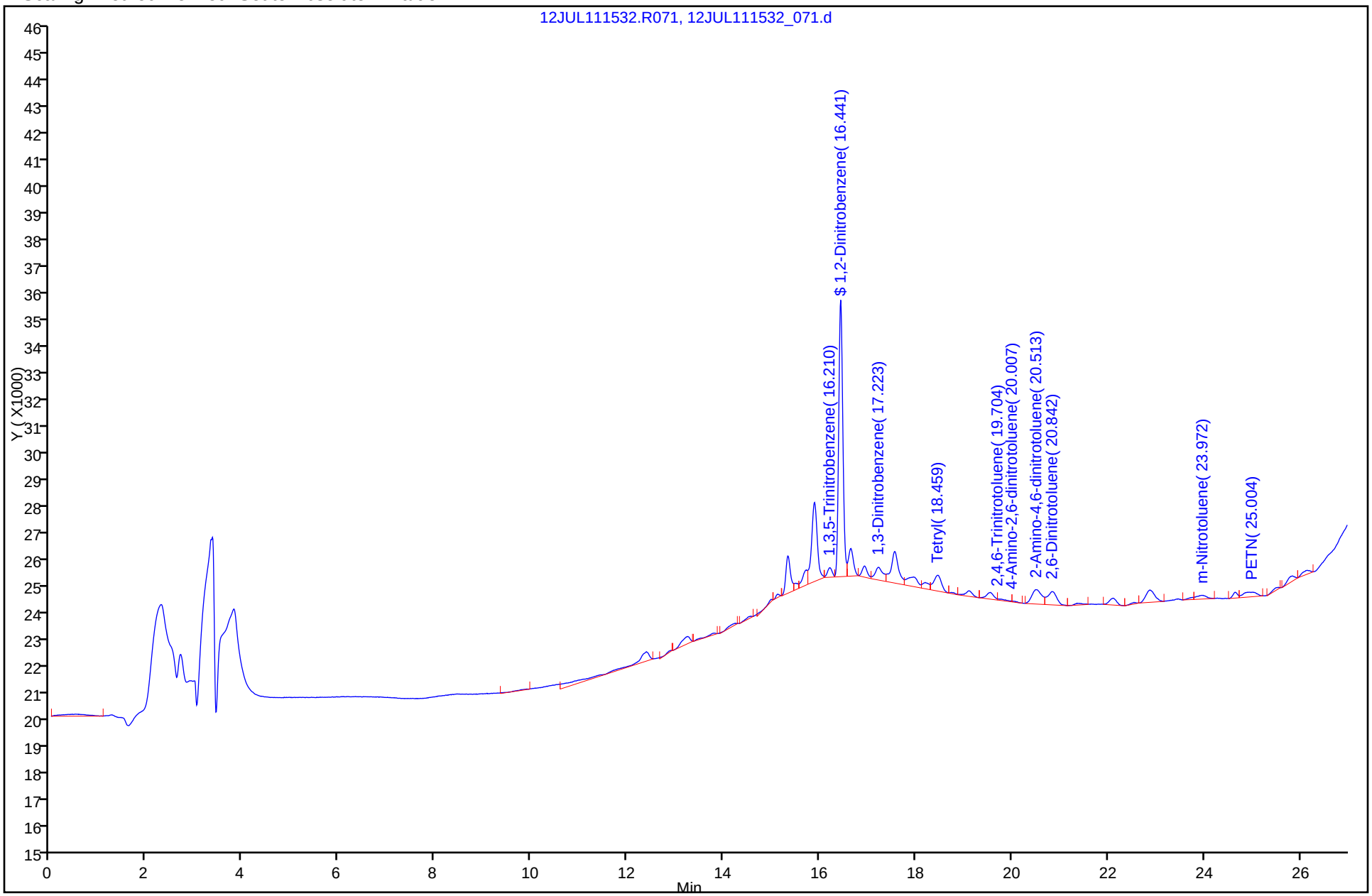
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d

Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

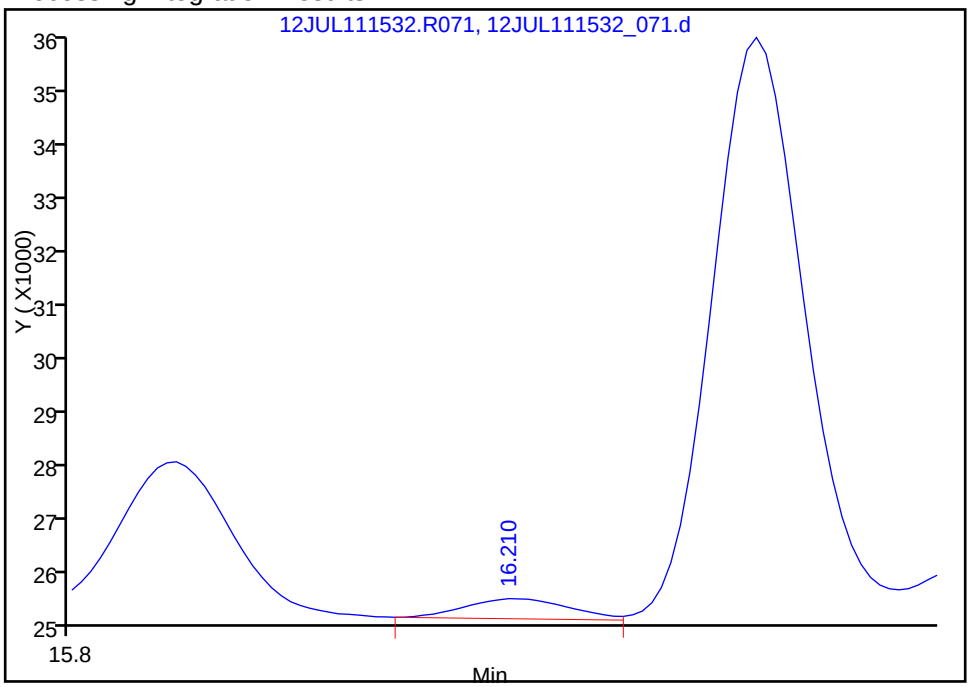
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

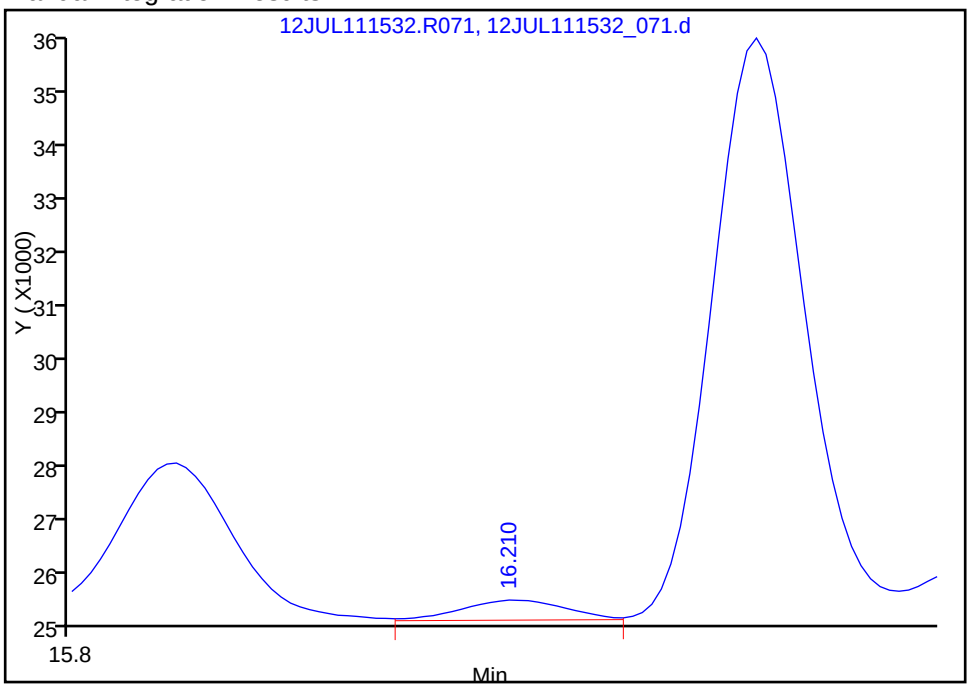
Processing Integration Results

RT: 16.21
Response: 2442
Amount: 2.557625



Manual Integration Results

RT: 16.21
Response: 2436
Amount: 2.550387



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

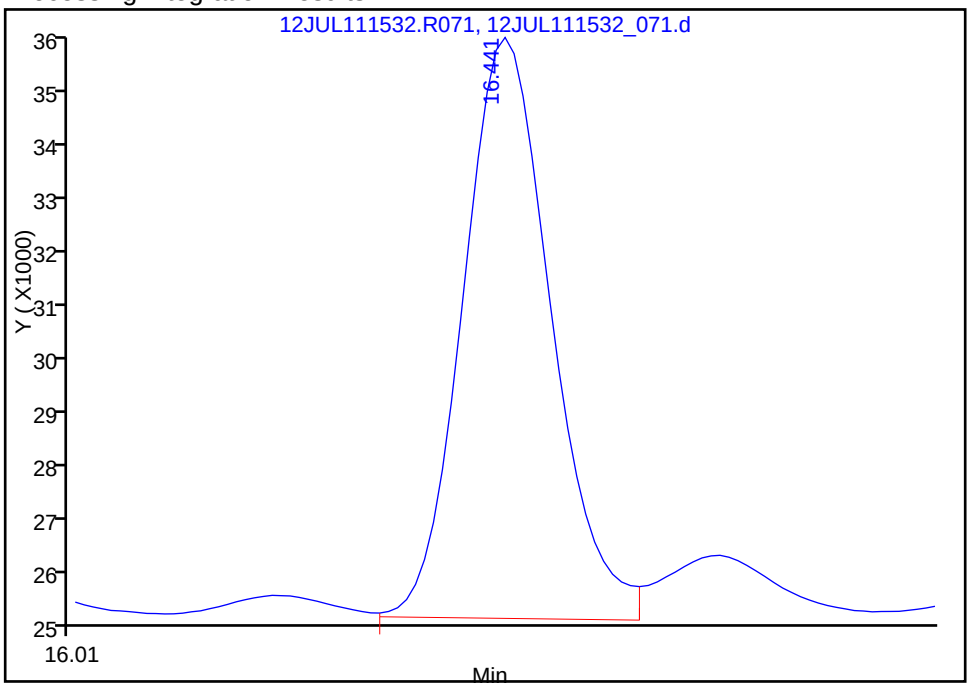
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

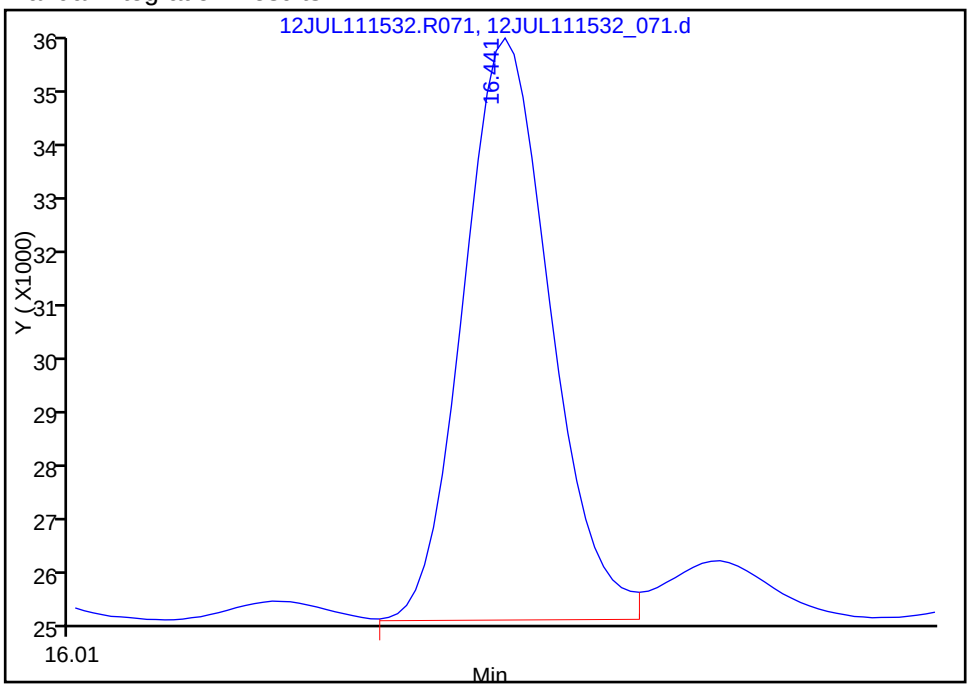
Processing Integration Results

RT: 16.44
Response: 63771
Amount: 178.8186



Manual Integration Results

RT: 16.44
Response: 62549
Amount: 175.3708



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

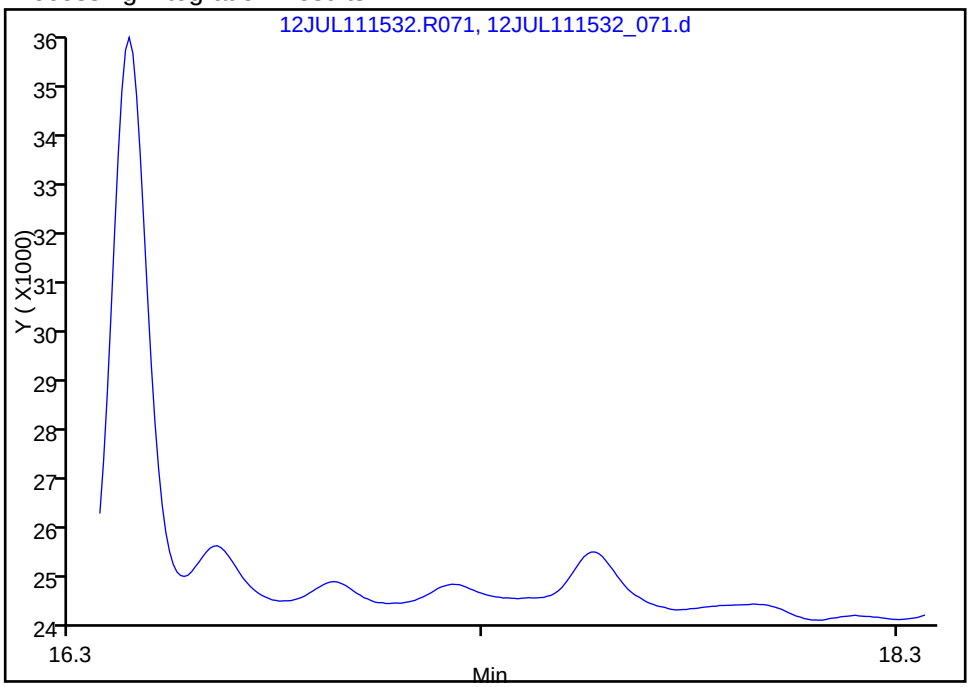
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

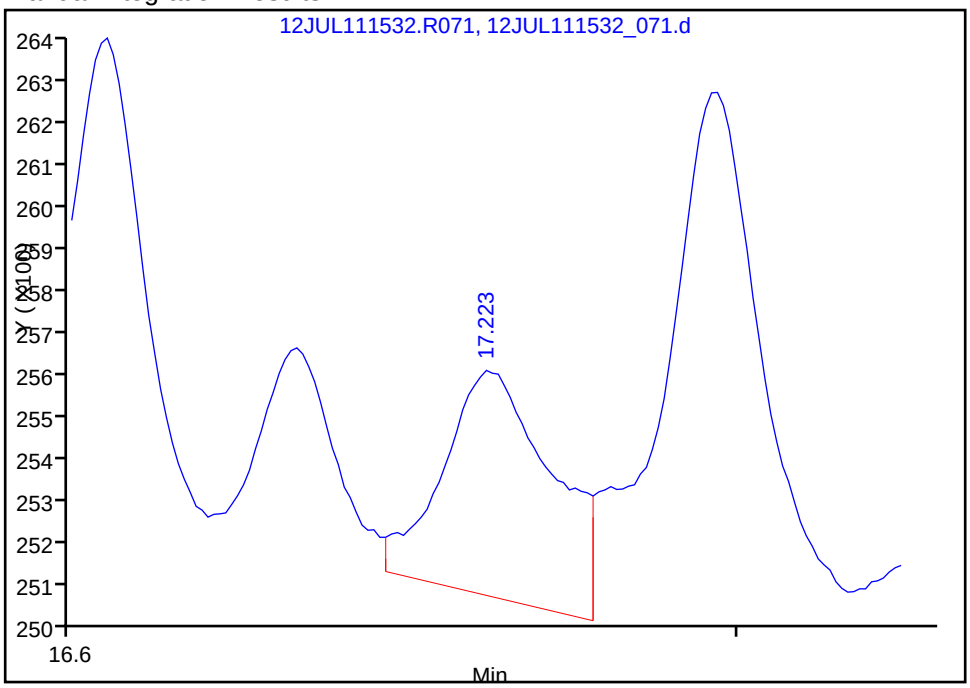
Processing Integration Results

Not Detected
Expected RT: 17.37



Manual Integration Results

RT: 17.22
Response: 5497
Amount: 6.649990



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

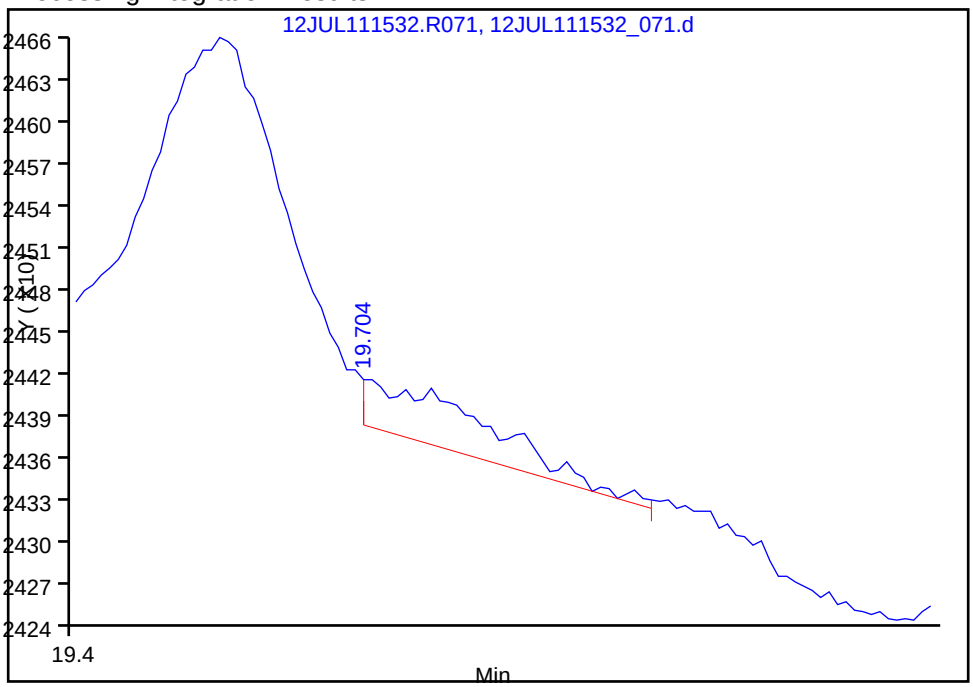
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

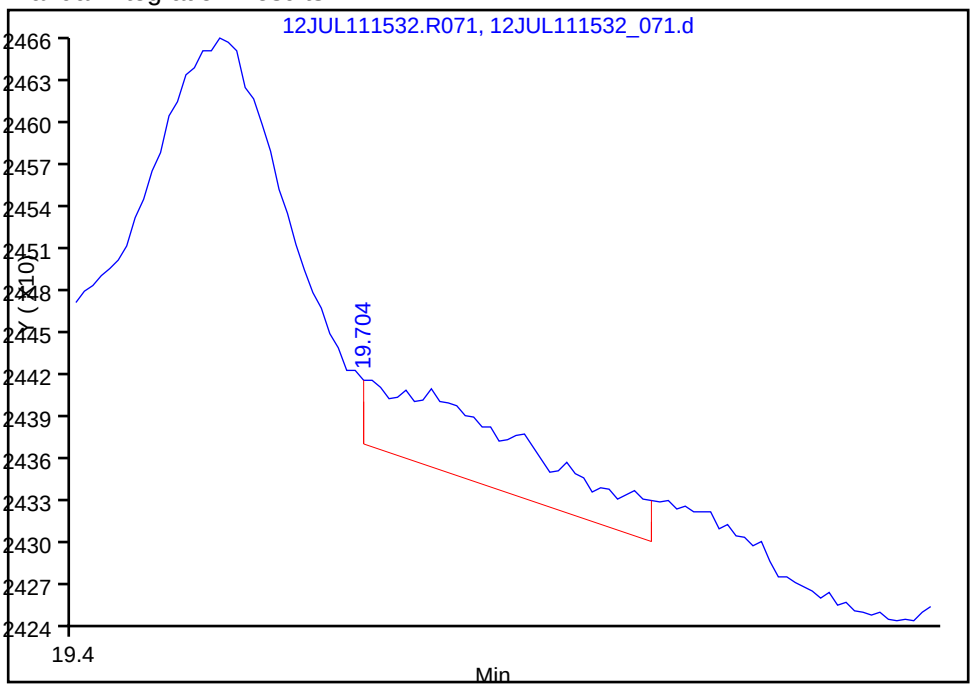
Processing Integration Results

RT: 19.70
Response: 354
Amount: 0.972094



Manual Integration Results

RT: 19.70
Response: 681
Amount: 1.539381



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

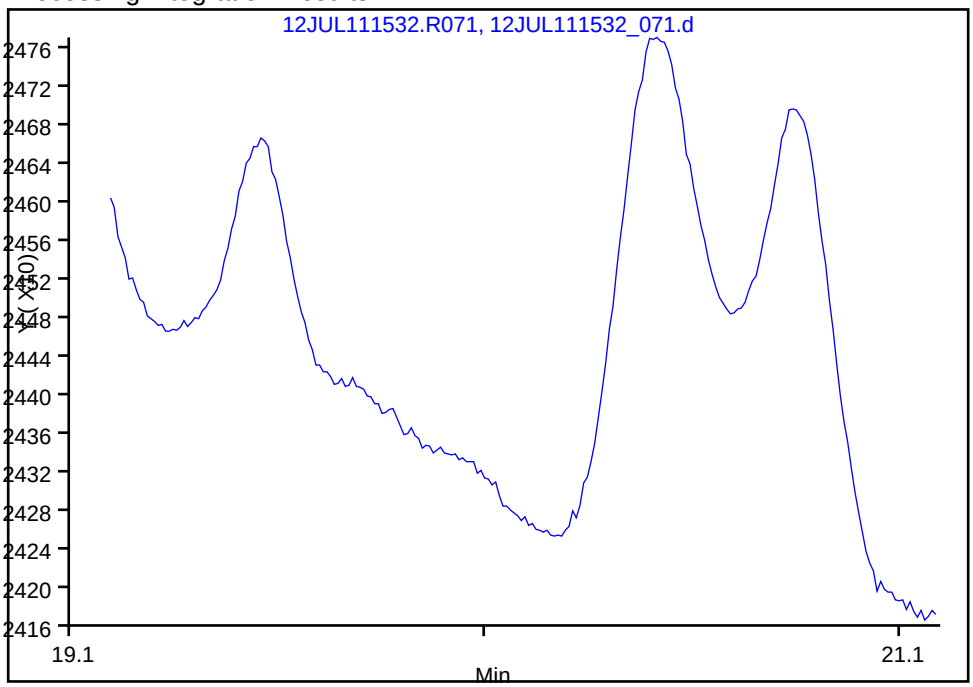
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

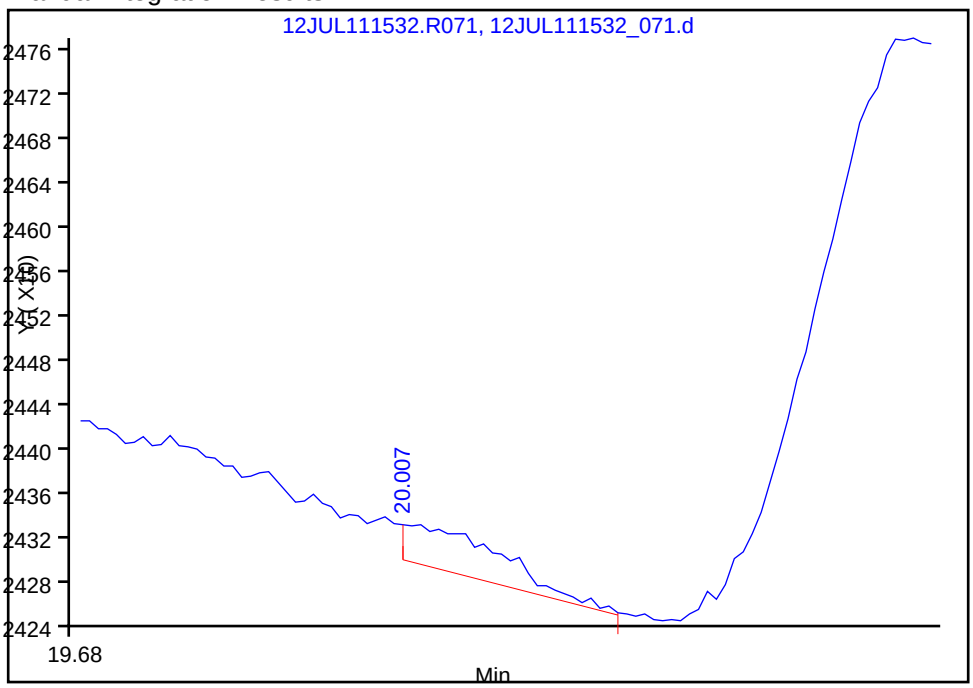
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.01
Response: 264
Amount: 0.990768



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

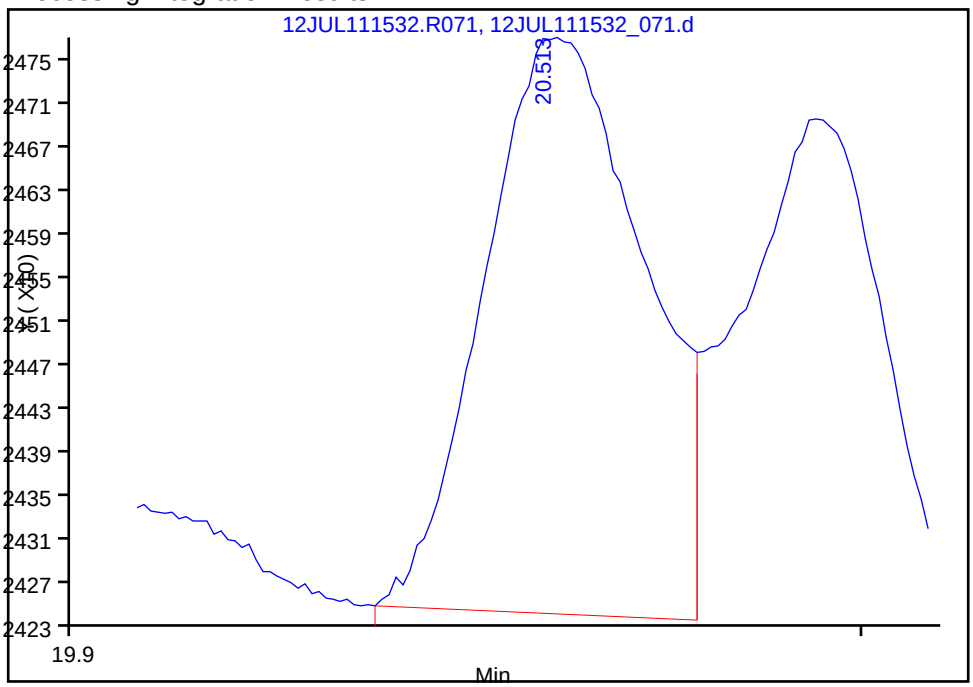
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

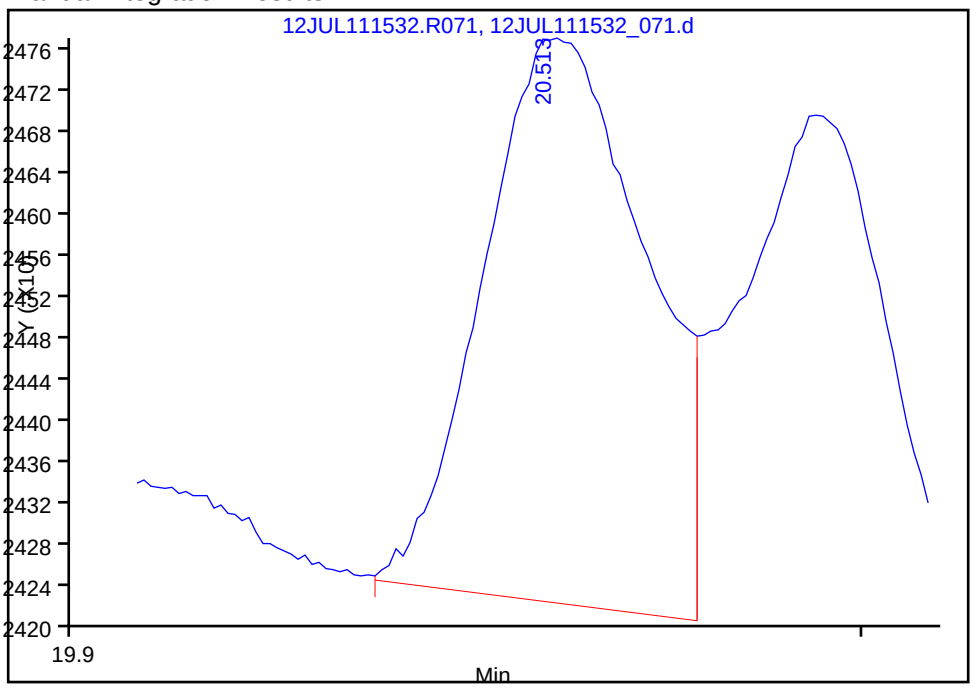
Processing Integration Results

RT: 20.51
Response: 7375
Amount: 12.035095



Manual Integration Results

RT: 20.51
Response: 7792
Amount: 12.682804



Reviewer: robinsonw, 18-Jul-2011 09:50:26
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

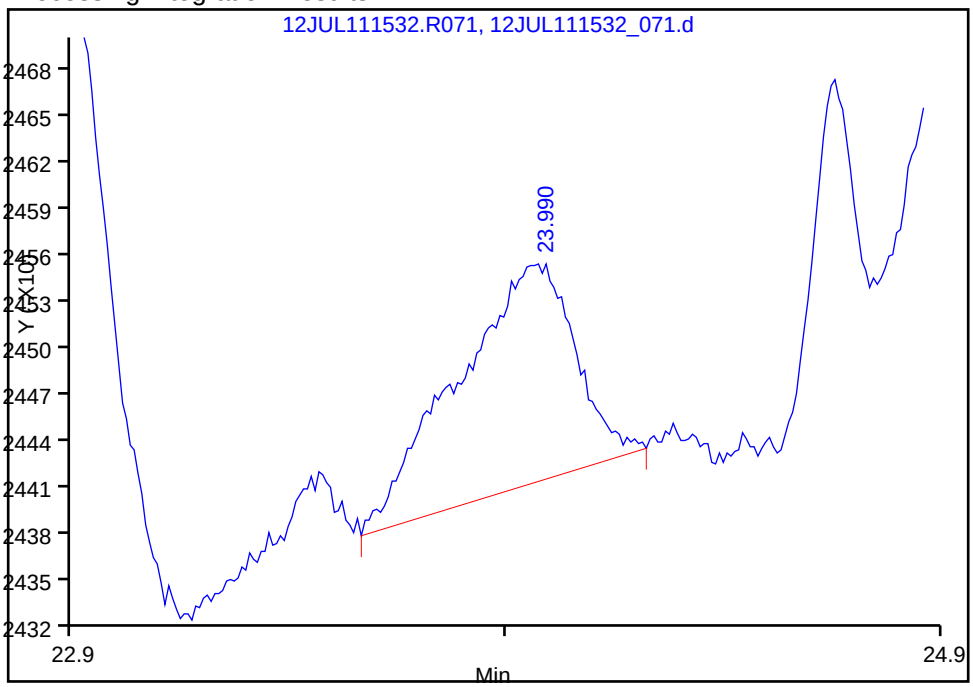
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

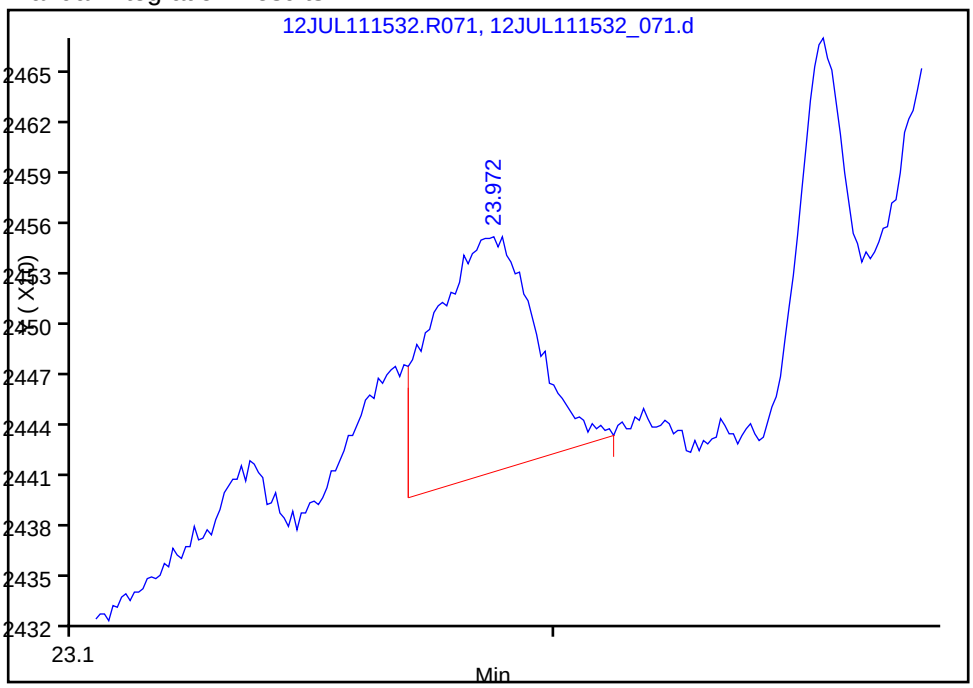
Processing Integration Results

RT: 23.99
Response: 2686
Amount: 13.688478



Manual Integration Results

RT: 23.97
Response: 2060
Amount: 9.685308



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Split an Integrated Peak
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:51 Chrom Revision: 1.2 30-Jun-2011 15:02:28

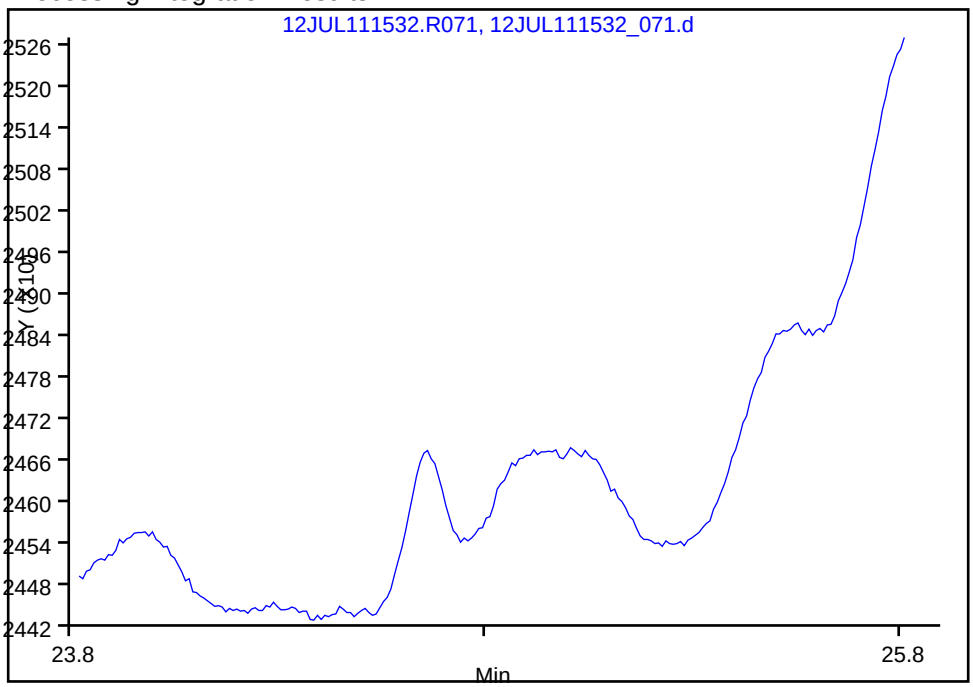
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_071.d		
Injection Date:	13-Jul-2011 15:32:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

23 PETN, Signal: 1, Type: quant, RT: 24.82

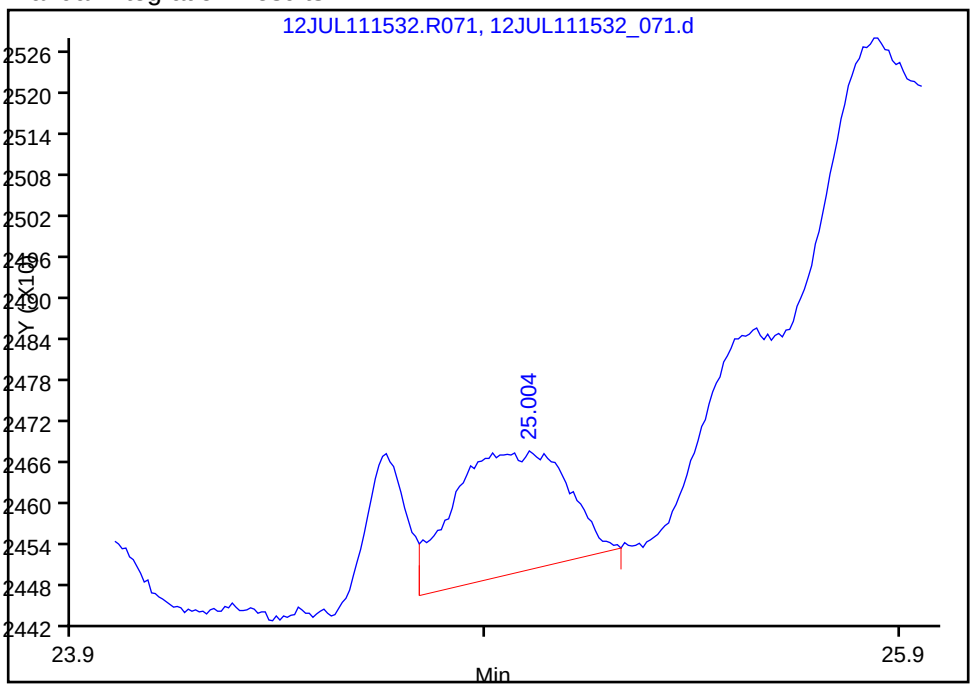
Not Detected
Expected RT: 24.82

Processing Integration Results



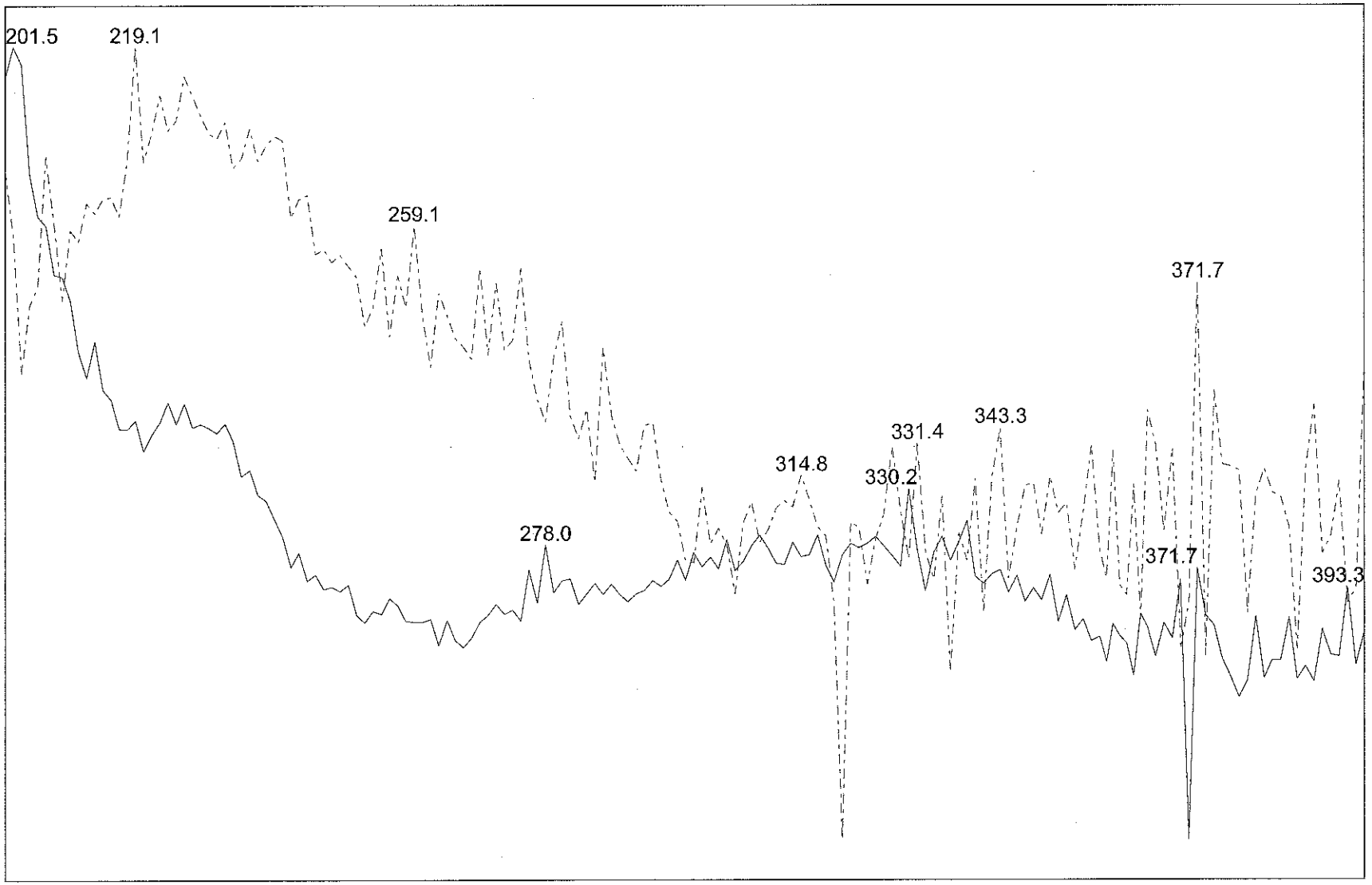
Manual Integration Results

RT: 25.00
Response: 3503
Amount: 885.5449



Reviewer: chirgwinb, 15-Jul-2011 13:52:54
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Spectrum Review Report-TestAmerica Burlington



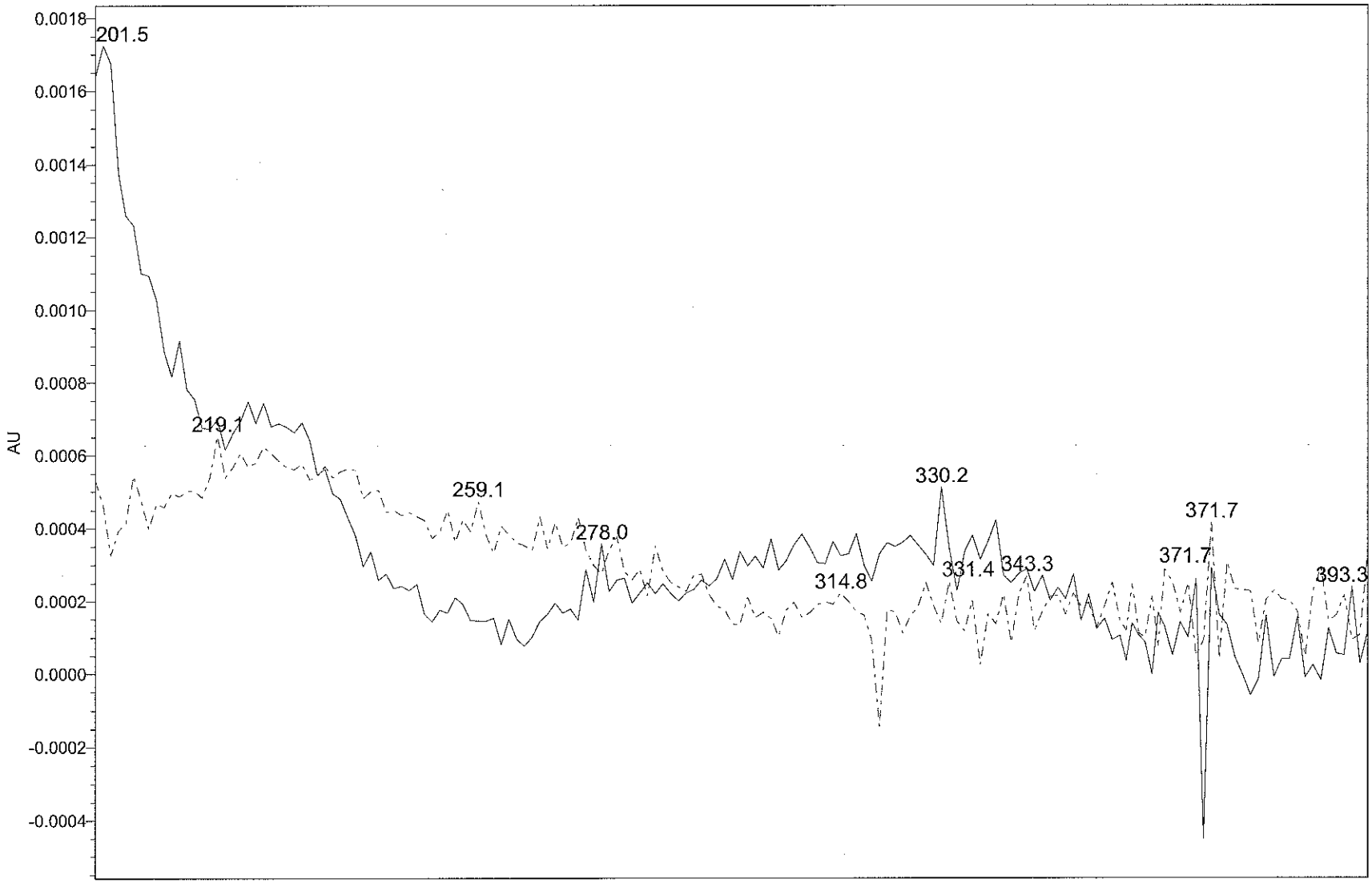
Retention Time: 20.601 LIMS Name: 200-5816-A-4-B Description: Analyte Name:

Retention Time: 20.634 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2-Amino-4,6-dinitrotoluene; 10ppb

WPR02-5512

PDA Addendum for 2-amino-4,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



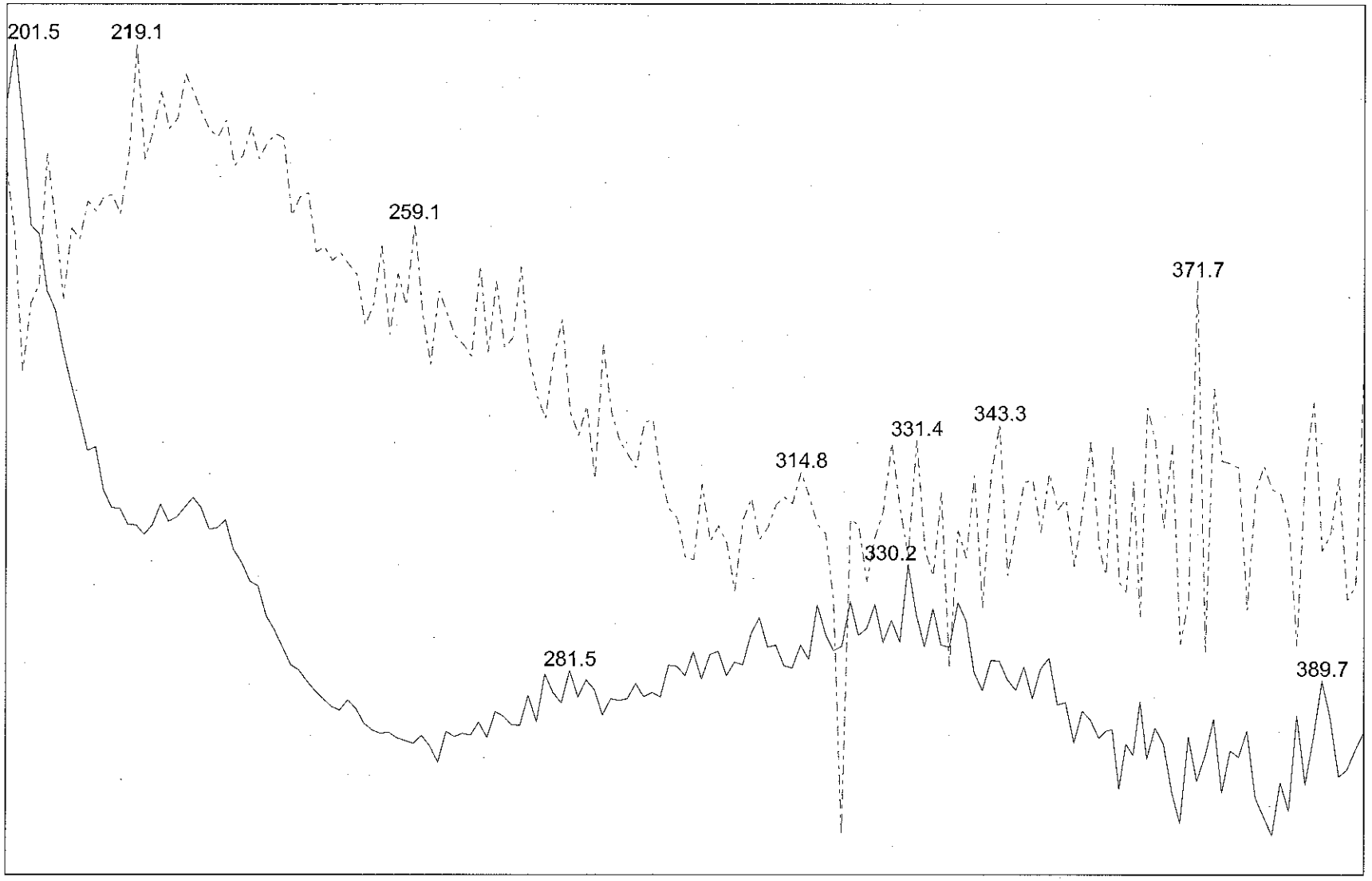
Retention Time: 20.601 LIMS Name: 200-5816-A-4-B Description: Analyte Name:

Retention Time: 20.634 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2-Amino-4,6-dinitrotoluene; 10ppb

WPR02-5512

PDA Addendum for 2-amino-4,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



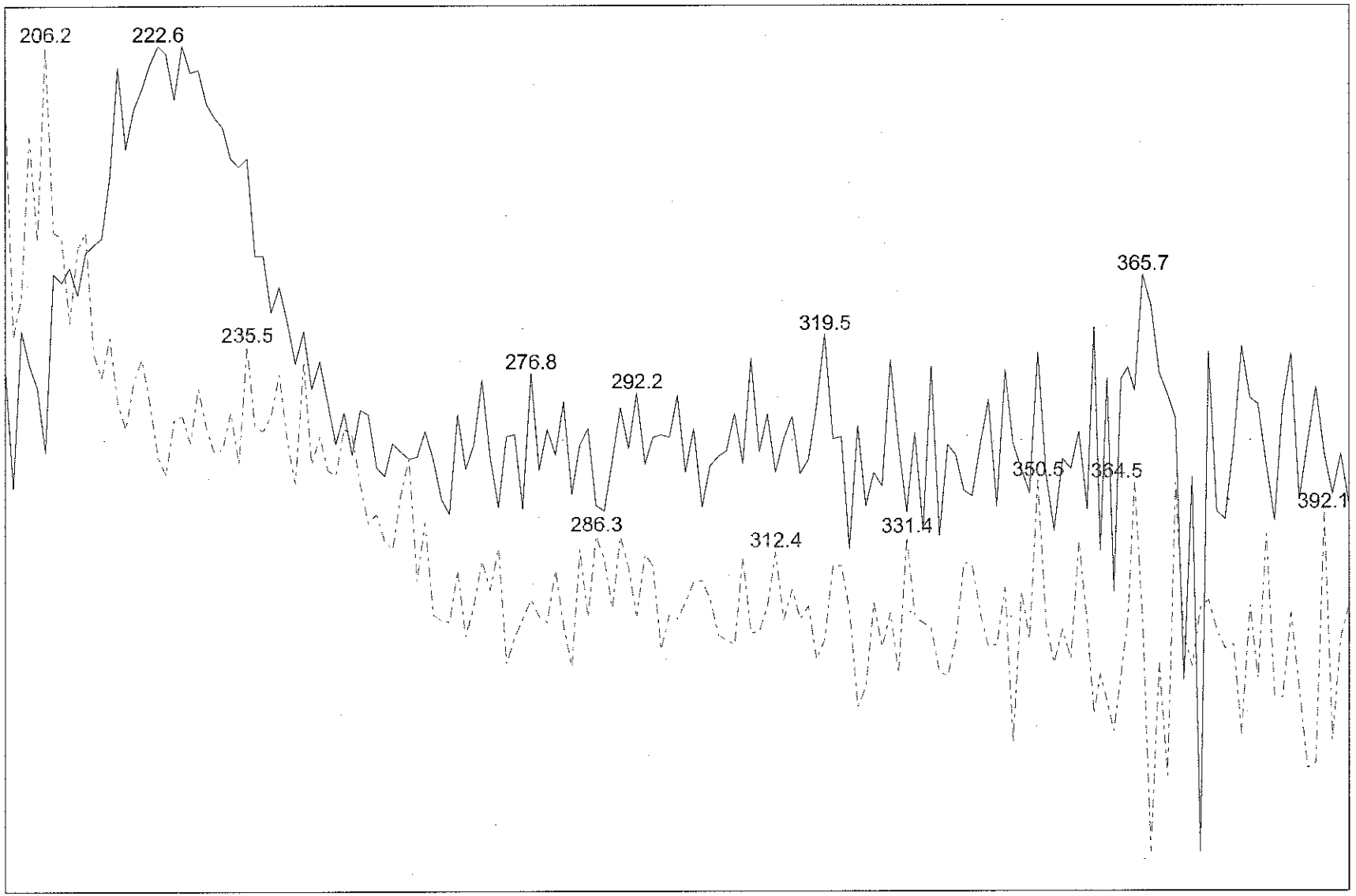
Retention Time: 20.584 LIMS Name: 200-5816-A-4-B Description: Analyte Name:

Retention Time: 20.634 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2-Amino-4,6-dinitrotoluene; 10ppb

WPR02-5512

PDA Addendum for 2-amino-4,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



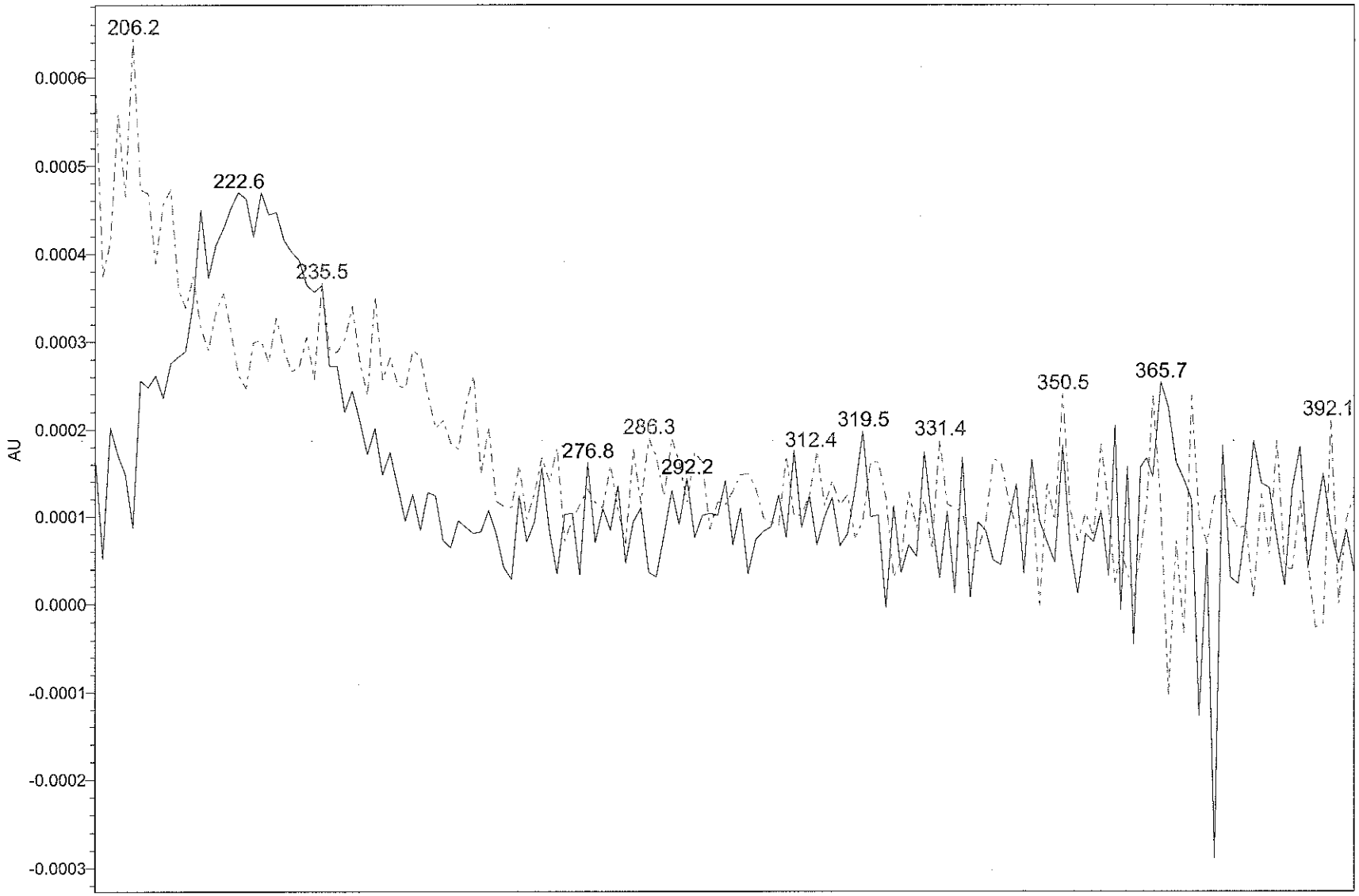
Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

Retention Time: 21.017 LIMS Name: 200-5816-A-4-B Description: Analyte Name:

WPR02-5517

PDA Addendum for 2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

Retention Time: 21.017 LIMS Name: 200-5816-A-4-B Description: Analyte Name:

WPR02-5512

PDA Addendum for 2,6-dinitrotoluene

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS12 Lab Sample ID: 200-5816-4

Matrix: Solid Lab File ID: 12JUL111530_071.d

Analysis Method: 8330B Date Collected: 06/27/2011 13:20

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.52(g) Date Analyzed: 07/13/2011 15:39

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*92*	*M J*	*95*	23	*8.5*
99-65-0	*1,3-Dinitrobenzene*	*42*	*J*	*95*	23	*8.0*
118-96-7	*2,4,6-Trinitrotoluene*	*230*	*M J*	*95*	14	*6.3*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*87*	*J M*	*95*	23	*6.7*
606-20-2	*2,6-Dinitrotoluene*	*80*	*M J*	*95*	14	*5.9*
99-08-1	*3-Nitrotoluene*	*79*	*J M*	*95*	29	*25*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Lims ID:	200-5816-A-4-B	Client ID:	WPR02-SS12
Inject. Date:	13-Jul-2011 15:39:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-007		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	7
Lims Batch ID:	21370	Lims Sample ID:	7
Detector:	A-12JUL111530.R071		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:52:22

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
22 RDX		6.518				1
18 Nitroglycerin		9.515				1
$ 1 1,2-Dinitrobenzene	11.409	11.391	0.018	112145	187.4	
11 4-Amino-2,6-dinitrotoluene		11.889				1
10 2-Amino-4,6-dinitrotoluene	12.209	12.111	0.098	12281	9.13	M
3 1,3-Dinitrobenzene	13.774	13.810	-0.036	5329	4.42	
21 PETN	15.161	15.375	-0.214	2334	86.8	A
15 m-Nitrotoluene	16.219	16.388	-0.169	2102	8.36	A
9 2,6-Dinitrotoluene	17.011	17.109	-0.098	5733	8.39	M
2 1,3,5-Trinitrobenzene	18.531	18.327	0.204	13837	9.69	A
7 2,4-Dinitrotoluene	19.305	19.412	-0.107	8781	8.65	A
23 Tetryl	19.305	19.412	-0.107	8781	8.65	A
5 2,4,6-Trinitrotoluene	21.857	21.670	0.187	19827	23.7	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

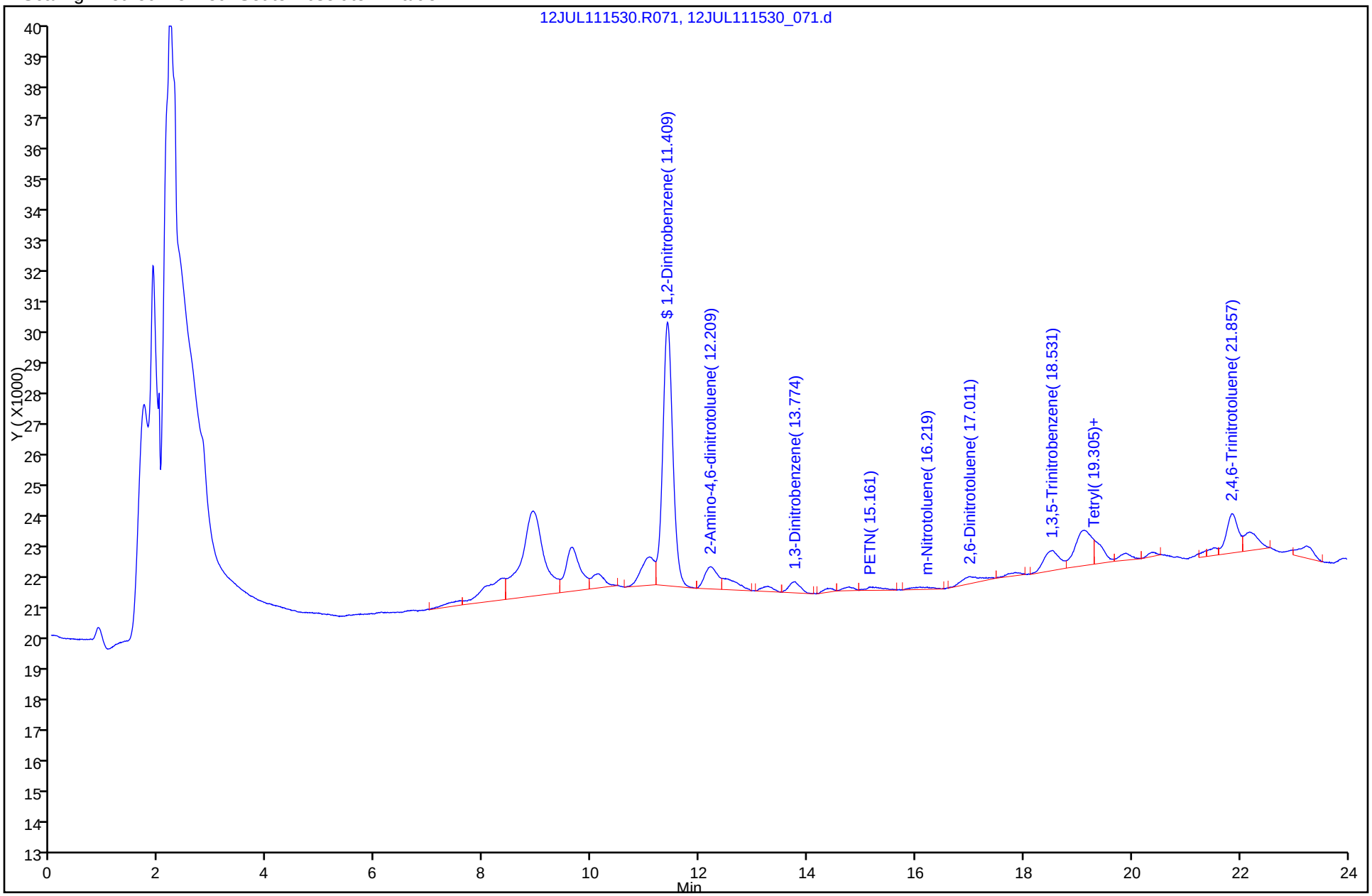
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d

Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

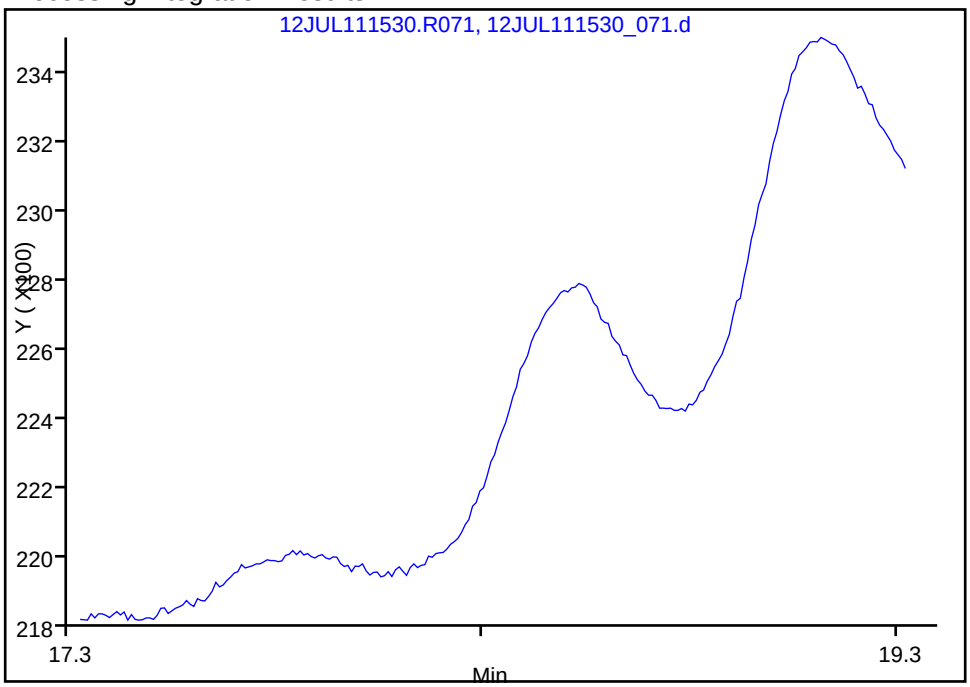
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

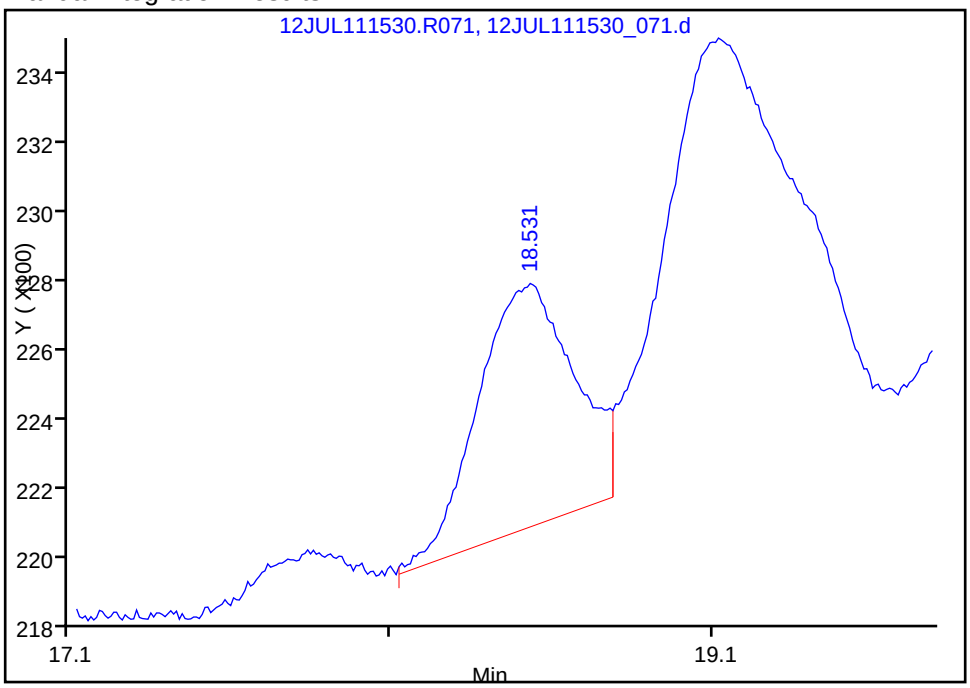
Not Detected
Expected RT: 18.33

Processing Integration Results



Manual Integration Results

RT: 18.53
Response: 13837
Amount: 9.691541



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

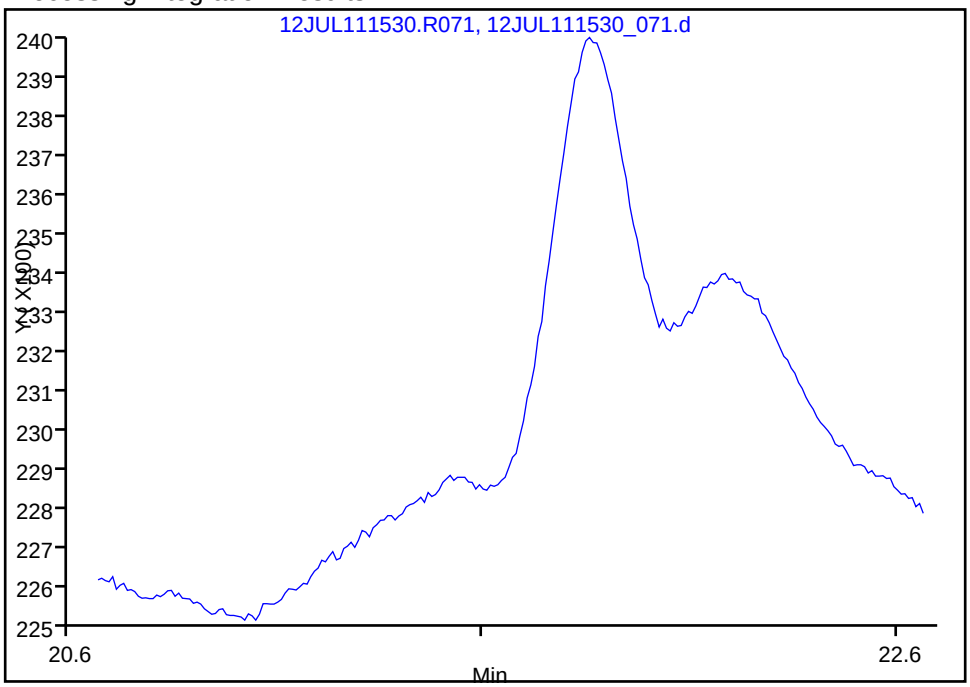
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.67

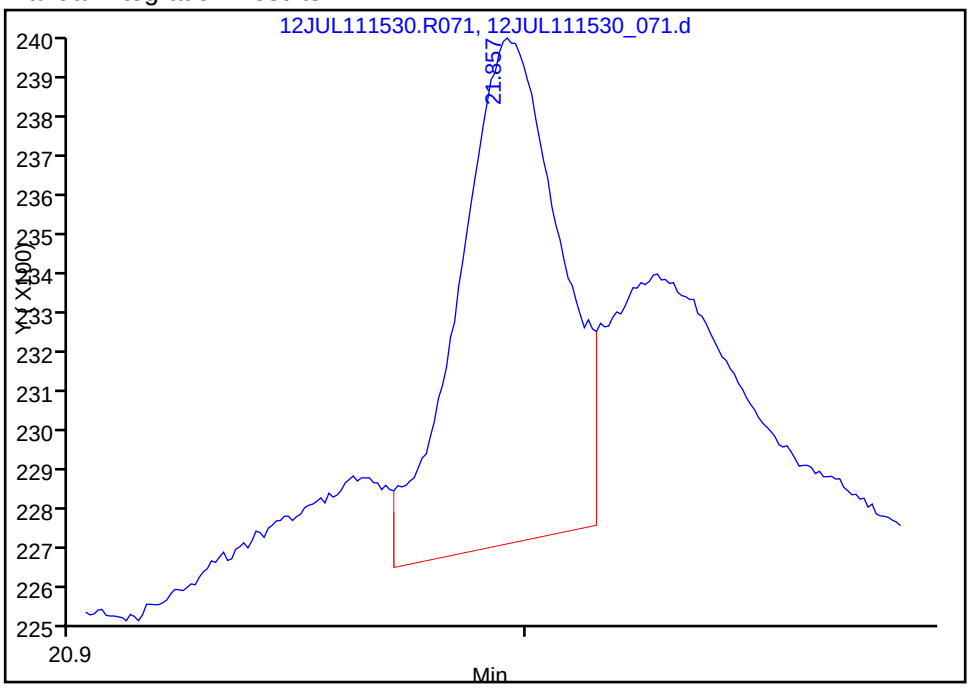
Not Detected
Expected RT: 21.67

Processing Integration Results



Manual Integration Results

RT: 21.86
Response: 19827
Amount: 23.674863



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

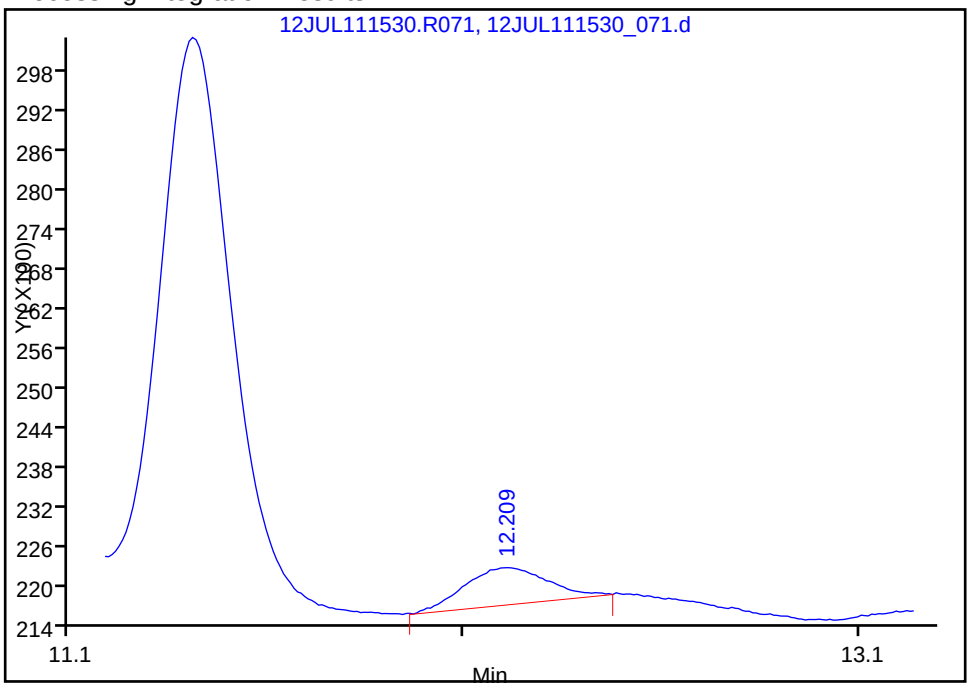
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

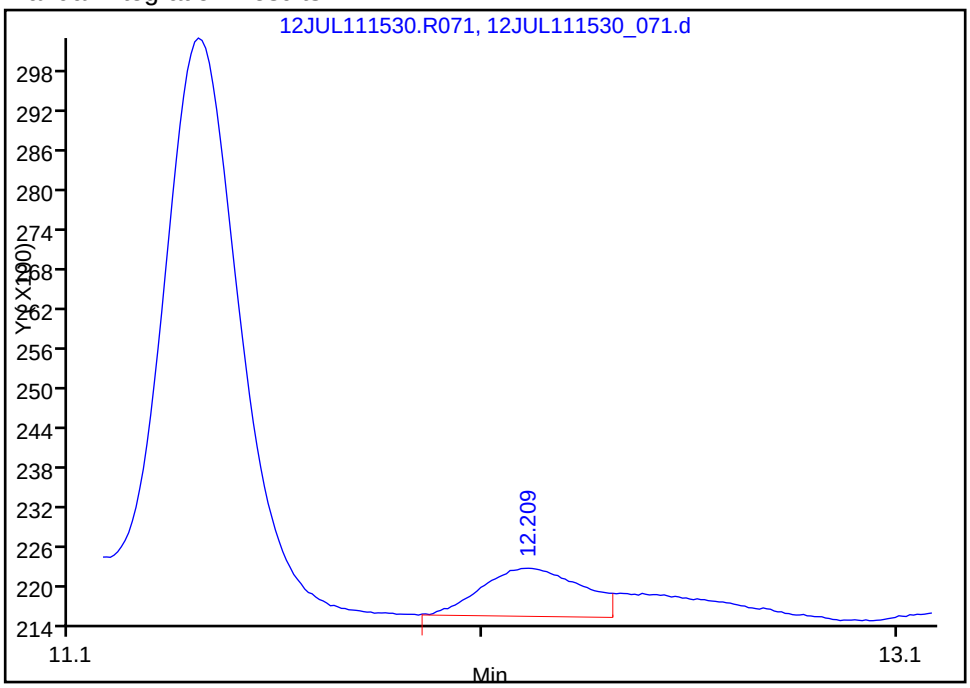
Processing Integration Results

RT: 12.21
Response: 8342
Amount: 5.897402



Manual Integration Results

RT: 12.21
Response: 12281
Amount: 9.133258



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

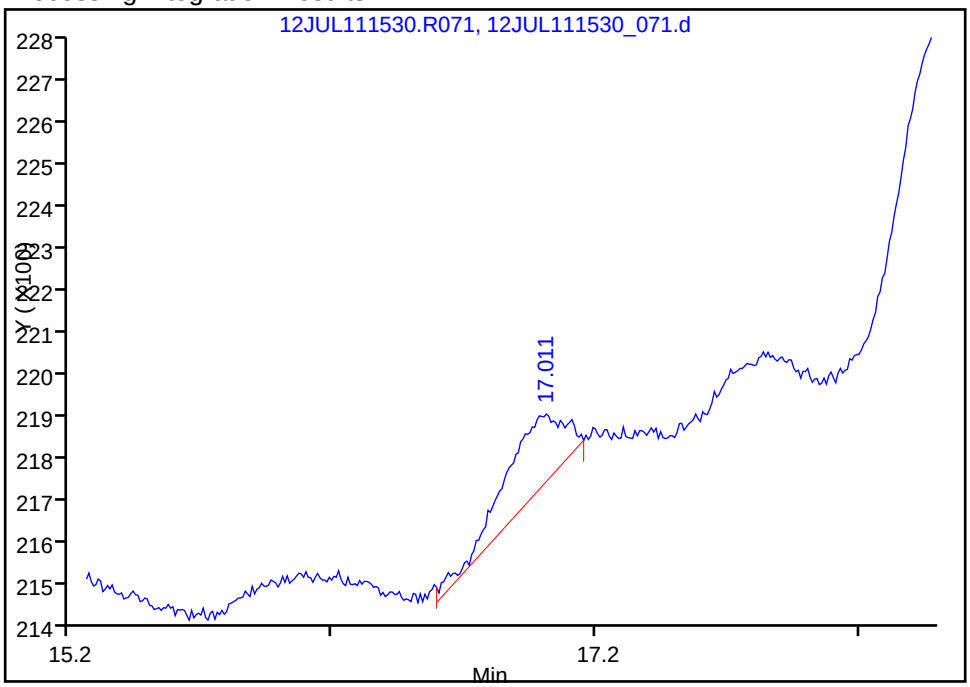
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

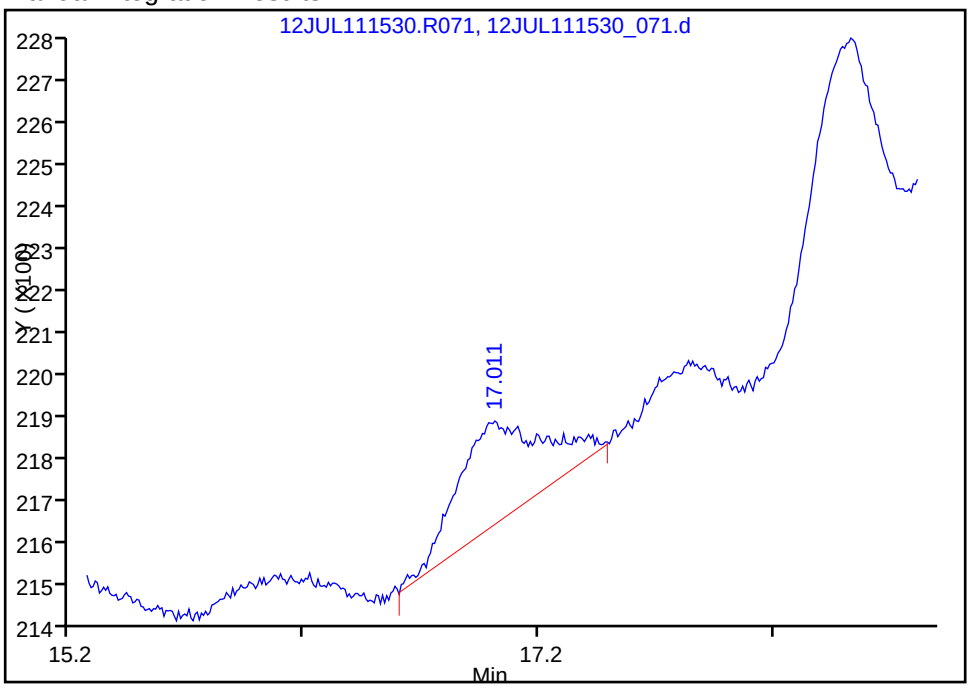
Processing Integration Results

RT: 17.01
Response: 2620
Amount: 4.159333



Manual Integration Results

RT: 17.01
Response: 5733
Amount: 8.385319



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

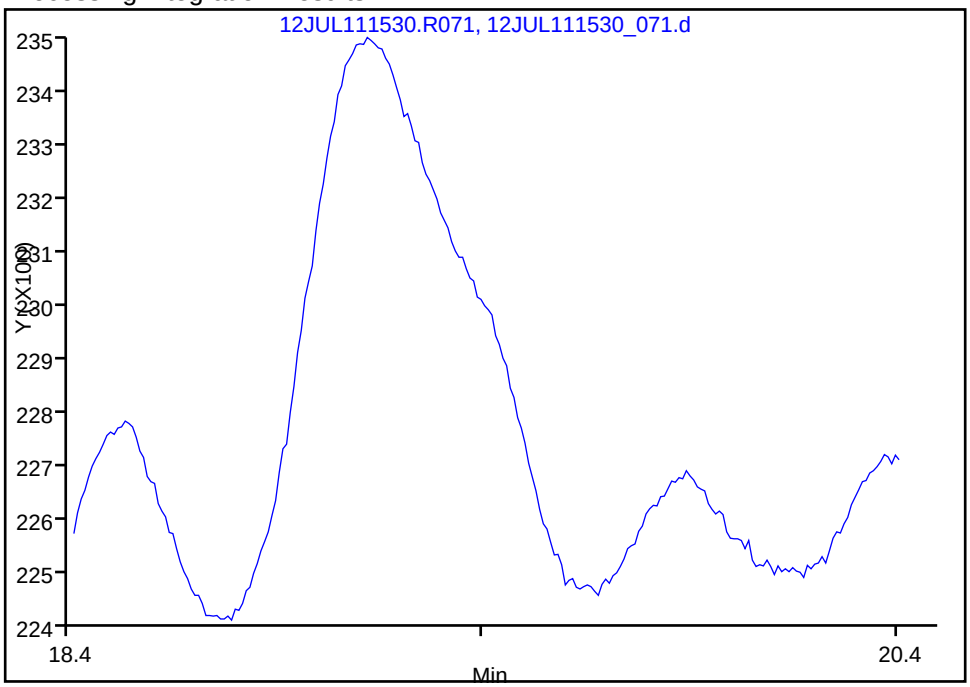
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

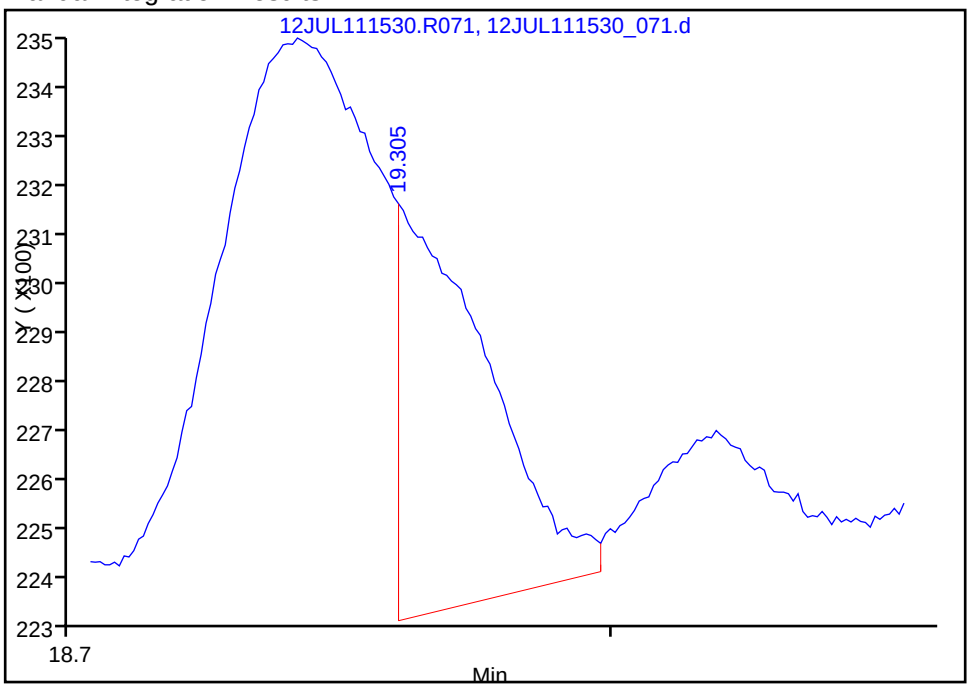
Not Detected
Expected RT: 19.41

Processing Integration Results



Manual Integration Results

RT: 19.30
Response: 8781
Amount: 8.653283



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Assigned Compound ID
Audit Reason:

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

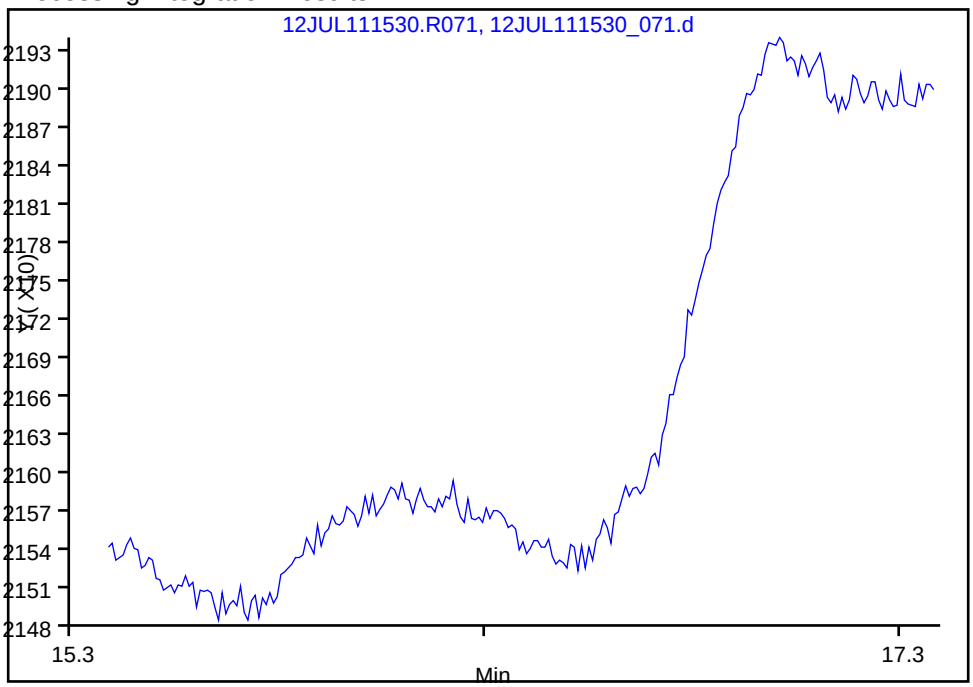
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

15 m-Nitrotoluene, Signal: 1, Type: quant, RT: 16.39

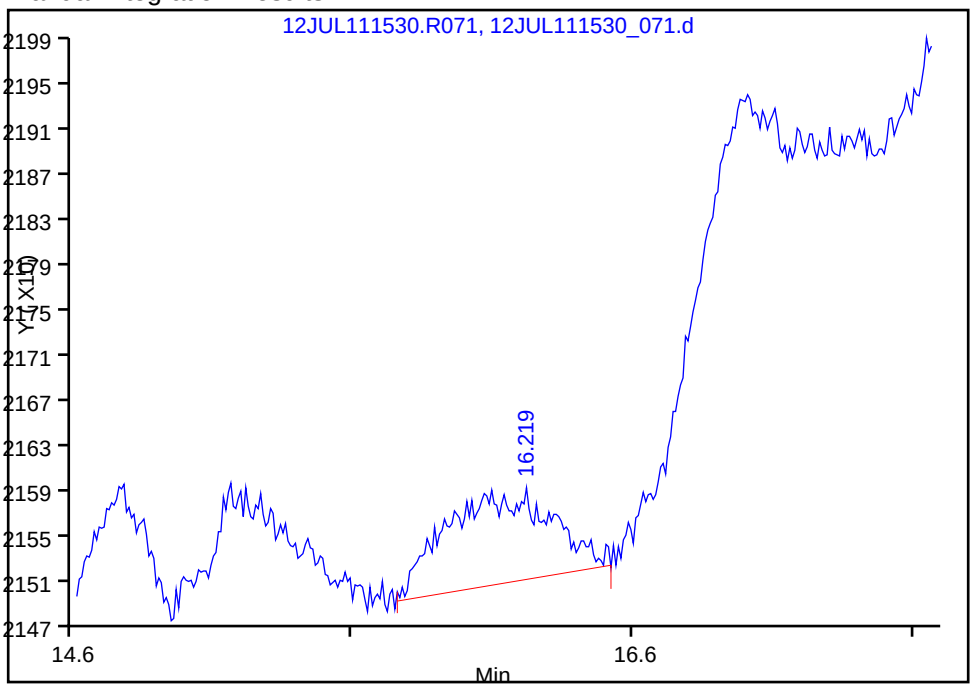
Not Detected
Expected RT: 16.39

Processing Integration Results



Manual Integration Results

RT: 16.22
Response: 2102
Amount: 8.356399



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28

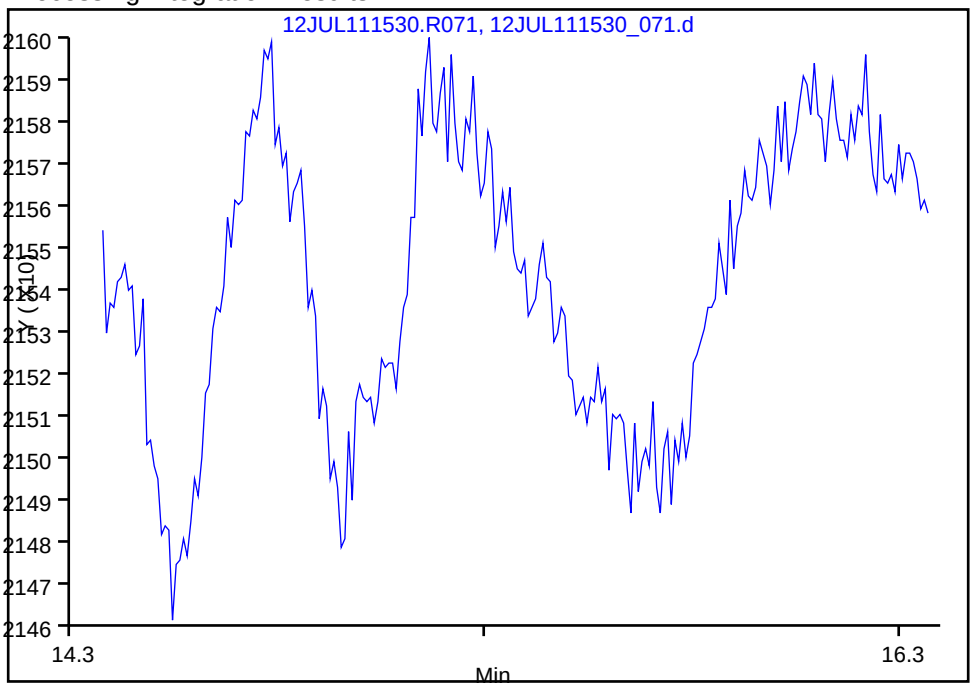
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_071.d		
Injection Date:	13-Jul-2011 15:39:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS12	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.37

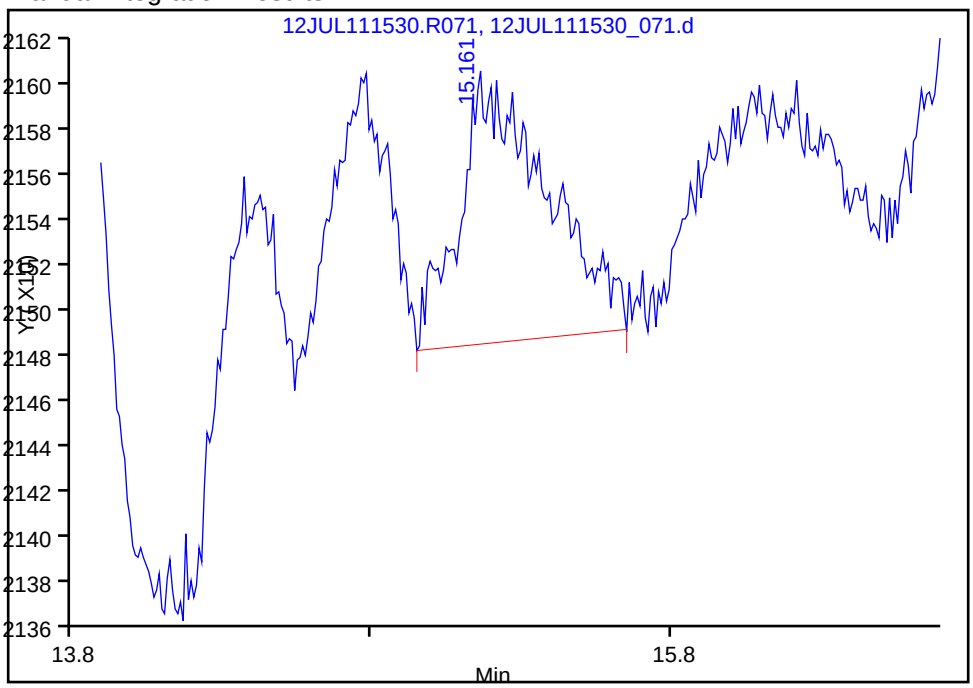
Not Detected
Expected RT: 15.37

Processing Integration Results



Manual Integration Results

RT: 15.16
Response: 2334
Amount: 86.806249



Reviewer: chirgwinb, 15-Jul-2011 14:52:22
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS15 | Lab Sample ID: 200-5816-5

Matrix: Solid | Lab File ID: 12JUL111532_081.d

Analysis Method: 8330B | Date Collected: 06/28/2011 08:55

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) | Date Analyzed: 07/13/2011 16:10

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U M	95	23	8.5
99-65-0	1,3-Dinitrobenzene	79	M J	95	23	8.0
55-63-0	Nitroglycerin	2900	M J	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	11	J M	95	23	6.6
606-20-2	2,6-Dinitrotoluene	90	M J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Lims ID:	200-5816-A-5-B	Client ID:	WPR02-SS15
Inject. Date:	13-Jul-2011 16:10:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-008		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	8
Lims Batch ID:	21368	Lims Sample ID:	8
Detector:	A-12JUL111532.R081		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 13:56:58

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	7 RDX	14.280	14.369	-0.089	653	2.42	
	9 1,3,5-Trinitrobenzene	16.201	16.130	0.071	2163	2.22	M
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	64165	179.9	M
	11 1,3-Dinitrobenzene	17.472	17.375	0.097	6868	8.35	M
	13 Tetryl	18.424	18.513	-0.089	1276	2.10	A
	14 Nitroglycerin	19.117	19.260	-0.143	1321	302.8	A
	15 2,4,6-Trinitrotoluene		19.704				1
	16 4-Amino-2,6-dinitrotoluene		20.193				1
	17 2-Amino-4,6-dinitrotoluene	20.620	20.567	0.053	348	1.12	A
	18 2,6-Dinitrotoluene	20.860	20.887	-0.027	3921	9.46	M
	19 2,4-Dinitrotoluene		21.163				1
	22 m-Nitrotoluene	23.955	24.088	-0.133	1639	6.99	A
	23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

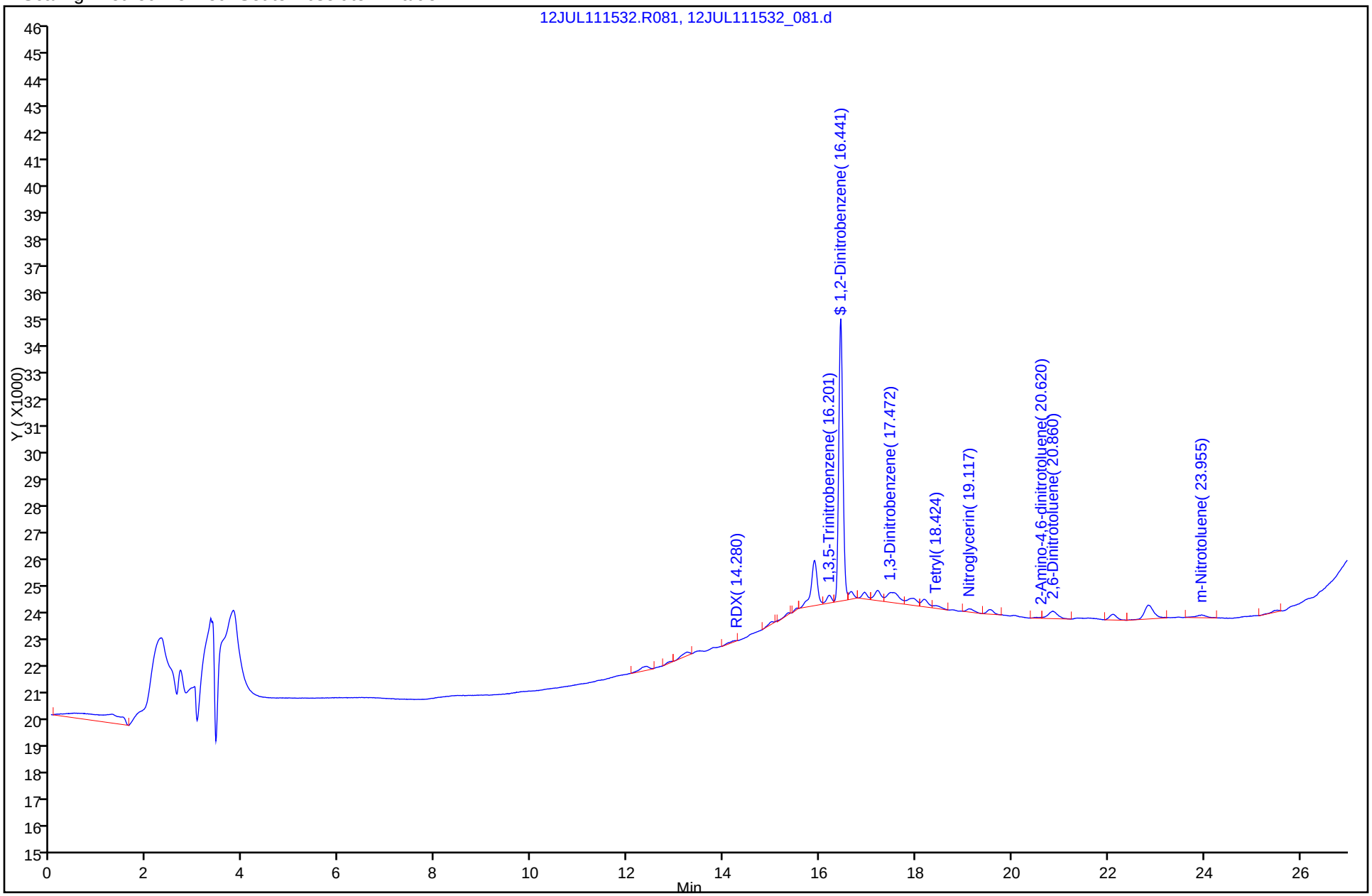
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:52 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d

Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:52 Chrom Revision: 1.2 30-Jun-2011 15:02:28

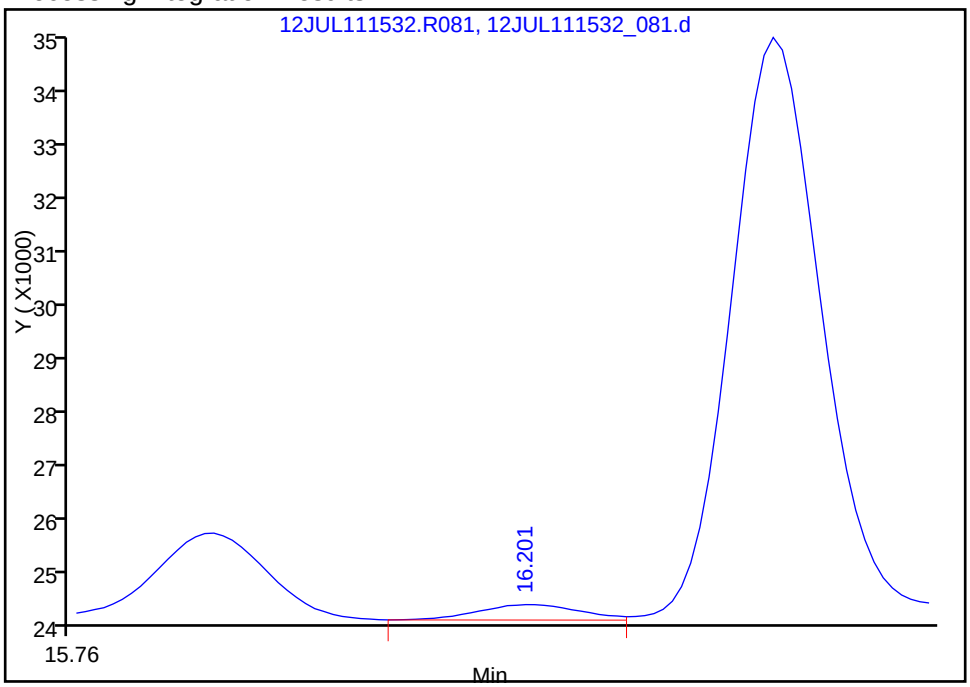
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

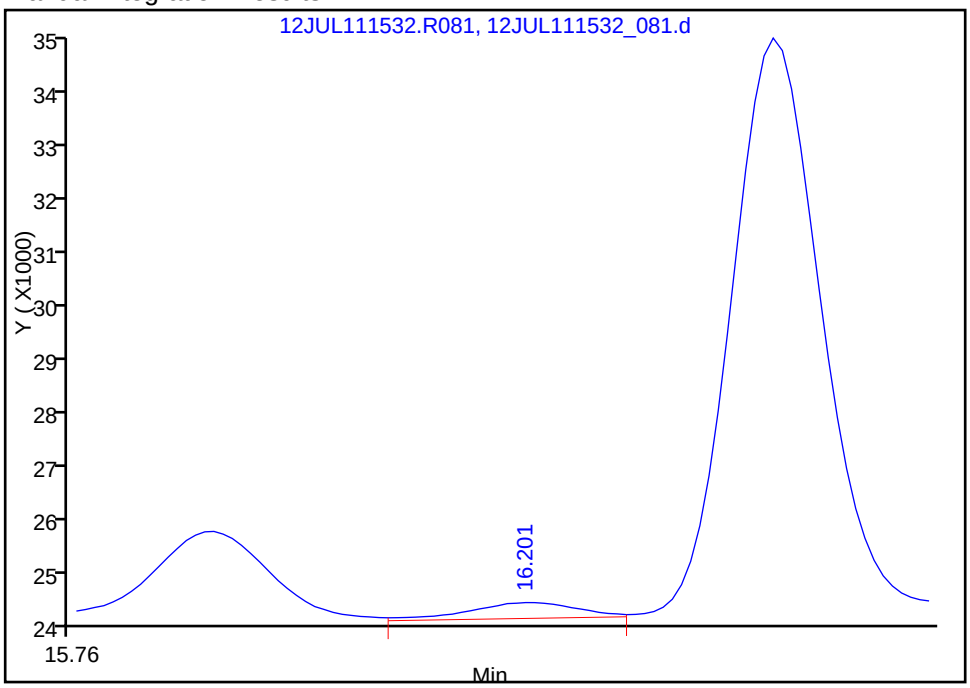
Processing Integration Results

RT: 16.20
Response: 1948
Amount: 1.961646



Manual Integration Results

RT: 16.20
Response: 2163
Amount: 2.221030



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:52 Chrom Revision: 1.2 30-Jun-2011 15:02:28

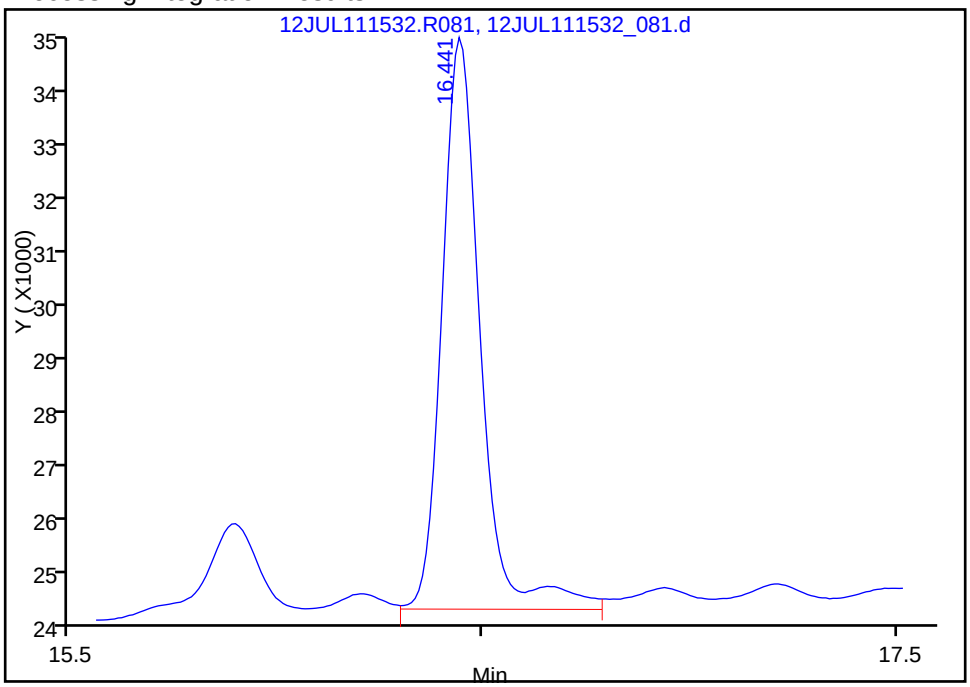
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

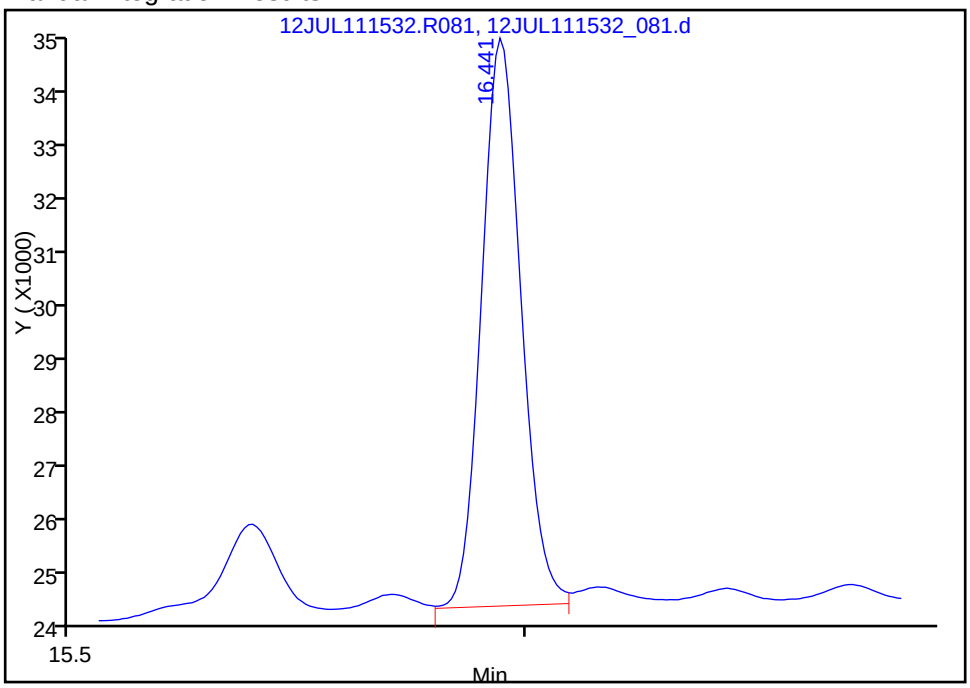
Processing Integration Results

RT: 16.44
Response: 69232
Amount: 194.2261



Manual Integration Results

RT: 16.44
Response: 64165
Amount: 179.9302



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

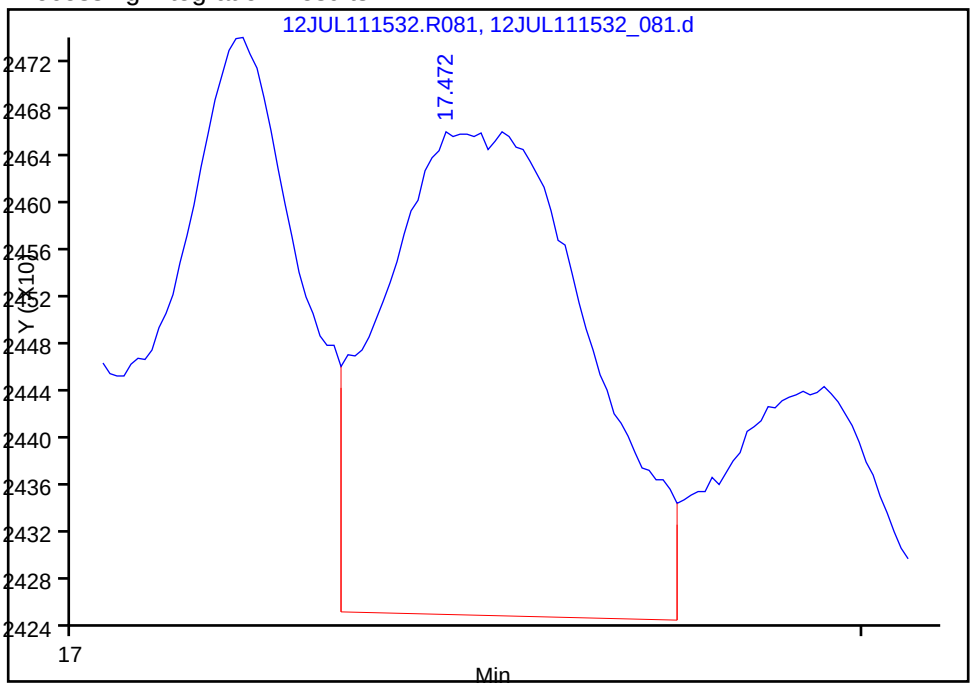
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

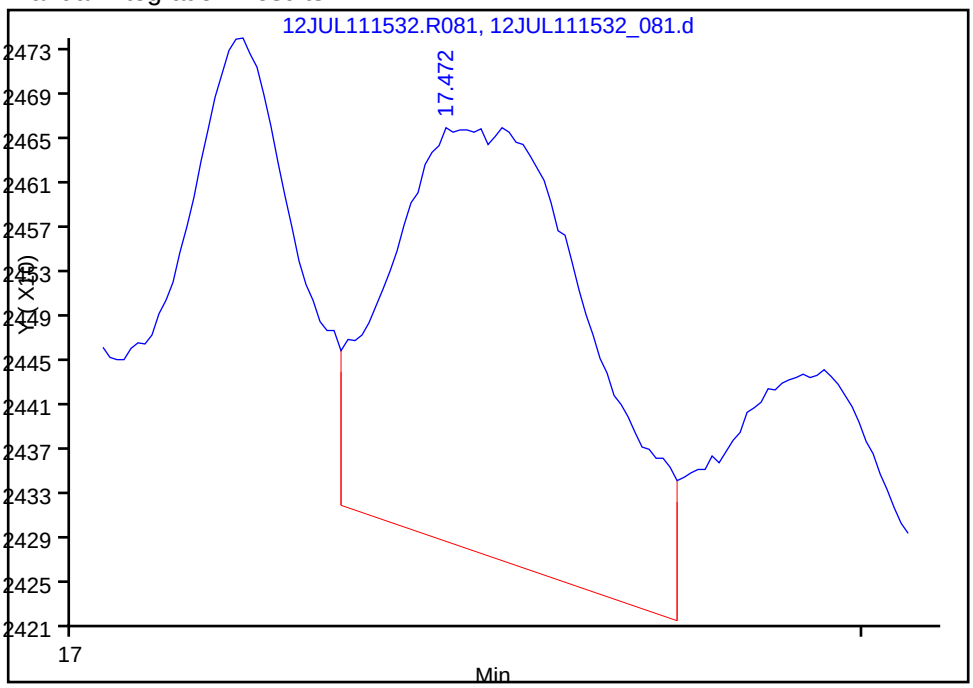
Processing Integration Results

RT: 17.47
Response: 7432
Amount: 9.046498



Manual Integration Results

RT: 17.47
Response: 6868
Amount: 8.347981



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:53 Chrom Revision: 1.2 30-Jun-2011 15:02:28

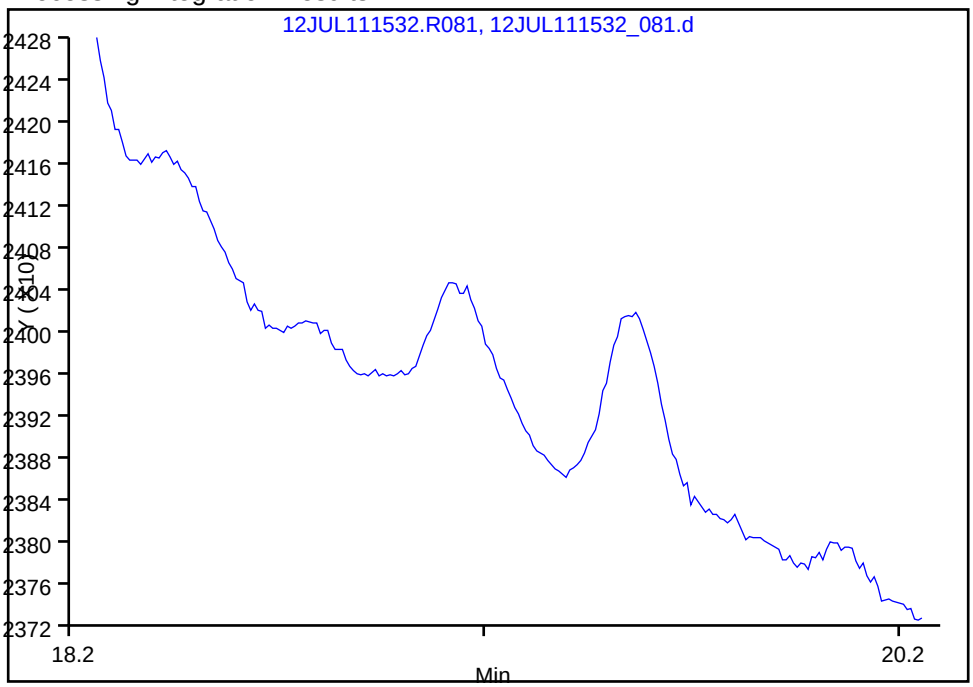
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

14 Nitroglycerin, Signal: 1, Type: quant, RT: 19.26

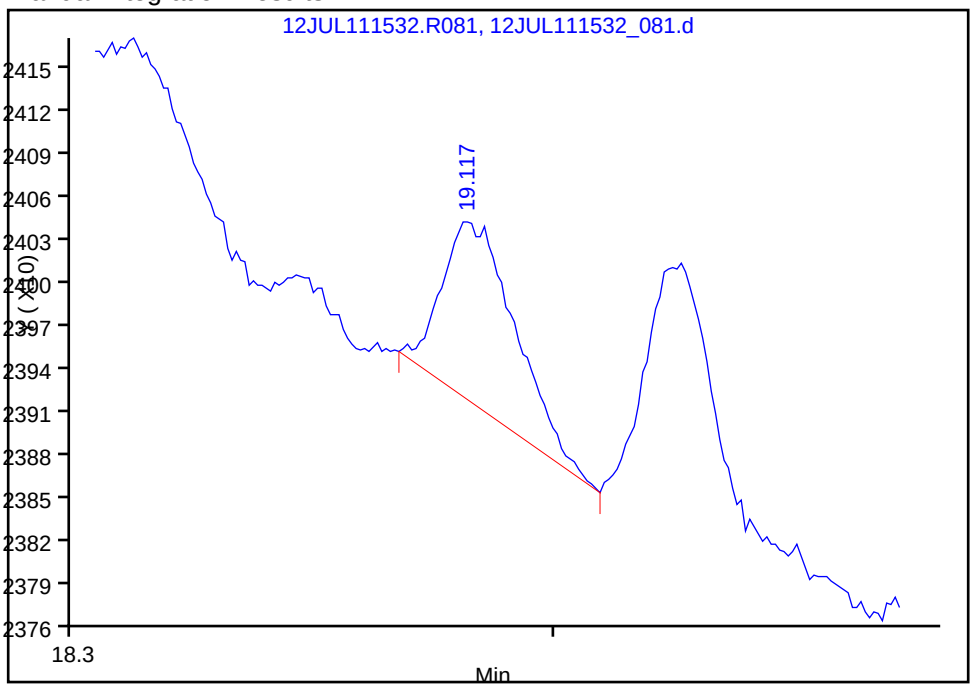
Not Detected
Expected RT: 19.26

Processing Integration Results



Manual Integration Results

RT: 19.12
Response: 1321
Amount: 302.7590



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

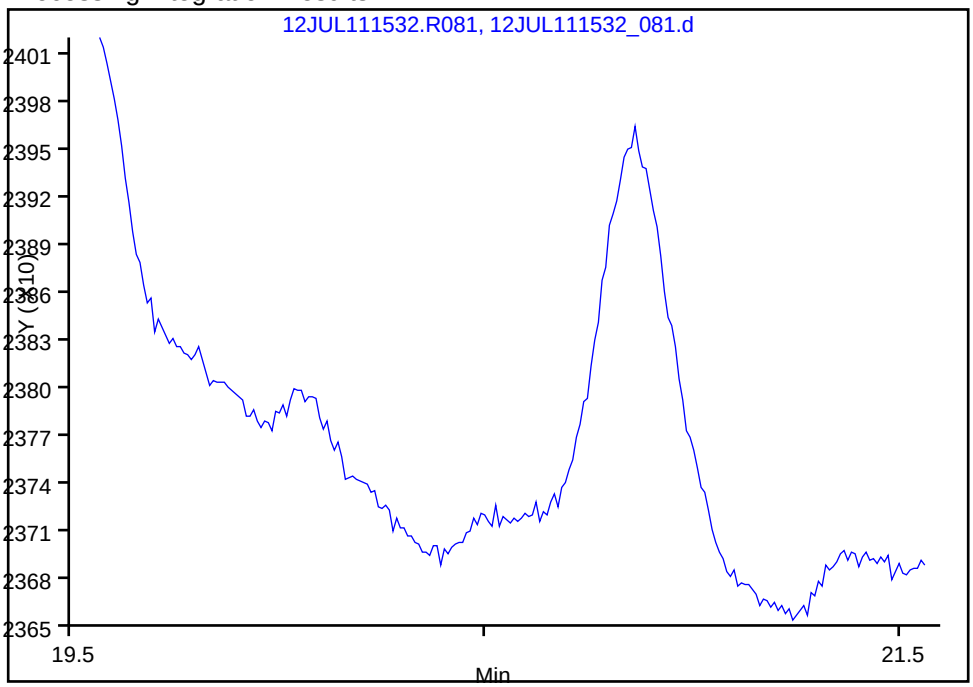
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

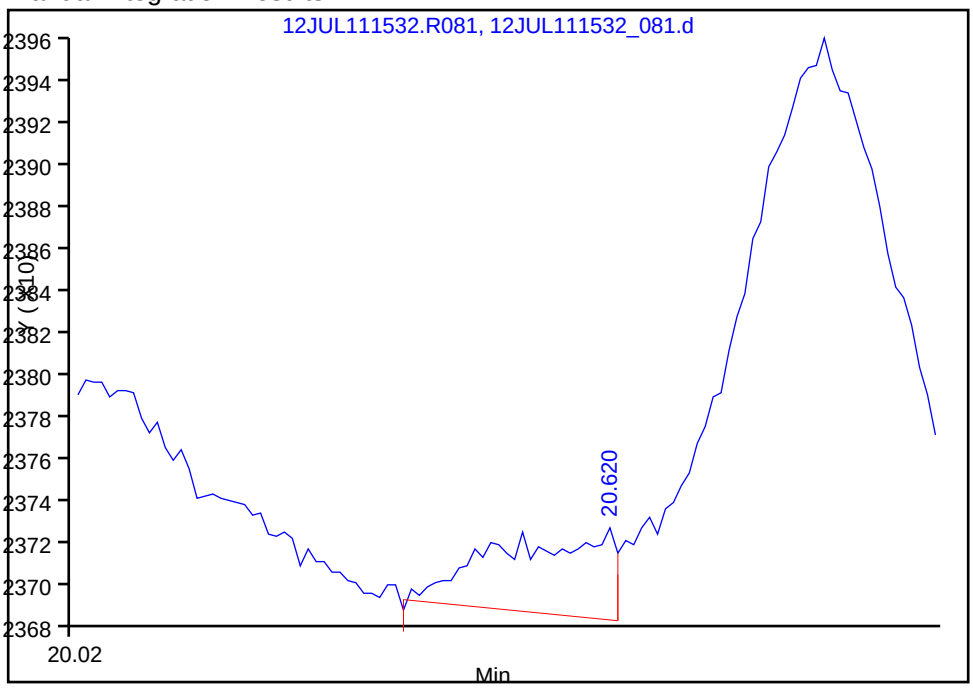
Not Detected
Expected RT: 20.57

Processing Integration Results



Manual Integration Results

RT: 20.62
Response: 348
Amount: 1.120344



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

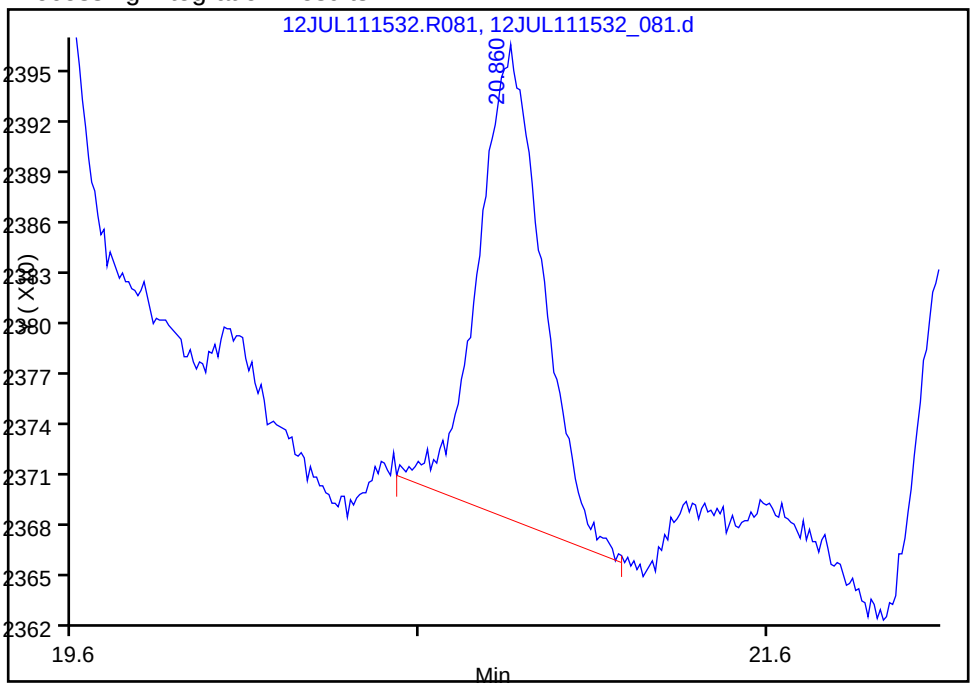
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

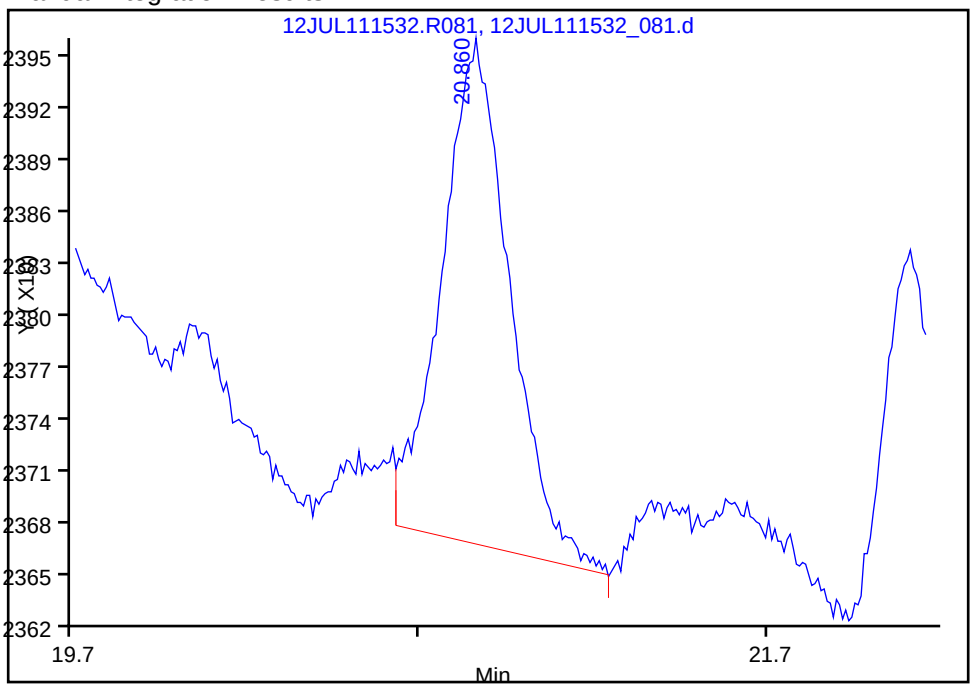
Processing Integration Results

RT: 20.86
Response: 3534
Amount: 8.550587



Manual Integration Results

RT: 20.86
Response: 3921
Amount: 9.456837



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:53 Chrom Revision: 1.2 30-Jun-2011 15:02:28

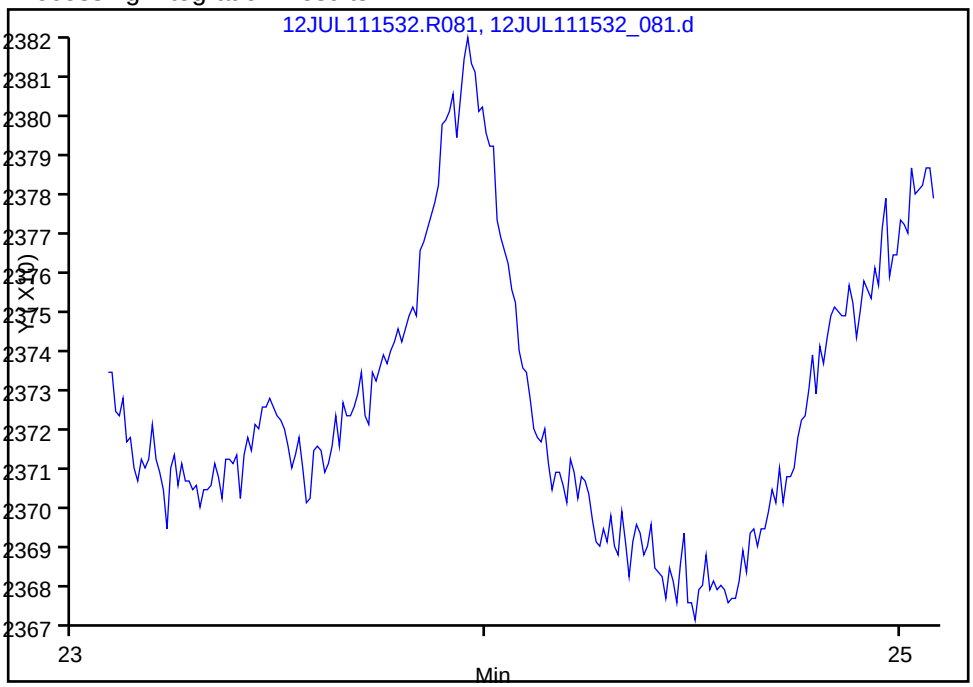
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_081.d		
Injection Date:	13-Jul-2011 16:10:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

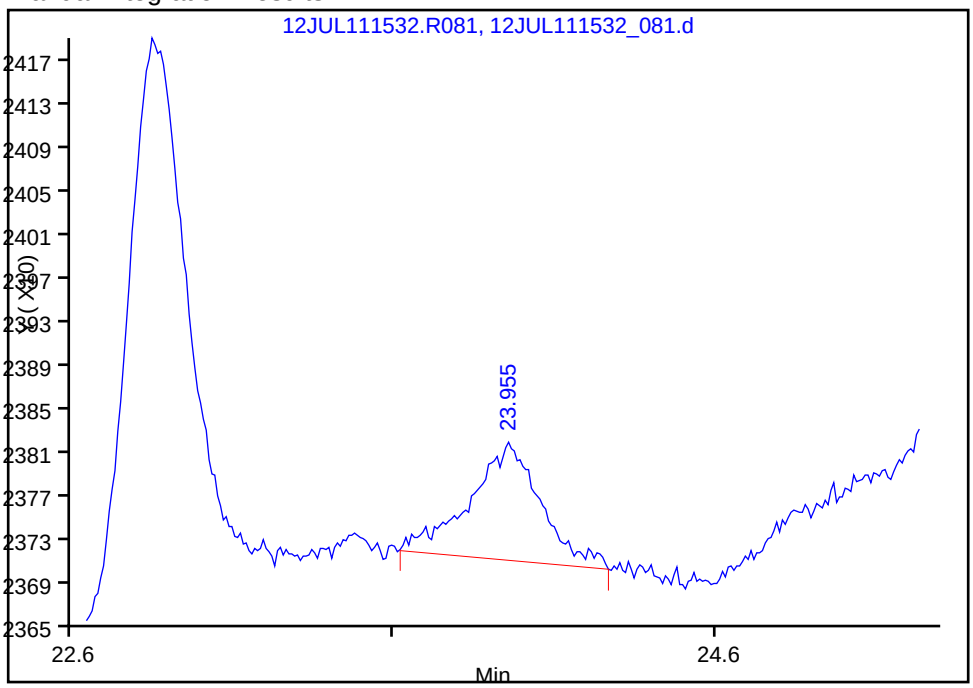
Not Detected
Expected RT: 24.09

Processing Integration Results



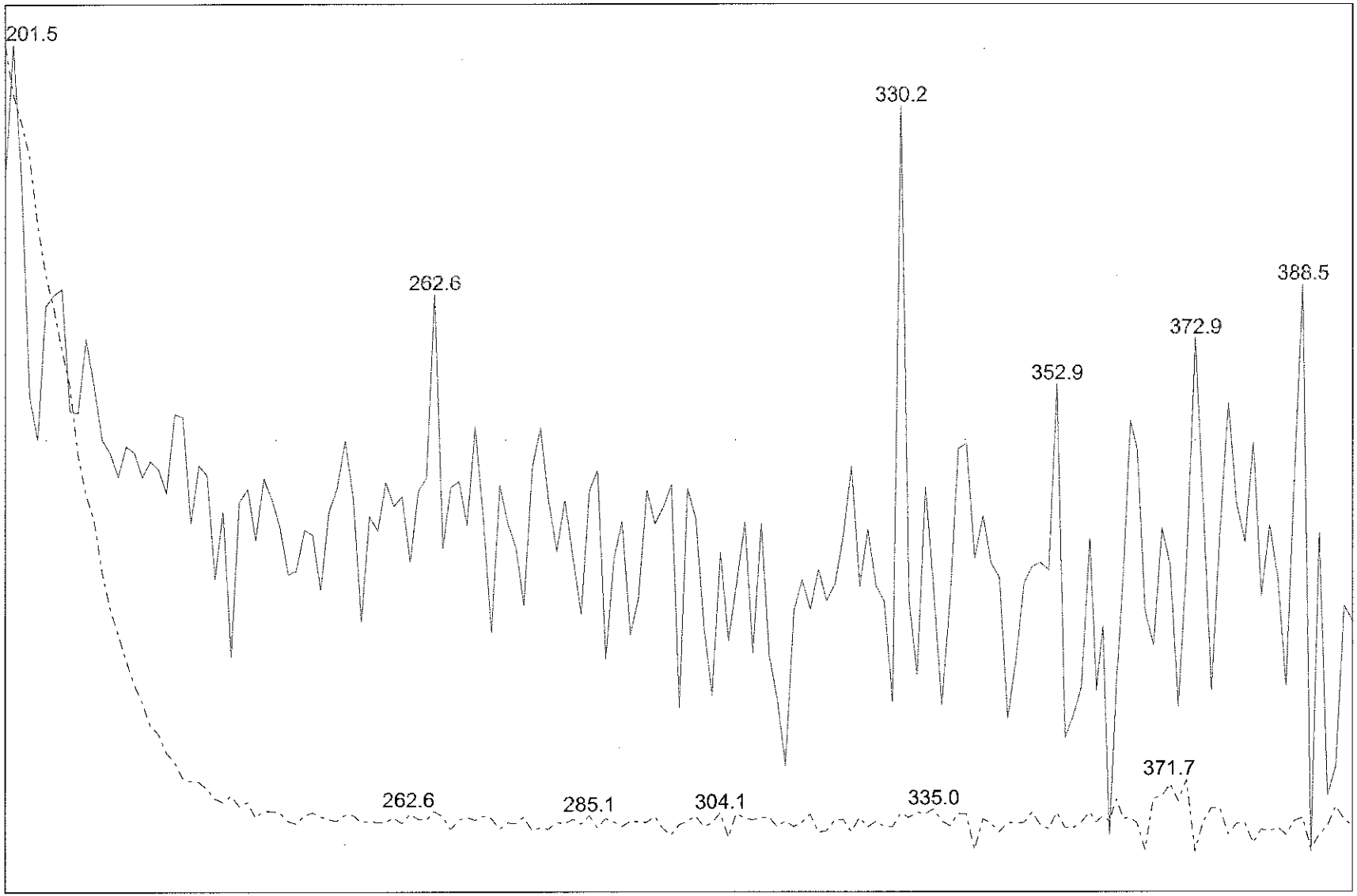
Manual Integration Results

RT: 23.95
Response: 1639
Amount: 6.993080



Reviewer: chirgwinb, 15-Jul-2011 13:56:58
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Spectrum Review Report-TestAmerica Burlington



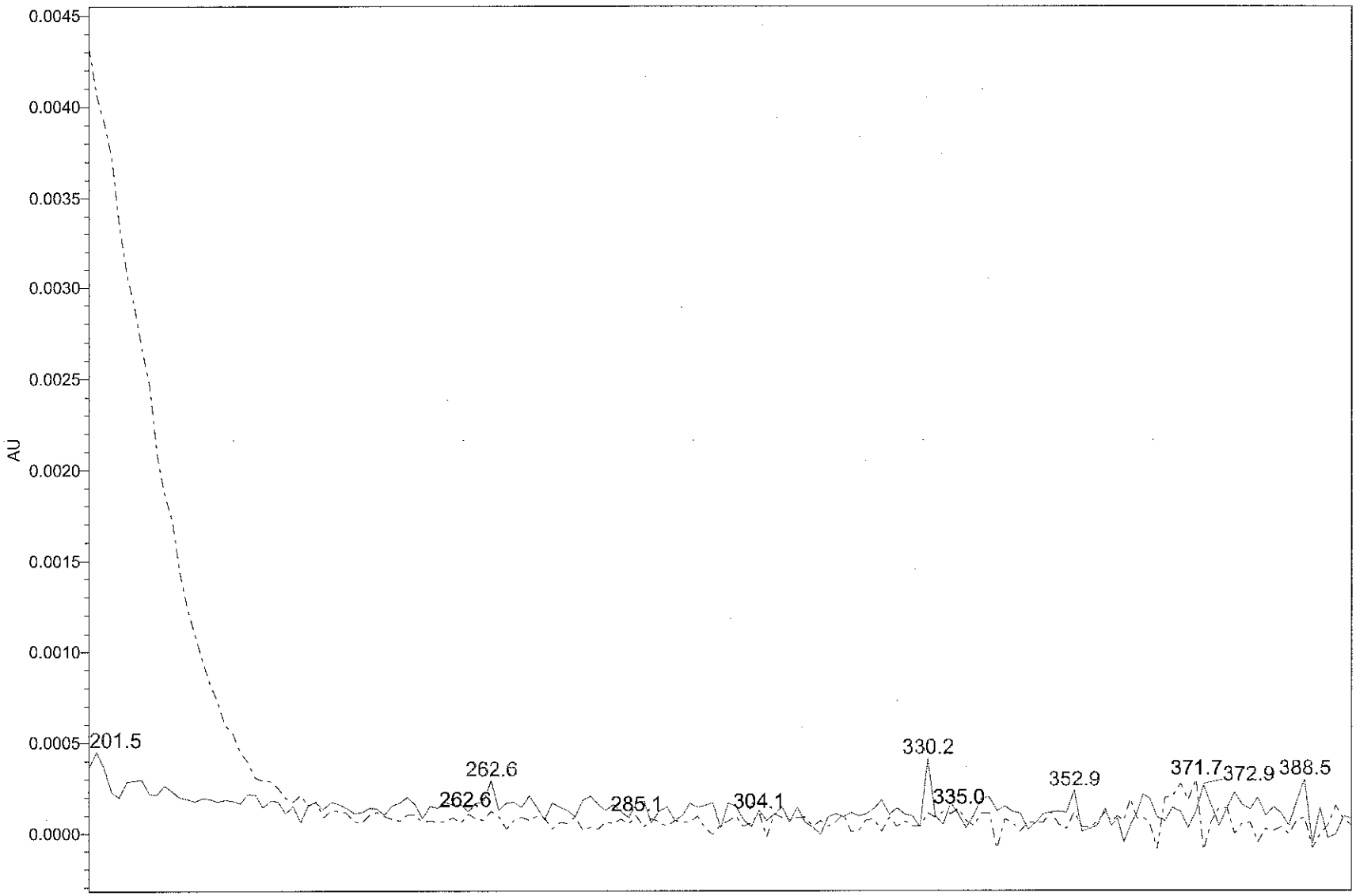
Retention Time: 19.233 LIMS Name: 200-5816-A-5-B Description: Analyte Name:

Retention Time: 19.417 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 200ppb

WPR42-5515

PDA Addendum for nitroglycerin

Spectrum Review Report-TestAmerica Burlington



Retention Time: 19.233 LIMS Name: 200-5816-A-5-B Description: Analyte Name:

Retention Time: 19.417 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 200ppb

WPR02-SS15

PDA Addendum for nitroglycerin

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS15 | Lab Sample ID: 200-5816-5

Matrix: Solid | Lab File ID: 12JUL111530_081.d

Analysis Method: 8330B | Date Collected: 06/28/2011 08:55

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) | Date Analyzed: 07/13/2011 16:13

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	*1,3-Dinitrobenzene*	*33*	*J*	*95*	23	*8.0*
55-63-0	*Nitroglycerin*	*4800*	*M J*	*1900*	1400	*580*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*11*	*J M*	*95*	23	*6.6*
606-20-2	*2,6-Dinitrotoluene*	*21*	*M J*	*95*	14	*5.9*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Lims ID:	200-5816-A-5-B	Client ID:	WPR02-SS15
Inject. Date:	13-Jul-2011 16:13:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-008		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	8
Lims Batch ID:	21370	Lims Sample ID:	8
Detector:	A-12JUL111530.R081		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:56:10

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.518				1
	18 Nitroglycerin	9.648	9.515	0.133	3867	508.2	A
$	1 1,2-Dinitrobenzene	11.418	11.391	0.027	104956	175.3	M
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene	12.191	12.111	0.080	2629	1.20	M
	3 1,3-Dinitrobenzene	13.756	13.810	-0.054	3953	3.43	
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene	17.278	17.109	0.169	1175	2.20	A
	2 1,3,5-Trinitrobenzene		18.327				1
	7 2,4-Dinitrotoluene	19.332	19.412	-0.080	3339	3.41	A
	23 Tetryl	19.332	19.412	-0.080	3339	3.41	A
	5 2,4,6-Trinitrotoluene		21.670				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

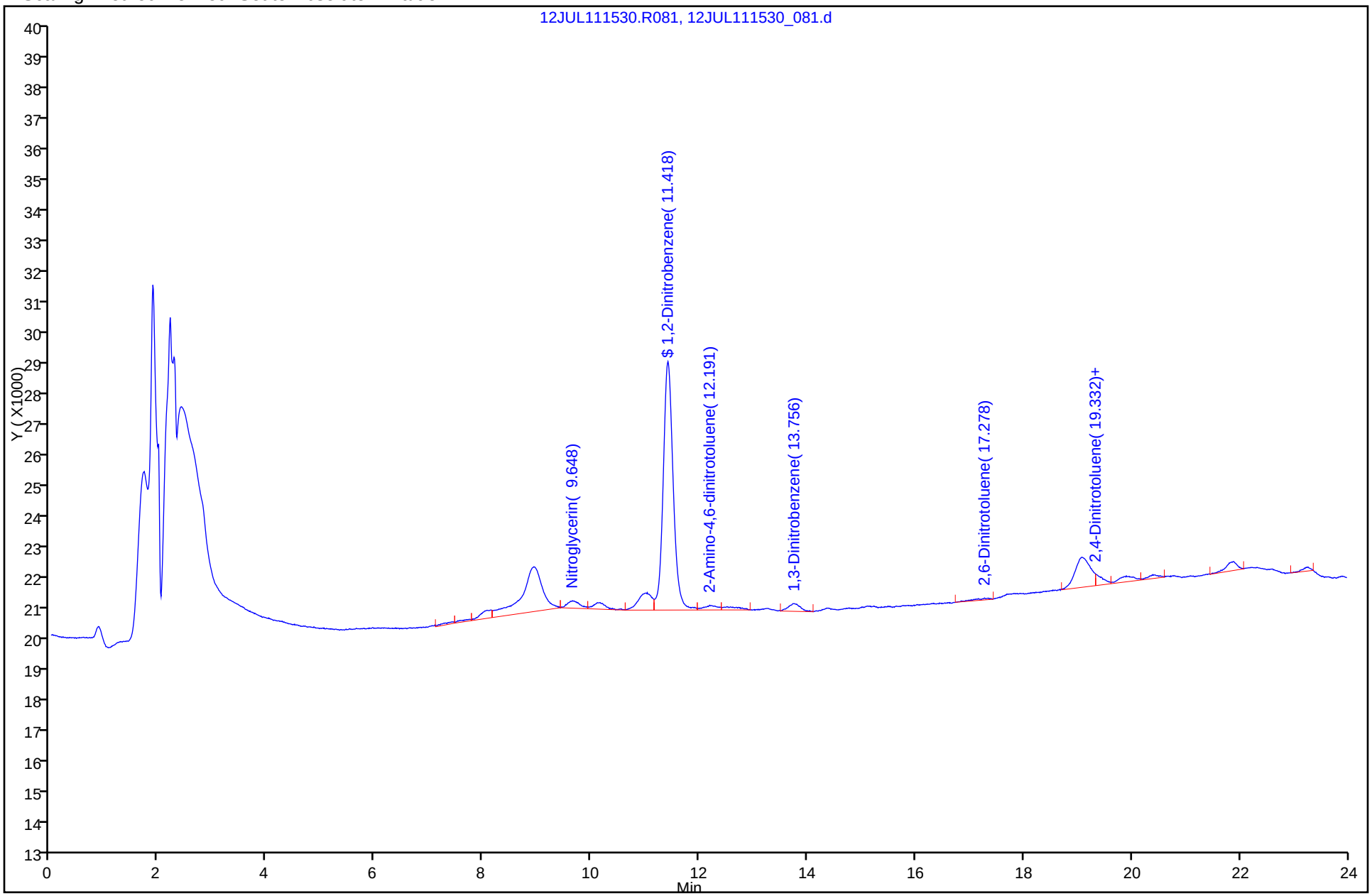
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d

Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

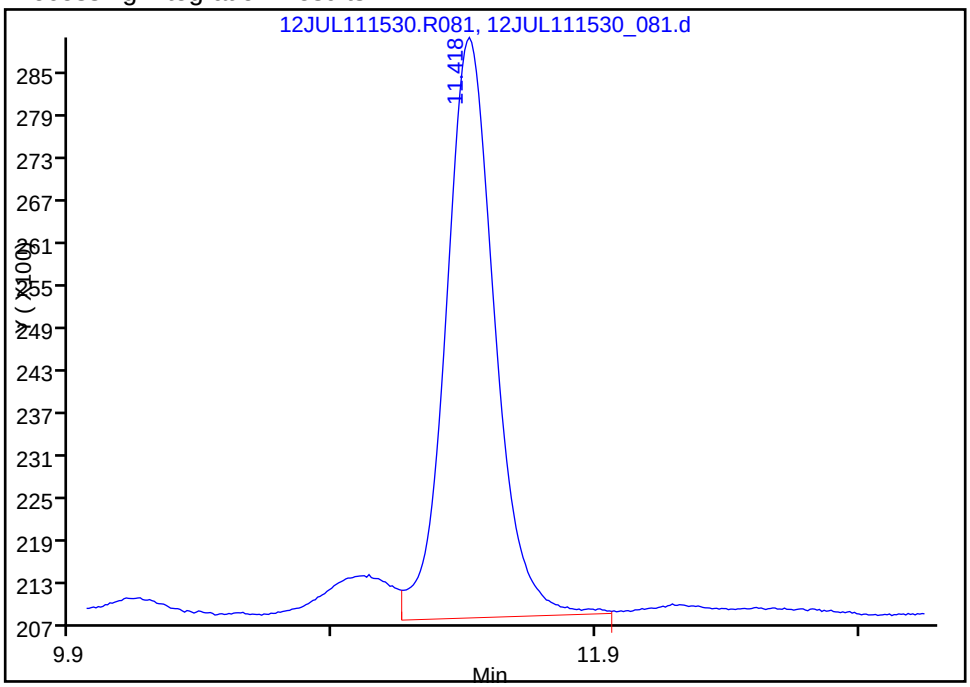
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

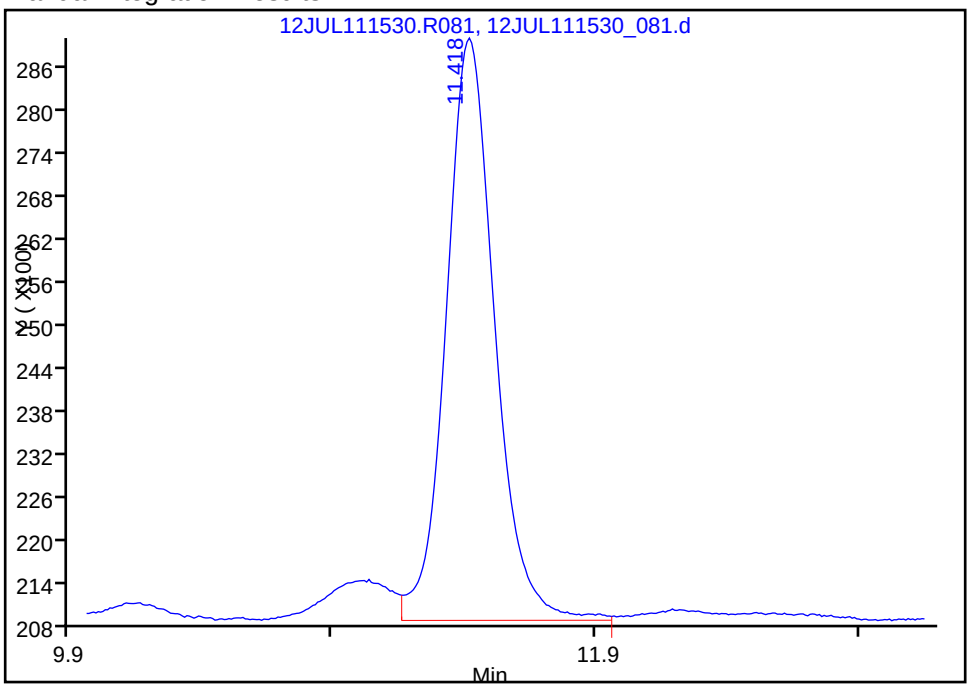
Processing Integration Results

RT: 11.42
Response: 106013
Amount: 177.0691



Manual Integration Results

RT: 11.42
Response: 104956
Amount: 175.2912



Reviewer: chirgwinb, 15-Jul-2011 14:56:10
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

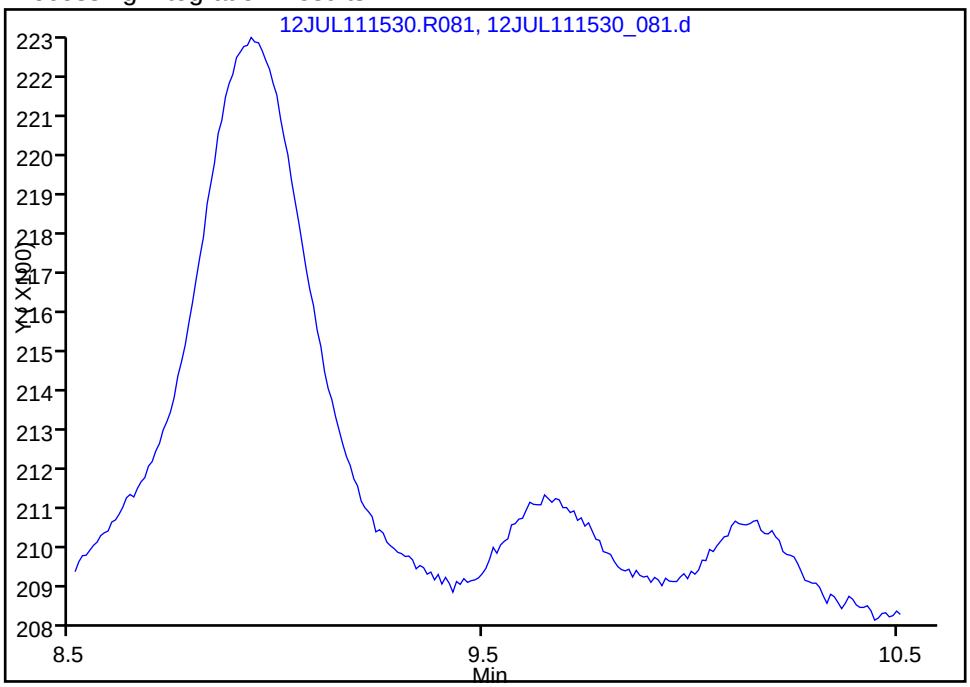
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

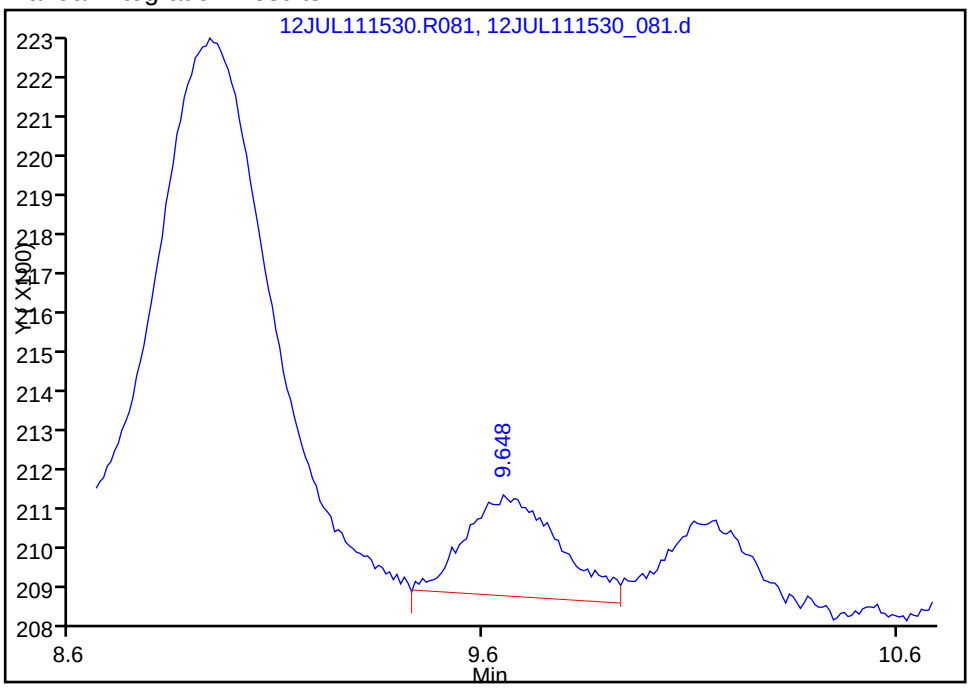
Not Detected
Expected RT: 9.51

Processing Integration Results



Manual Integration Results

RT: 9.65
Response: 3867
Amount: 508.1870



Reviewer: chirgwinb, 15-Jul-2011 14:56:10
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

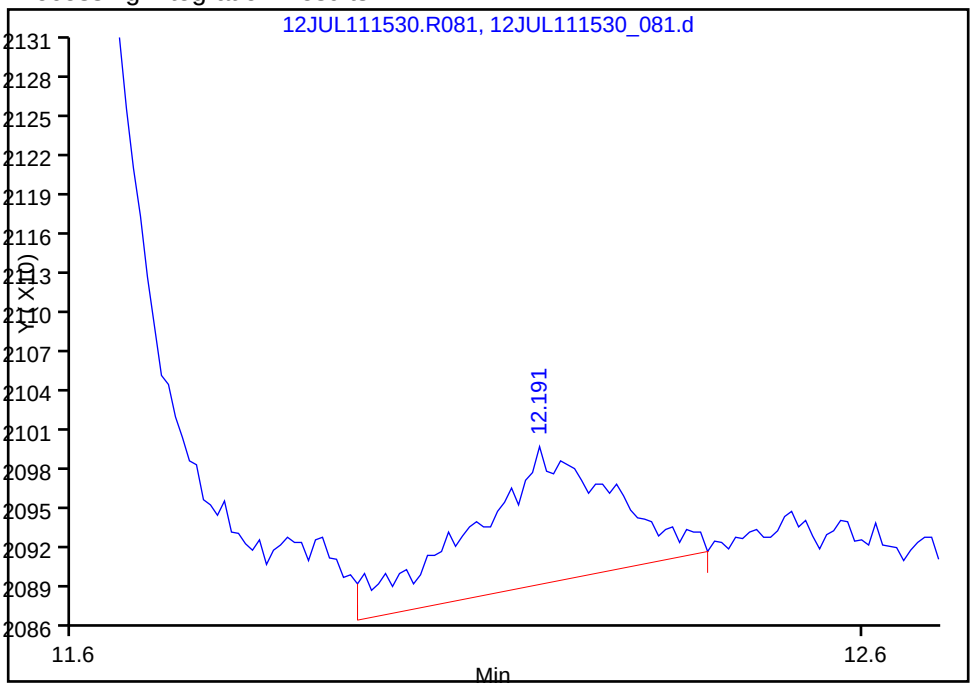
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

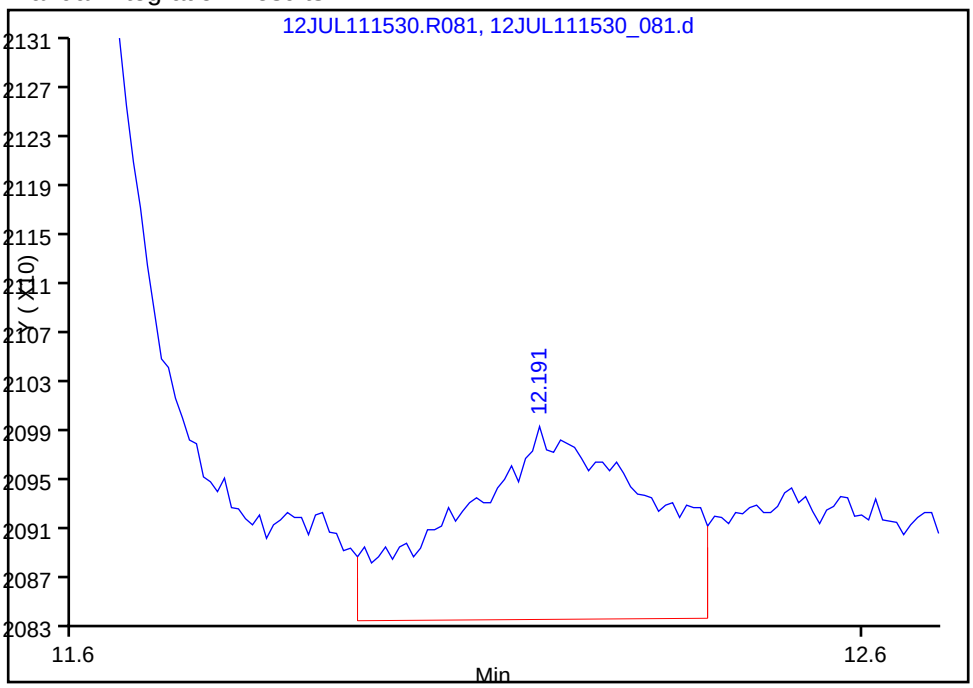
Processing Integration Results

RT: 12.19
Response: 1309
Amount: 0.119850



Manual Integration Results

RT: 12.19
Response: 2629
Amount: 1.204219



Reviewer: chirgwinb, 15-Jul-2011 14:56:10
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

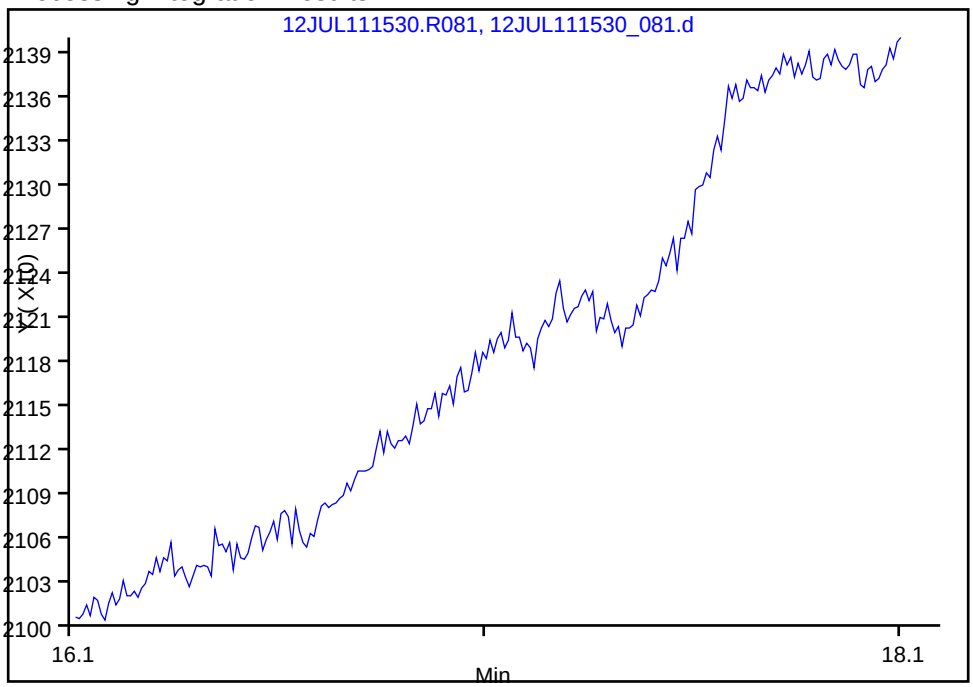
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

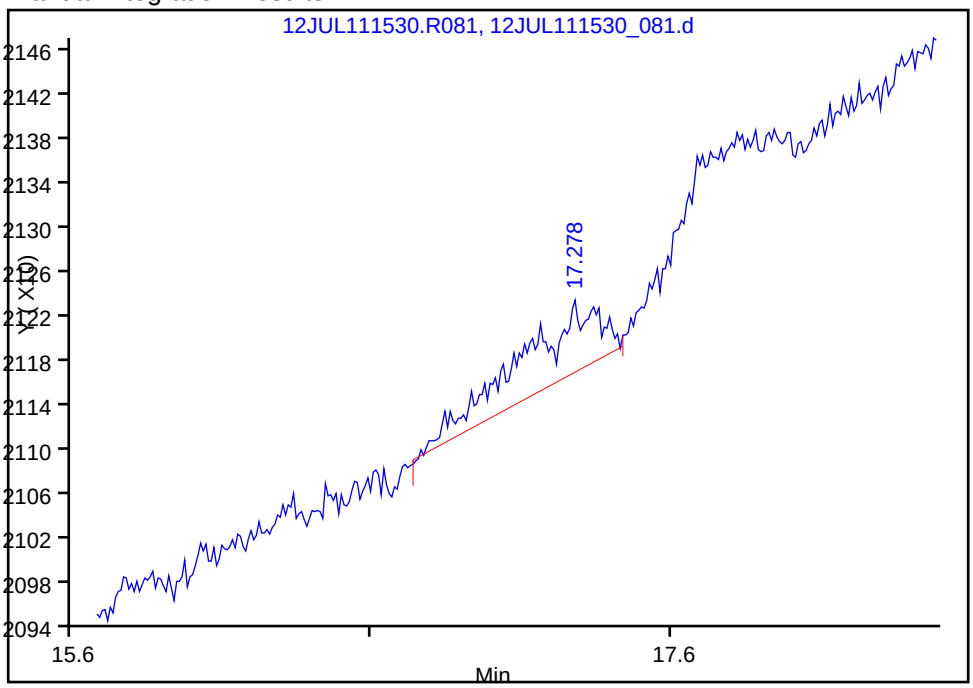
Not Detected
Expected RT: 17.11

Processing Integration Results



Manual Integration Results

RT: 17.28
Response: 1175
Amount: 2.197704



Reviewer: chirgwinb, 15-Jul-2011 14:56:10
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:14 Chrom Revision: 1.2 30-Jun-2011 15:02:28

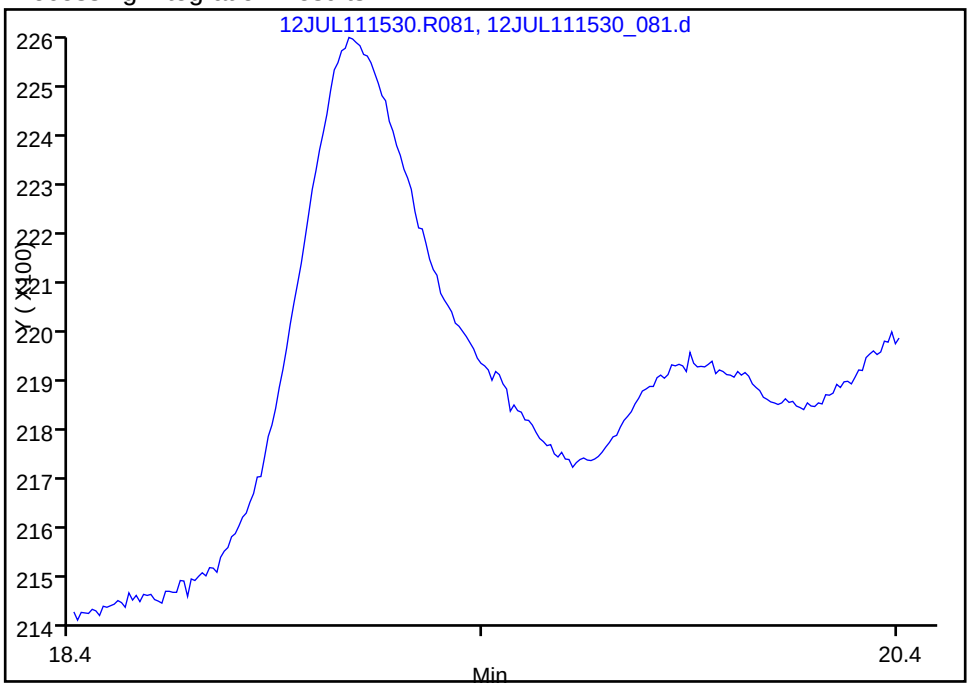
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_081.d		
Injection Date:	13-Jul-2011 16:13:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS15	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	8
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

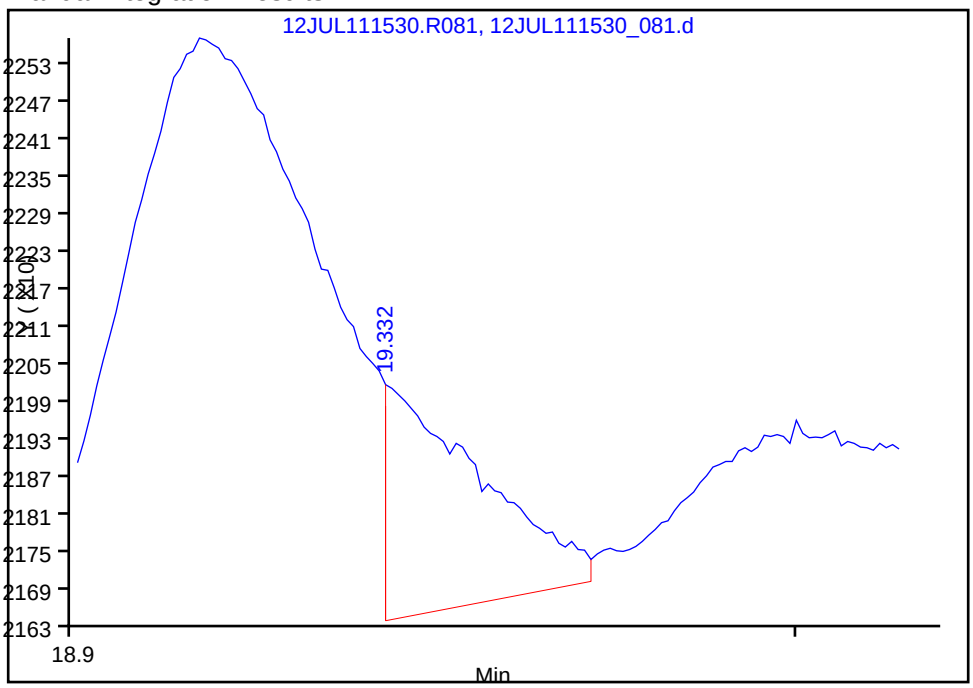
Not Detected
Expected RT: 19.41

Processing Integration Results



Manual Integration Results

RT: 19.33
Response: 3339
Amount: 3.412256



Reviewer: chirgwinb, 18-Jul-2011 11:56:30
Audit Action: Assigned Compound ID
Audit Reason:

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 | Lab Sample ID: 200-5816-6

Matrix: Solid | Lab File ID: 12JUL111532_091.d

Analysis Method: 8330B | Date Collected: 06/28/2011 10:35

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.54(g) | Date Analyzed: 07/13/2011 16:47

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	90	M J	95	23	8.4
99-65-0	1,3-Dinitrobenzene	17	M J	95	23	8.0
55-63-0	Nitroglycerin	8600	M	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	30	J M	95	23	6.6
606-20-2	2,6-Dinitrotoluene	140	M J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U M	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Lims ID:	200-5816-A-6-D	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 16:47:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-009		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	9
Lims Batch ID:	21368	Lims Sample ID:	9
Detector:	A-12JUL111532.R091		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:01:55

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene		9.692				1
3 HMX	10.759	10.715	0.044	377	1.25	M
4 2,4-diamino-6-nitrotoluene		11.115				1
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
6 MNX	13.249	13.228	0.021	3126	7.64	
7 RDX		14.369				1
8 2,4,6-Trinitrophenol	15.347	15.401	-0.054	2415	6.51	M
9 1,3,5-Trinitrobenzene	16.219	16.130	0.089	8222	9.53	M
$ 10 1,2-Dinitrobenzene	16.441	16.441	0.0	63727	178.7	M
11 1,3-Dinitrobenzene	17.472	17.375	0.097	1552	1.76	A
12 Nitrobenzene	18.255	18.237	0.018	631	2.20	A
13 Tetryl	18.433	18.513	-0.080	1613	2.67	A
14 Nitroglycerin	19.135	19.260	-0.125	3873	905.1	A
15 2,4,6-Trinitrotoluene		19.704				1
16 4-Amino-2,6-dinitrotoluene	20.087	20.193	-0.106	713	1.63	A
17 2-Amino-4,6-dinitrotoluene	20.522	20.567	-0.045	1644	3.13	M
18 2,6-Dinitrotoluene	20.860	20.887	-0.027	6140	14.7	M
19 2,4-Dinitrotoluene		21.163				1
20 o-Nitrotoluene		22.656				1
21 p-Nitrotoluene	23.457	23.394	0.063	351	2.93	A
22 m-Nitrotoluene	23.963	24.088	-0.125	1354	5.17	A
23 PETN	24.826	24.817	0.009	978	280.7	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Lims ID:	200-5816-A-6-D	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 16:47:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-009		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	9
Lims Batch ID:	21370	Lims Sample ID:	9
Detector:	A-12JUL111530.R091		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 15:03:27

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene		4.624				1
6 2,4-diamino-6-nitrotoluene		4.624				1
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX		5.460				1
16 MNX		5.873				1
22 RDX		6.518				1
4 2,4,6-Trinitrophenol		7.309				1
18 Nitroglycerin	9.657	9.515	0.142	7950	1030.2	A
17 Nitrobenzene	11.044	10.937	0.107	13458	28.4	M
$ 1 1,2-Dinitrobenzene	11.409	11.391	0.018	105209	175.7	M
11 4-Amino-2,6-dinitrotoluene	11.835	11.889	-0.054	333	0.0475	A
10 2-Amino-4,6-dinitrotoluene	12.209	12.111	0.098	4605	2.83	M
3 1,3-Dinitrobenzene	13.747	13.810	-0.063	4398	3.75	
19 o-Nitrotoluene		15.117				1
21 PETN		15.375				1
15 m-Nitrotoluene	16.282	16.388	-0.106	412	1.67	A
20 p-Nitrotoluene	16.282	16.388	-0.106	412	1.67	A
9 2,6-Dinitrotoluene	17.109	17.109	0.0	1170	2.19	A
2 1,3,5-Trinitrobenzene	18.647	18.327	0.320	4399	3.09	A
7 2,4-Dinitrotoluene	19.305	19.412	-0.107	9480	9.33	A
23 Tetryl	19.305	19.412	-0.107	9480	9.33	A
5 2,4,6-Trinitrotoluene		21.670				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

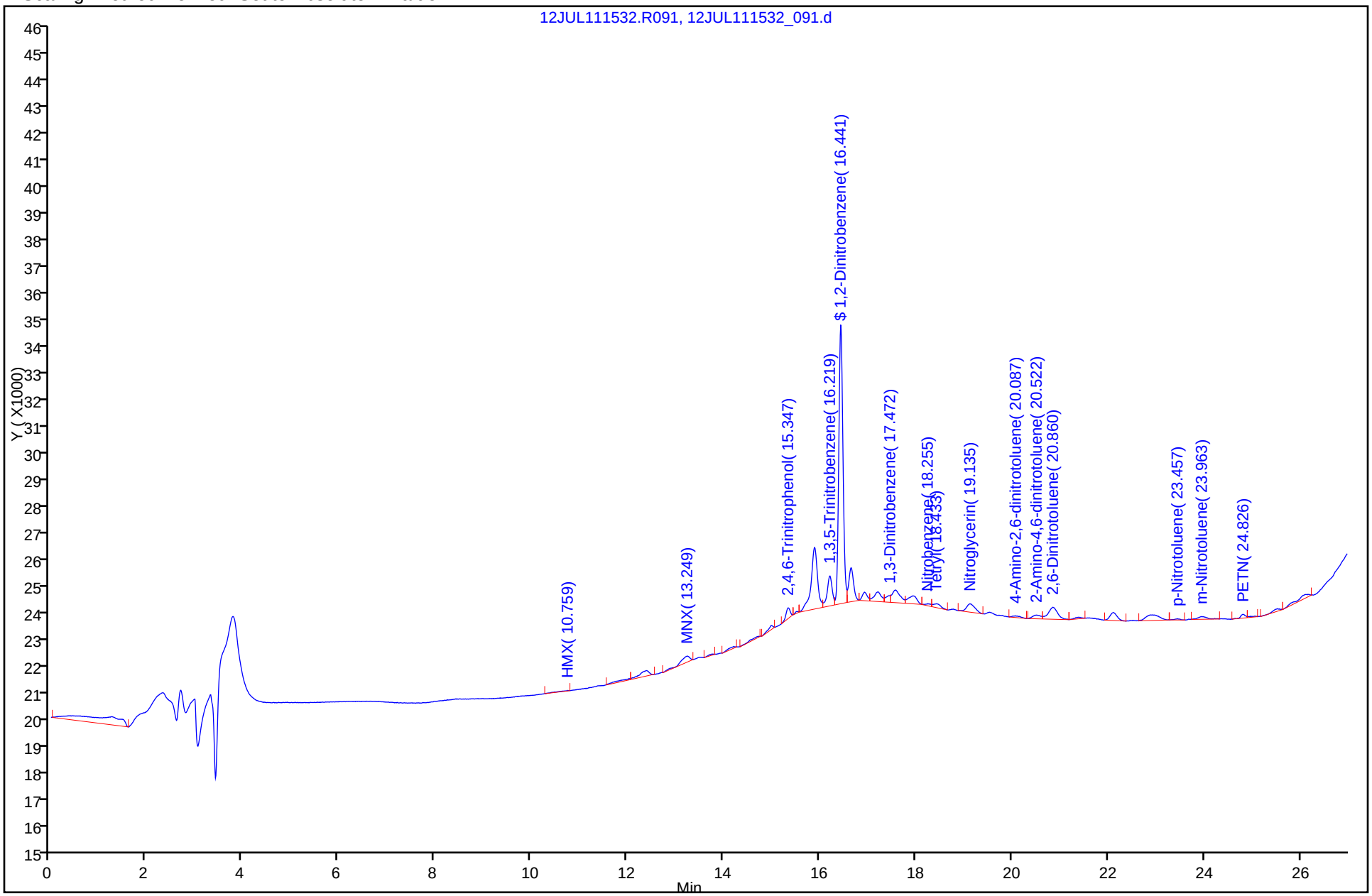
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d

Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value

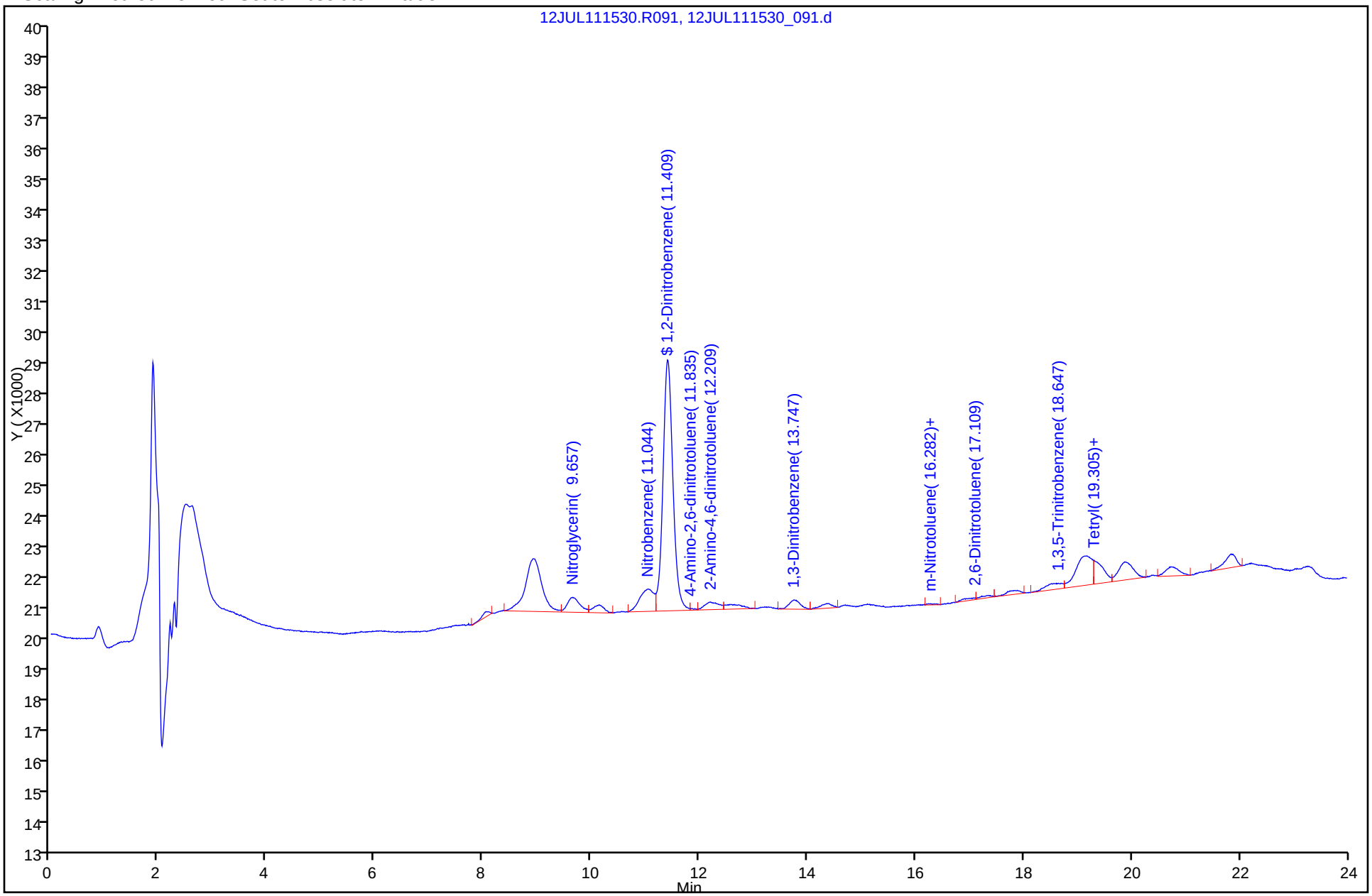


Report Date: 18-Jul-2011 12:06:15 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d

Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

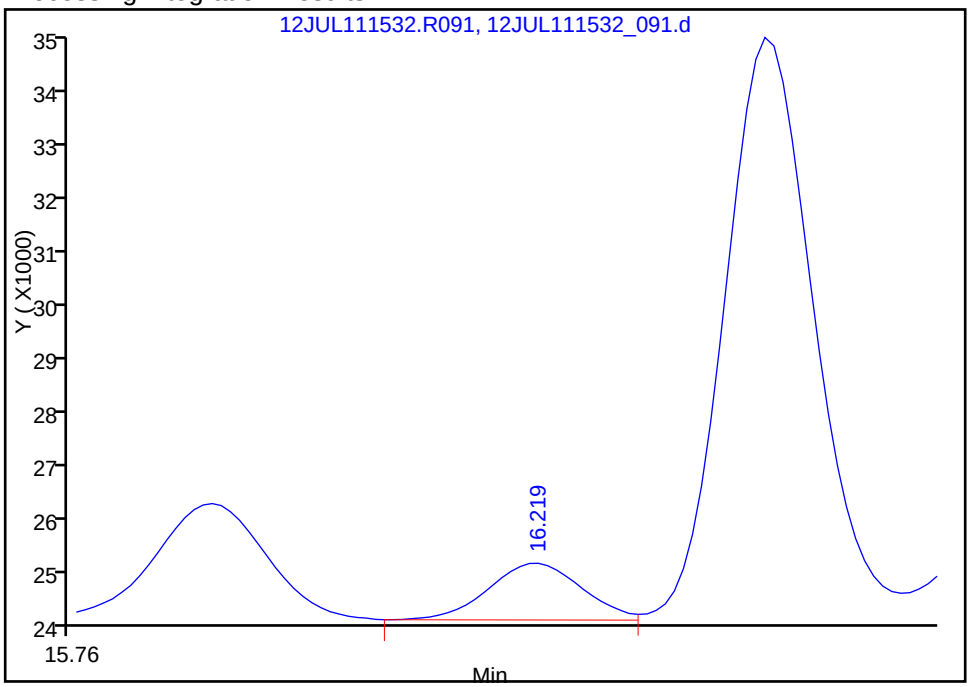
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

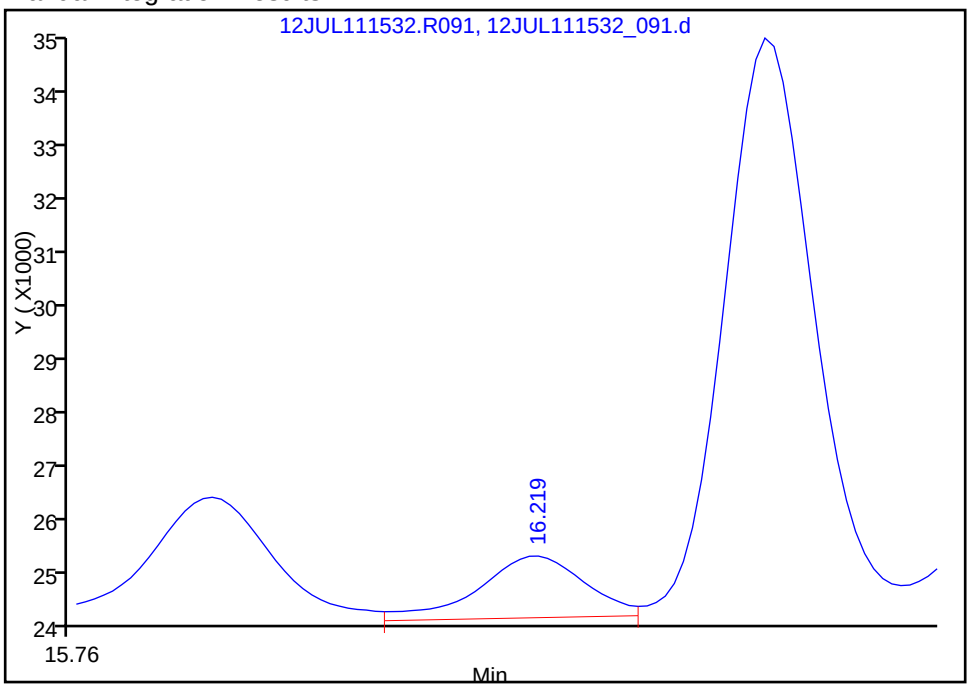
Processing Integration Results

RT: 16.22
Response: 6496
Amount: 7.448516



Manual Integration Results

RT: 16.22
Response: 8222
Amount: 9.530824



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

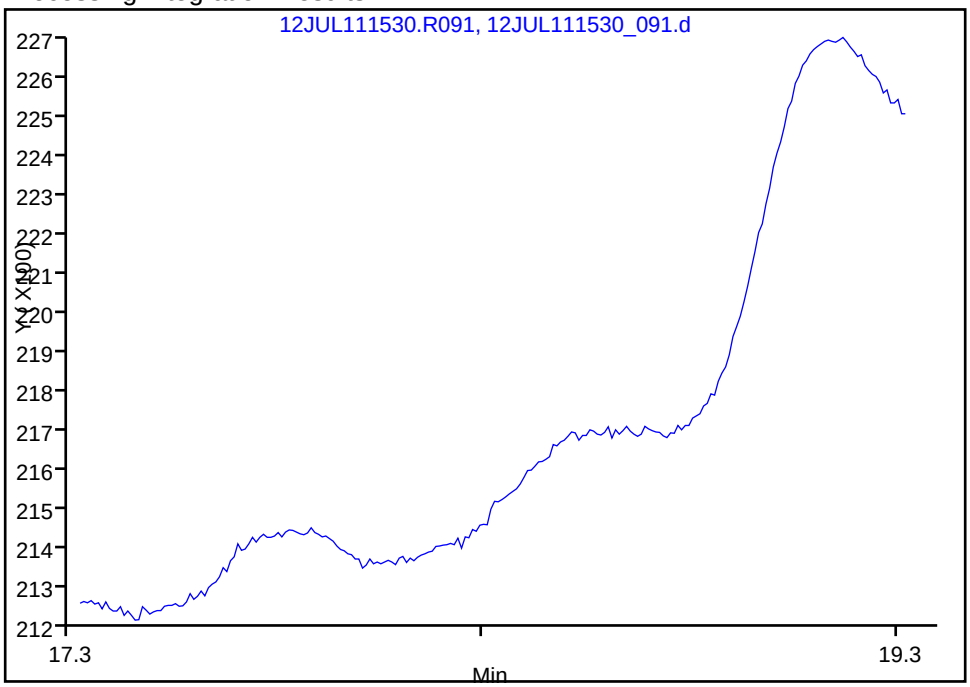
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

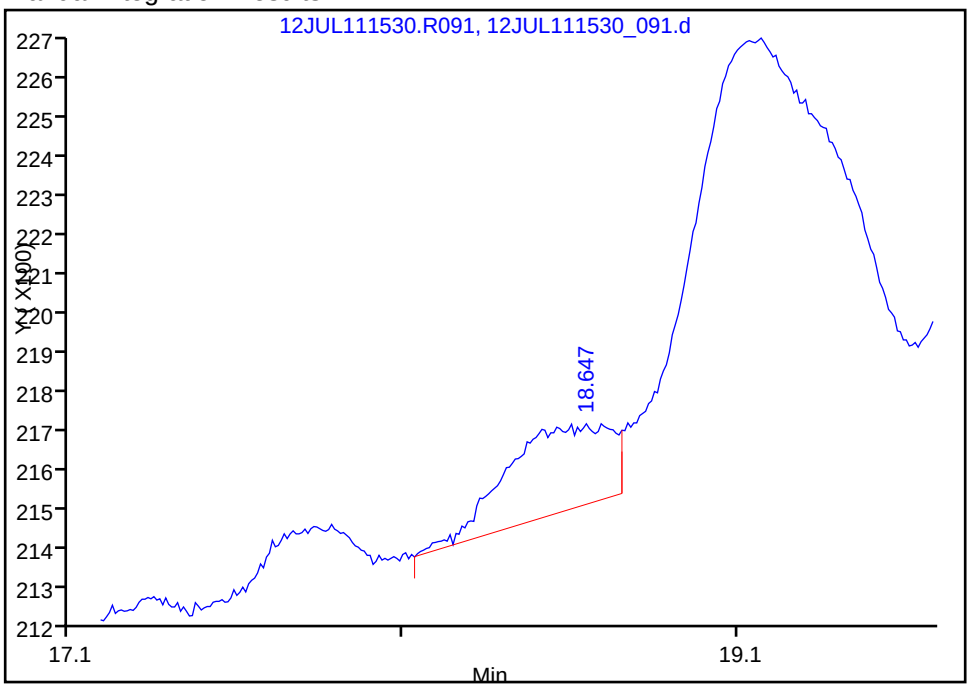
Not Detected
Expected RT: 18.33

Processing Integration Results



Manual Integration Results

RT: 18.65
Response: 4399
Amount: 3.092919



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

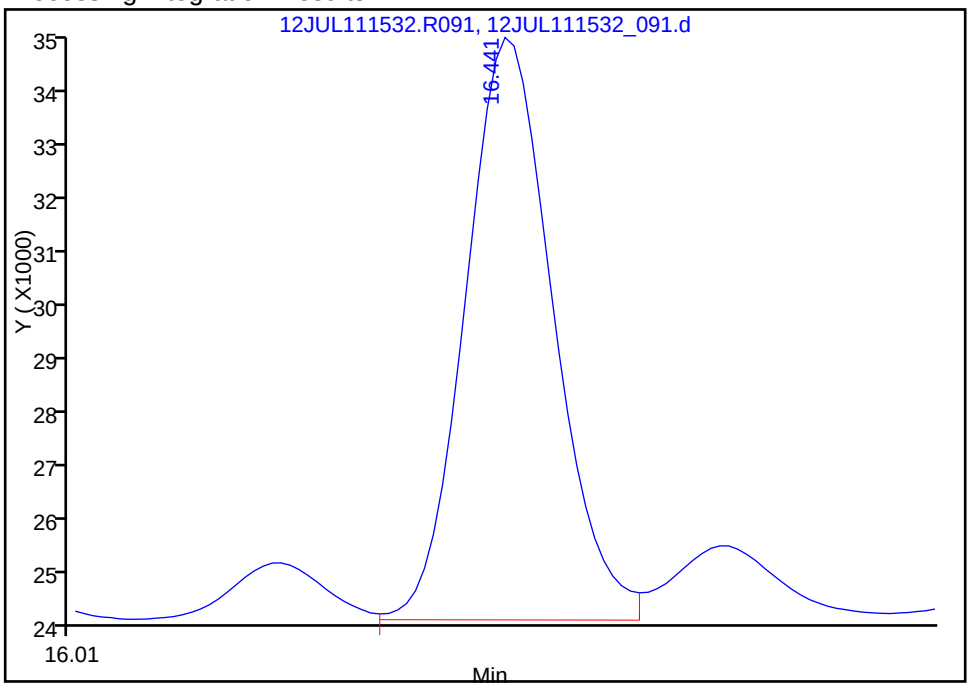
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

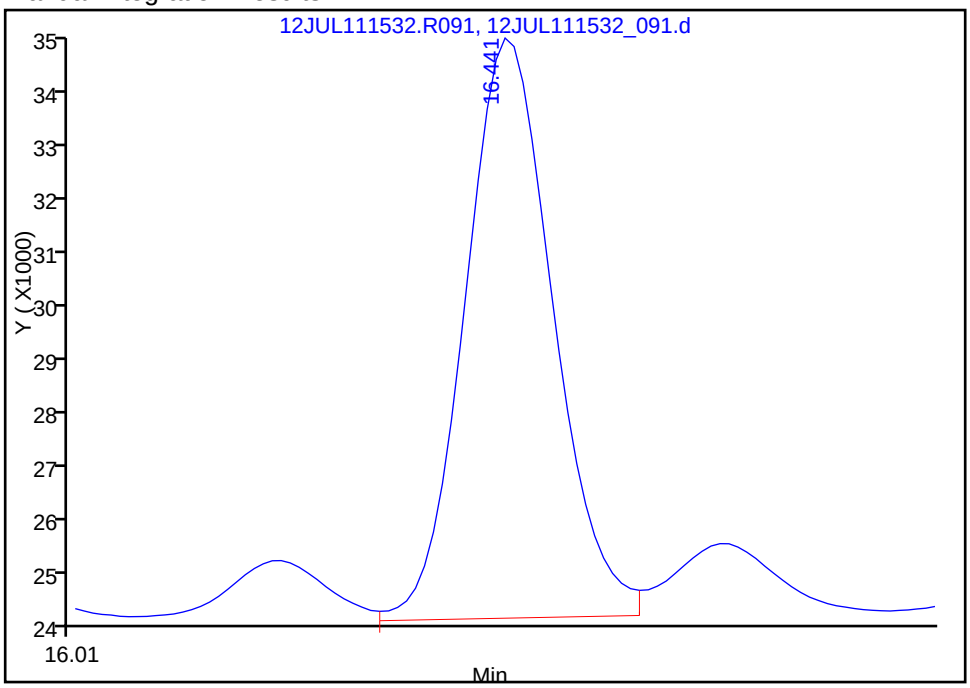
Processing Integration Results

RT: 16.44
Response: 63503
Amount: 178.0624



Manual Integration Results

RT: 16.44
Response: 63727
Amount: 178.6944



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

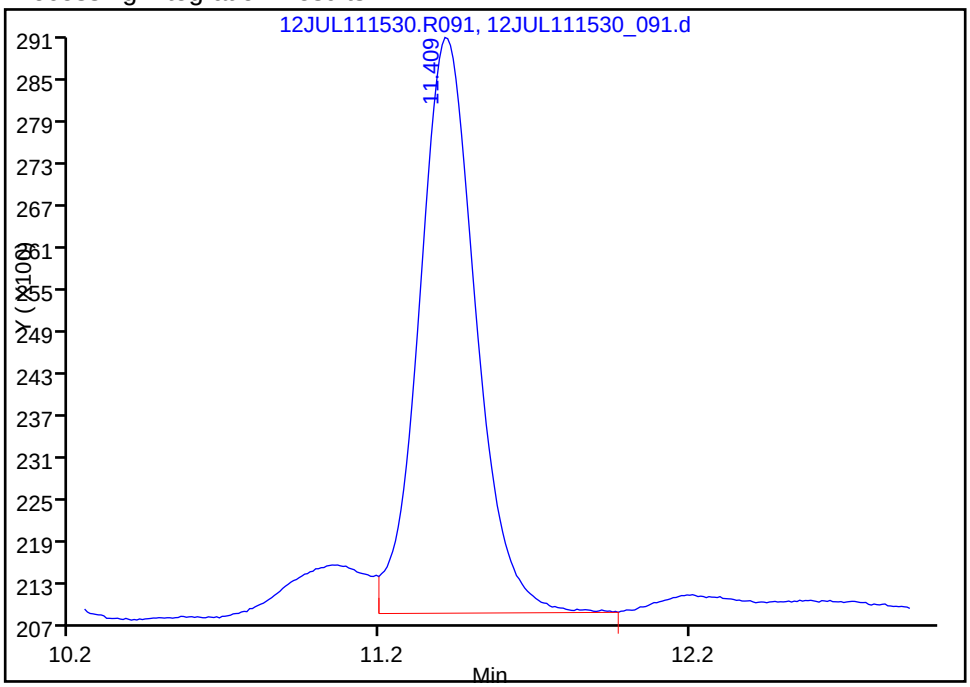
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

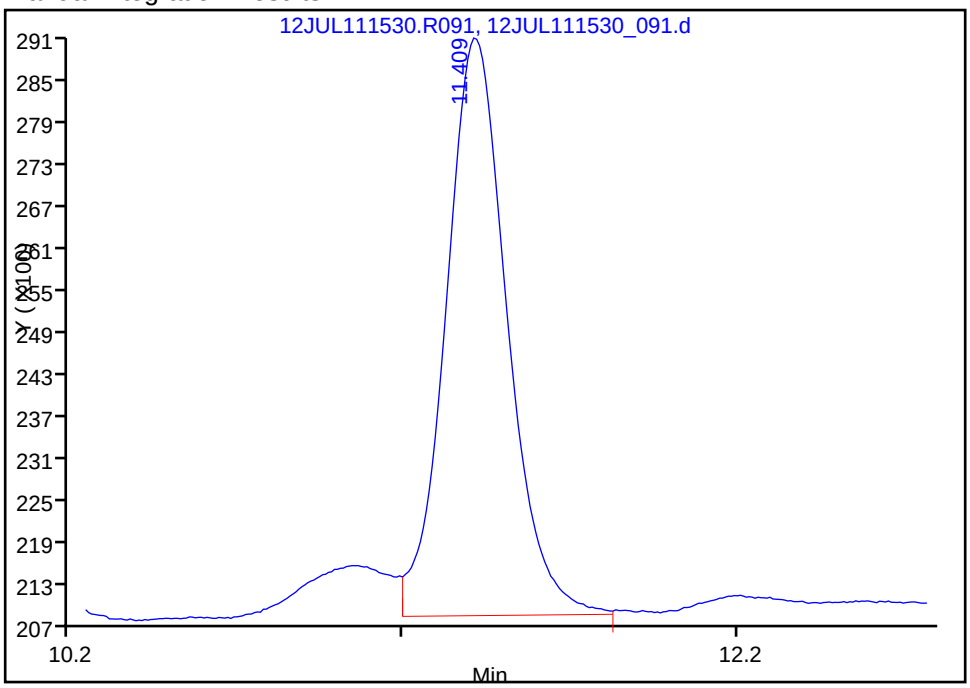
Processing Integration Results

RT: 11.41
Response: 104521
Amount: 174.5595



Manual Integration Results

RT: 11.41
Response: 105209
Amount: 175.7167



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Split an Integrated Peak
Audit Reason: Peak not found by the data system

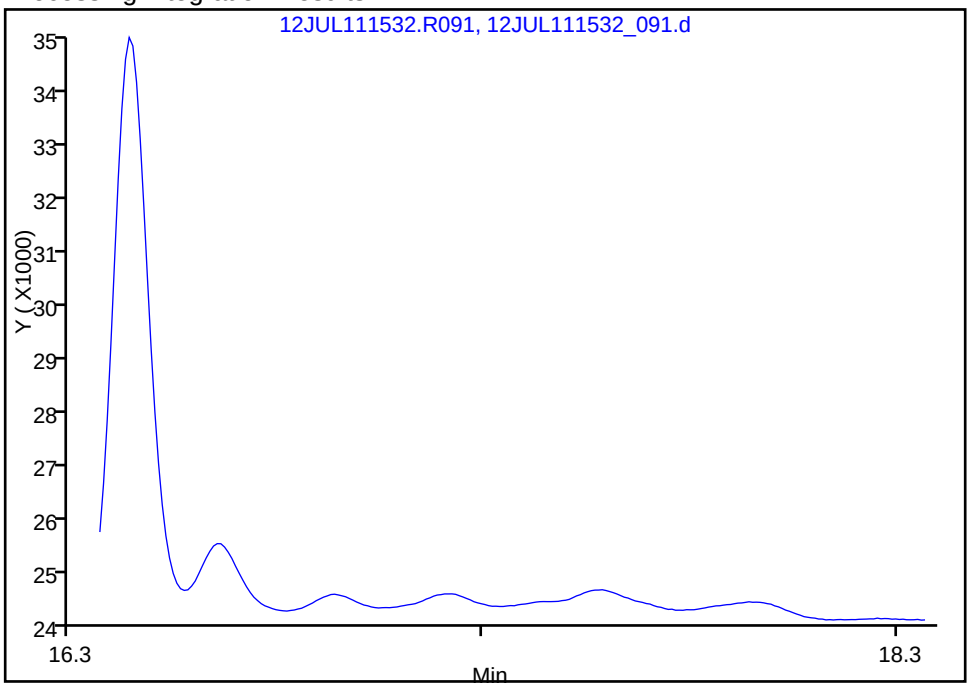
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

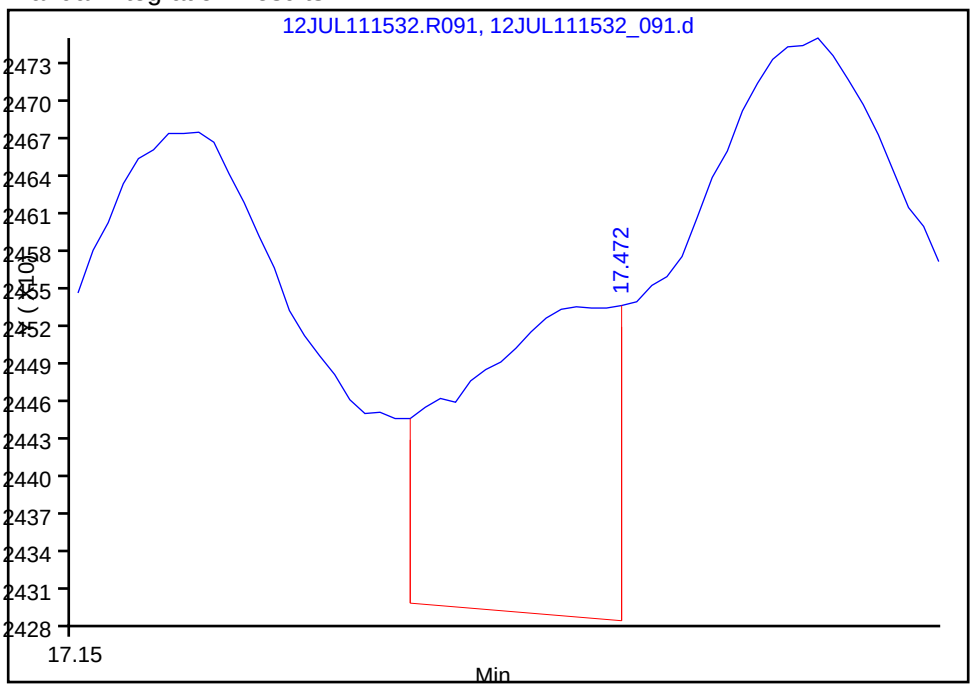
Not Detected
Expected RT: 17.37

Processing Integration Results



Manual Integration Results

RT: 17.47
Response: 1552
Amount: 1.764086



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

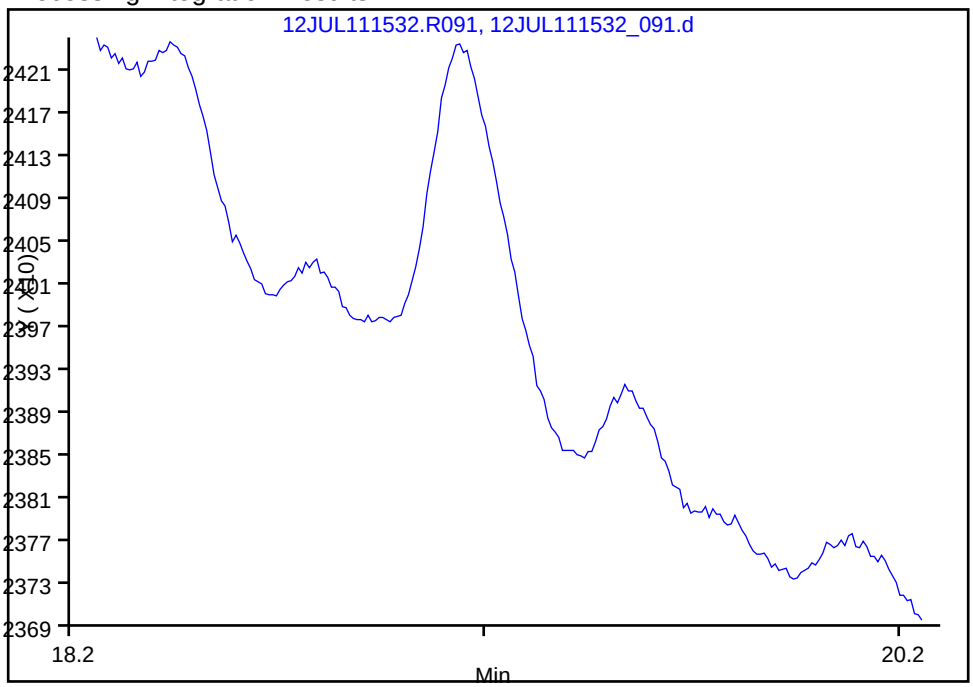
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

14 Nitroglycerin, Signal: 1, Type: quant, RT: 19.26

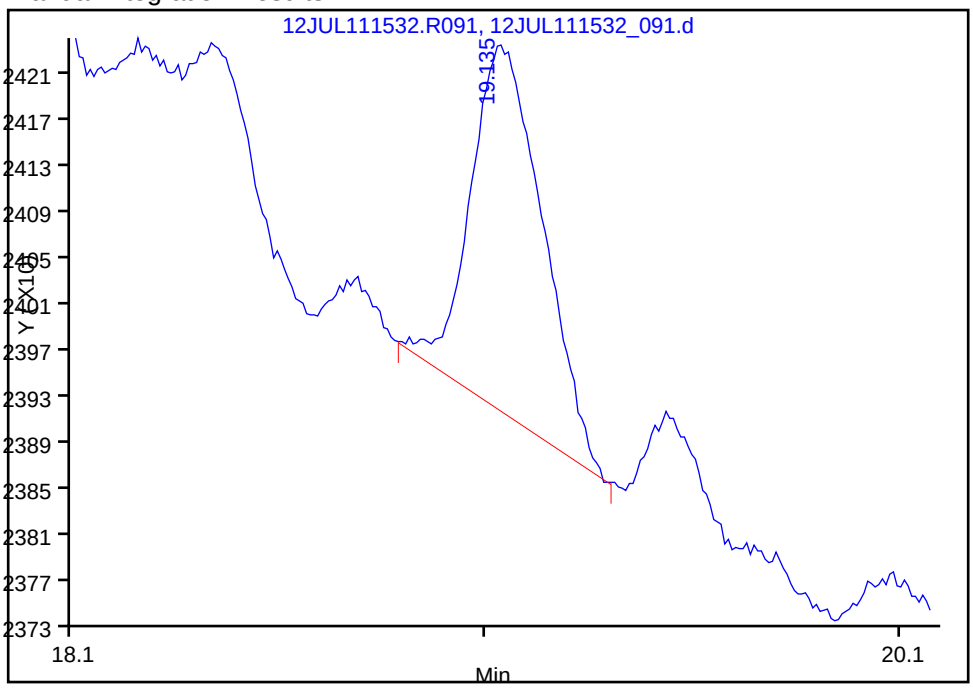
Not Detected
Expected RT: 19.26

Processing Integration Results



Manual Integration Results

RT: 19.14
Response: 3873
Amount: 905.0685



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:15 Chrom Revision: 1.2 30-Jun-2011 15:02:28

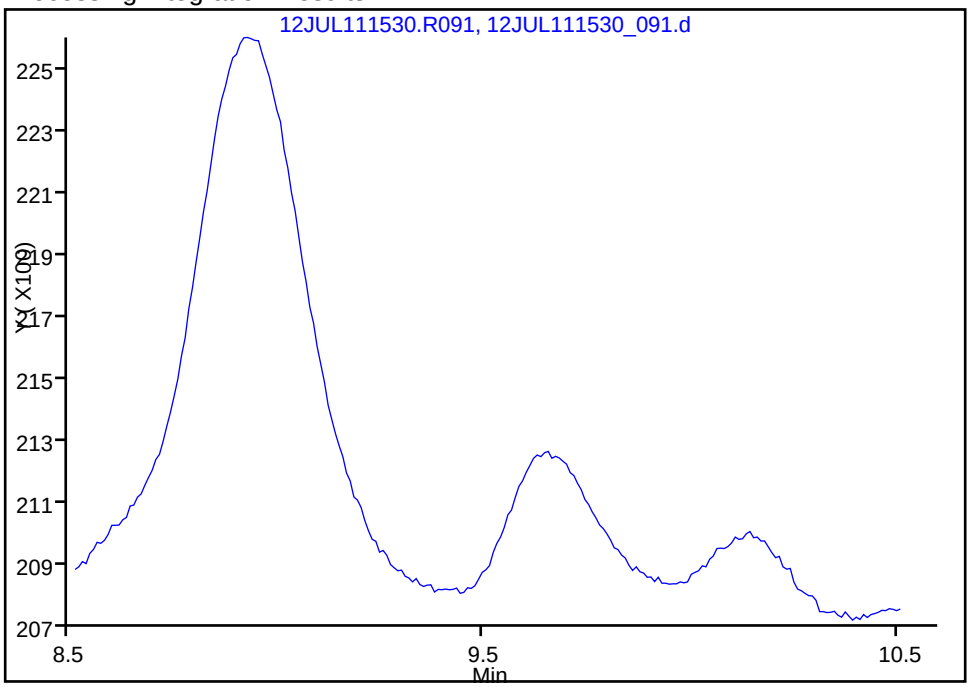
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

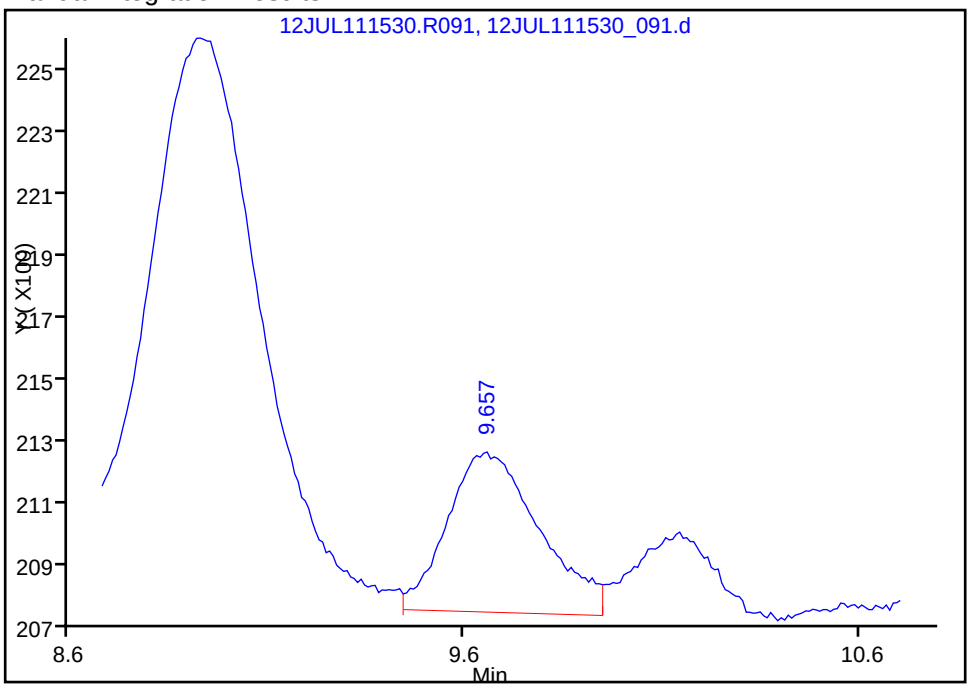
Not Detected
Expected RT: 9.51

Processing Integration Results



Manual Integration Results

RT: 9.66
Response: 7950
Amount: 1030.2196



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason:

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

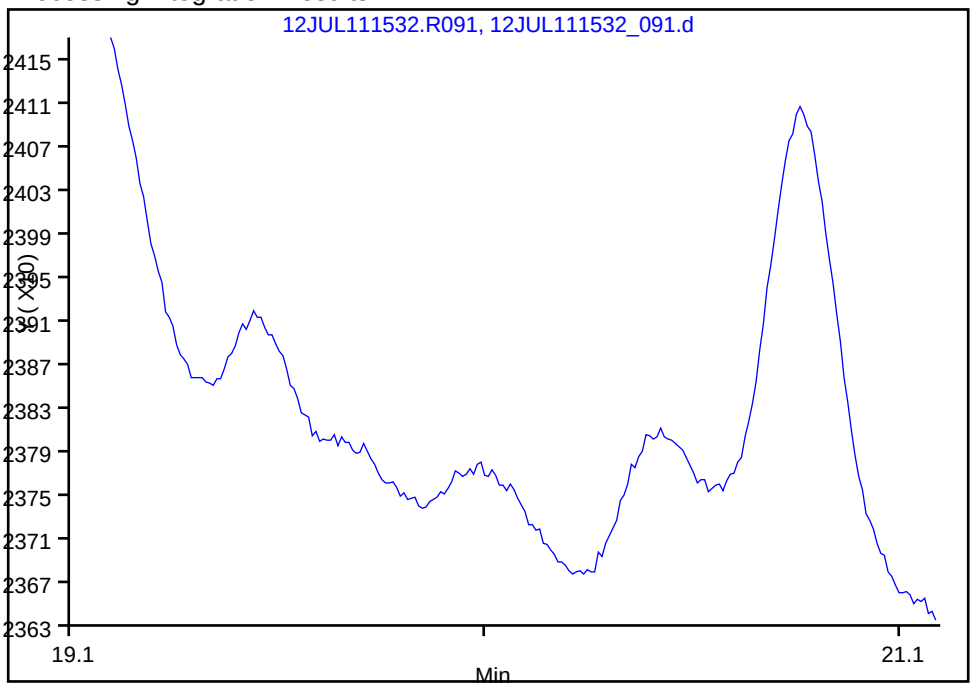
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

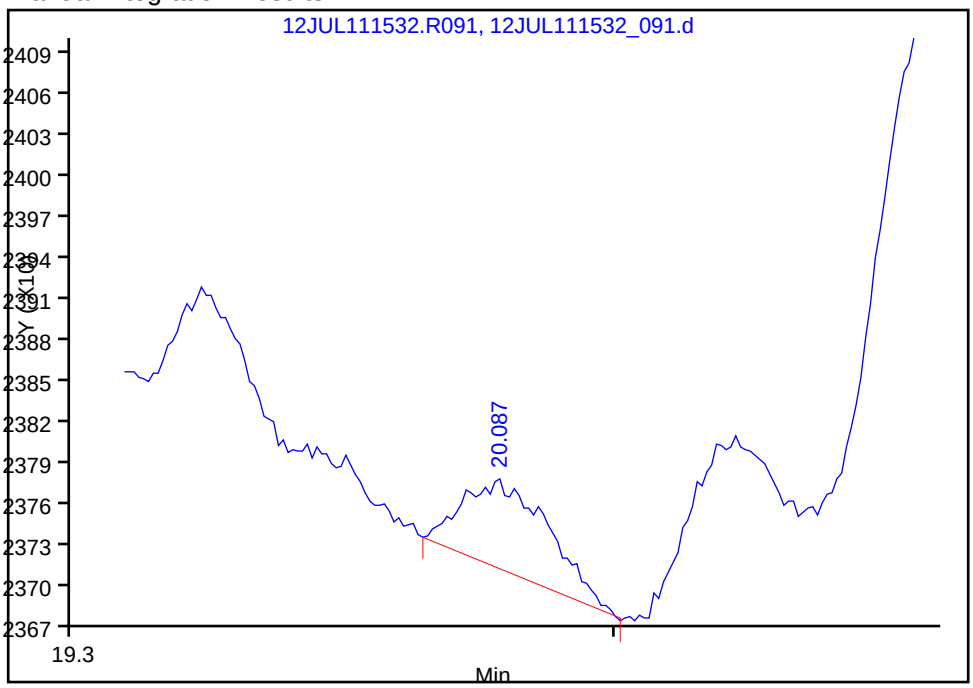
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.09
Response: 713
Amount: 1.625889



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

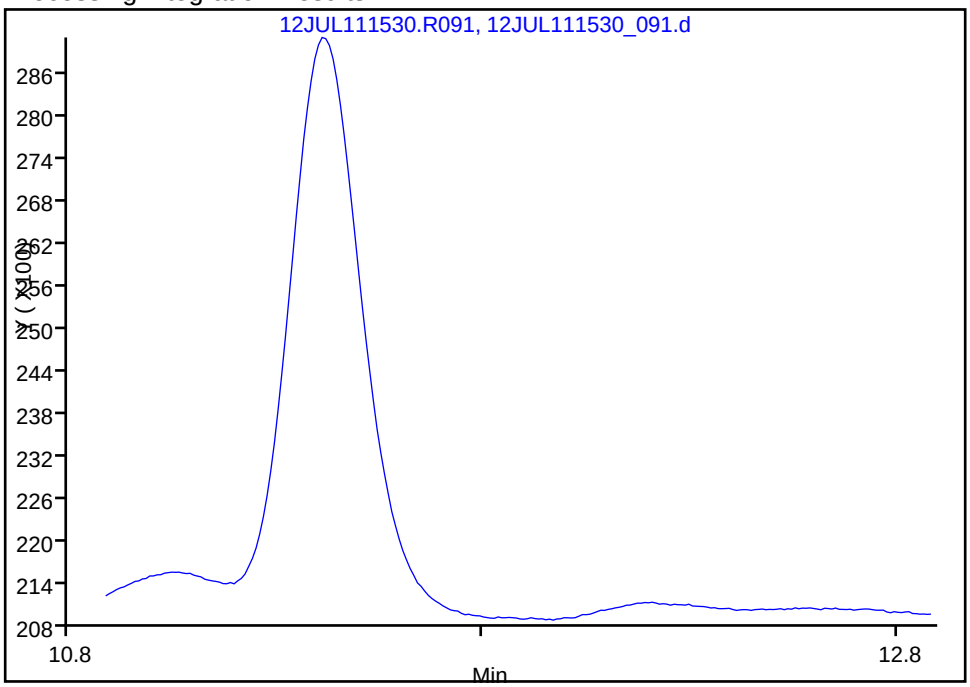
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

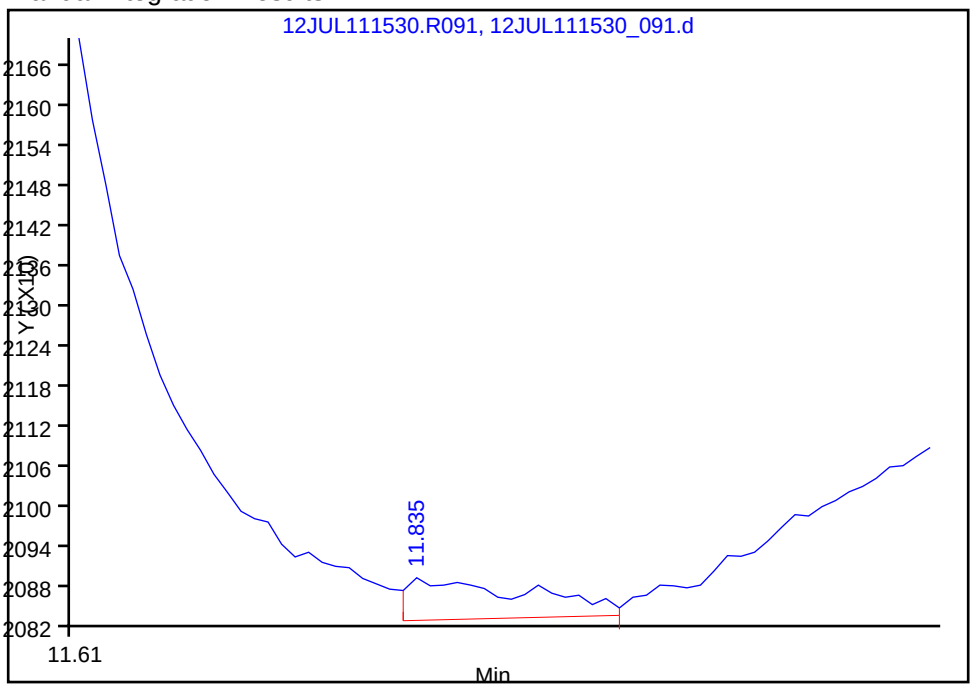
Not Detected
Expected RT: 11.89

Processing Integration Results



Manual Integration Results

RT: 11.84
Response: 333
Amount: 0.047521



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

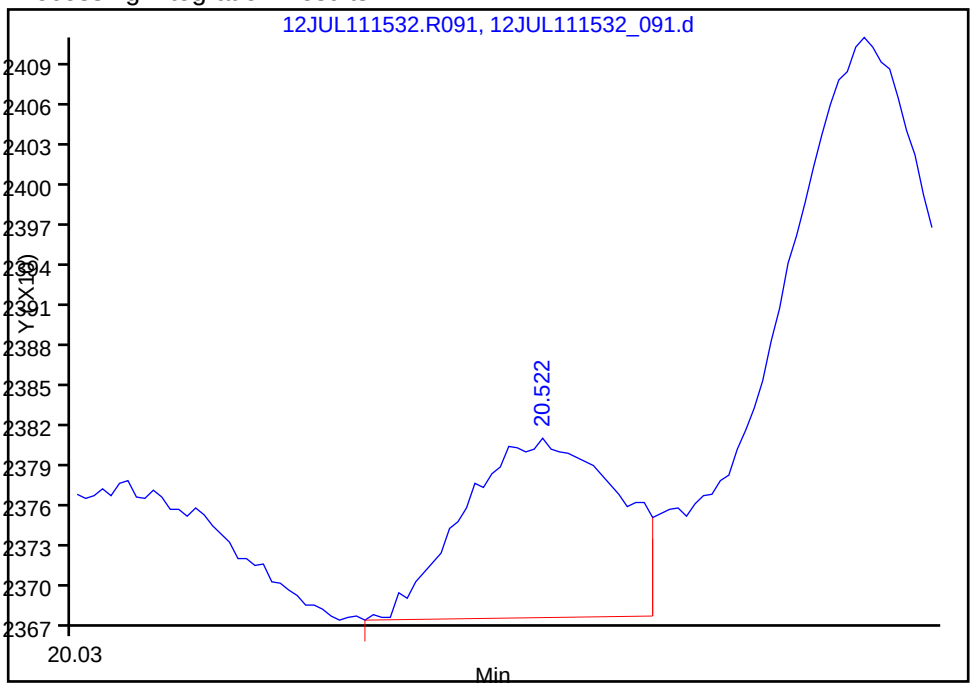
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

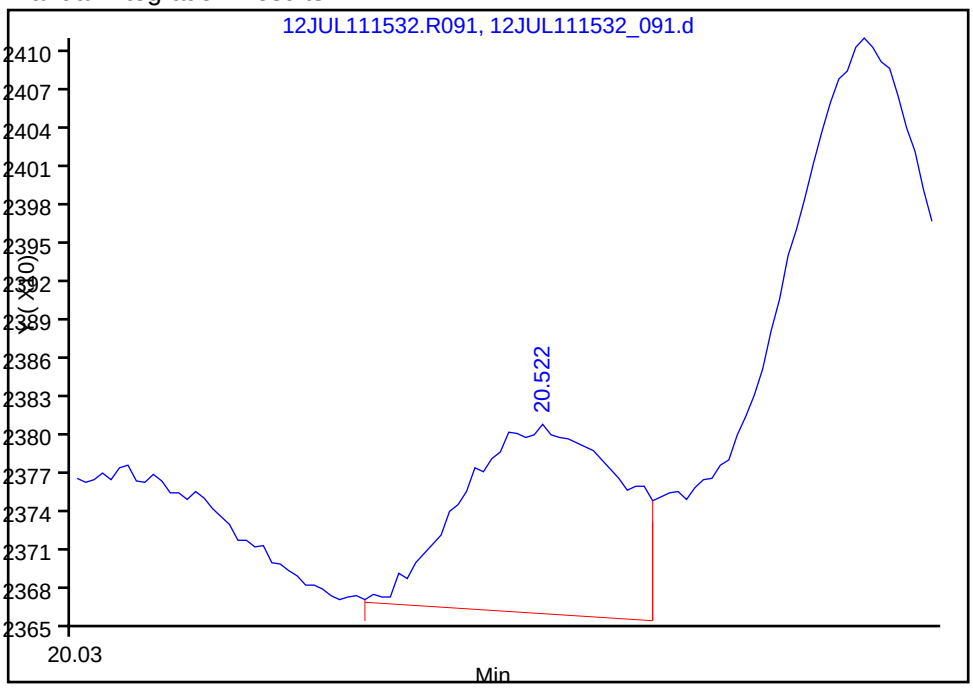
Processing Integration Results

RT: 20.52
Response: 1454
Amount: 2.838249



Manual Integration Results

RT: 20.52
Response: 1644
Amount: 3.133368



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

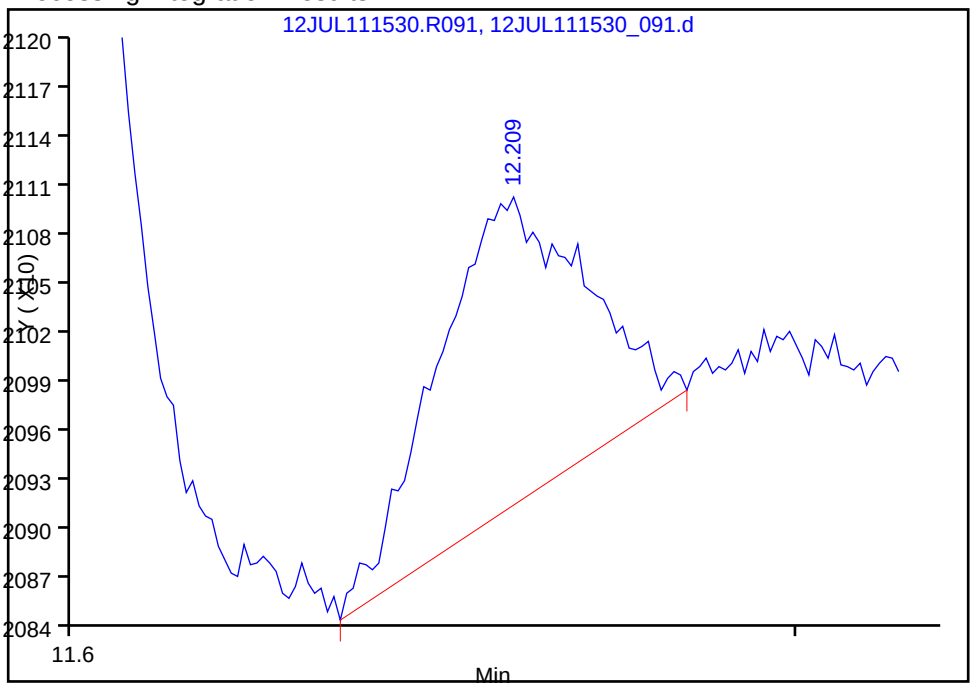
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

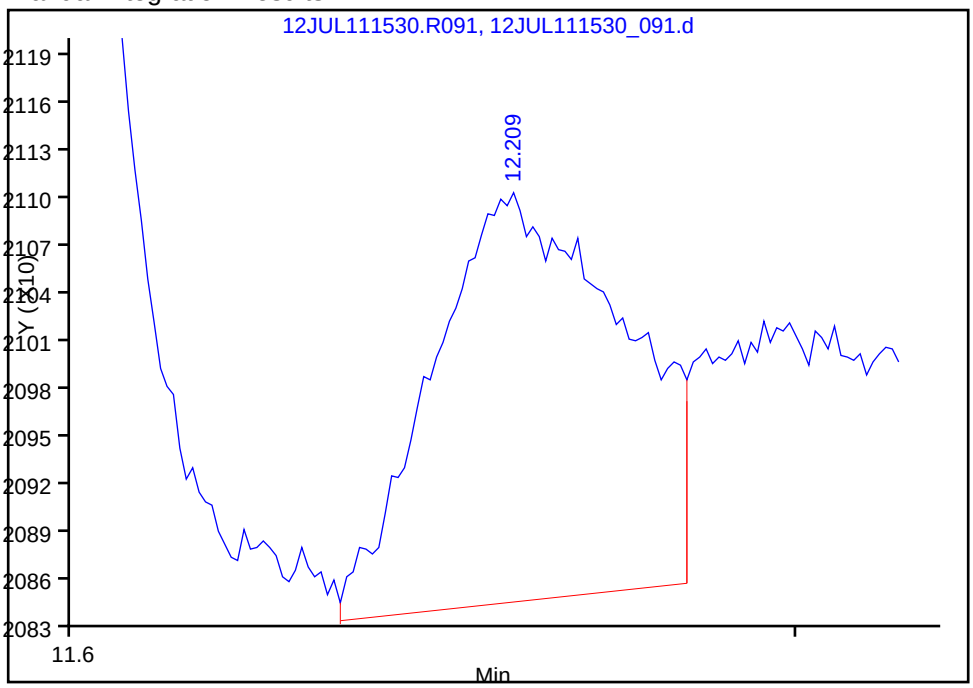
Processing Integration Results

RT: 12.21
Response: 2646
Amount: 1.218185



Manual Integration Results

RT: 12.21
Response: 4605
Amount: 2.827487



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

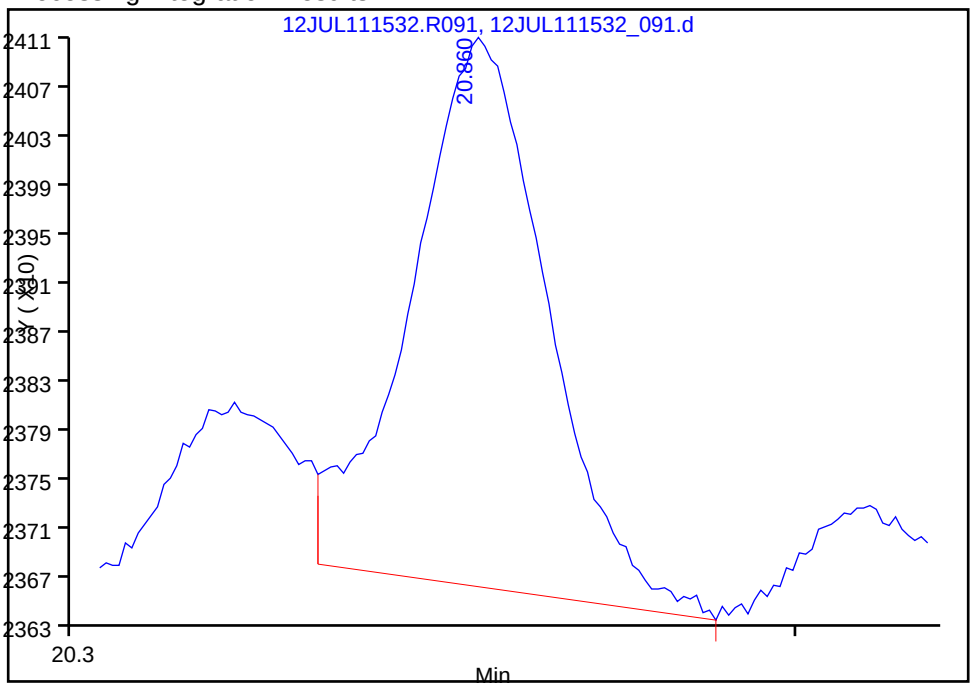
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

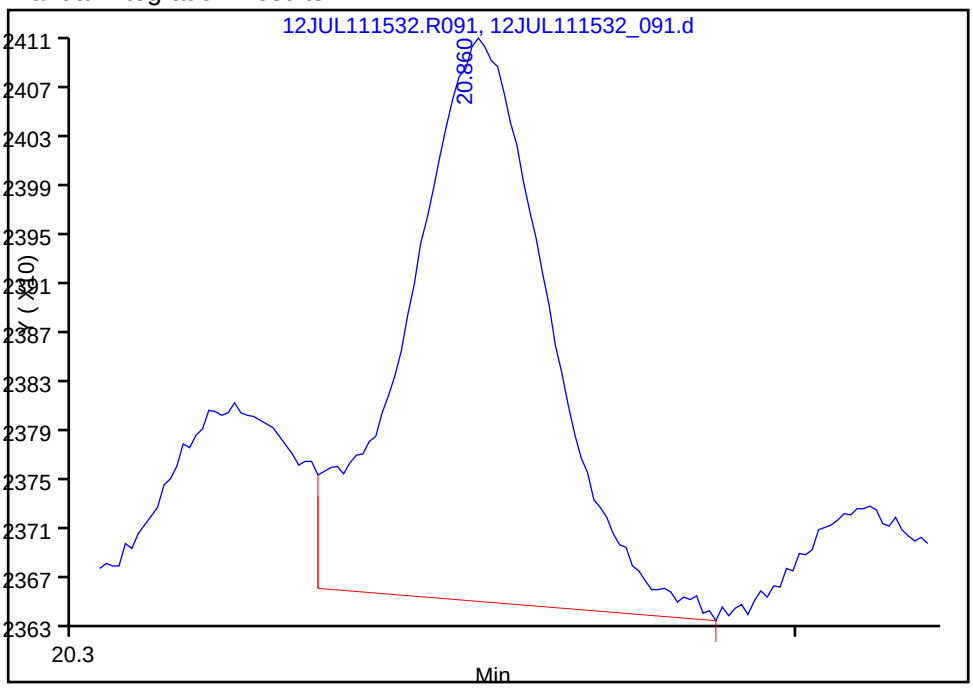
Processing Integration Results

RT: 20.86
Response: 5826
Amount: 13.917836



Manual Integration Results

RT: 20.86
Response: 6140
Amount: 14.653140



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

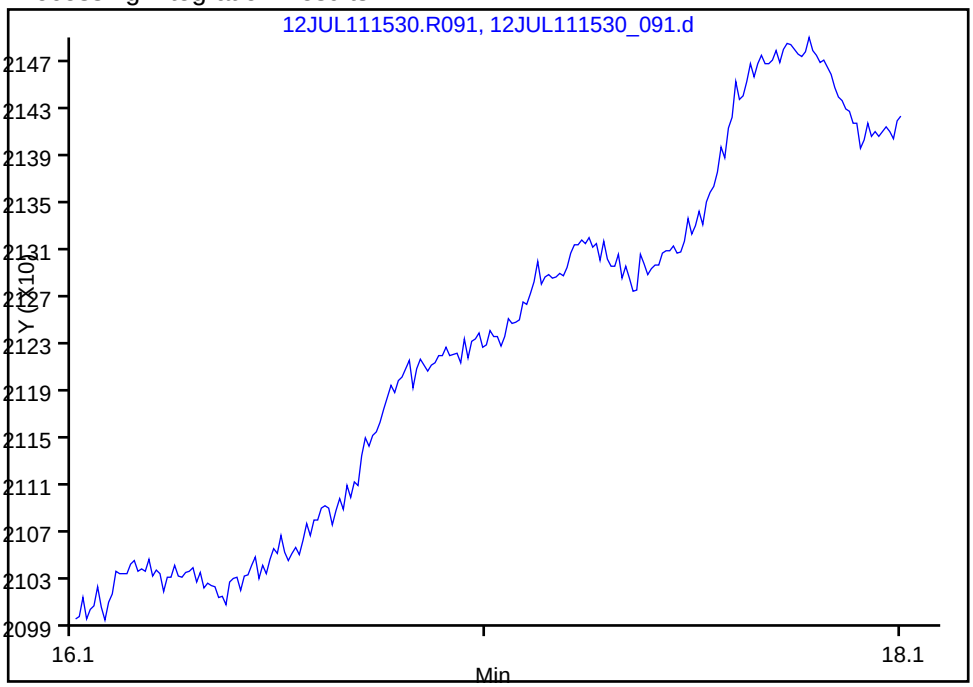
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

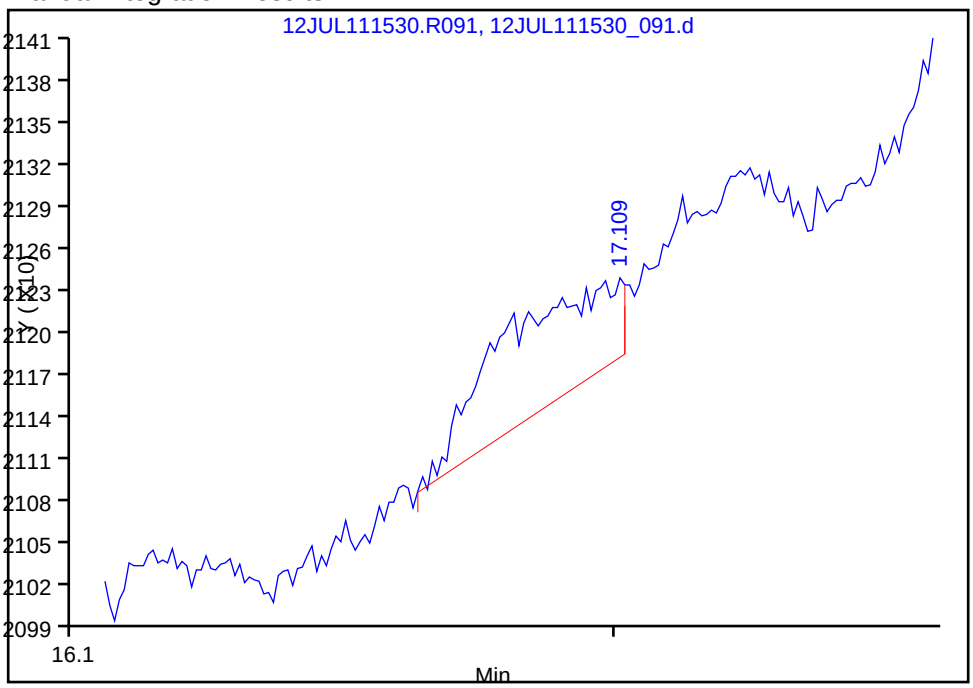
Not Detected
Expected RT: 17.11

Processing Integration Results



Manual Integration Results

RT: 17.11
Response: 1170
Amount: 2.190916



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

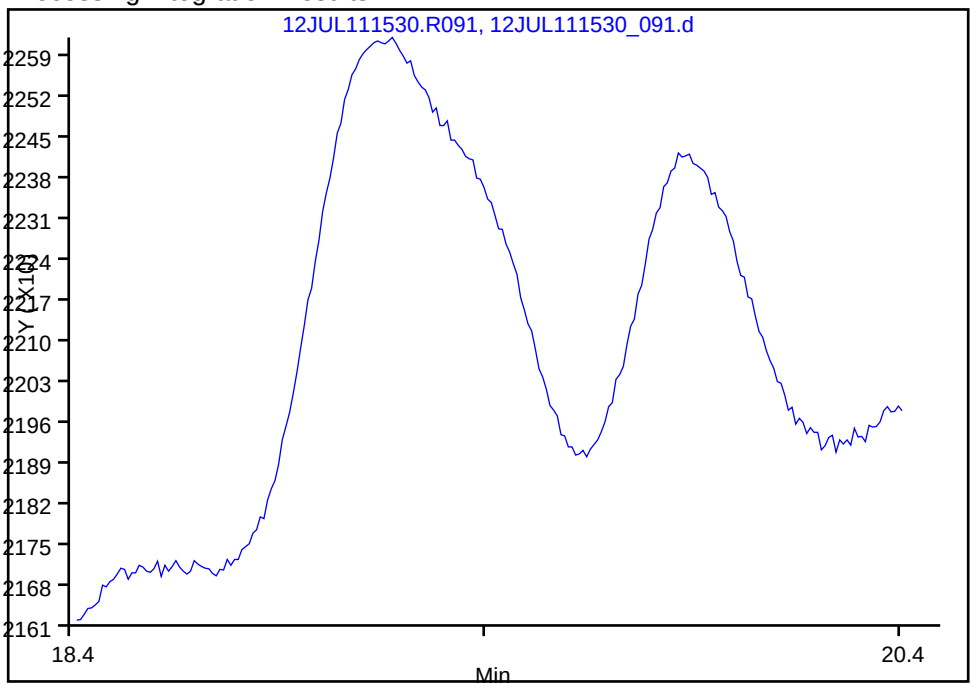
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

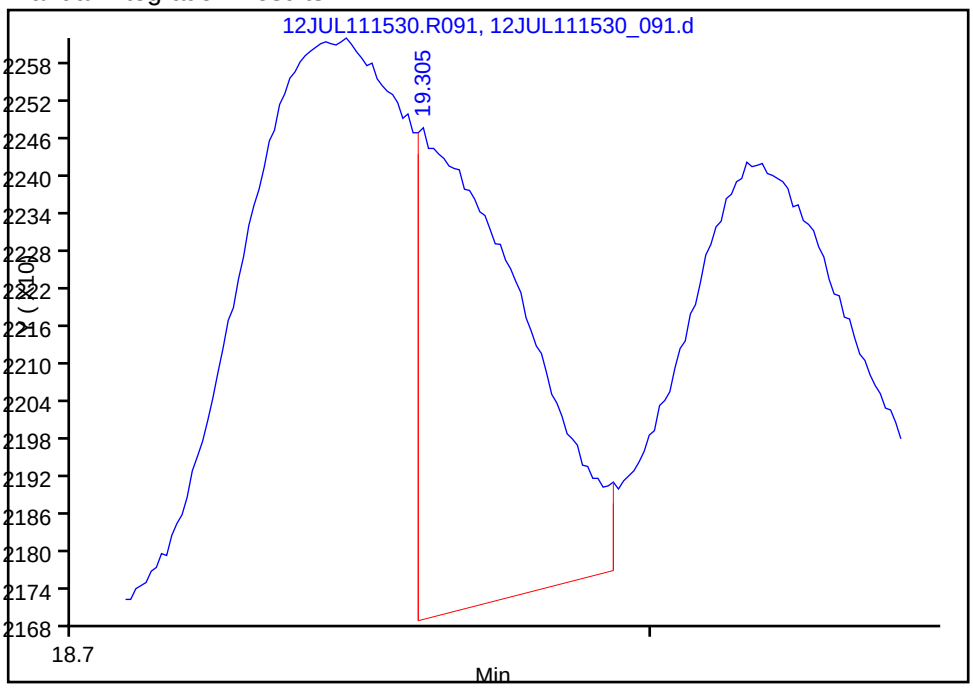
Not Detected
Expected RT: 19.41

Processing Integration Results



Manual Integration Results

RT: 19.30
Response: 9480
Amount: 9.326469



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason:

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

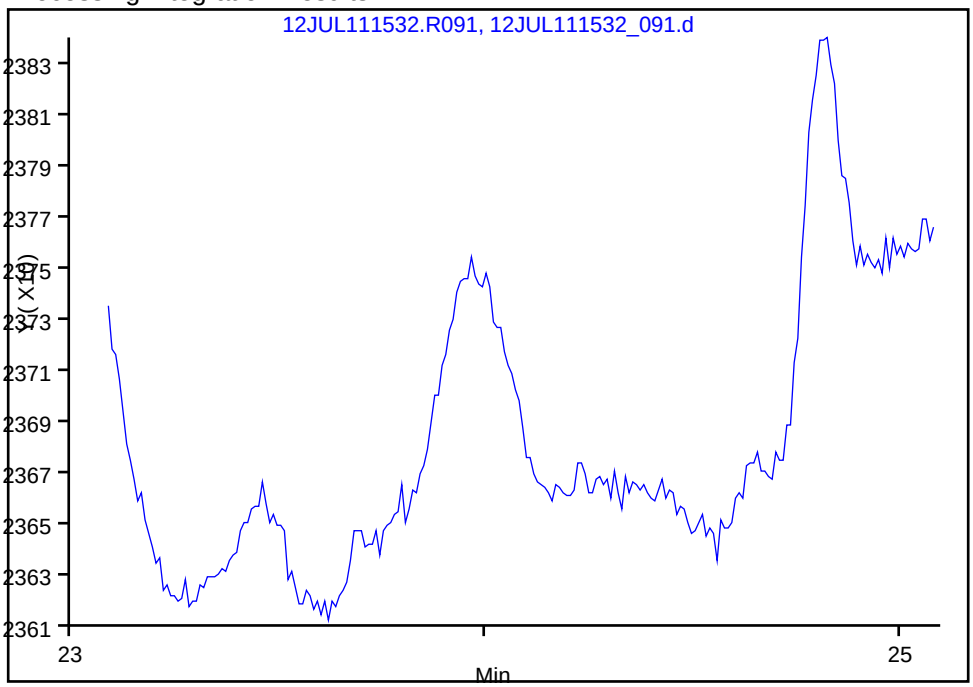
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

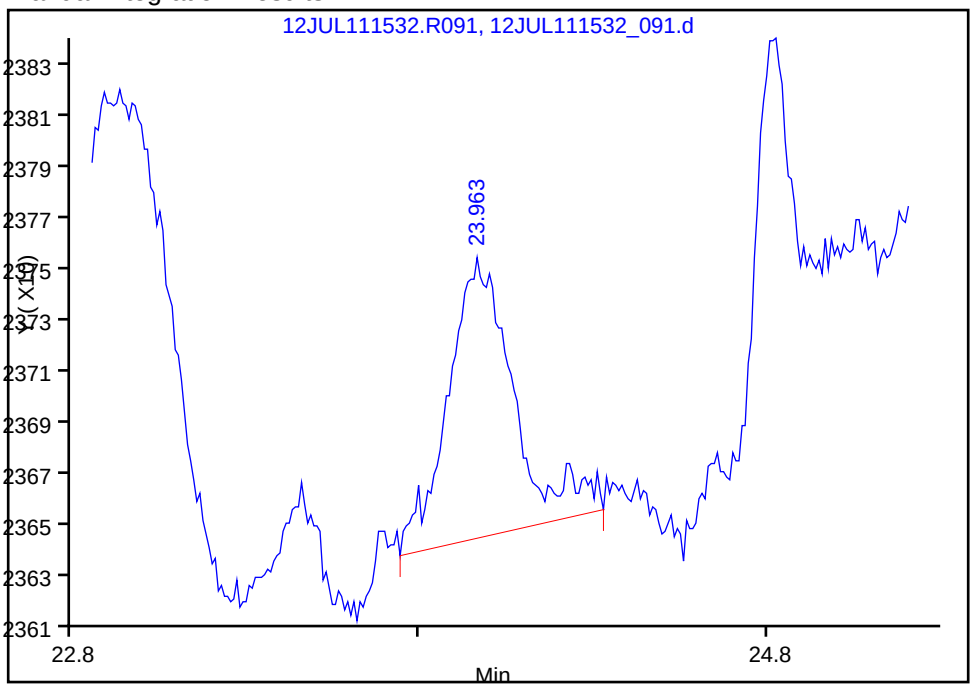
Not Detected
Expected RT: 24.09

Processing Integration Results



Manual Integration Results

RT: 23.96
Response: 1354
Amount: 5.170551



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

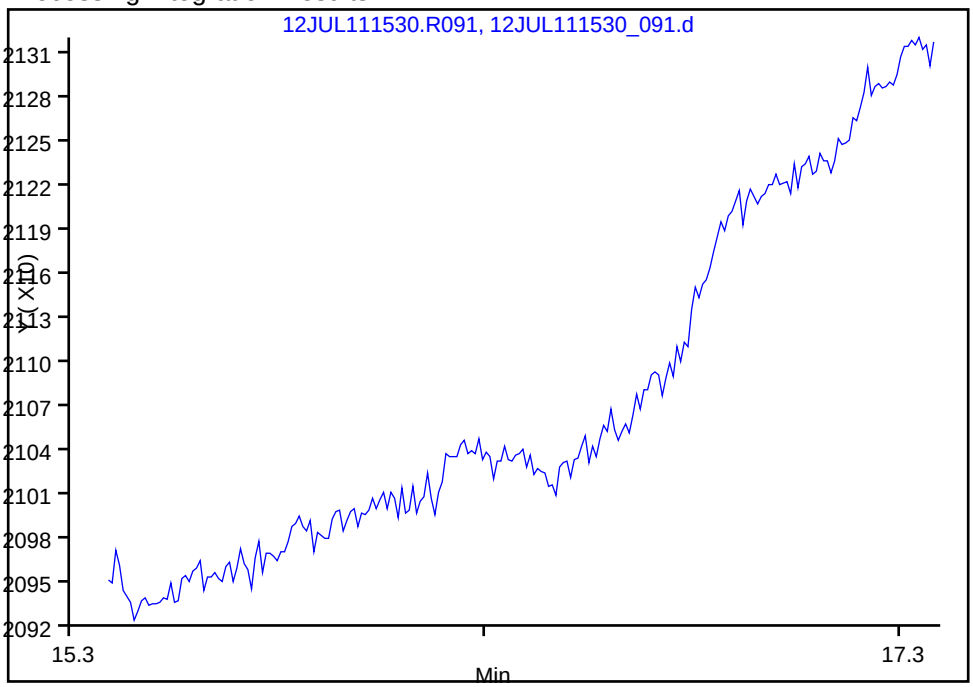
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

15 m-Nitrotoluene, Signal: 1, Type: quant, RT: 16.39

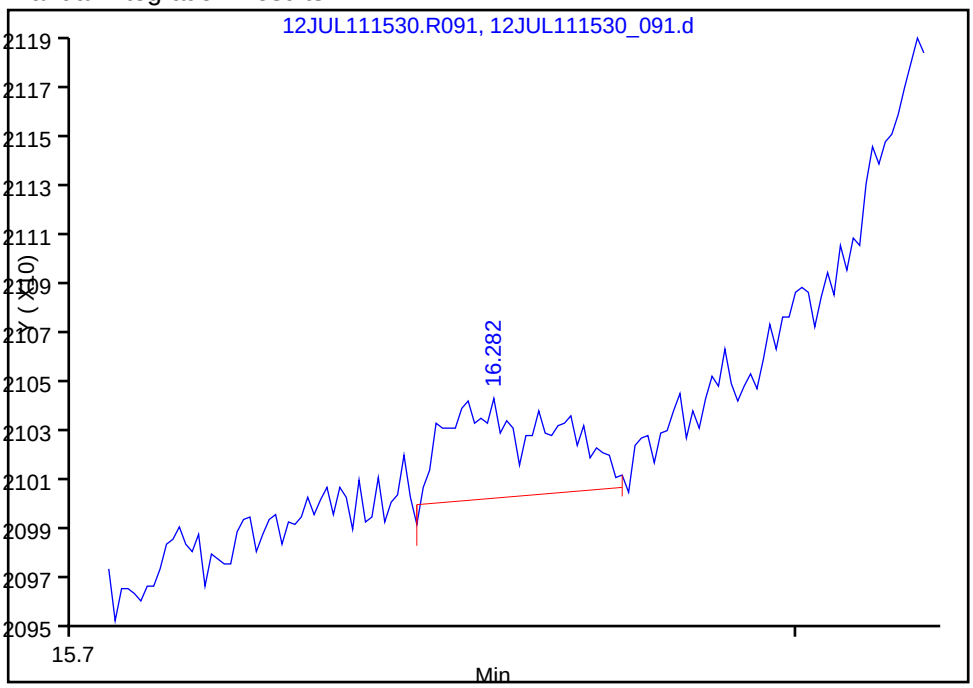
Not Detected
Expected RT: 16.39

Processing Integration Results



Manual Integration Results

RT: 16.28
Response: 412
Amount: 1.666687



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

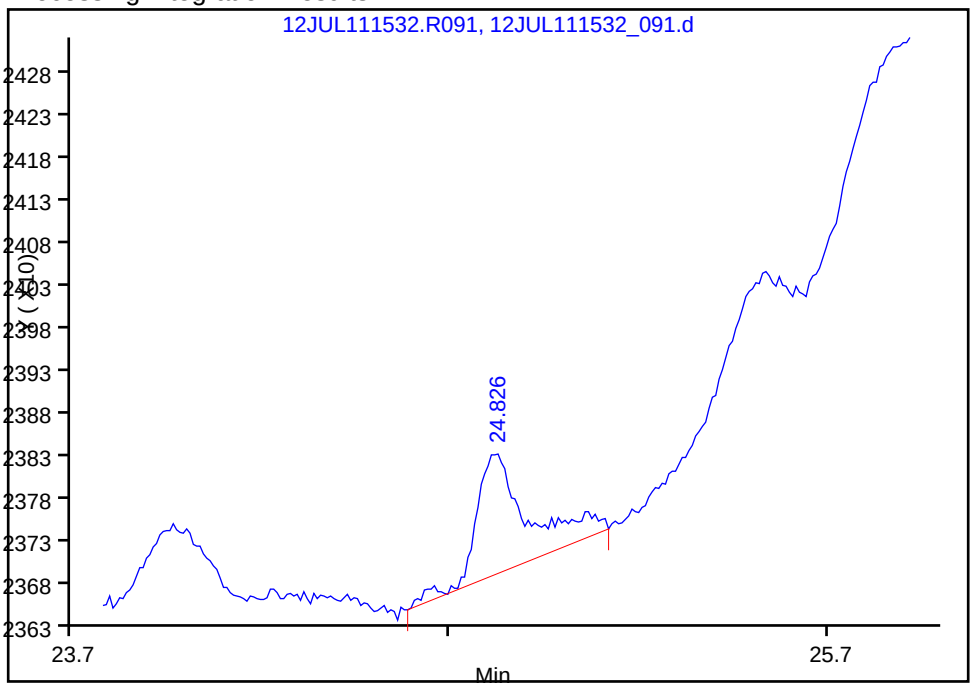
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

23 PETN, Signal: 1, Type: quant, RT: 24.82

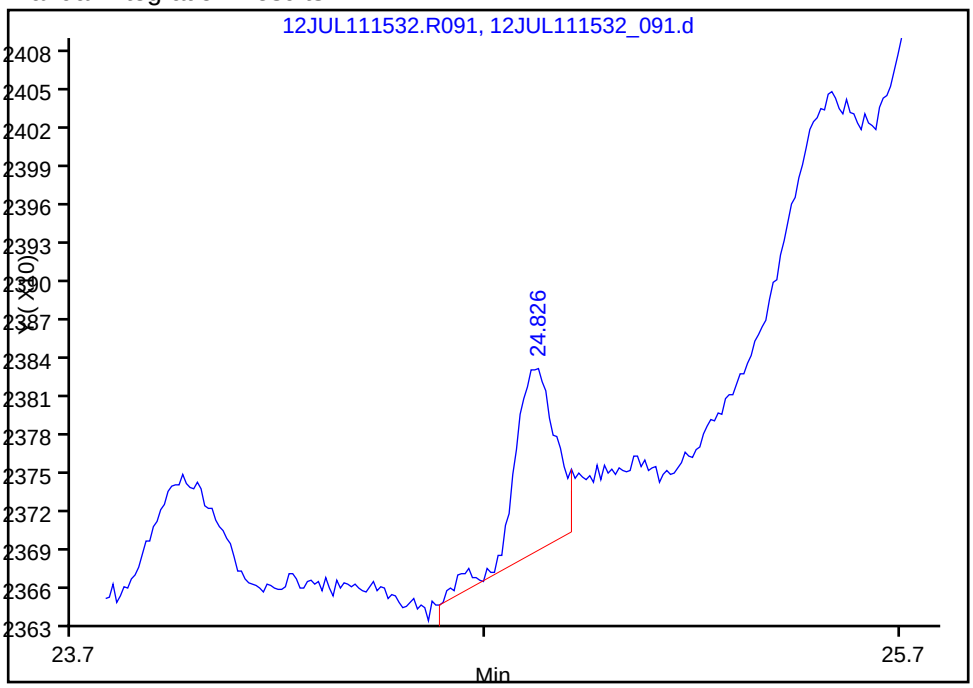
Processing Integration Results

RT: 24.83
Response: 1330
Amount: 365.0508



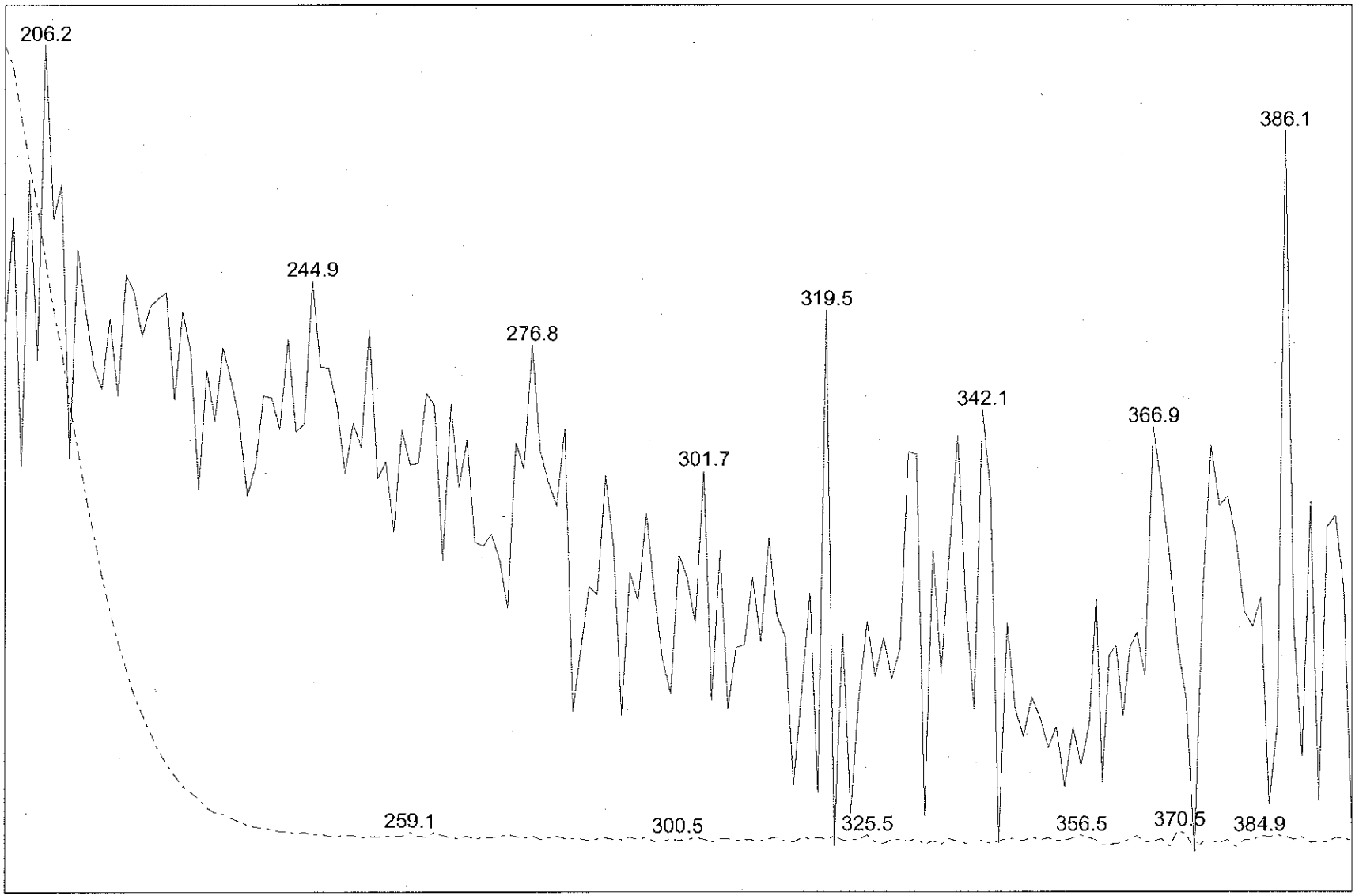
Manual Integration Results

RT: 24.83
Response: 978
Amount: 280.7370



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Spectrum Review Report-TestAmerica Burlington



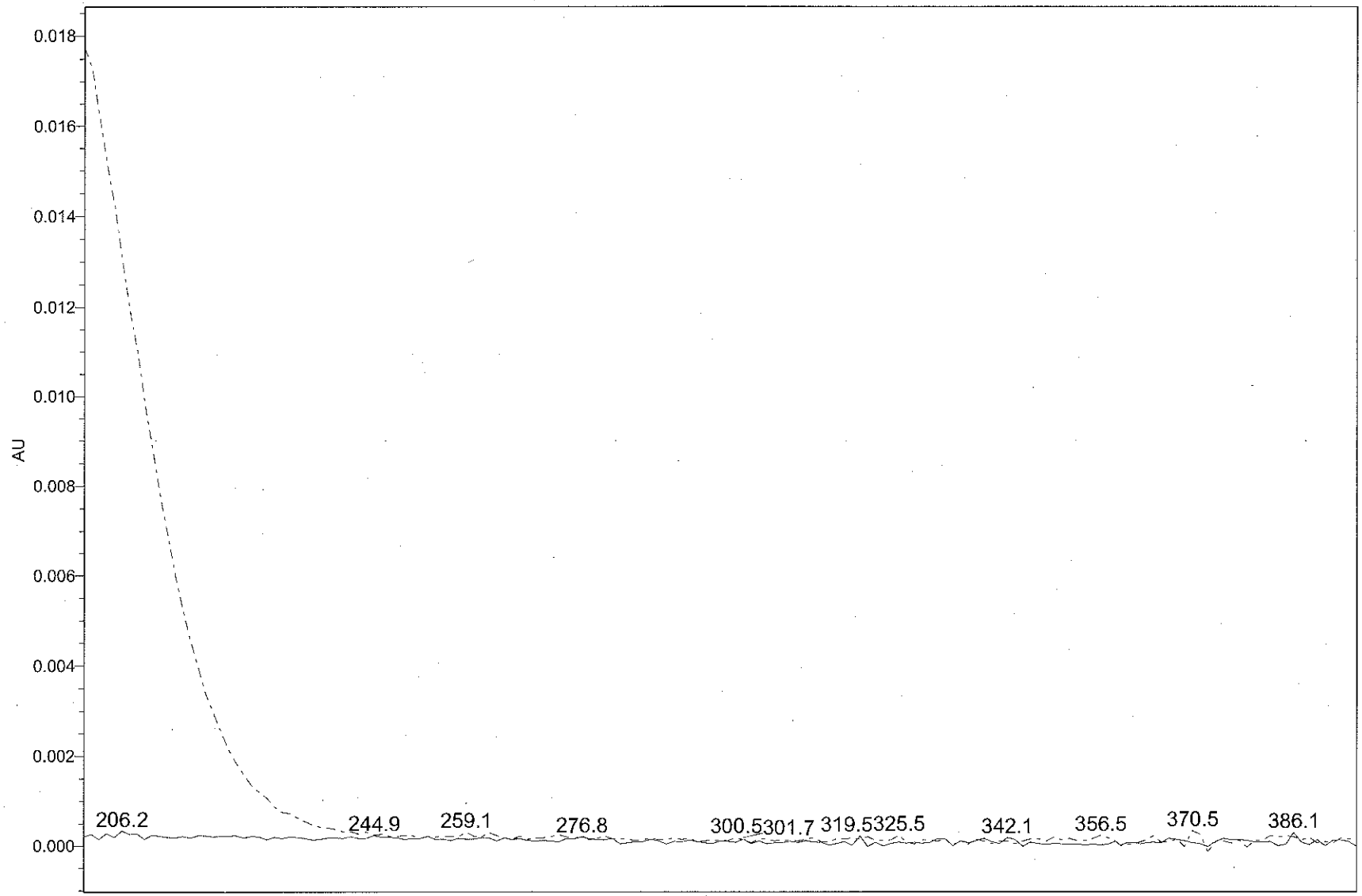
Retention Time: 19.217 LIMS Name: 200-5816-A-6-D Description: Analyte Name:

Retention Time: 19.367 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 500ppb

WPR02-SS16

PDA Addendum for nitroglycerin

Spectrum Review Report-TestAmerica Burlington



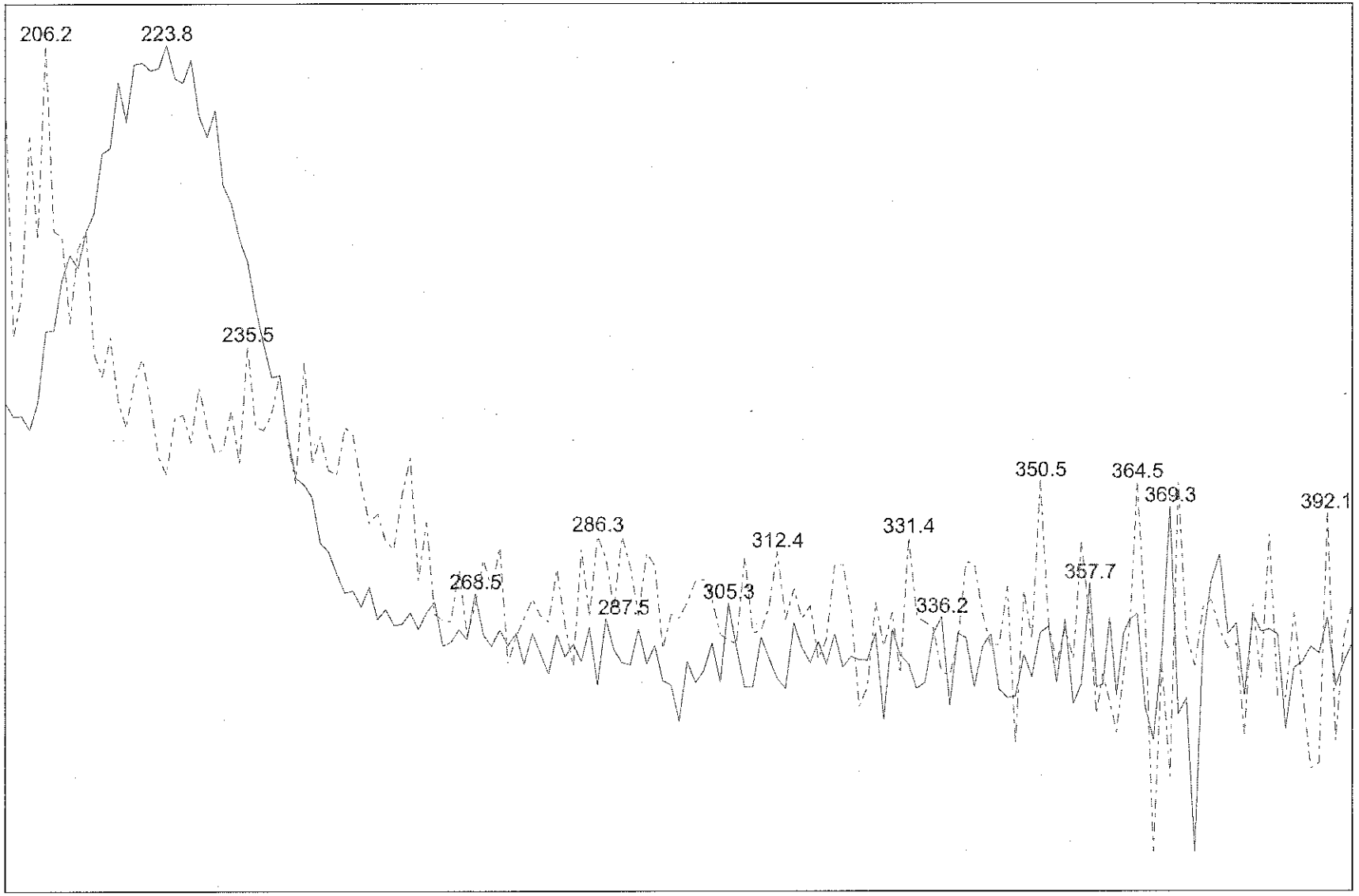
Retention Time: 19.217 LIMS Name: 200-5816-A-6-D Description: Analyte Name:

Retention Time: 19.367 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 500ppb

WPR02-5516

PDA Addendum for nitroglycerin

Spectrum Review Report-TestAmerica Burlington



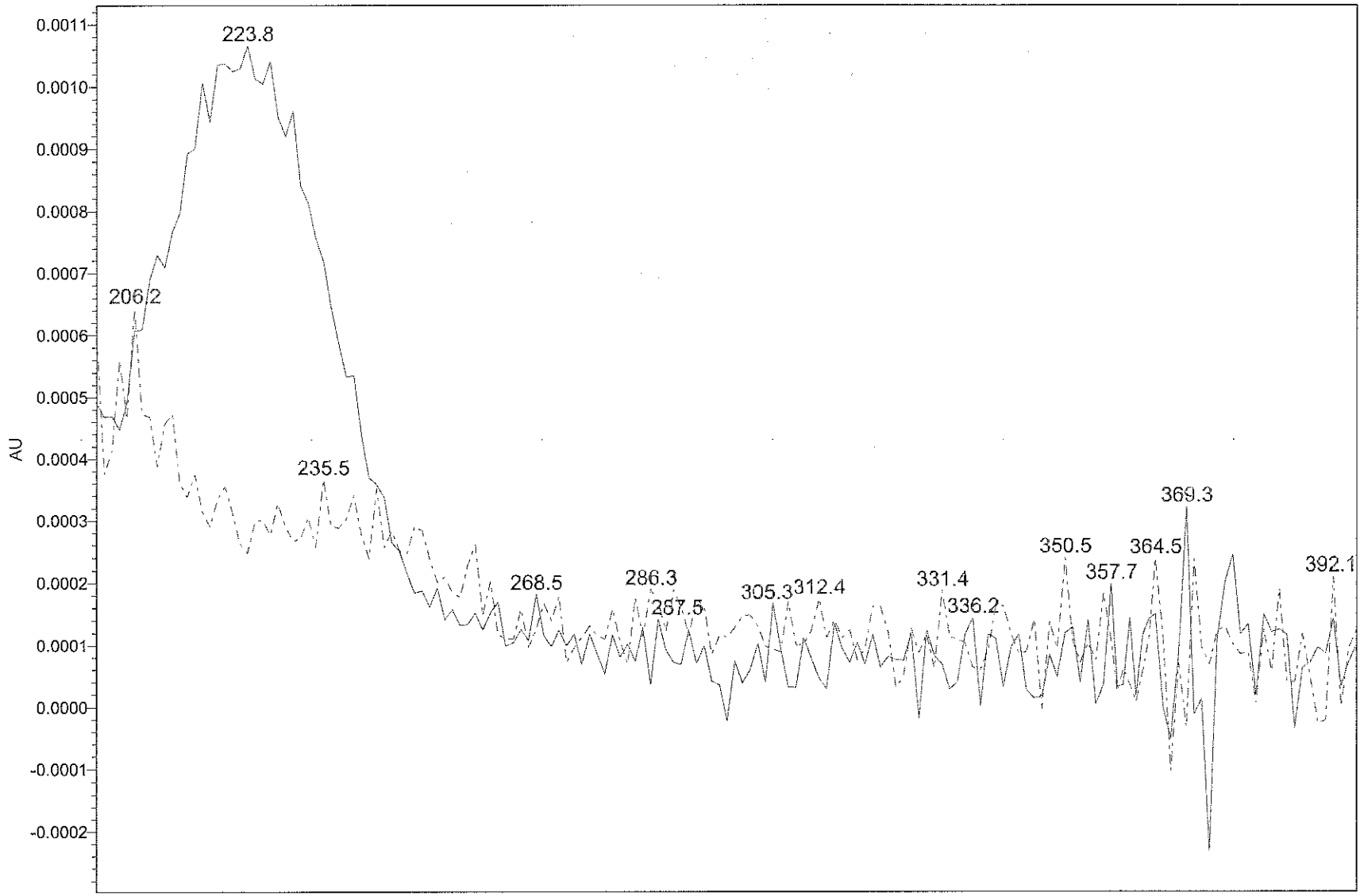
PDA Addendum for 2,6-dinitrotoluene

Retention Time: 20.967 LIMS Name: 200-5816-A-6-D Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-SS16

Spectrum Review Report-TestAmerica Burlington



Retention Time: 20.967 LIMS Name: 200-5816-A-6-D Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR 02 -55 1 6

PDA Addendum for 2,6-dinitrotoluene

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 Lab Sample ID: 200-5816-6

Matrix: Solid Lab File ID: 12JUL111530_091.d

Analysis Method: 8330B Date Collected: 06/28/2011 10:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.54(g) Date Analyzed: 07/13/2011 16:47

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*29*	*M J*	*95*	23	*8.4*
99-65-0	*1,3-Dinitrobenzene*	*36*	*J*	*95*	23	*8.0*
55-63-0	*Nitroglycerin*	*9800*	*M*	*1900*	1400	*580*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*27*	*J M*	*95*	23	*6.6*
606-20-2	*2,6-Dinitrotoluene*	*21*	*M J*	*95*	14	*5.9*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Lims ID:	200-5816-A-6-D	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 16:47:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-009		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	9
Lims Batch ID:	21368	Lims Sample ID:	9
Detector:	A-12JUL111532.R091		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 14:01:55

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene		9.692				1
3 HMX	10.759	10.715	0.044	377	1.25	M
4 2,4-diamino-6-nitrotoluene		11.115				1
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
6 MNX	13.249	13.228	0.021	3126	7.64	
7 RDX		14.369				1
8 2,4,6-Trinitrophenol	15.347	15.401	-0.054	2415	6.51	M
9 1,3,5-Trinitrobenzene	16.219	16.130	0.089	8222	9.53	M
$ 10 1,2-Dinitrobenzene	16.441	16.441	0.0	63727	178.7	M
11 1,3-Dinitrobenzene	17.472	17.375	0.097	1552	1.76	A
12 Nitrobenzene	18.255	18.237	0.018	631	2.20	A
13 Tetryl	18.433	18.513	-0.080	1613	2.67	A
14 Nitroglycerin	19.135	19.260	-0.125	3873	905.1	A
15 2,4,6-Trinitrotoluene		19.704				1
16 4-Amino-2,6-dinitrotoluene	20.087	20.193	-0.106	713	1.63	A
17 2-Amino-4,6-dinitrotoluene	20.522	20.567	-0.045	1644	3.13	M
18 2,6-Dinitrotoluene	20.860	20.887	-0.027	6140	14.7	M
19 2,4-Dinitrotoluene		21.163				1
20 o-Nitrotoluene		22.656				1
21 p-Nitrotoluene	23.457	23.394	0.063	351	2.93	A
22 m-Nitrotoluene	23.963	24.088	-0.125	1354	5.17	A
23 PETN	24.826	24.817	0.009	978	280.7	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Lims ID:	200-5816-A-6-D	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 16:47:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-009		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	9
Lims Batch ID:	21370	Lims Sample ID:	9
Detector:	A-12JUL111530.R091		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 15:03:27

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene		4.624				1
6 2,4-diamino-6-nitrotoluene		4.624				1
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX		5.460				1
16 MNX		5.873				1
22 RDX		6.518				1
4 2,4,6-Trinitrophenol		7.309				1
18 Nitroglycerin	9.657	9.515	0.142	7950	1030.2	A
17 Nitrobenzene	11.044	10.937	0.107	13458	28.4	M
$ 1 1,2-Dinitrobenzene	11.409	11.391	0.018	105209	175.7	M
11 4-Amino-2,6-dinitrotoluene	11.835	11.889	-0.054	333	0.0475	A
10 2-Amino-4,6-dinitrotoluene	12.209	12.111	0.098	4605	2.83	M
3 1,3-Dinitrobenzene	13.747	13.810	-0.063	4398	3.75	
19 o-Nitrotoluene		15.117				1
21 PETN		15.375				1
15 m-Nitrotoluene	16.282	16.388	-0.106	412	1.67	A
20 p-Nitrotoluene	16.282	16.388	-0.106	412	1.67	A
9 2,6-Dinitrotoluene	17.109	17.109	0.0	1170	2.19	A
2 1,3,5-Trinitrobenzene	18.647	18.327	0.320	4399	3.09	A
7 2,4-Dinitrotoluene	19.305	19.412	-0.107	9480	9.33	A
23 Tetryl	19.305	19.412	-0.107	9480	9.33	A
5 2,4,6-Trinitrotoluene		21.670				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d

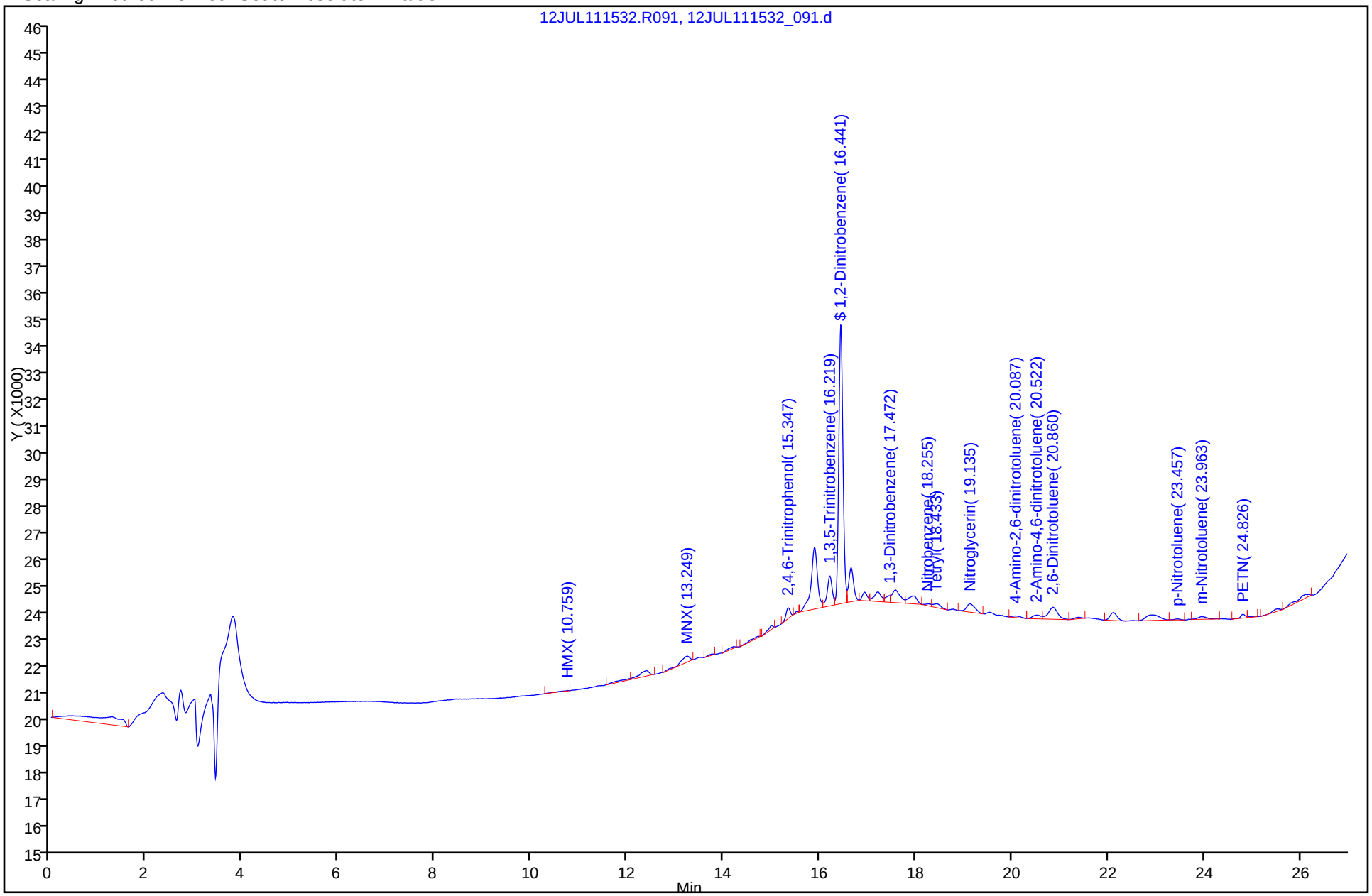
Injection Date: 13-Jul-2011 16:47:00 Limit Group: LC_8330B_Limits

Client ID: WPR02-SS16 Instrument ID: CH1208

Lims Batch ID: 21368 Lims Sample ID: 9

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value

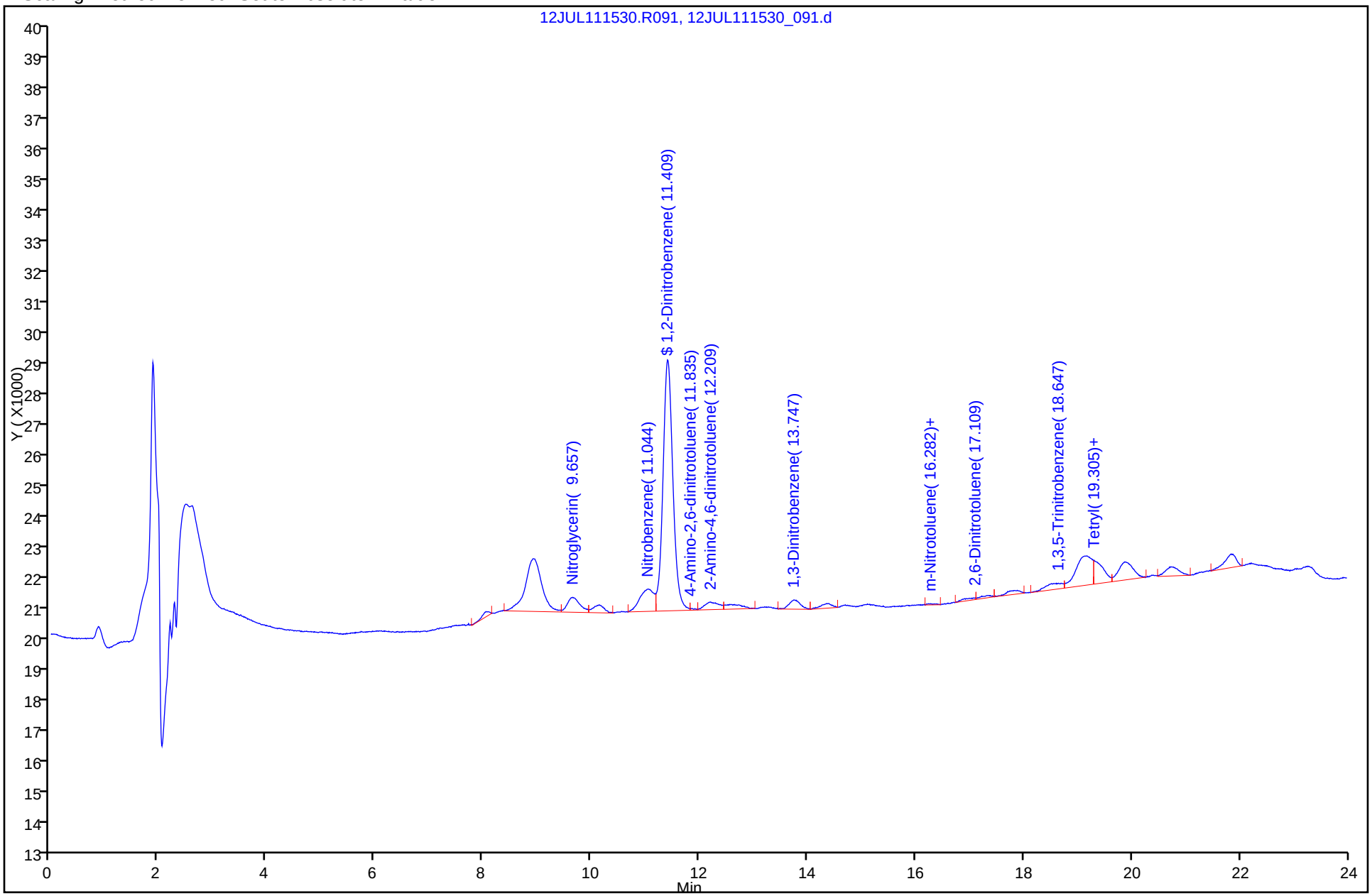


Report Date: 18-Jul-2011 12:06:15 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d

Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

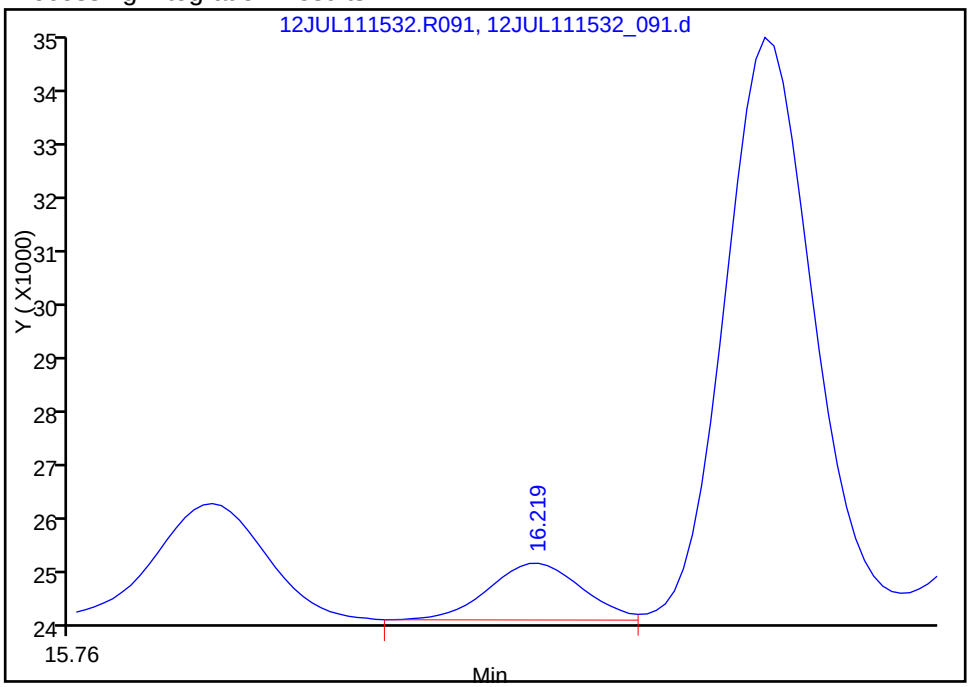
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

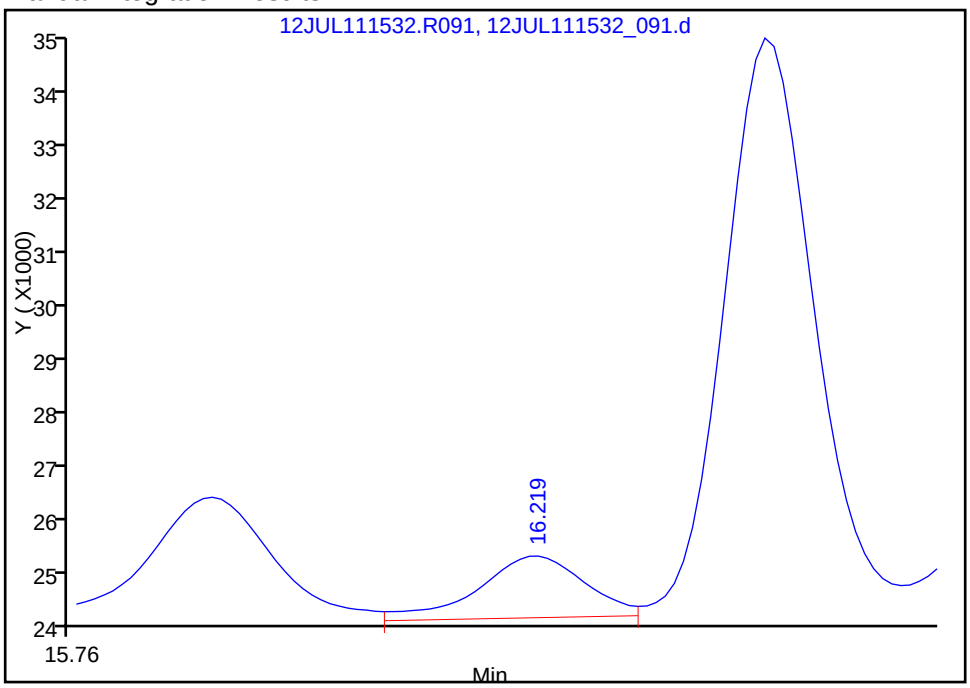
Processing Integration Results

RT: 16.22
Response: 6496
Amount: 7.448516



Manual Integration Results

RT: 16.22
Response: 8222
Amount: 9.530824



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

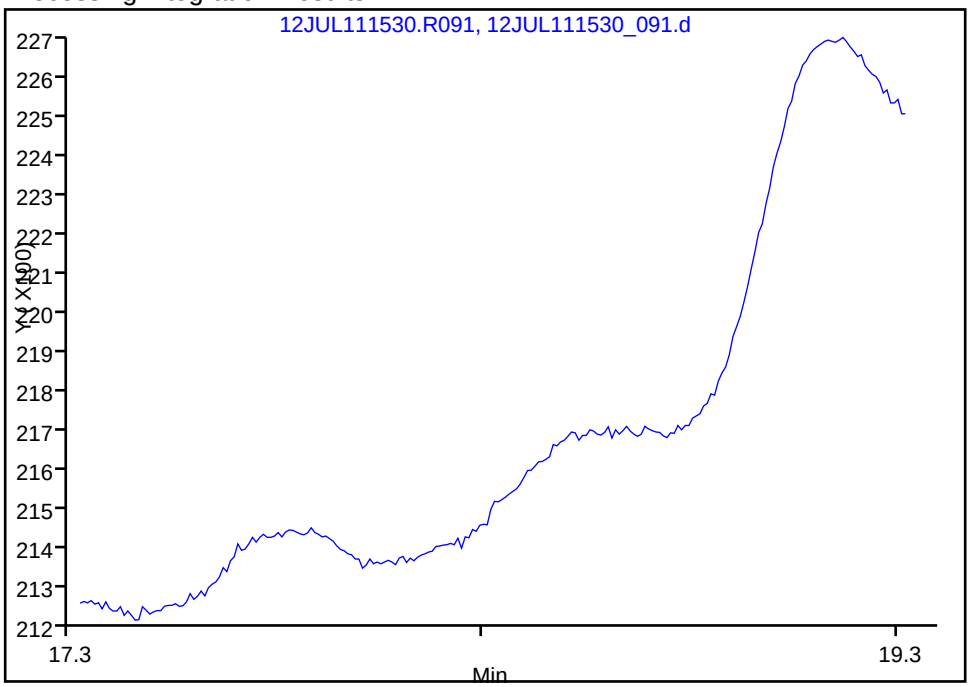
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

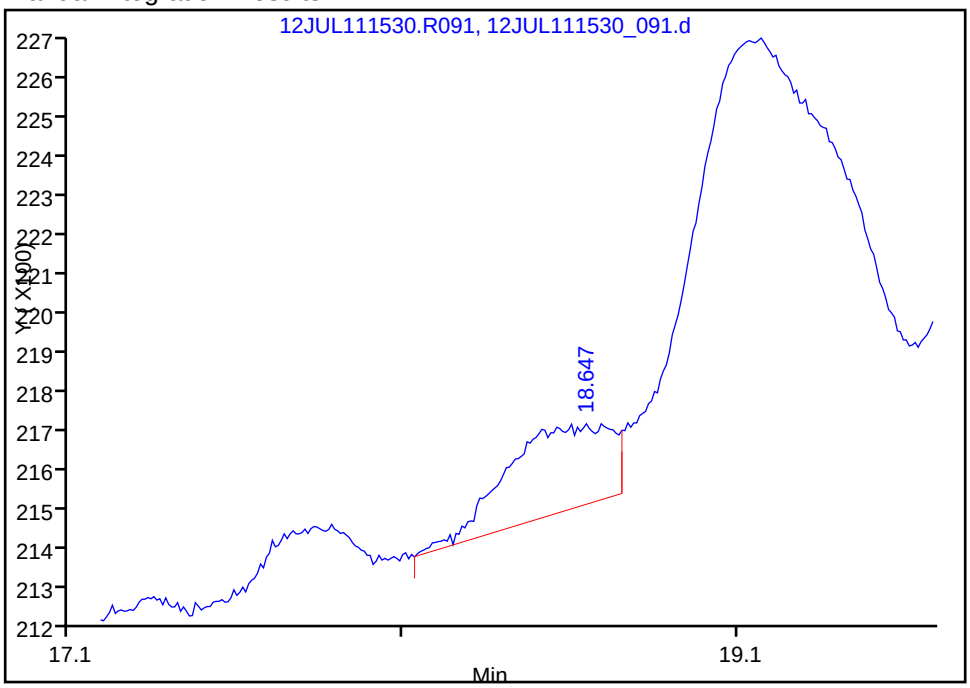
Not Detected
Expected RT: 18.33

Processing Integration Results



Manual Integration Results

RT: 18.65
Response: 4399
Amount: 3.092919



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

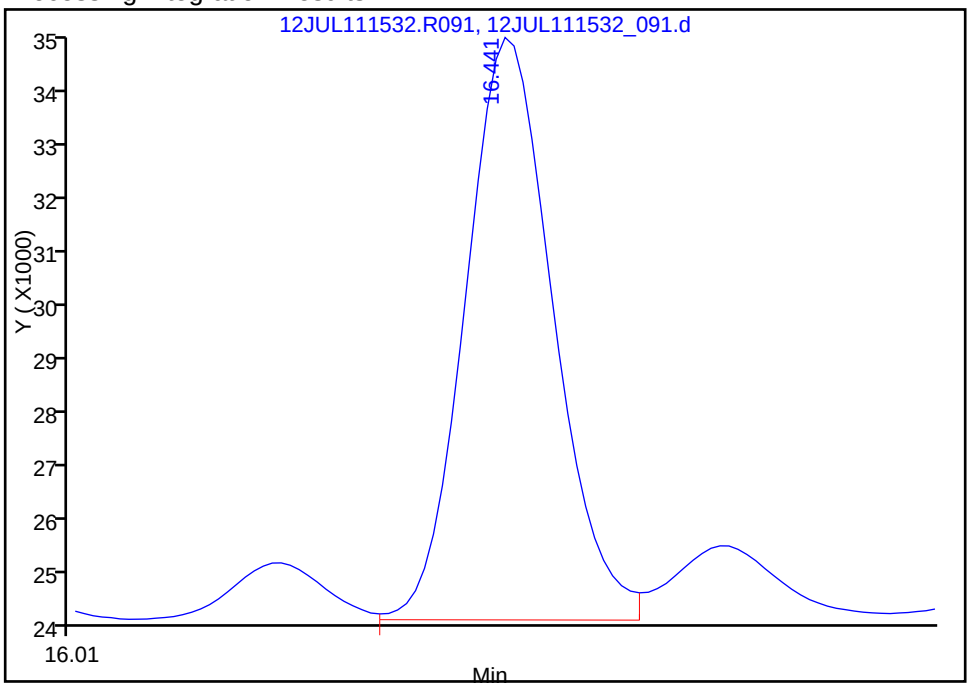
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

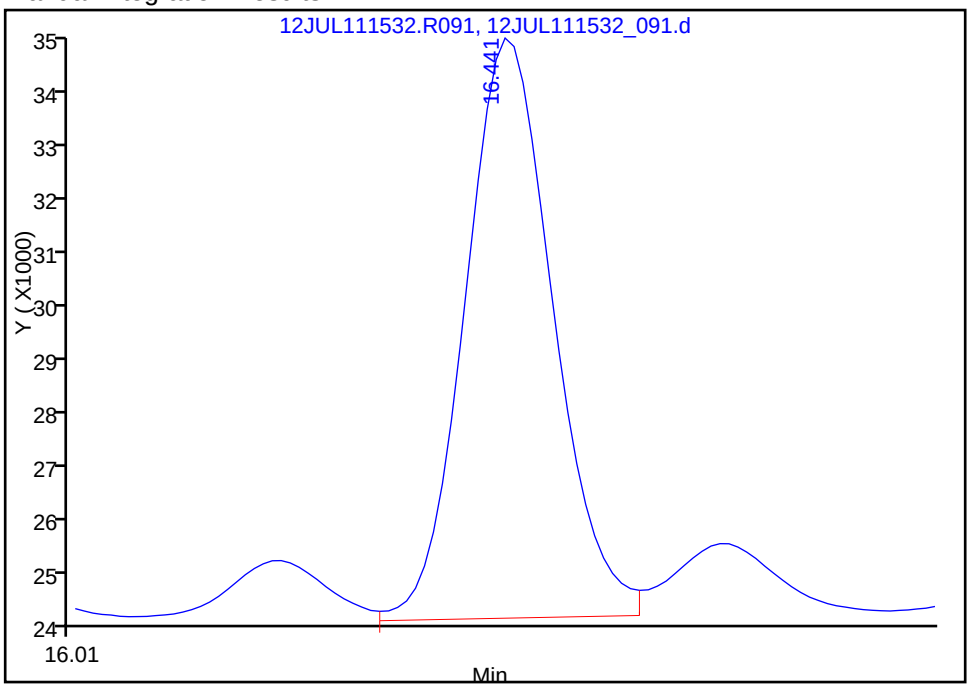
Processing Integration Results

RT: 16.44
Response: 63503
Amount: 178.0624



Manual Integration Results

RT: 16.44
Response: 63727
Amount: 178.6944



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

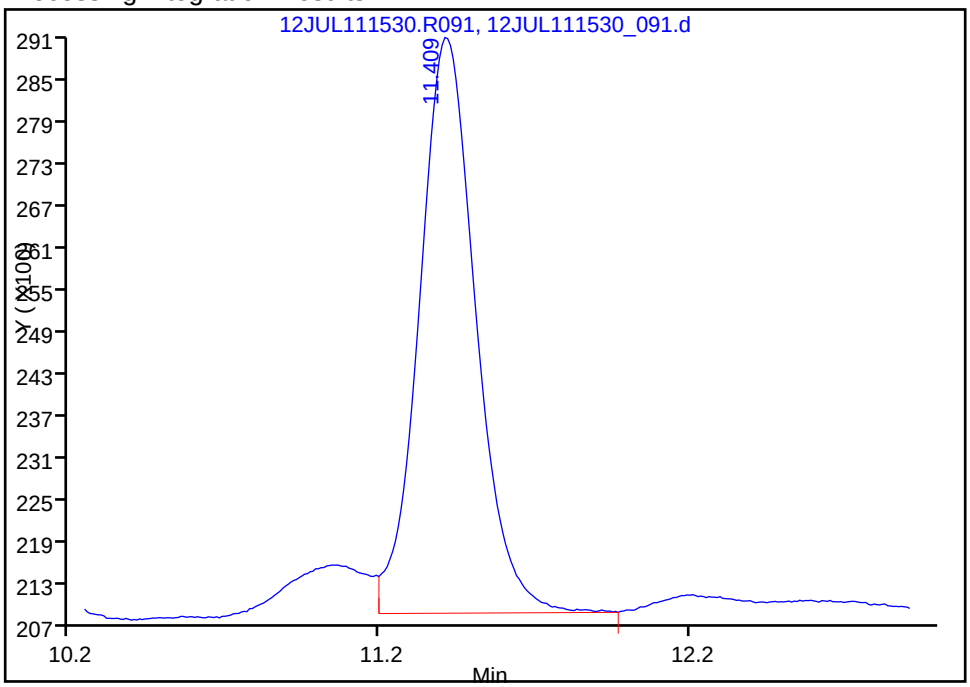
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

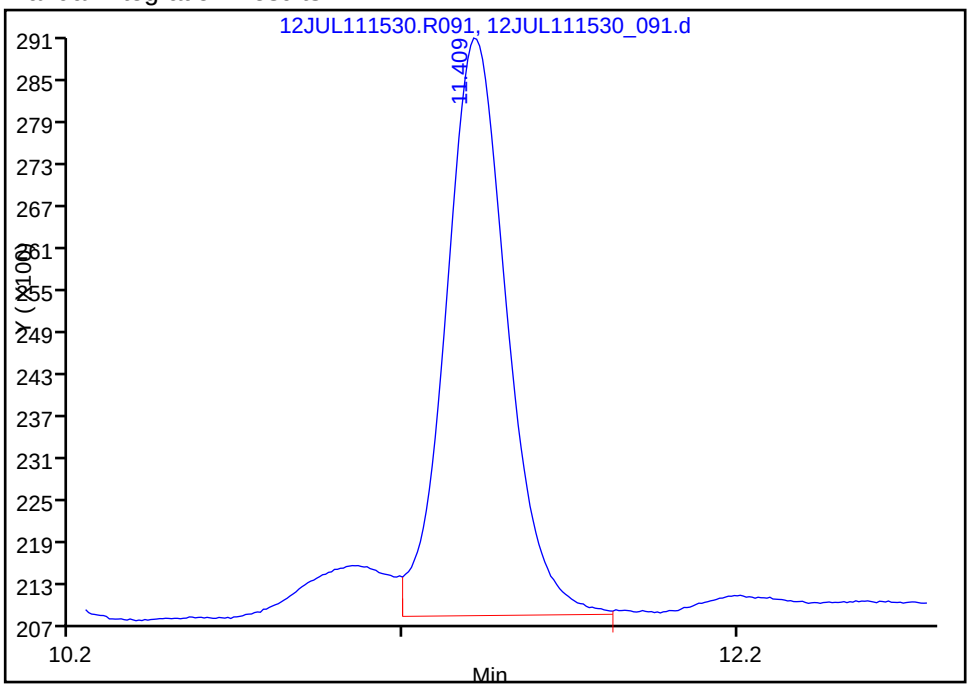
Processing Integration Results

RT: 11.41
Response: 104521
Amount: 174.5595



Manual Integration Results

RT: 11.41
Response: 105209
Amount: 175.7167



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Split an Integrated Peak
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

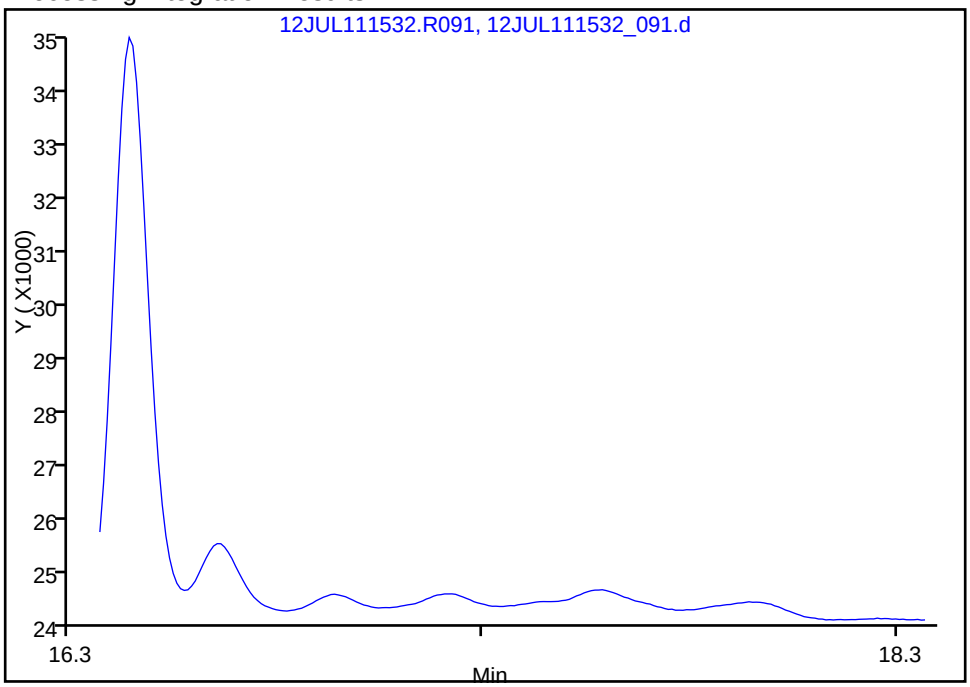
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

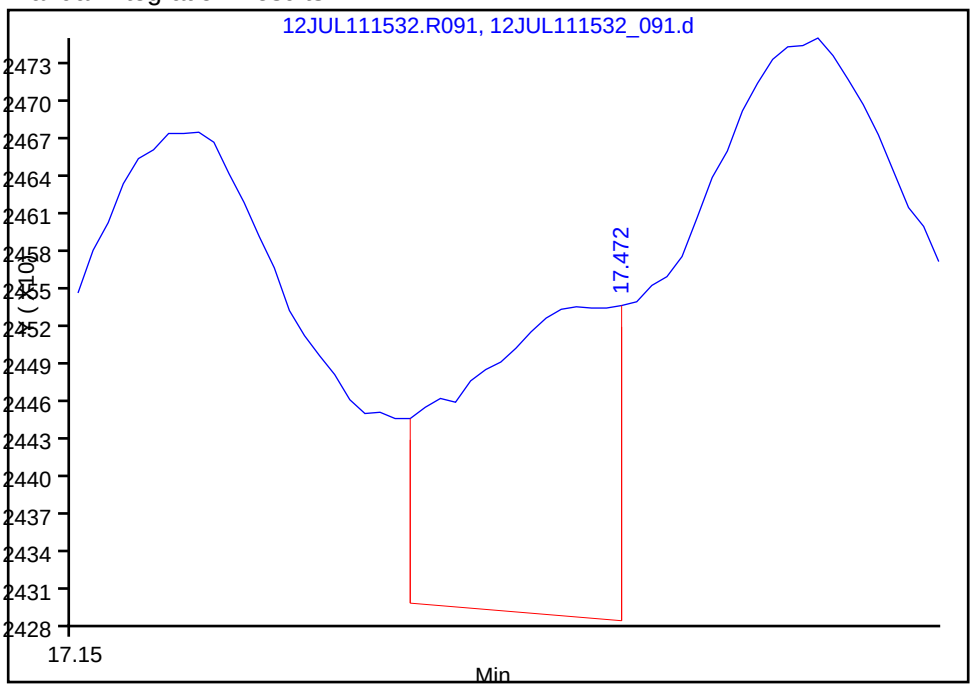
Not Detected
Expected RT: 17.37

Processing Integration Results



Manual Integration Results

RT: 17.47
Response: 1552
Amount: 1.764086



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

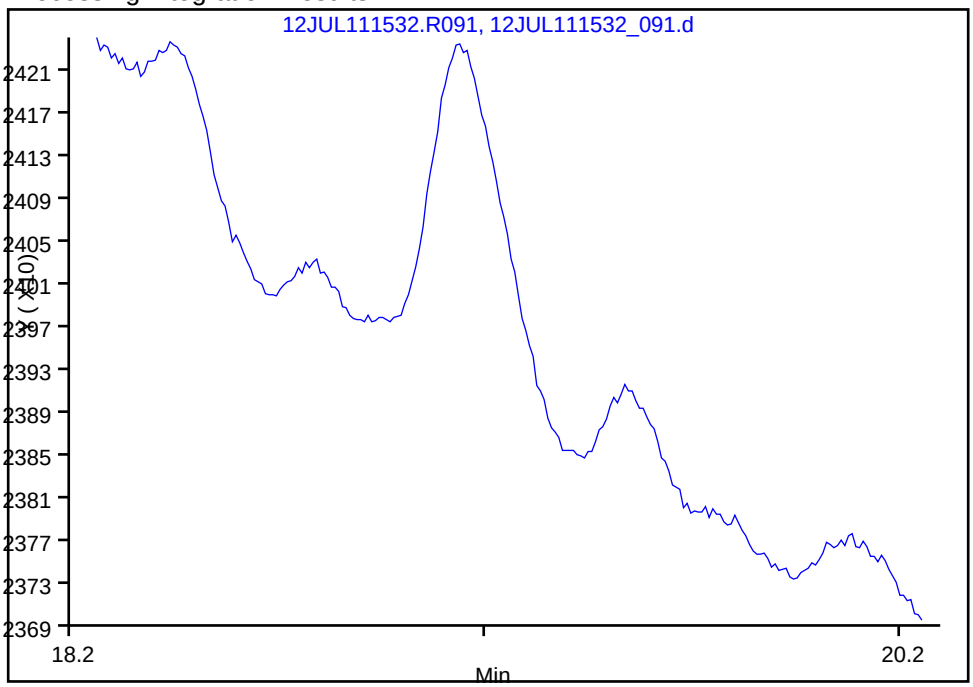
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

14 Nitroglycerin, Signal: 1, Type: quant, RT: 19.26

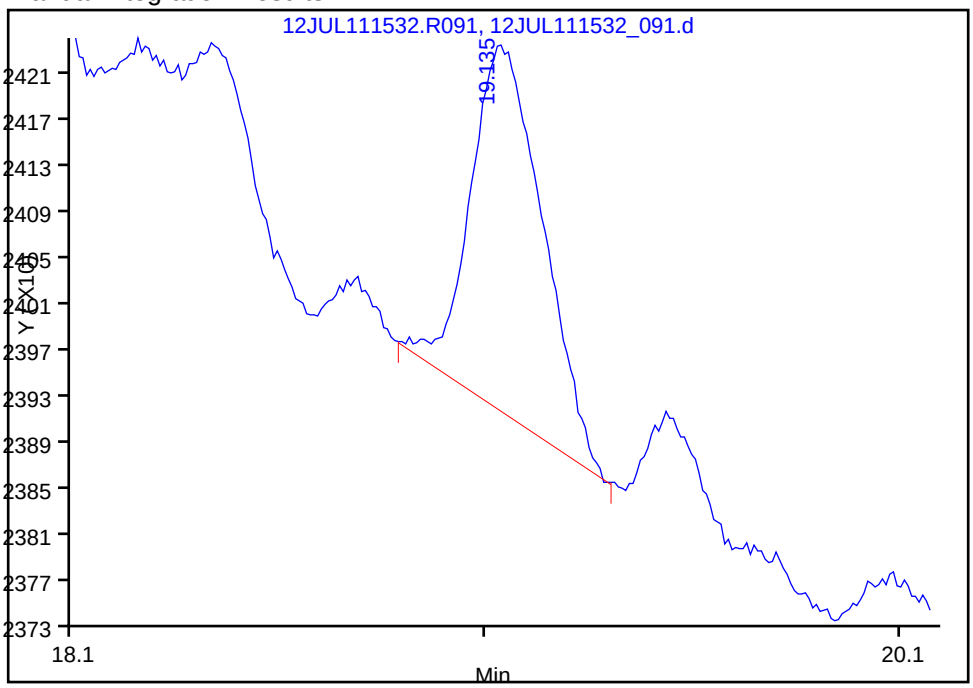
Not Detected
Expected RT: 19.26

Processing Integration Results



Manual Integration Results

RT: 19.14
Response: 3873
Amount: 905.0685



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:15 Chrom Revision: 1.2 30-Jun-2011 15:02:28

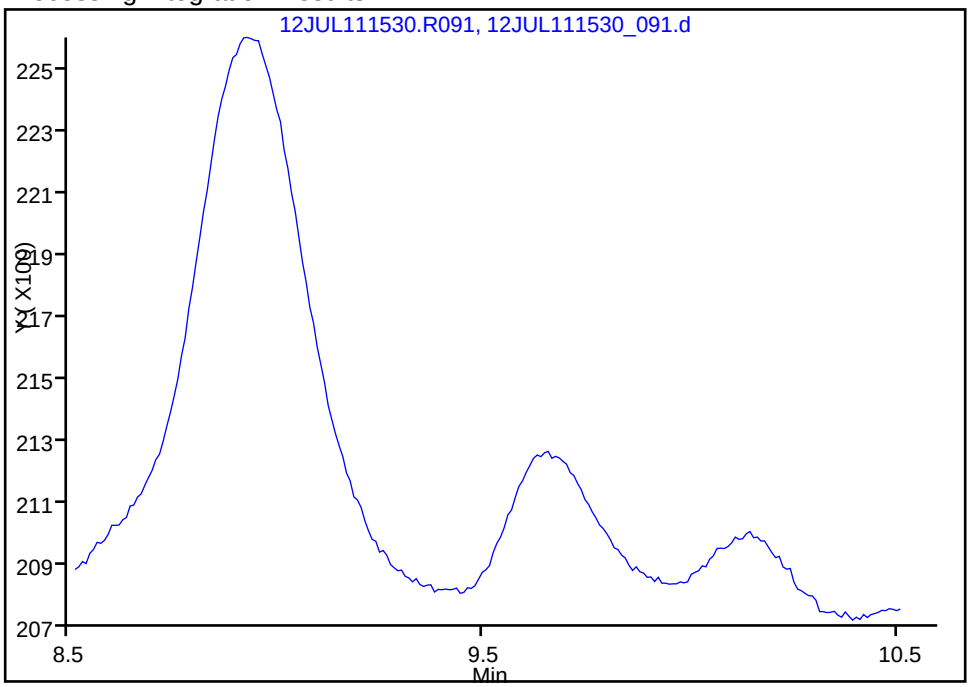
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

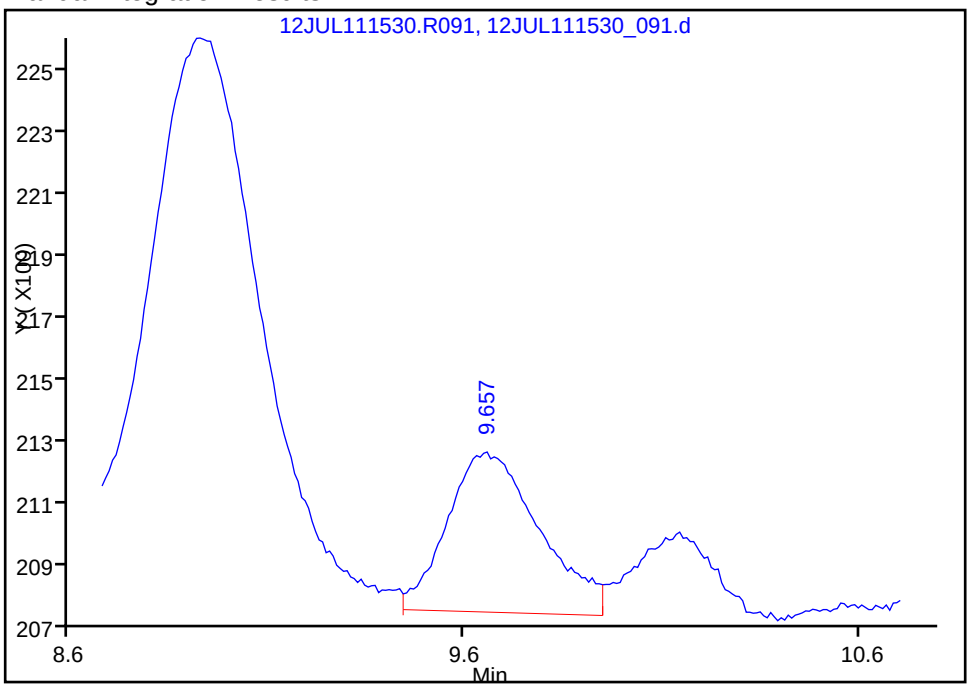
Not Detected
Expected RT: 9.51

Processing Integration Results



Manual Integration Results

RT: 9.66
Response: 7950
Amount: 1030.2196



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason:

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

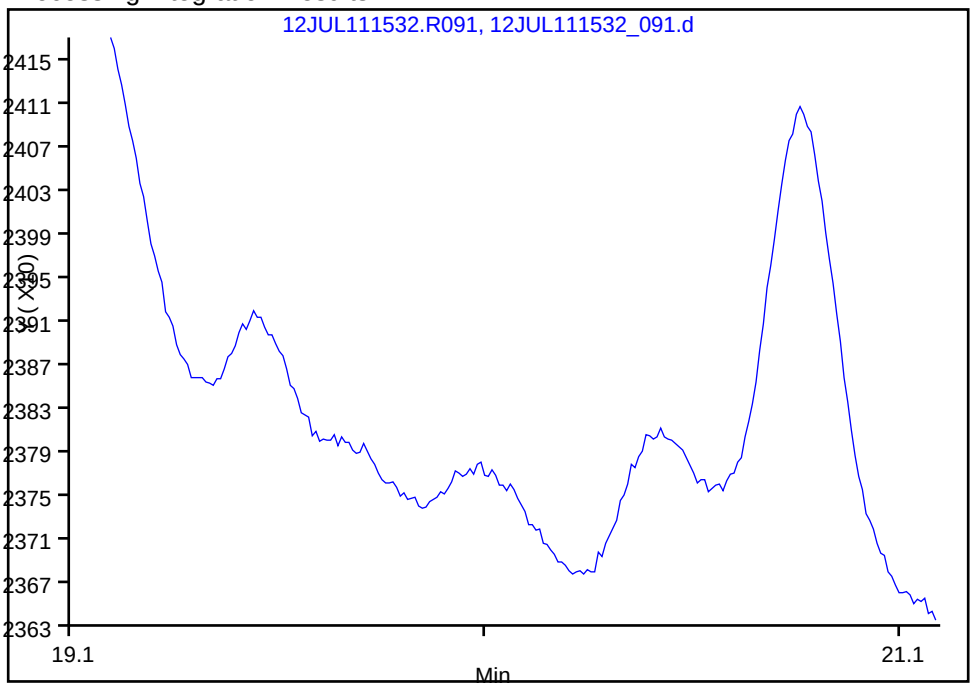
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

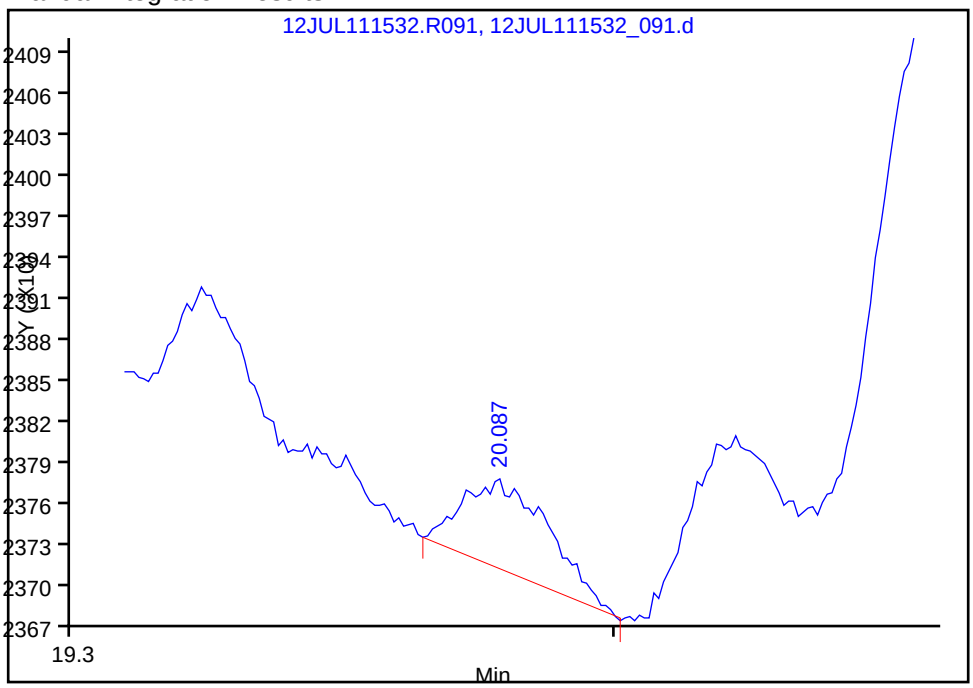
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.09
Response: 713
Amount: 1.625889



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

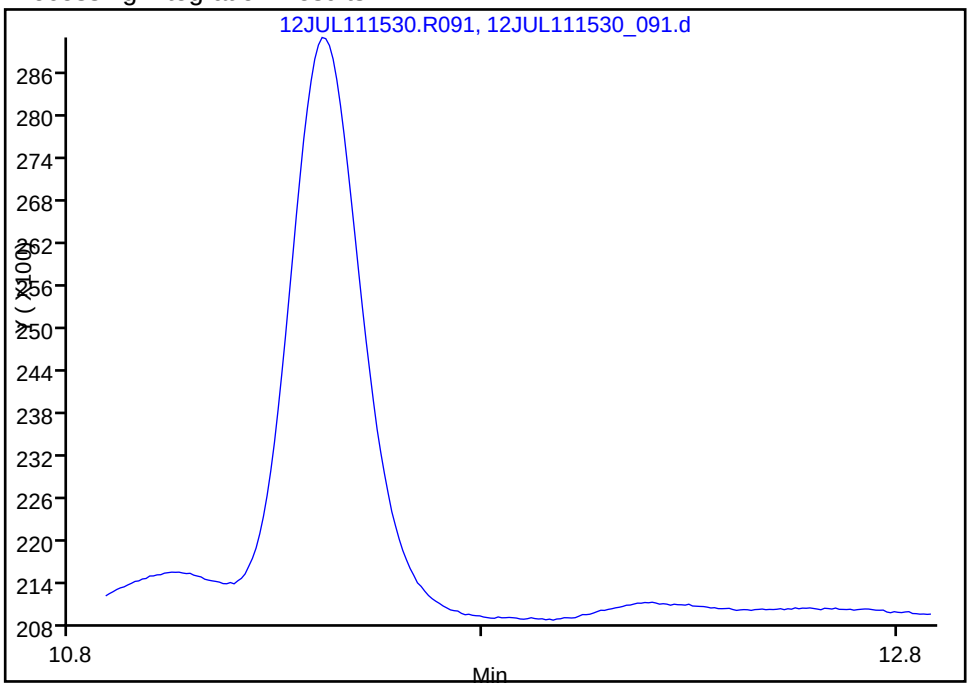
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

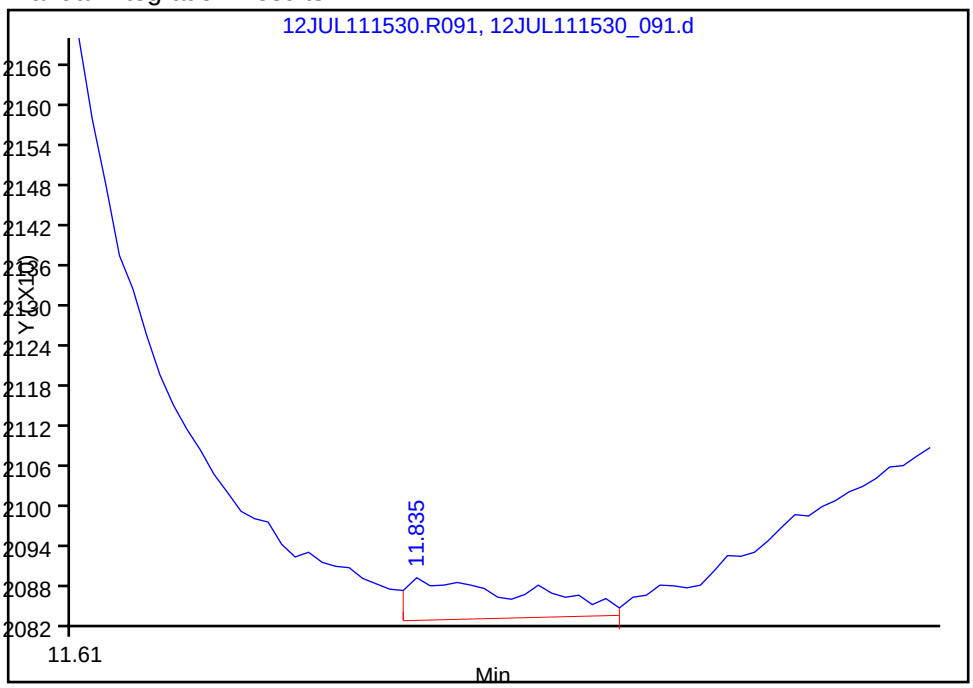
Not Detected
Expected RT: 11.89

Processing Integration Results



Manual Integration Results

RT: 11.84
Response: 333
Amount: 0.047521



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

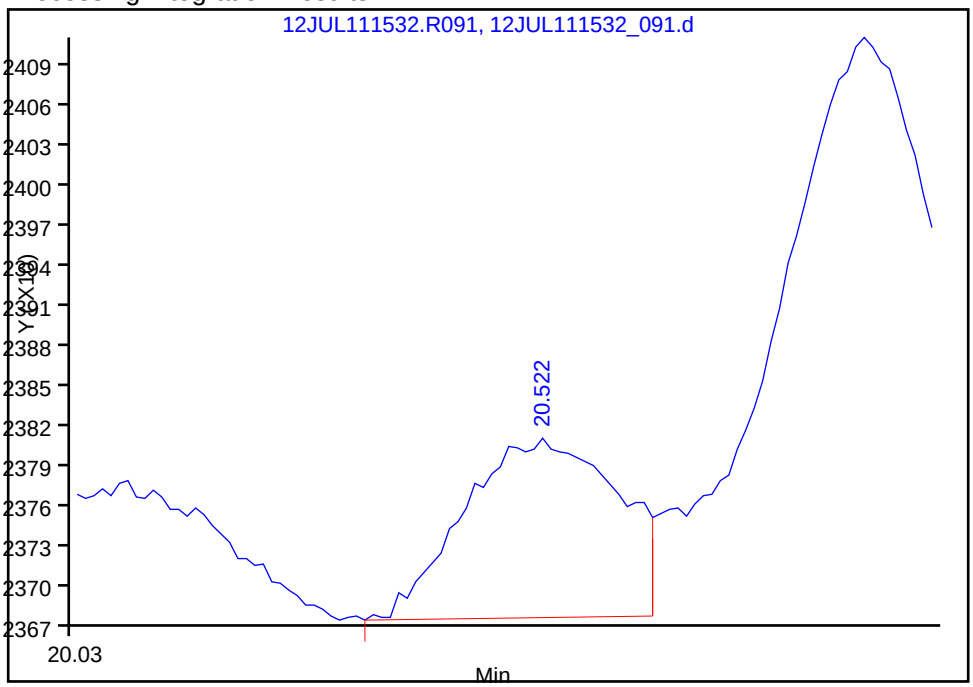
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

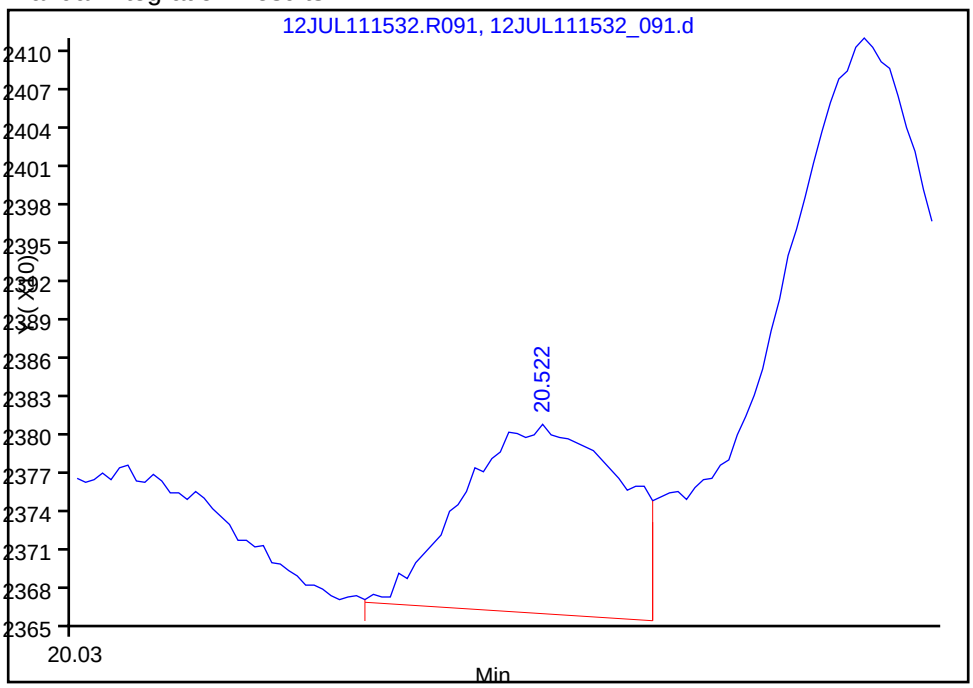
Processing Integration Results

RT: 20.52
Response: 1454
Amount: 2.838249



Manual Integration Results

RT: 20.52
Response: 1644
Amount: 3.133368



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

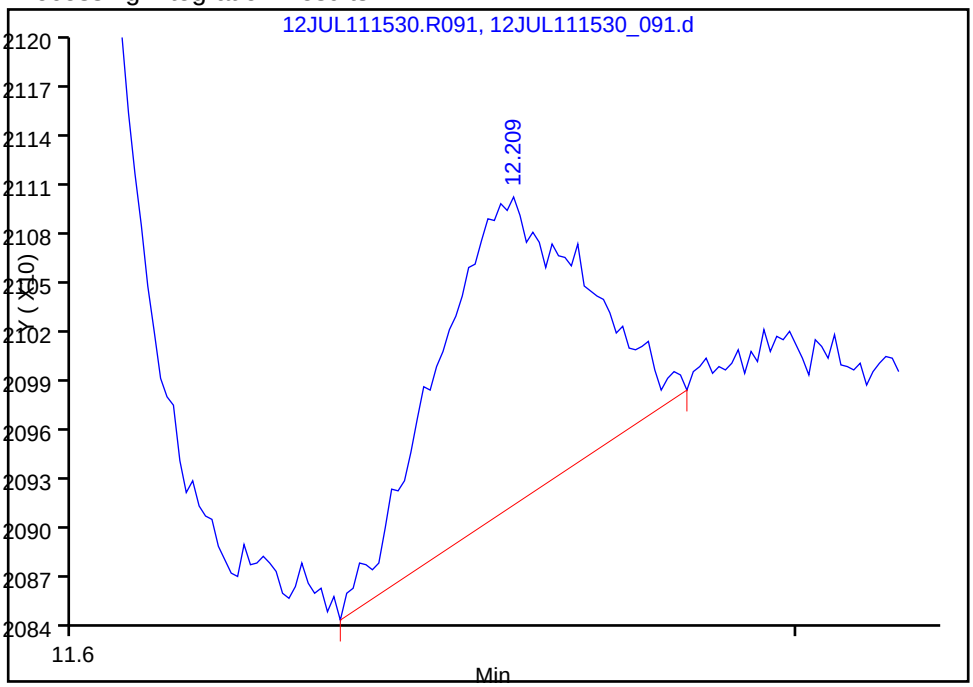
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

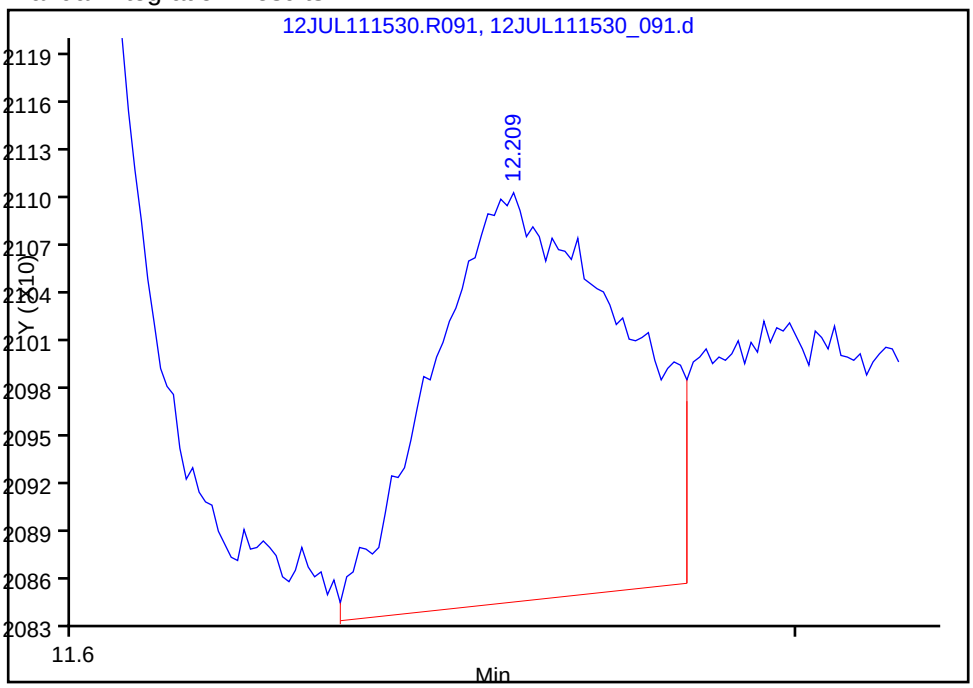
Processing Integration Results

RT: 12.21
Response: 2646
Amount: 1.218185



Manual Integration Results

RT: 12.21
Response: 4605
Amount: 2.827487



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

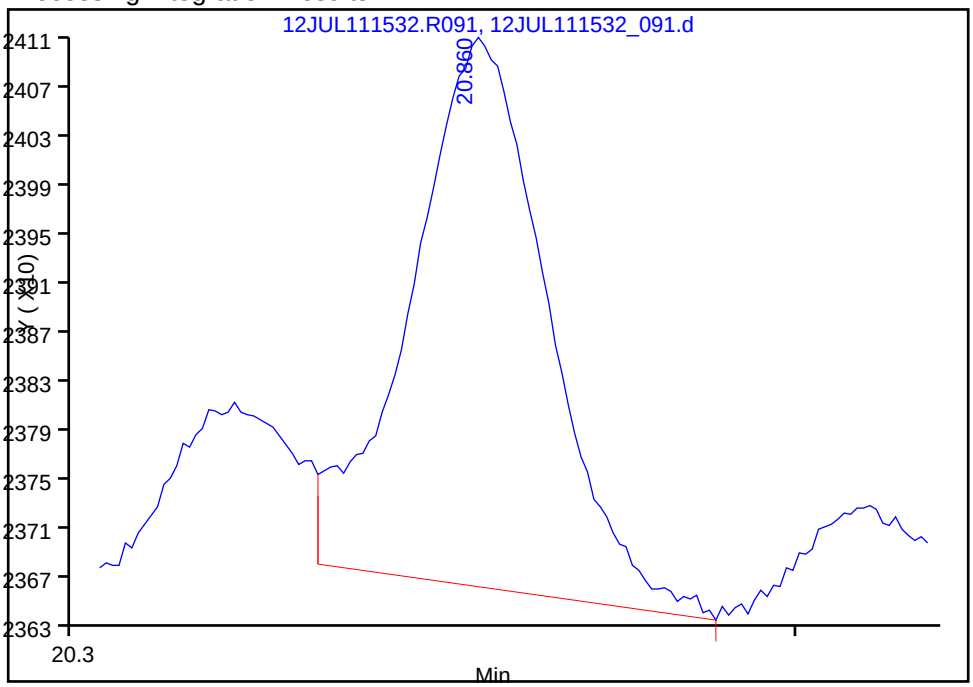
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

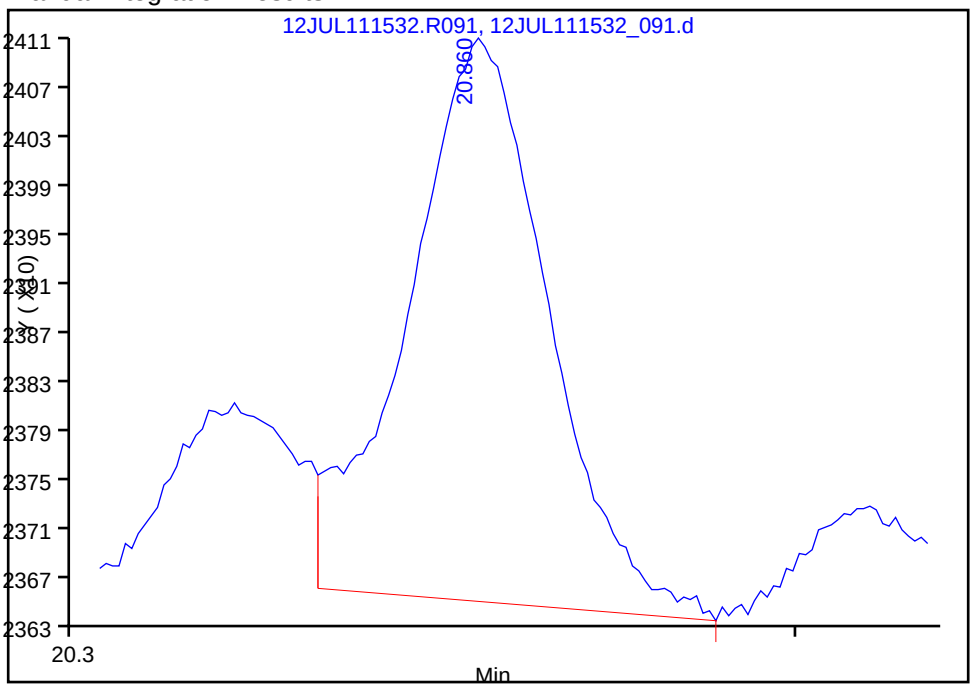
Processing Integration Results

RT: 20.86
Response: 5826
Amount: 13.917836



Manual Integration Results

RT: 20.86
Response: 6140
Amount: 14.653140



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned New Baseline
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

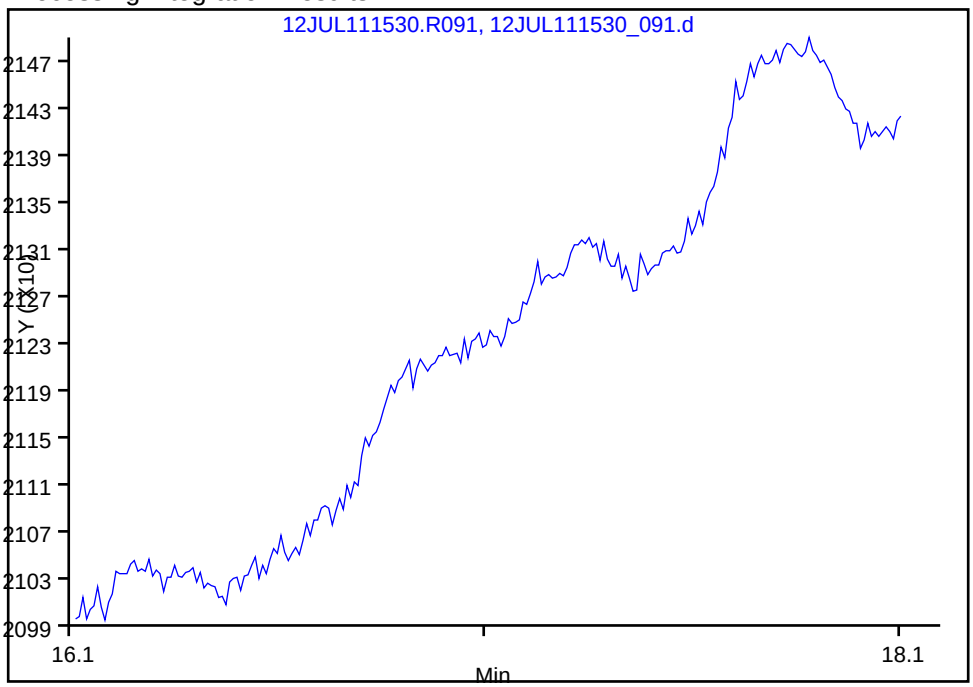
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

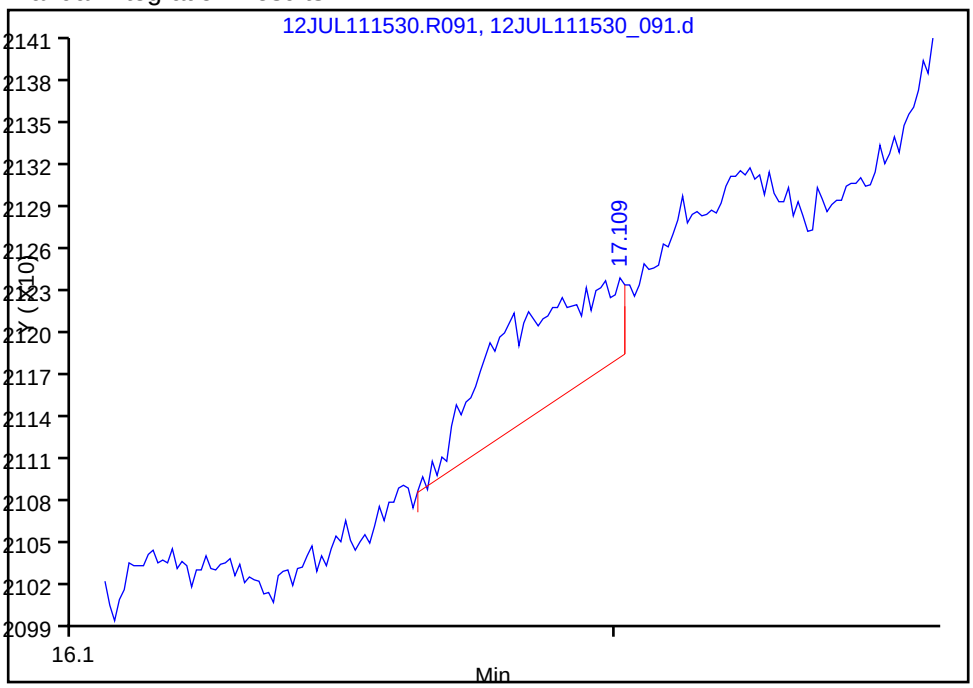
Not Detected
Expected RT: 17.11

Processing Integration Results



Manual Integration Results

RT: 17.11
Response: 1170
Amount: 2.190916



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

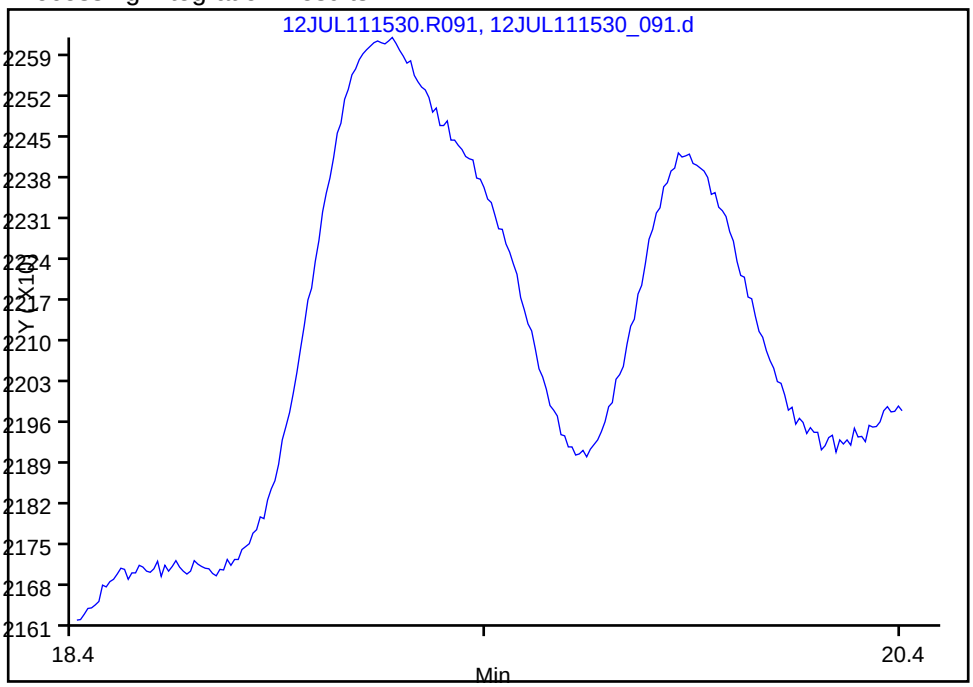
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

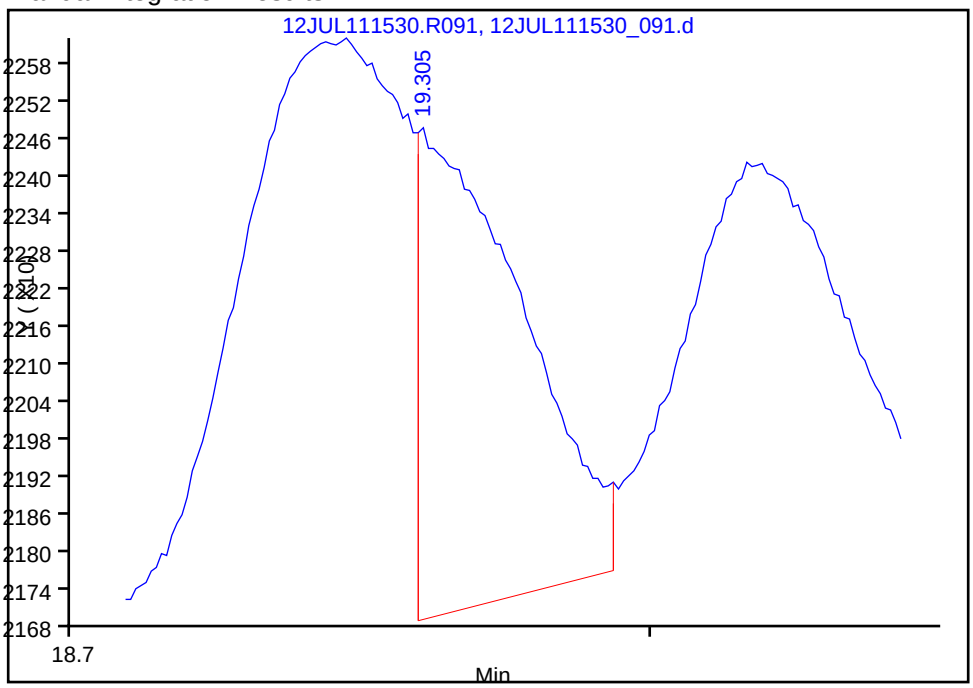
Not Detected
Expected RT: 19.41

Processing Integration Results



Manual Integration Results

RT: 19.30
Response: 9480
Amount: 9.326469



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason:

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

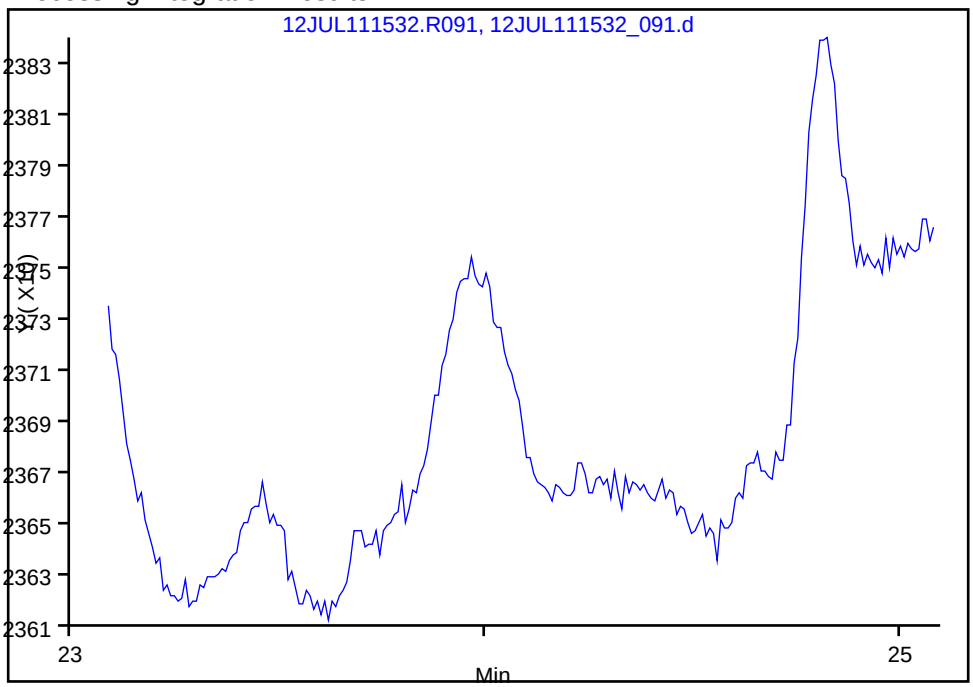
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

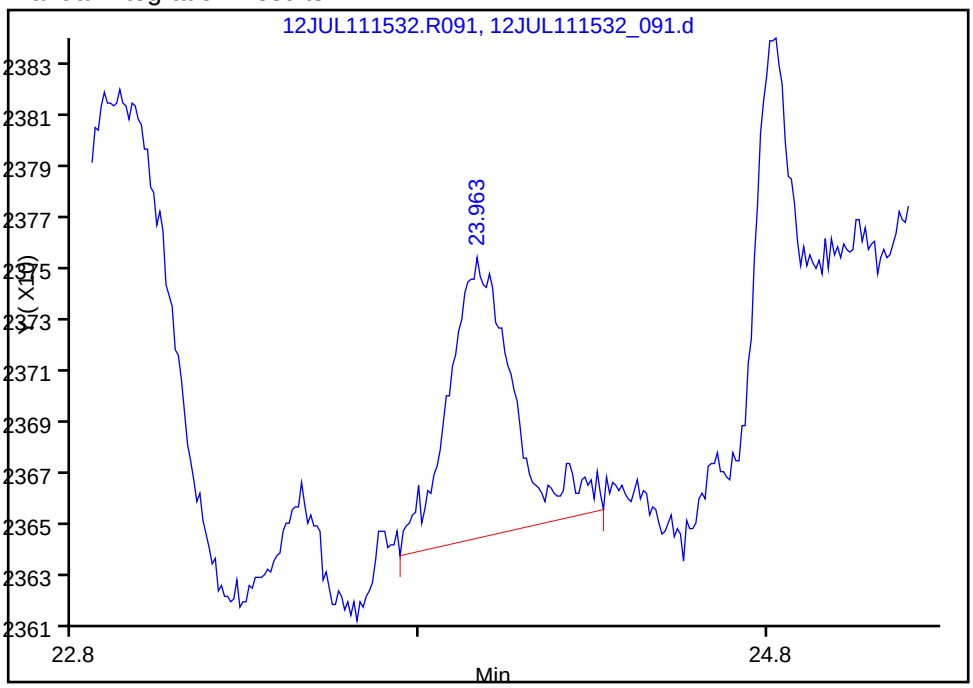
Not Detected
Expected RT: 24.09

Processing Integration Results



Manual Integration Results

RT: 23.96
Response: 1354
Amount: 5.170551



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

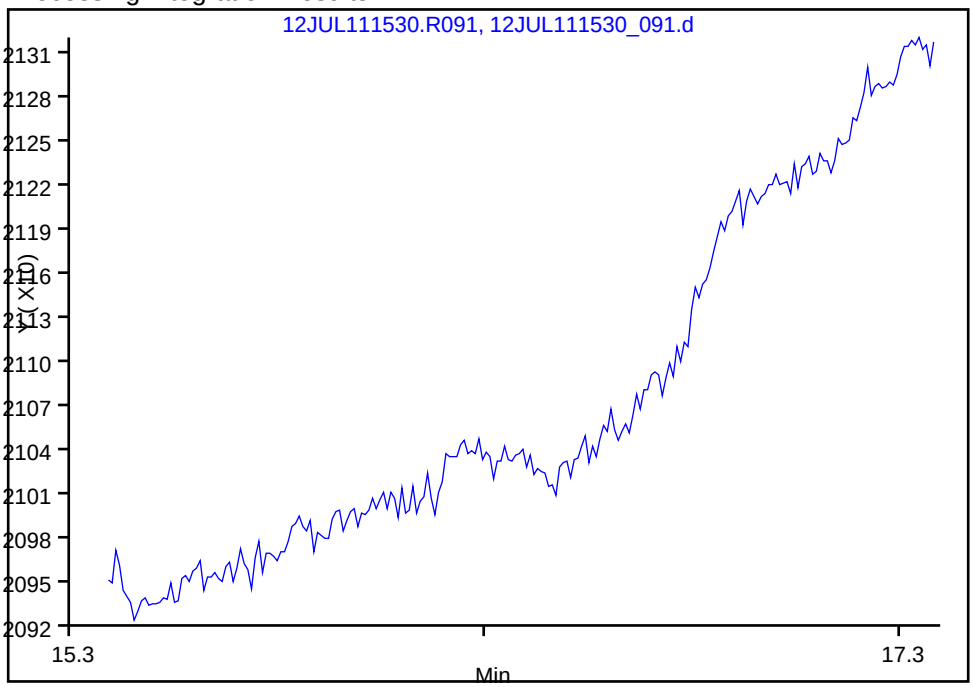
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	450.00 ul

15 m-Nitrotoluene, Signal: 1, Type: quant, RT: 16.39

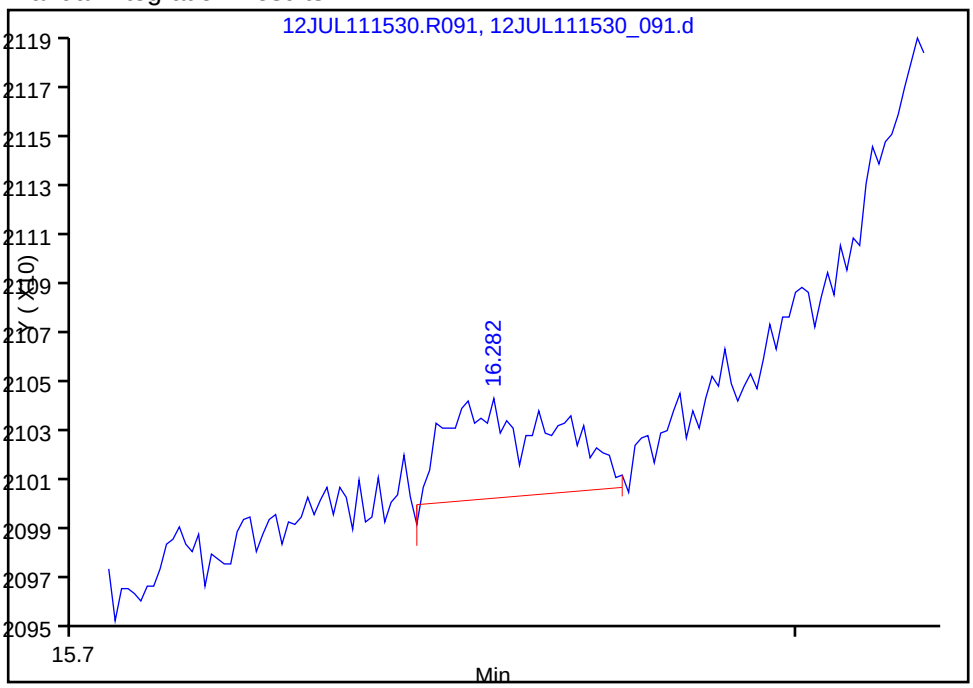
Not Detected
Expected RT: 16.39

Processing Integration Results



Manual Integration Results

RT: 16.28
Response: 412
Amount: 1.666687



Reviewer: chirgwinb, 15-Jul-2011 15:03:27
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:54 Chrom Revision: 1.2 30-Jun-2011 15:02:28

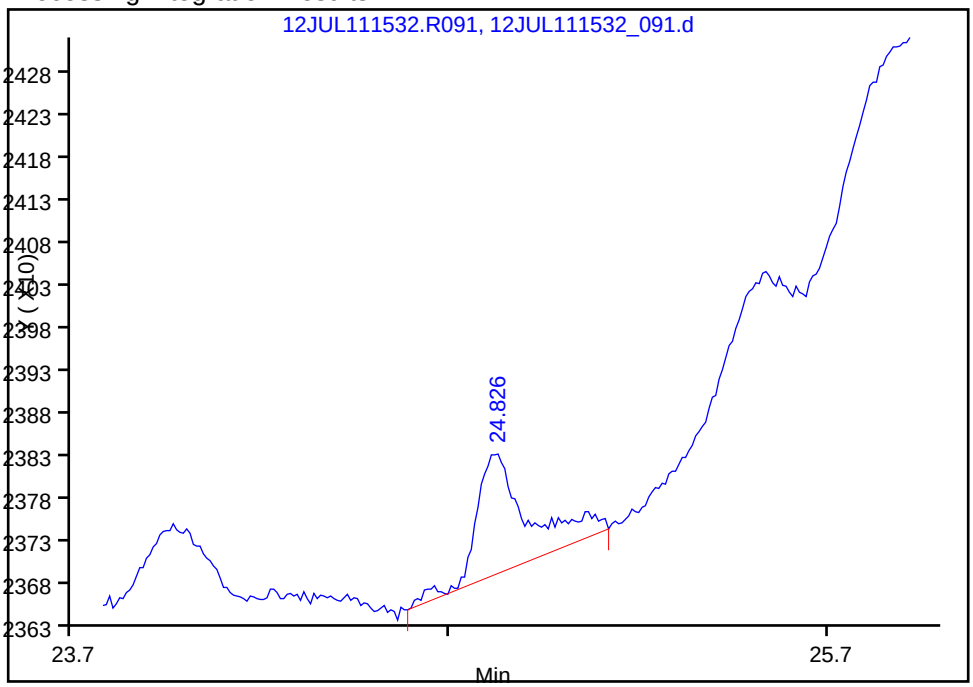
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_091.d		
Injection Date:	13-Jul-2011 16:47:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	9
Operator ID:	RJH	Injection Vol:	150.00 ul

23 PETN, Signal: 1, Type: quant, RT: 24.82

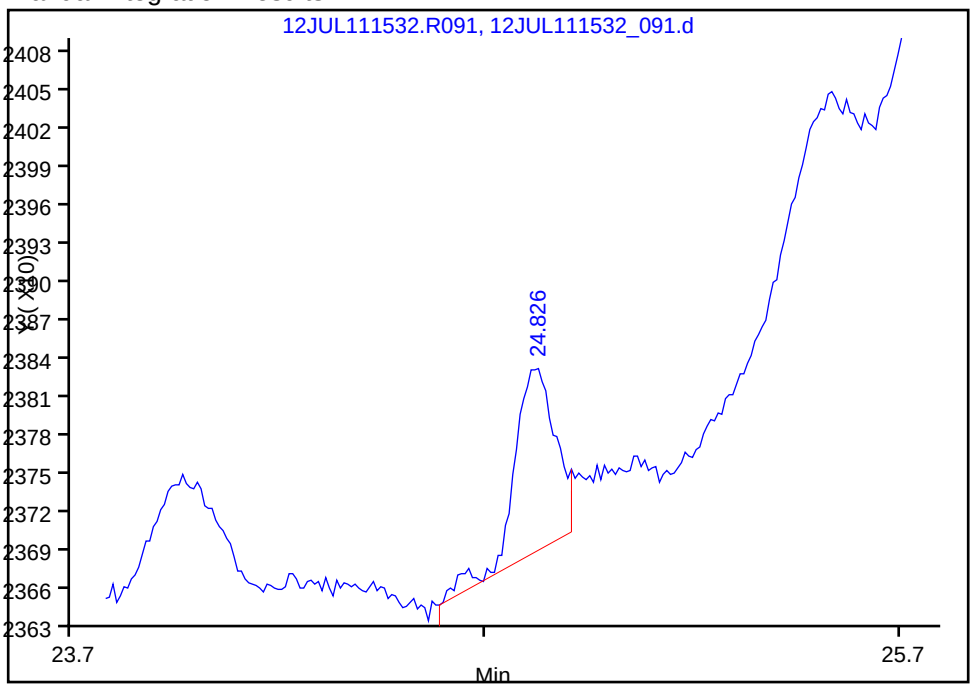
Processing Integration Results

RT: 24.83
Response: 1330
Amount: 365.0508



Manual Integration Results

RT: 24.83
Response: 978
Amount: 280.7370



Reviewer: chirgwinb, 15-Jul-2011 14:01:55
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS17 | Lab Sample ID: 200-5816-7

Matrix: Solid | Lab File ID: 12JUL111530_101.d

Analysis Method: 8330B | Date Collected: 06/28/2011 10:53

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.55(g) | Date Analyzed: 07/13/2011 17:21

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*24*	*J M*	*95*	23	*8.4*
99-65-0	*1,3-Dinitrobenzene*	*32*	*J*	*95*	23	*8.0*
55-63-0	*Nitroglycerin*	*18000*	*M J*	*1900*	1400	*580*
118-96-7	*2,4,6-Trinitrotoluene*	*91*	*M J*	*95*	14	*6.3*
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*24*	*J M*	*95*	23	*6.6*
606-20-2	*2,6-Dinitrotoluene*	*23*	*J*	*95*	14	*5.9*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Lims ID:	200-5816-A-7-B	Client ID:	WPR02-SS17
Inject. Date:	13-Jul-2011 17:21:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-010		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	10
Lims Batch ID:	21370	Lims Sample ID:	10
Detector:	A-12JUL111530.R101		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 15:08:49

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.518				1
	18 Nitroglycerin	9.666	9.515	0.151	14359	1849.6	A
$	1 1,2-Dinitrobenzene	11.418	11.391	0.027	107210	179.1	M
	11 4-Amino-2,6-dinitrotoluene	11.809	11.889	-0.080	375	0.0848	A
	10 2-Amino-4,6-dinitrotoluene	12.218	12.111	0.107	4229	2.52	A
	3 1,3-Dinitrobenzene	13.792	13.810	-0.018	3868	3.37	
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene	17.117	17.109	0.008	1315	2.39	
	2 1,3,5-Trinitrobenzene	18.549	18.327	0.222	3603	2.54	A
	7 2,4-Dinitrotoluene	19.296	19.412	-0.116	7976	7.88	A
	23 Tetryl	19.296	19.412	-0.116	7976	7.88	A
	5 2,4,6-Trinitrotoluene	21.848	21.670	0.178	8256	9.55	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

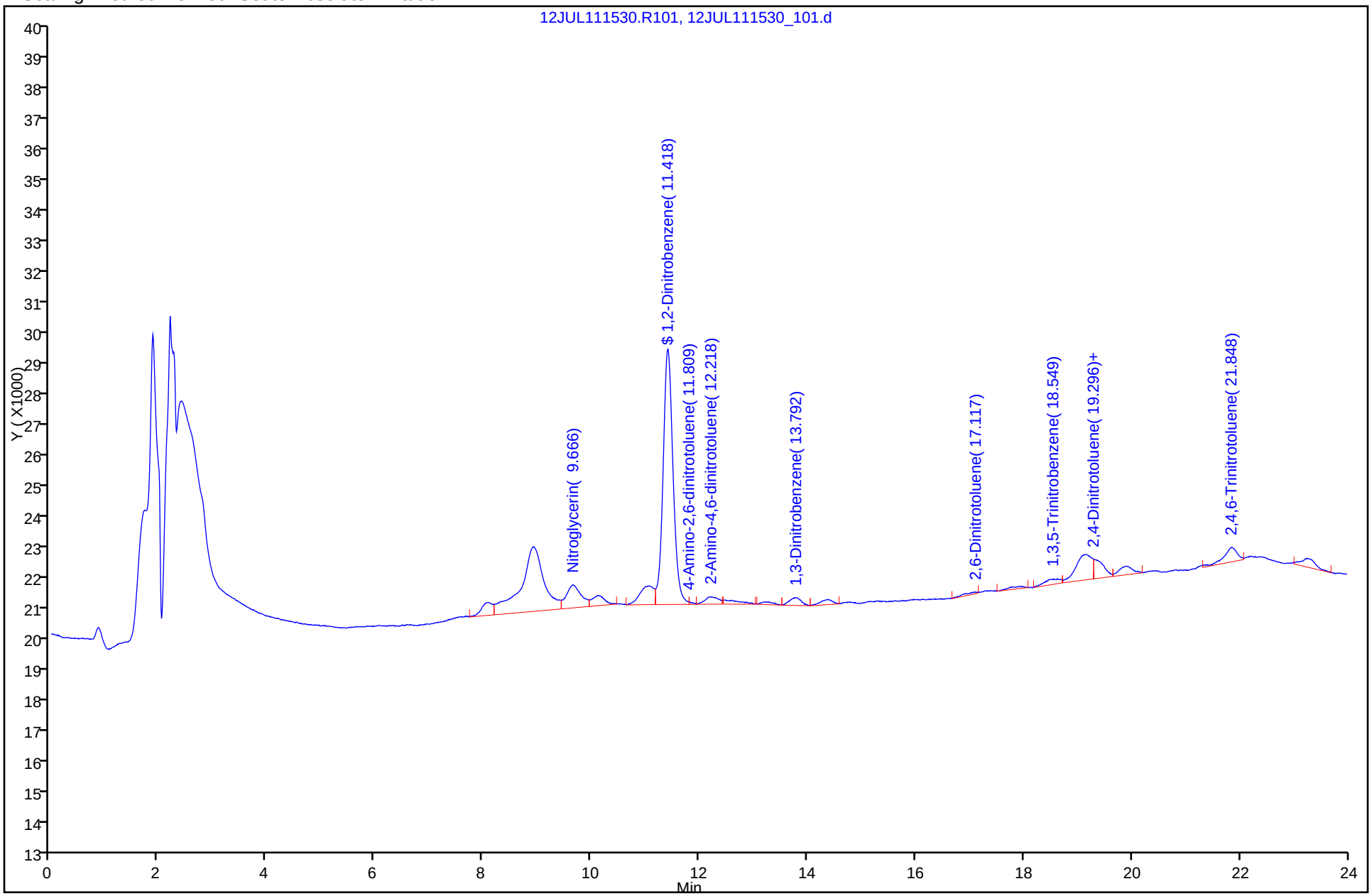
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d

Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

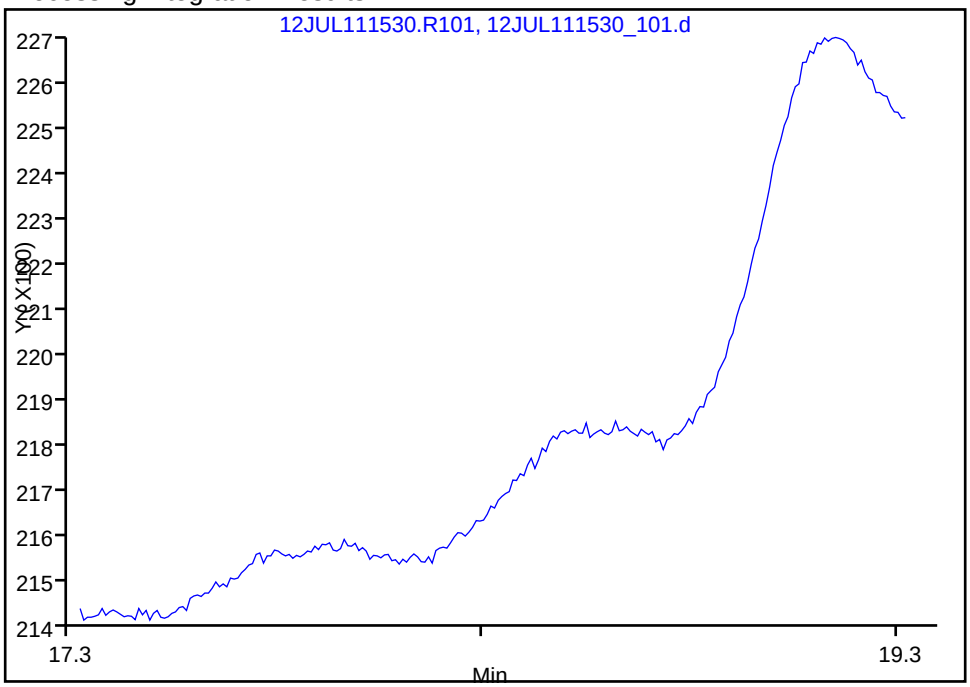
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

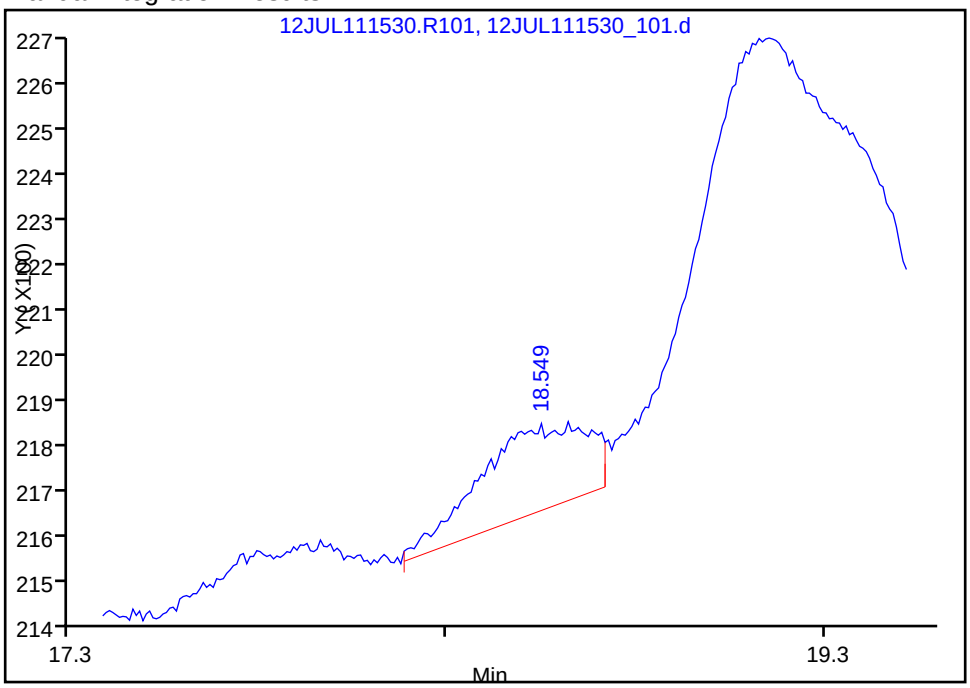
Not Detected
Expected RT: 18.33

Processing Integration Results



Manual Integration Results

RT: 18.55
Response: 3603
Amount: 2.536391



Reviewer: chirgwinb, 15-Jul-2011 15:08:49
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

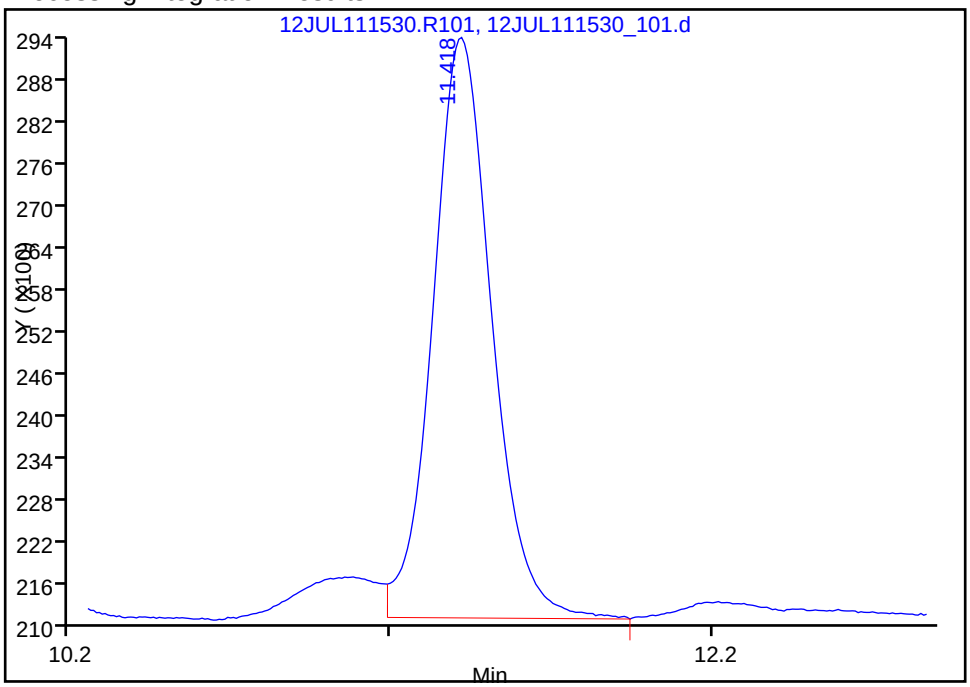
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

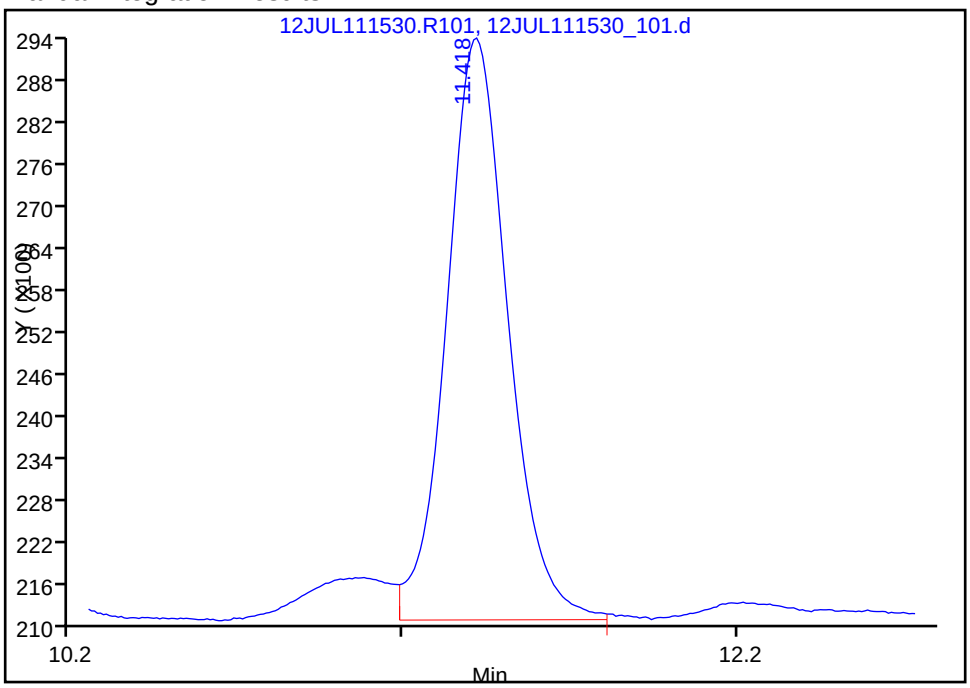
Processing Integration Results

RT: 11.42
Response: 106941
Amount: 178.6301



Manual Integration Results

RT: 11.42
Response: 107210
Amount: 179.0825



Reviewer: chirgwinb, 15-Jul-2011 15:08:49
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

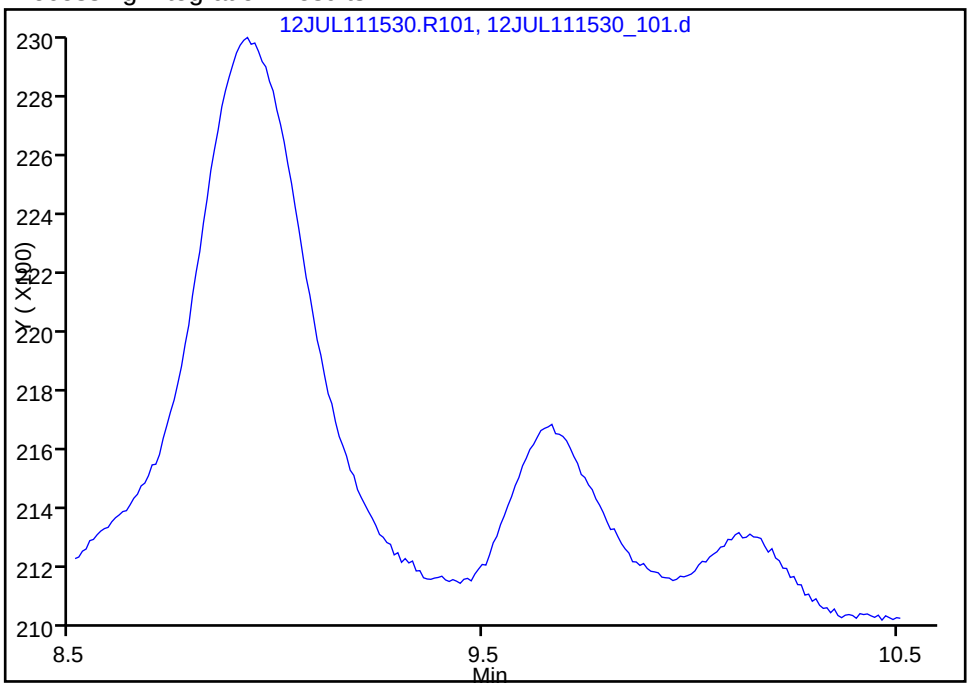
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

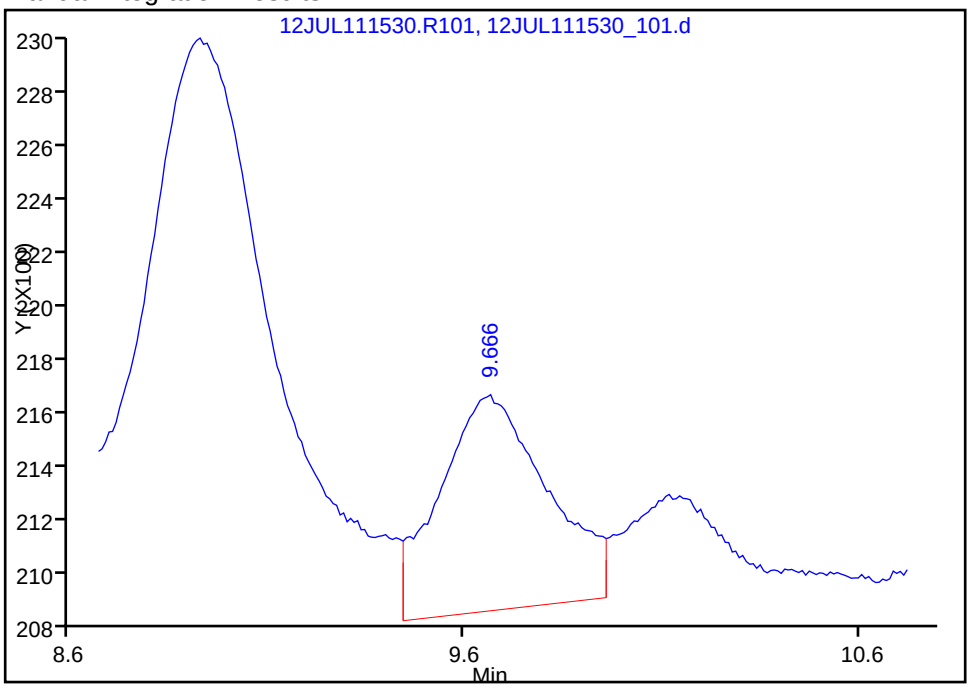
Not Detected
Expected RT: 9.51

Processing Integration Results



Manual Integration Results

RT: 9.67
Response: 14359
Amount: 1849.6431



Reviewer: robinsonw, 18-Jul-2011 10:24:50
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

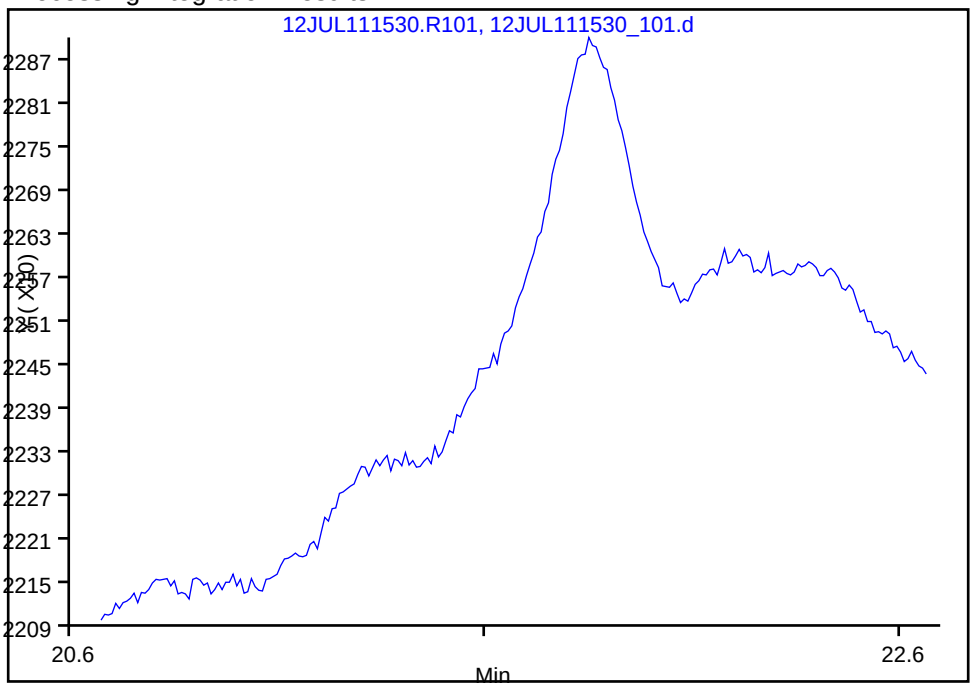
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.67

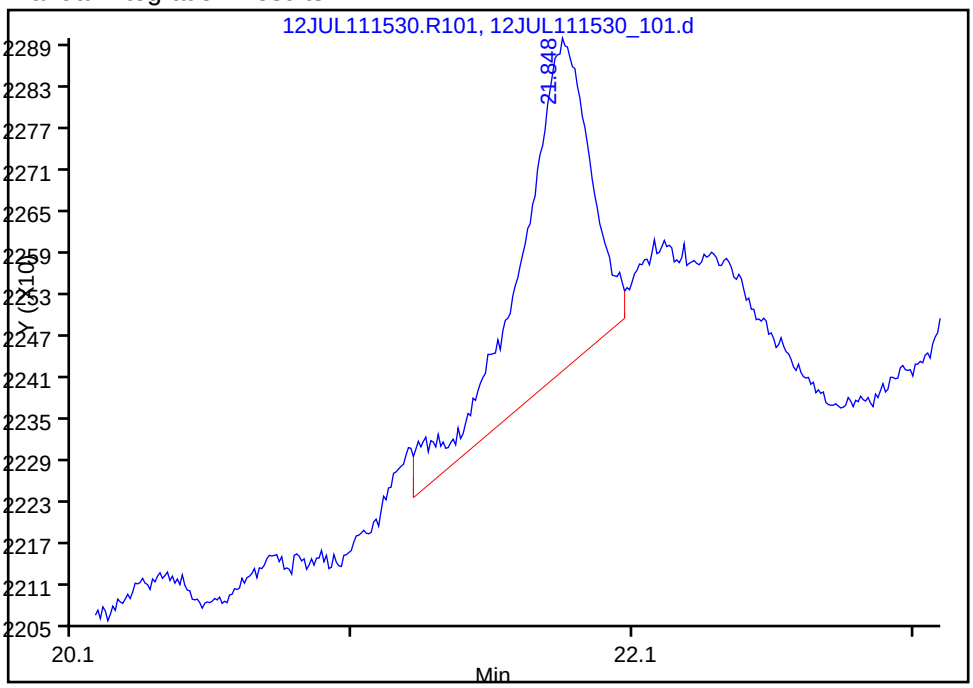
Not Detected
Expected RT: 21.67

Processing Integration Results



Manual Integration Results

RT: 21.85
Response: 8256
Amount: 9.546587



Reviewer: chirgwinb, 15-Jul-2011 15:08:49
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

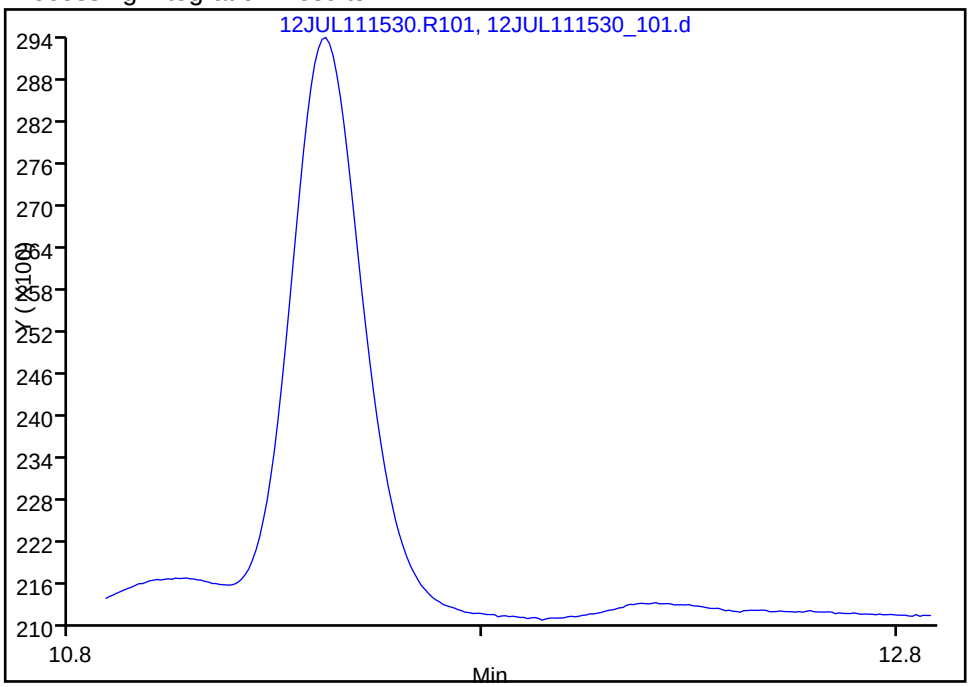
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

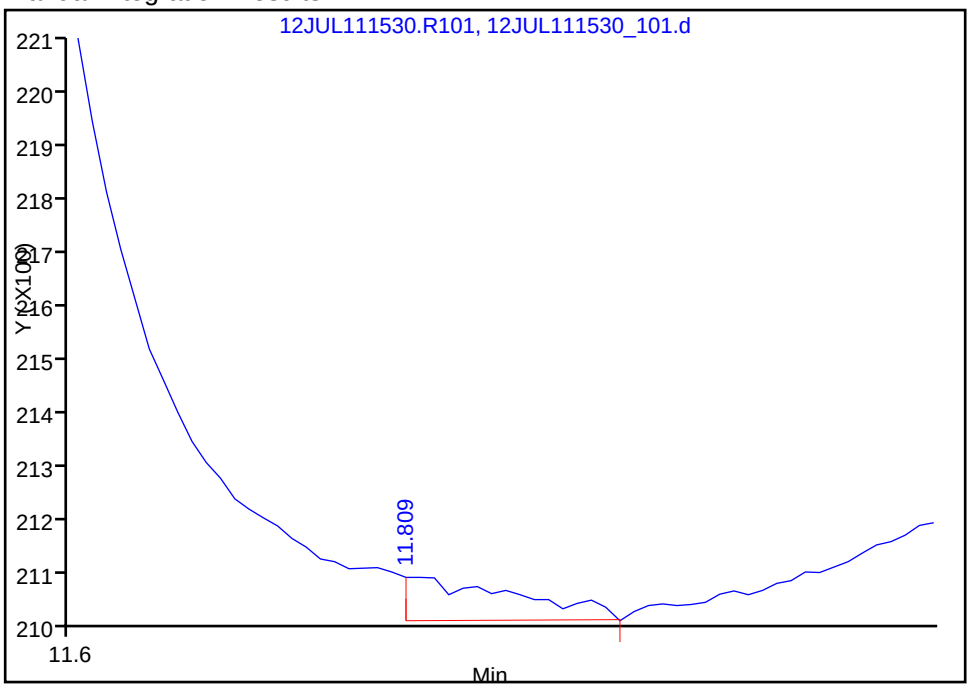
Not Detected
Expected RT: 11.89

Processing Integration Results



Manual Integration Results

RT: 11.81
Response: 375
Amount: 0.084840



Reviewer: chirgwinb, 15-Jul-2011 15:08:49
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

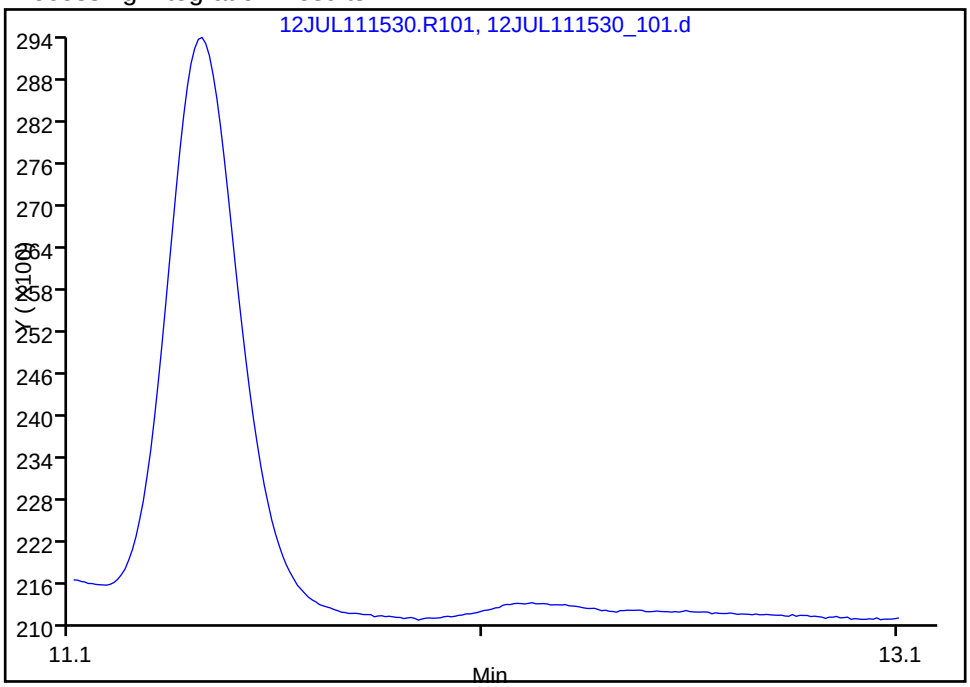
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

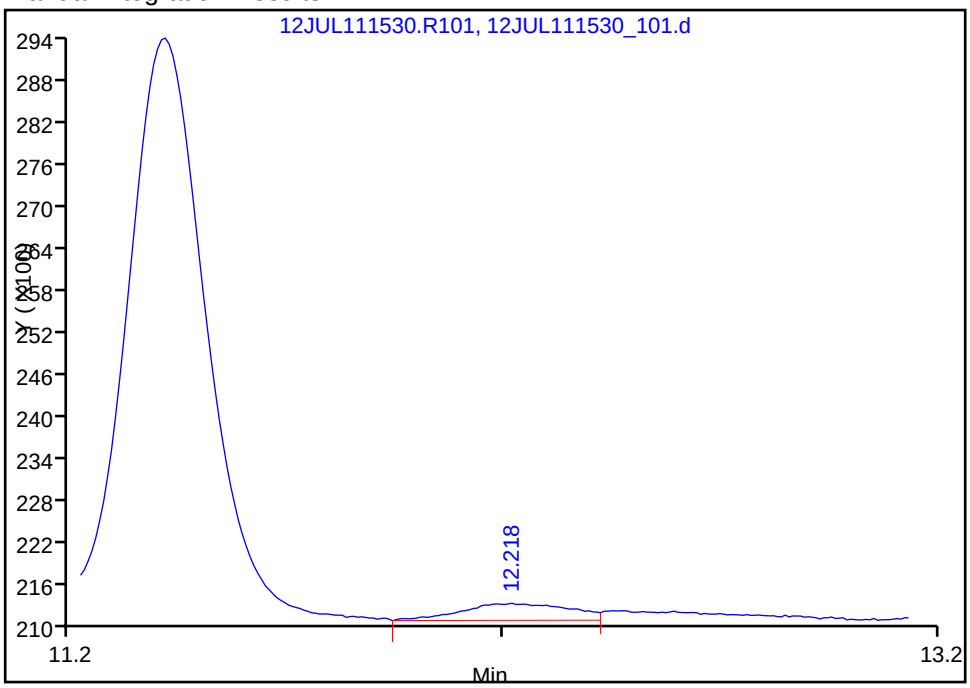
Not Detected
Expected RT: 12.11

Processing Integration Results



Manual Integration Results

RT: 12.22
Response: 4229
Amount: 2.518606



Reviewer: chirgwinb, 15-Jul-2011 15:08:49
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:17 Chrom Revision: 1.2 30-Jun-2011 15:02:28

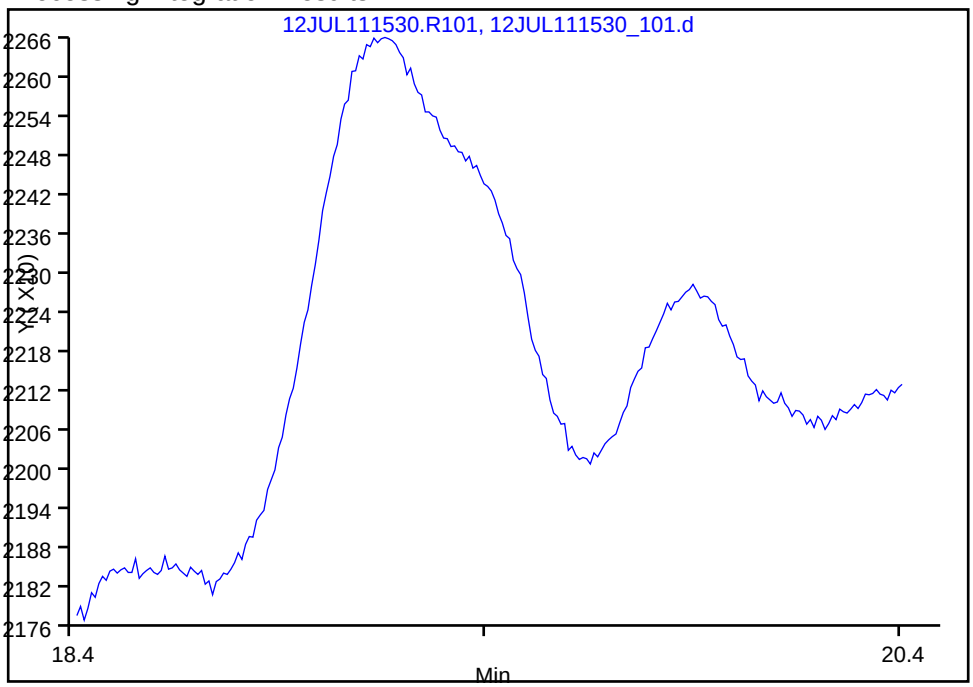
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_101.d		
Injection Date:	13-Jul-2011 17:21:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

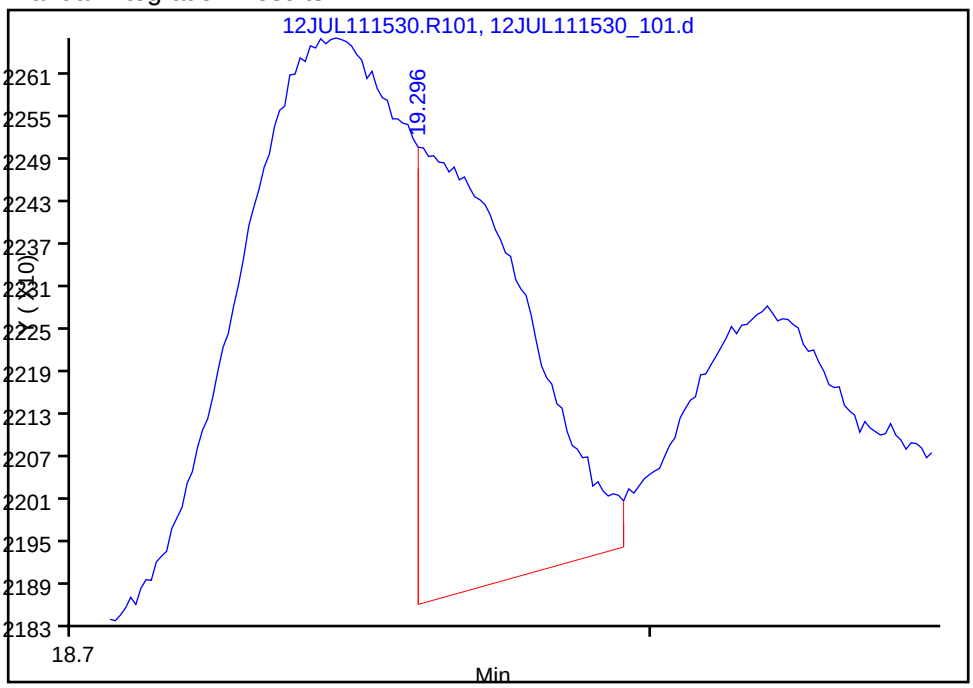
Not Detected
Expected RT: 19.41

Processing Integration Results



Manual Integration Results

RT: 19.30
Response: 7976
Amount: 7.878012



Reviewer: robinsonw, 18-Jul-2011 10:24:50
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS17 | Lab Sample ID: 200-5816-7

Matrix: Solid | Lab File ID: 12JUL111532_101.d

Analysis Method: 8330B | Date Collected: 06/28/2011 10:53

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.55(g) | Date Analyzed: 07/13/2011 17:25

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	30	J M	95	23	8.4
99-65-0	1,3-Dinitrobenzene	22	J M	95	23	8.0
55-63-0	Nitroglycerin	7700	M J	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	8.9	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	36	J	95	23	6.6
606-20-2	2,6-Dinitrotoluene	110	J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U M	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Lims ID:	200-5816-A-7-B	Client ID:	WPR02-SS17
Inject. Date:	13-Jul-2011 17:25:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-010		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	10
Lims Batch ID:	21368	Lims Sample ID:	10
Detector:	A-12JUL111532.R101		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 14:05:32

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
7 RDX		14.369				1
9 1,3,5-Trinitrobenzene	16.201	16.130	0.071	2954	3.18	M
$ 10 1,2-Dinitrobenzene	16.441	16.441	0.0	63429	177.9	M
11 1,3-Dinitrobenzene	17.464	17.375	0.089	2008	2.33	A
13 Tetryl	18.442	18.513	-0.071	2198	3.66	M
14 Nitroglycerin	19.135	19.260	-0.125	3477	811.6	M
15 2,4,6-Trinitrotoluene	19.749	19.704	0.045	335	0.9391	A
16 4-Amino-2,6-dinitrotoluene	20.104	20.193	-0.089	728	1.65	A
17 2-Amino-4,6-dinitrotoluene	20.522	20.567	-0.045	2053	3.77	
18 2,6-Dinitrotoluene	20.851	20.887	-0.036	4882	11.7	
19 2,4-Dinitrotoluene		21.163				1
22 m-Nitrotoluene	23.972	24.088	-0.116	1214	4.28	A
23 PETN	24.888	24.817	0.071	205	95.6	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

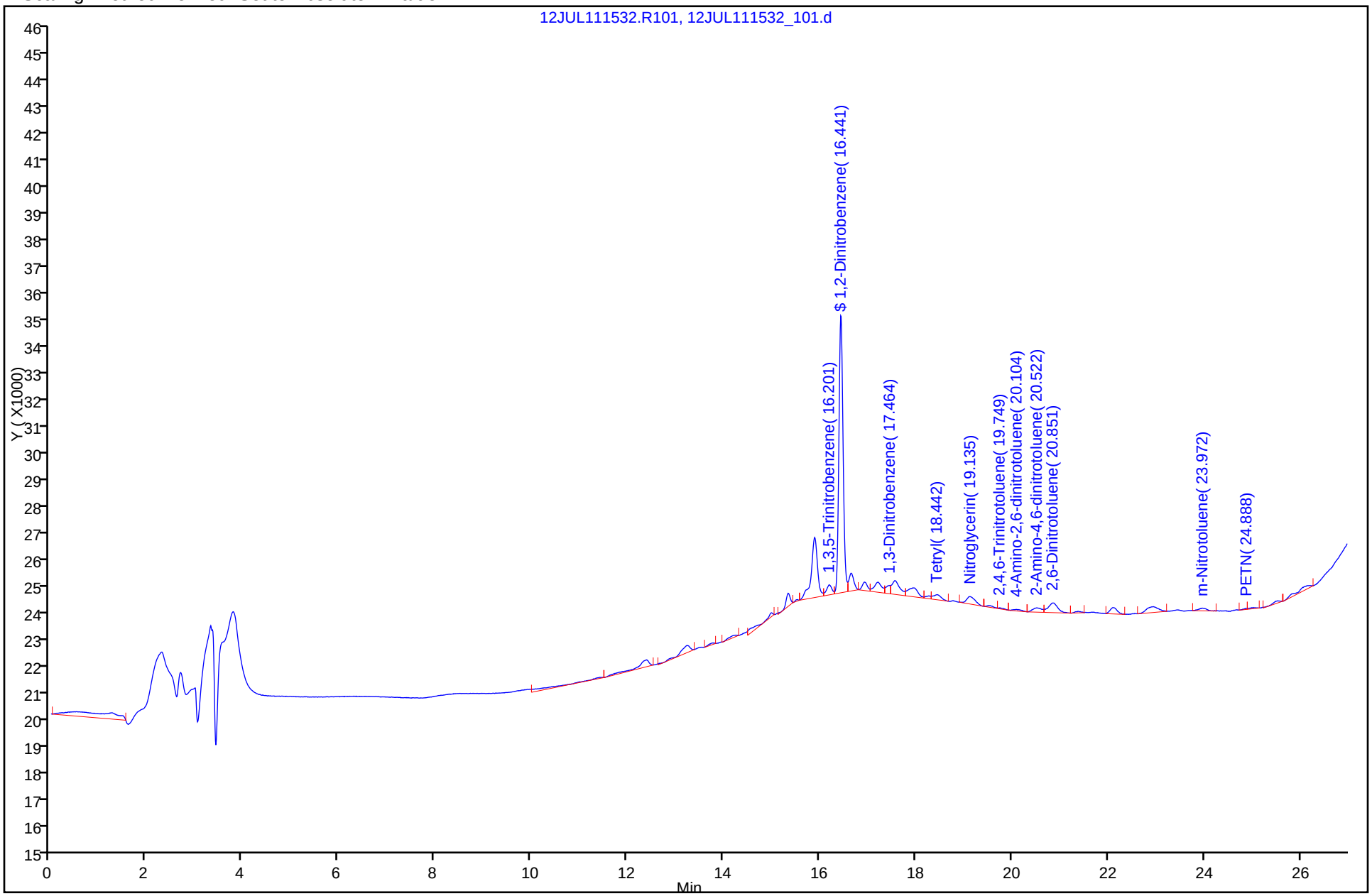
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d

Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

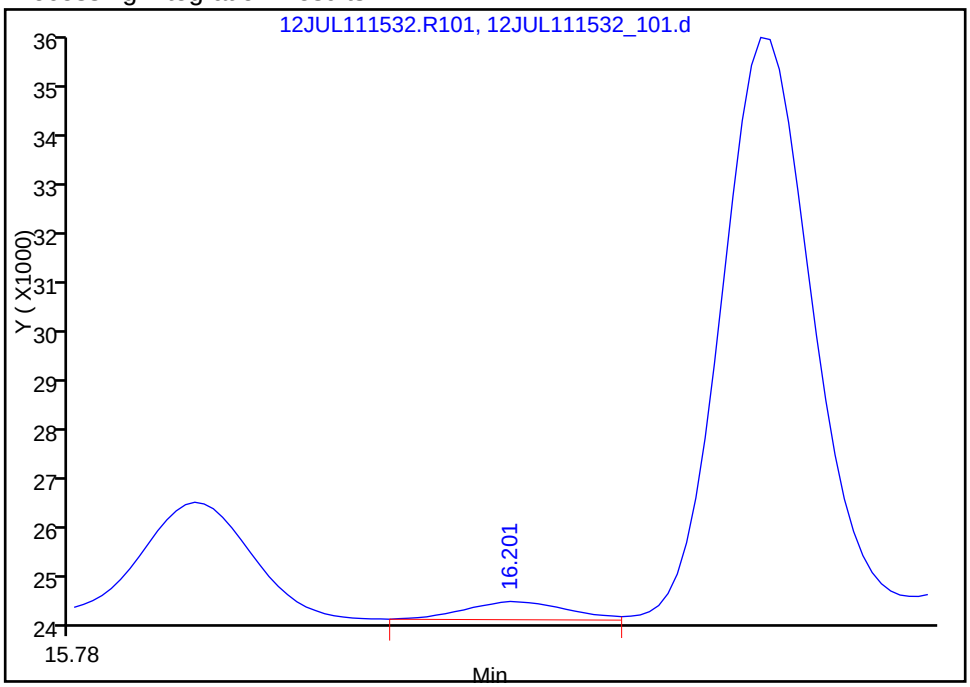
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

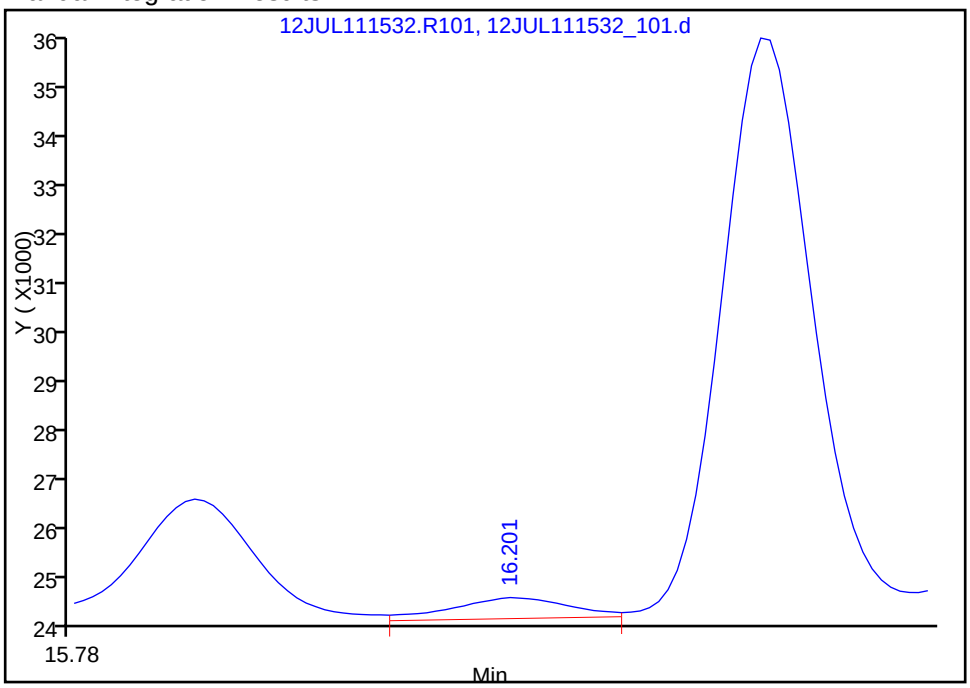
Processing Integration Results

RT: 16.20
Response: 2214
Amount: 2.282558



Manual Integration Results

RT: 16.20
Response: 2954
Amount: 3.175320



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

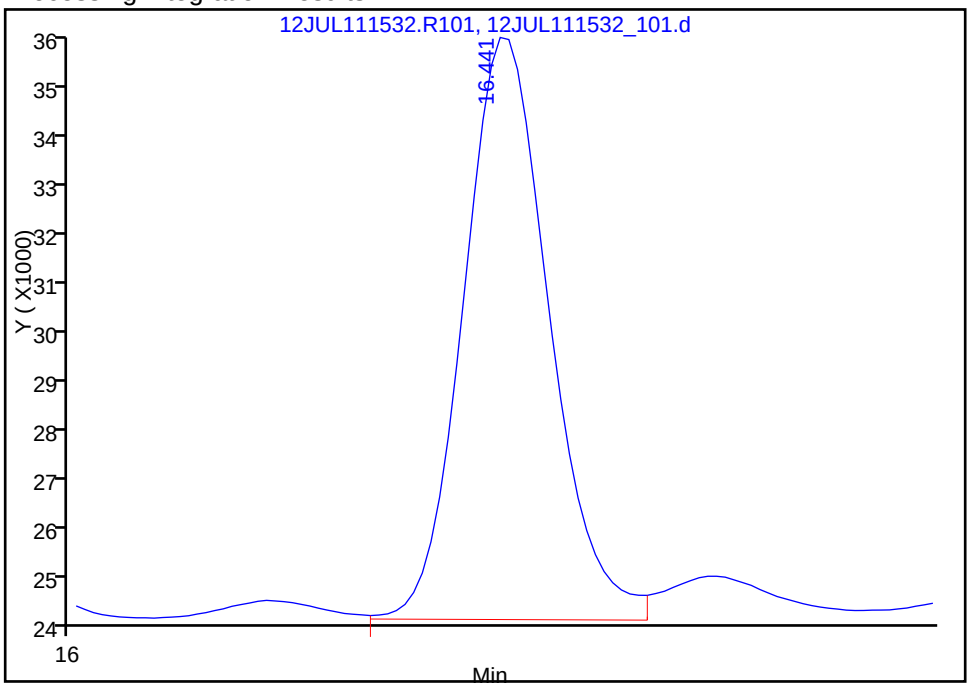
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

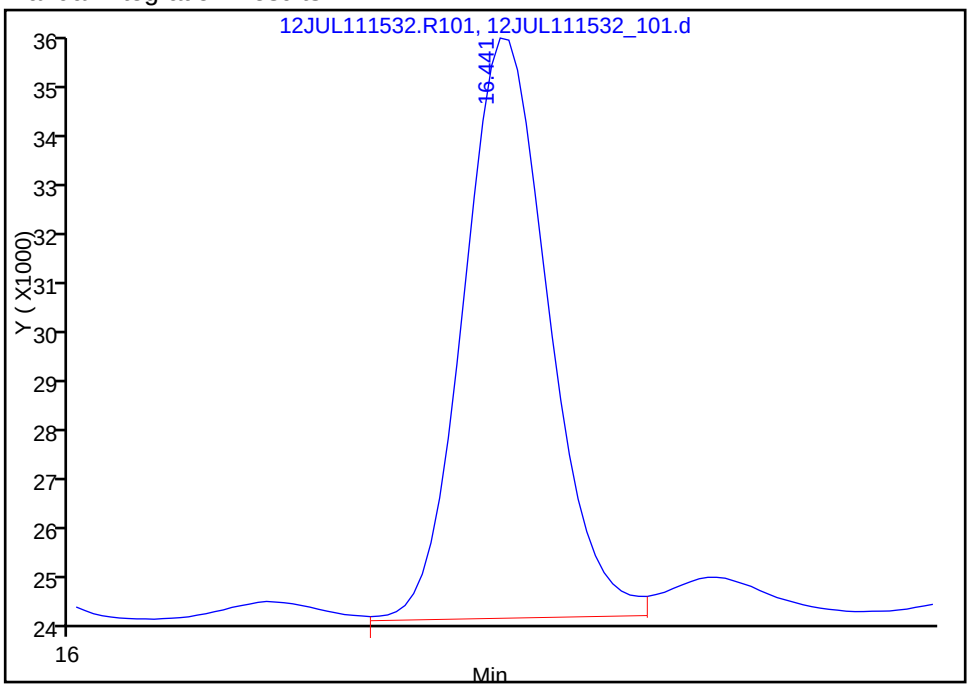
Processing Integration Results

RT: 16.44
Response: 64206
Amount: 180.0459



Manual Integration Results

RT: 16.44
Response: 63429
Amount: 177.8537



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

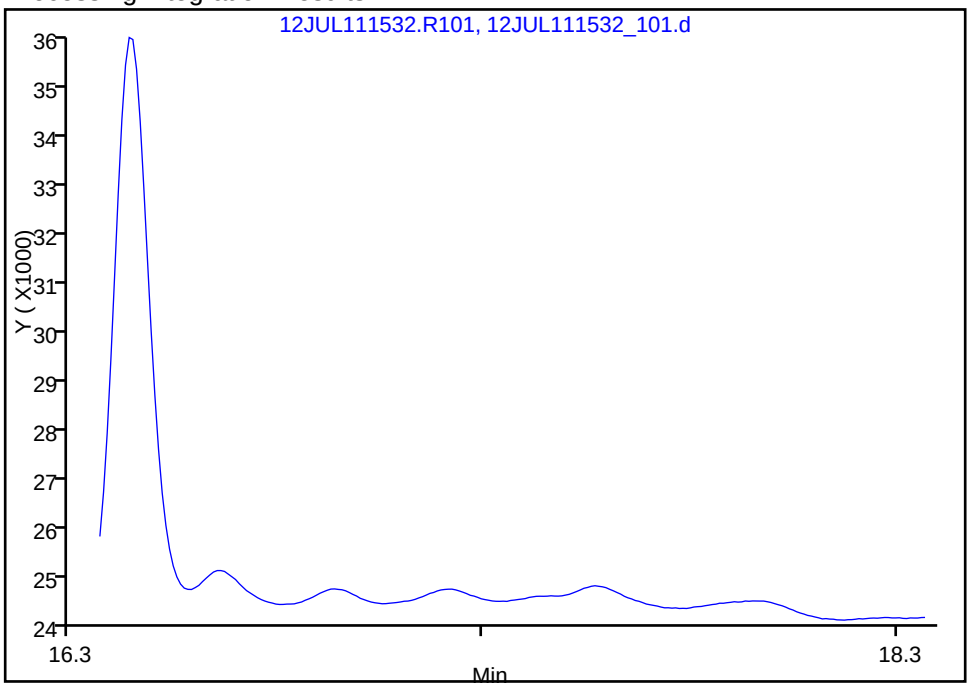
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

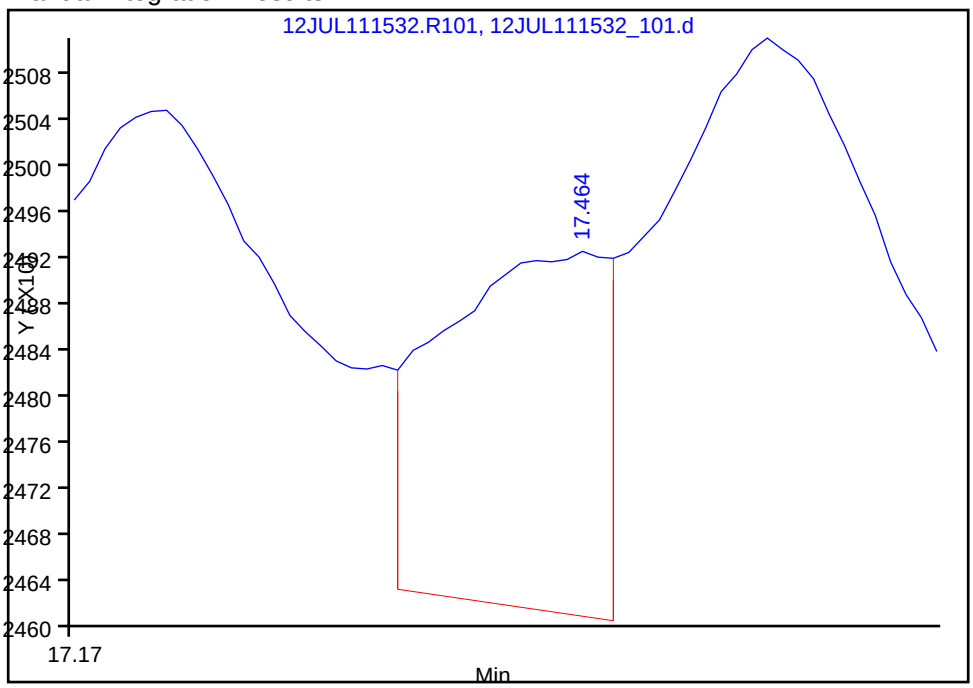
Not Detected
Expected RT: 17.37

Processing Integration Results



Manual Integration Results

RT: 17.46
Response: 2008
Amount: 2.328844



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

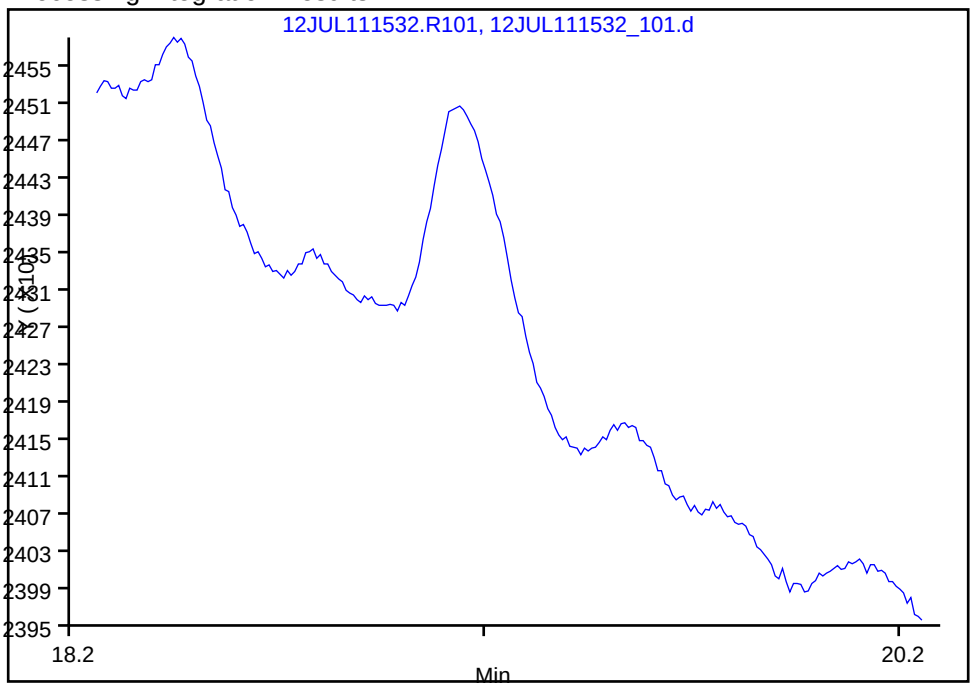
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

14 Nitroglycerin, Signal: 1, Type: quant, RT: 19.26

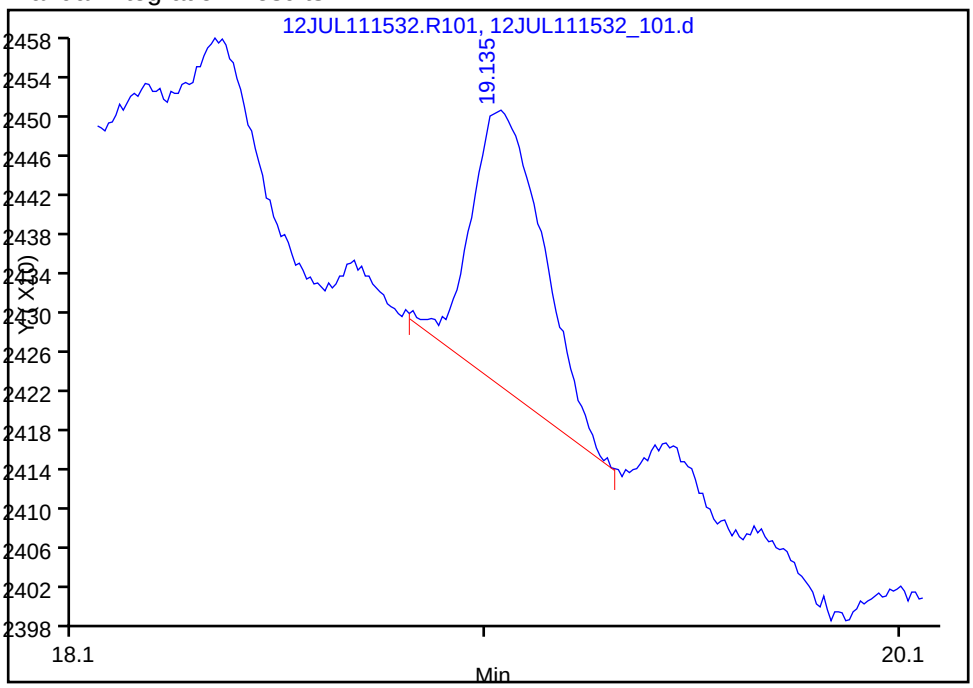
Not Detected
Expected RT: 19.26

Processing Integration Results



Manual Integration Results

RT: 19.14
Response: 3477
Amount: 811.6066



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

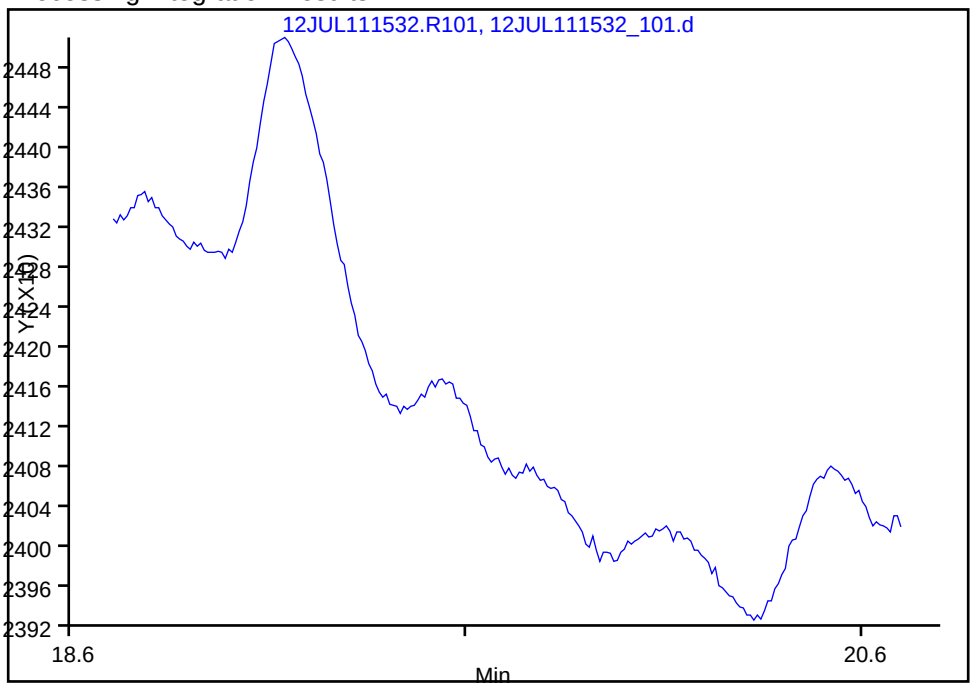
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

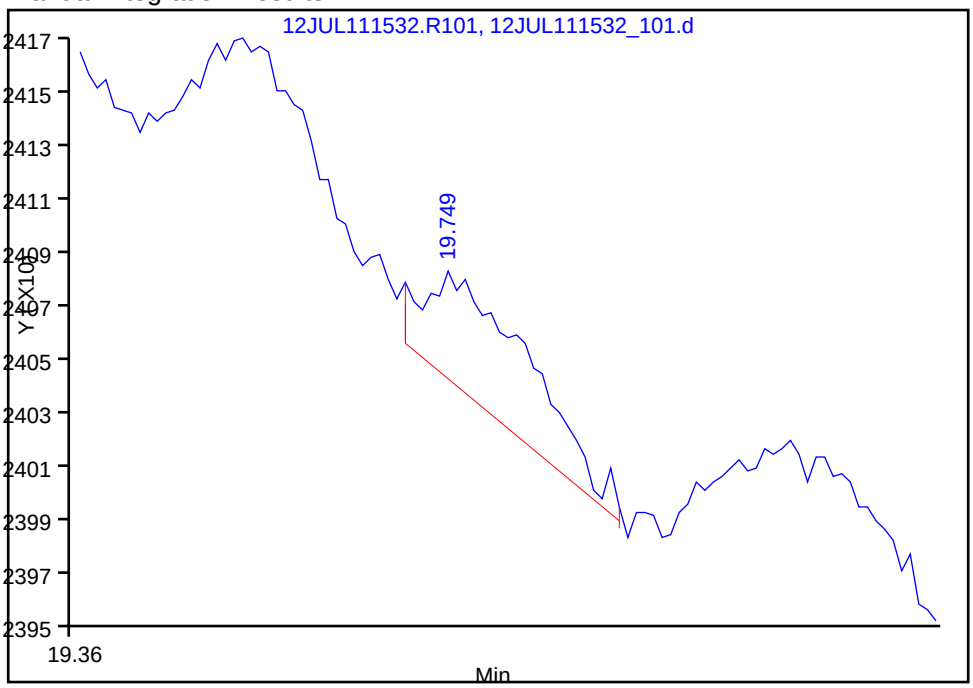
Not Detected
Expected RT: 19.70

Processing Integration Results



Manual Integration Results

RT: 19.75
Response: 335
Amount: 0.939133



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

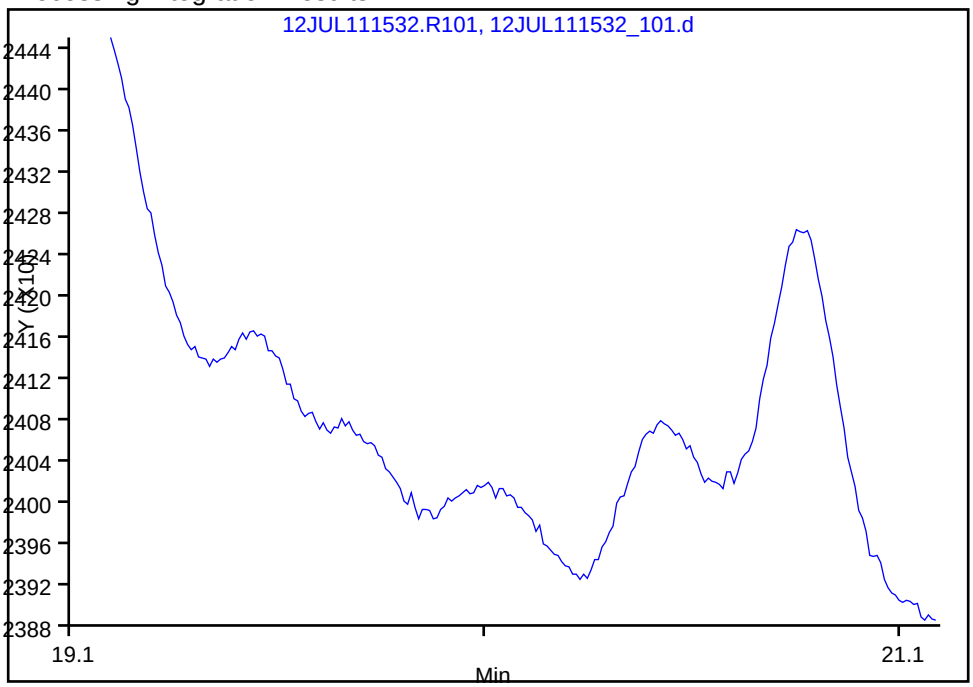
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

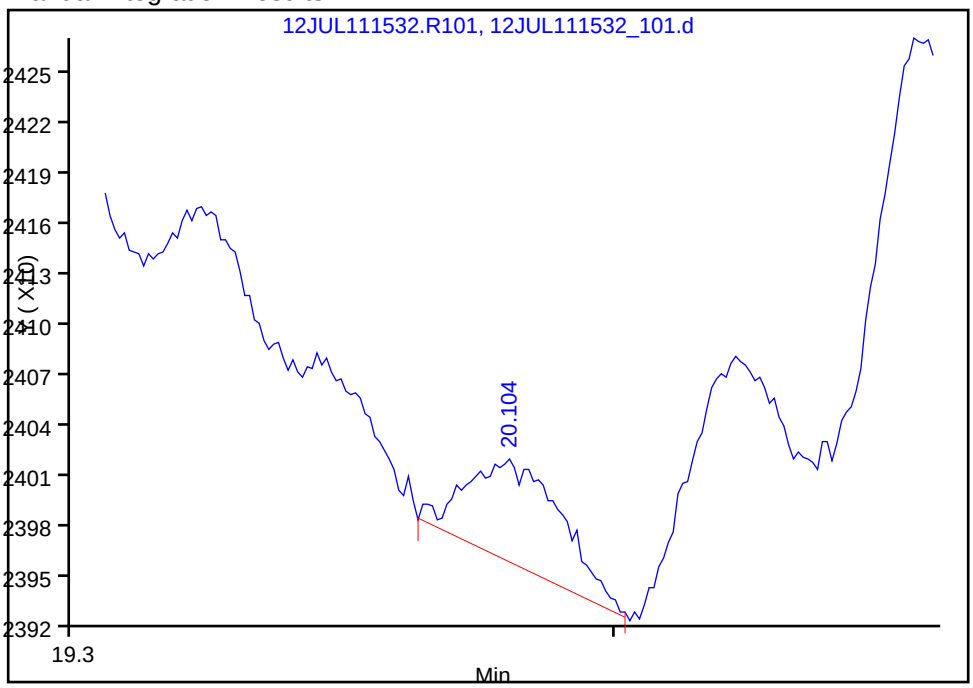
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.10
Response: 728
Amount: 1.647107



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

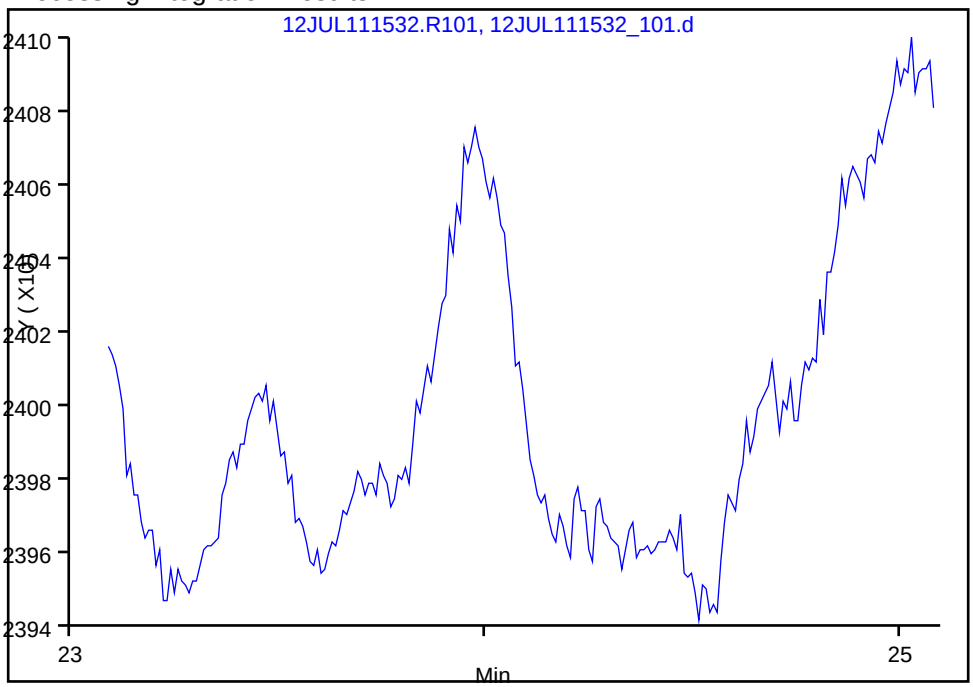
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

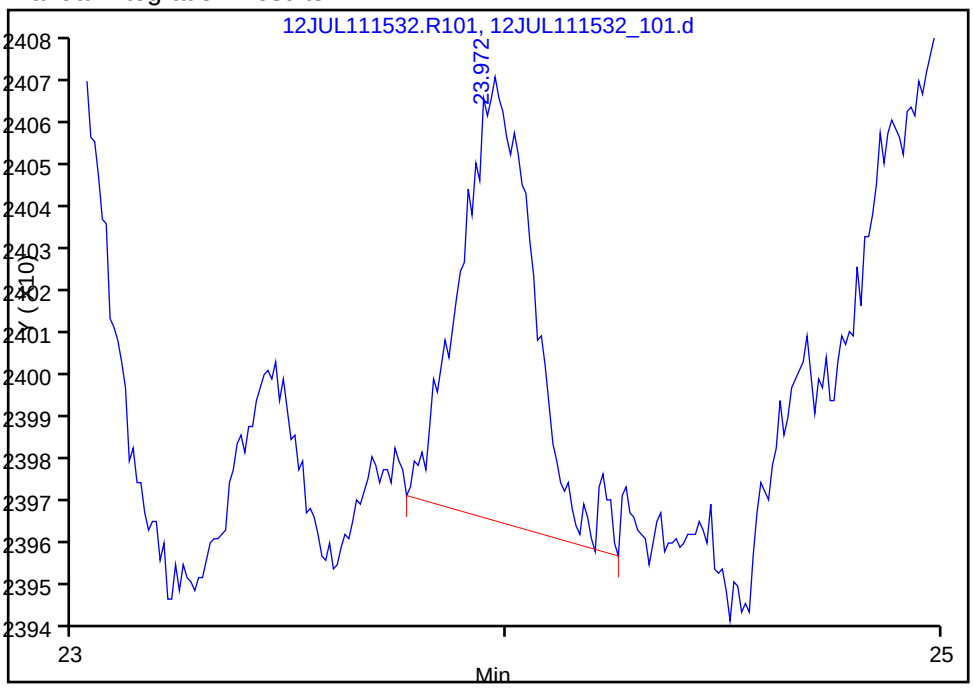
Not Detected
Expected RT: 24.09

Processing Integration Results



Manual Integration Results

RT: 23.97
Response: 1214
Amount: 4.275273



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:55 Chrom Revision: 1.2 30-Jun-2011 15:02:28

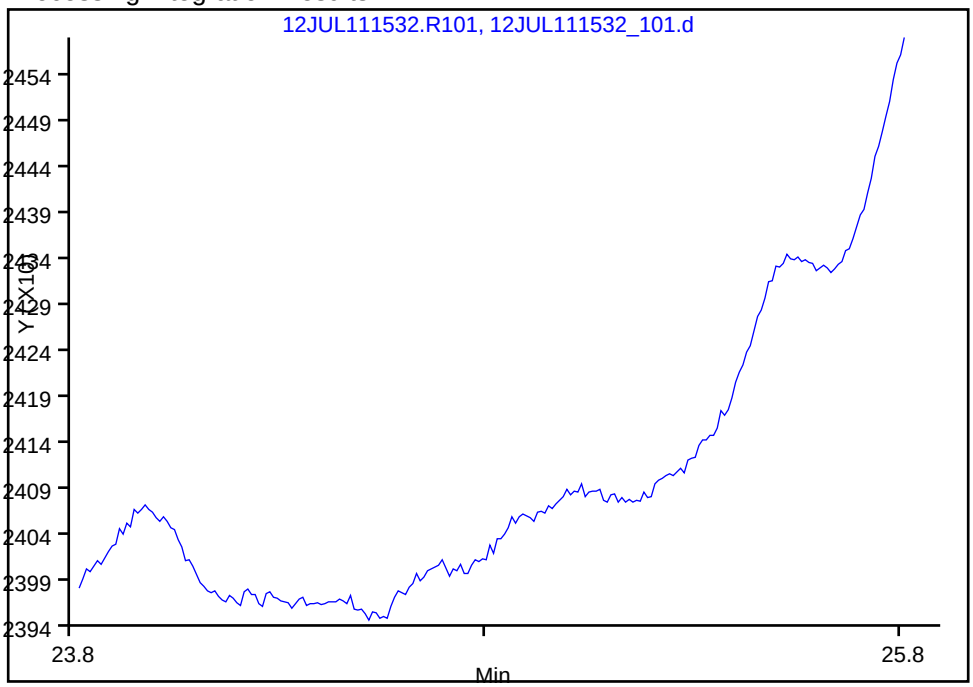
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_101.d		
Injection Date:	13-Jul-2011 17:25:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS17	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	10
Operator ID:	RJH	Injection Vol:	150.00 ul

23 PETN, Signal: 1, Type: quant, RT: 24.82

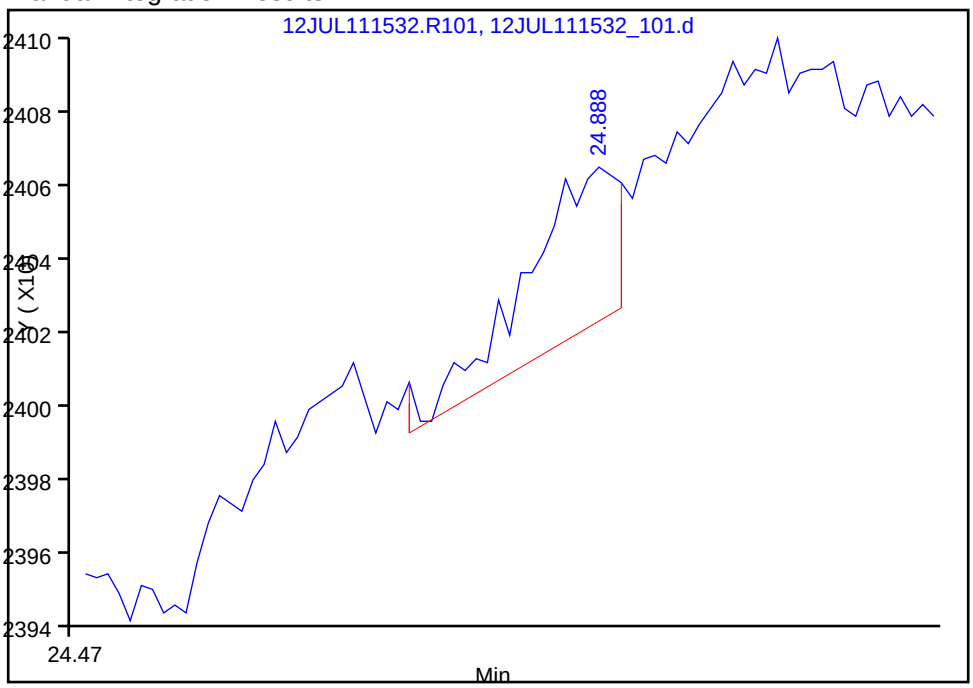
Not Detected
Expected RT: 24.82

Processing Integration Results



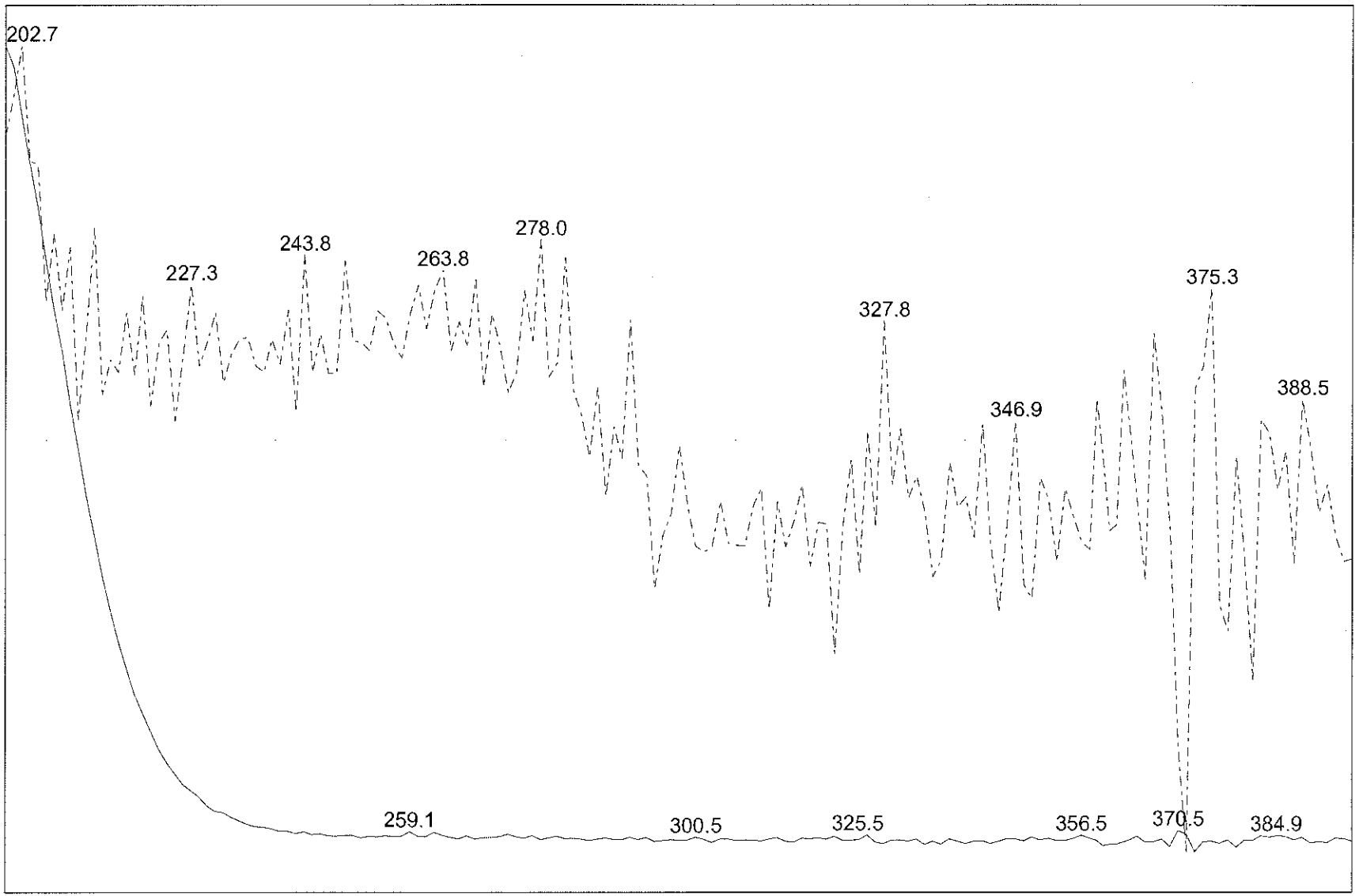
Manual Integration Results

RT: 24.89
Response: 205
Amount: 95.581950



Reviewer: chirgwinb, 15-Jul-2011 14:05:32
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Spectrum Review Report-TestAmerica Burlington



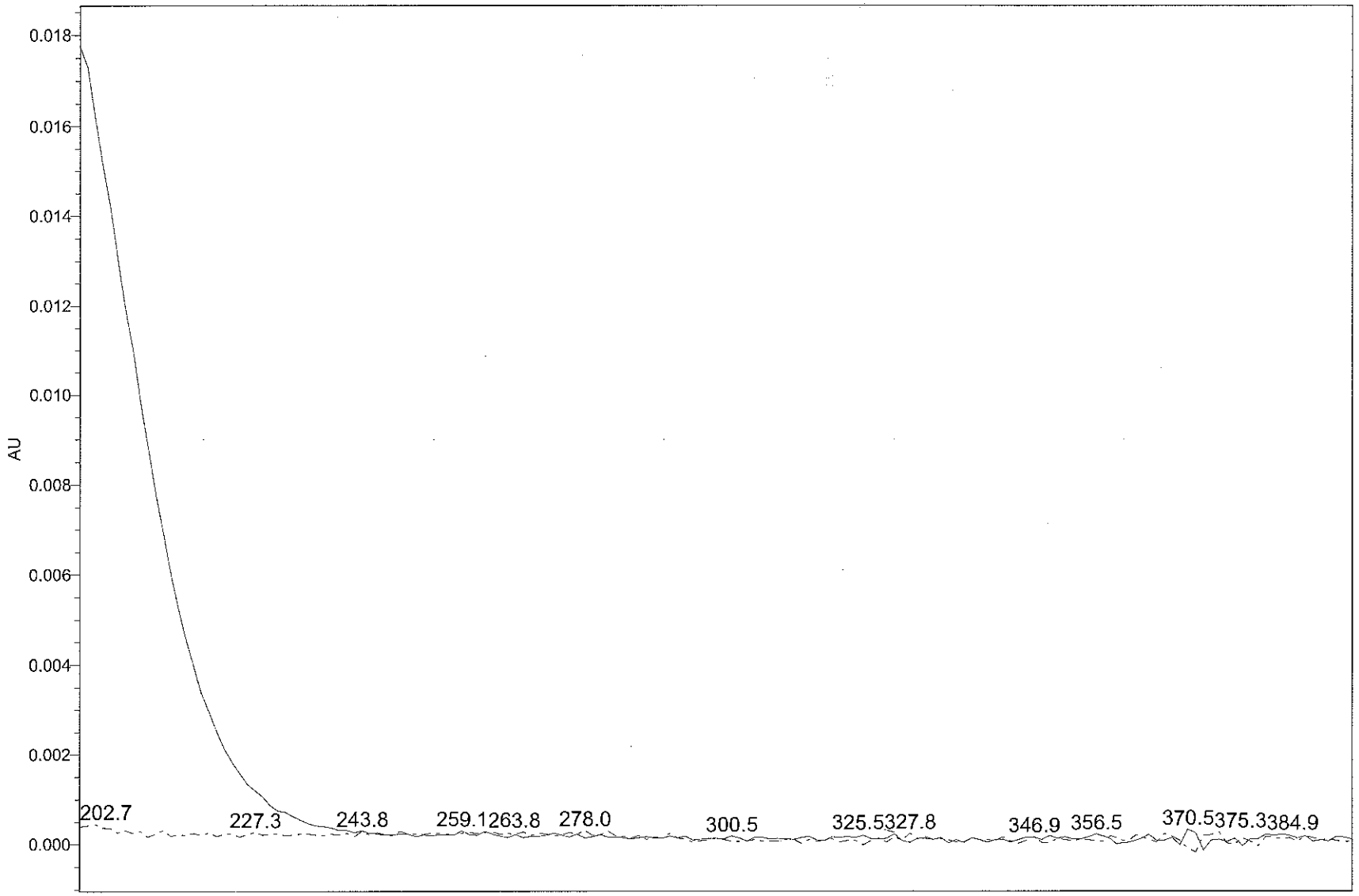
PDA Addendum for Nitroglycerin

Retention Time: 19.184 LIMS Name: 200-5816-A-7-B Description: Analyte Name:

Retention Time: 19.367 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 500ppb

WPR 02-5517

Spectrum Review Report-TestAmerica Burlington



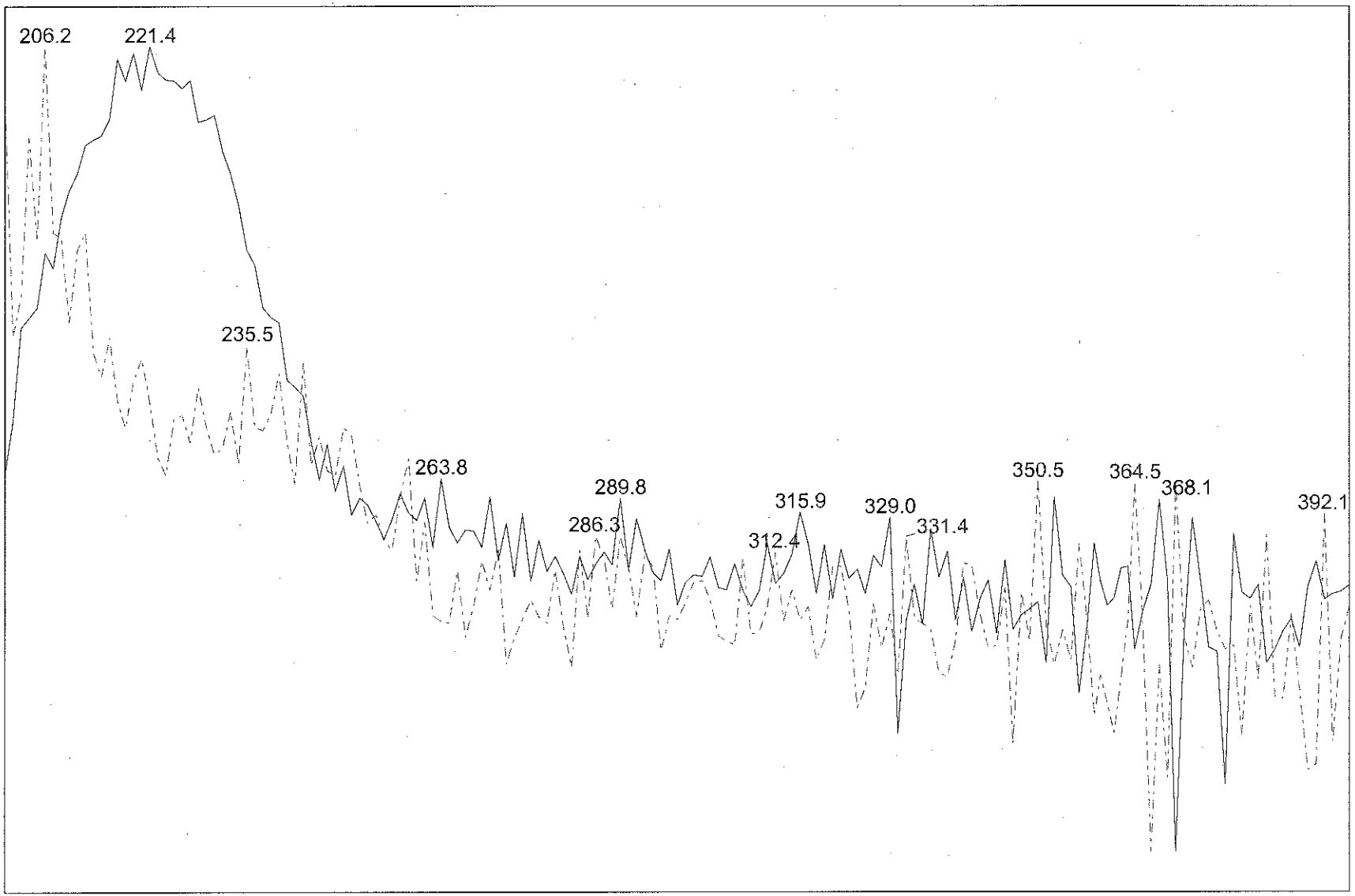
Retention Time: 19.184 LIMS Name: 200-5816-A-7-B Description: Analyte Name:

Retention Time: 19.367 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: Nitroglycerin; 500ppb

WPR02-5517

PDA Addendum for Nitroglycerin

Spectrum Review Report-TestAmerica Burlington



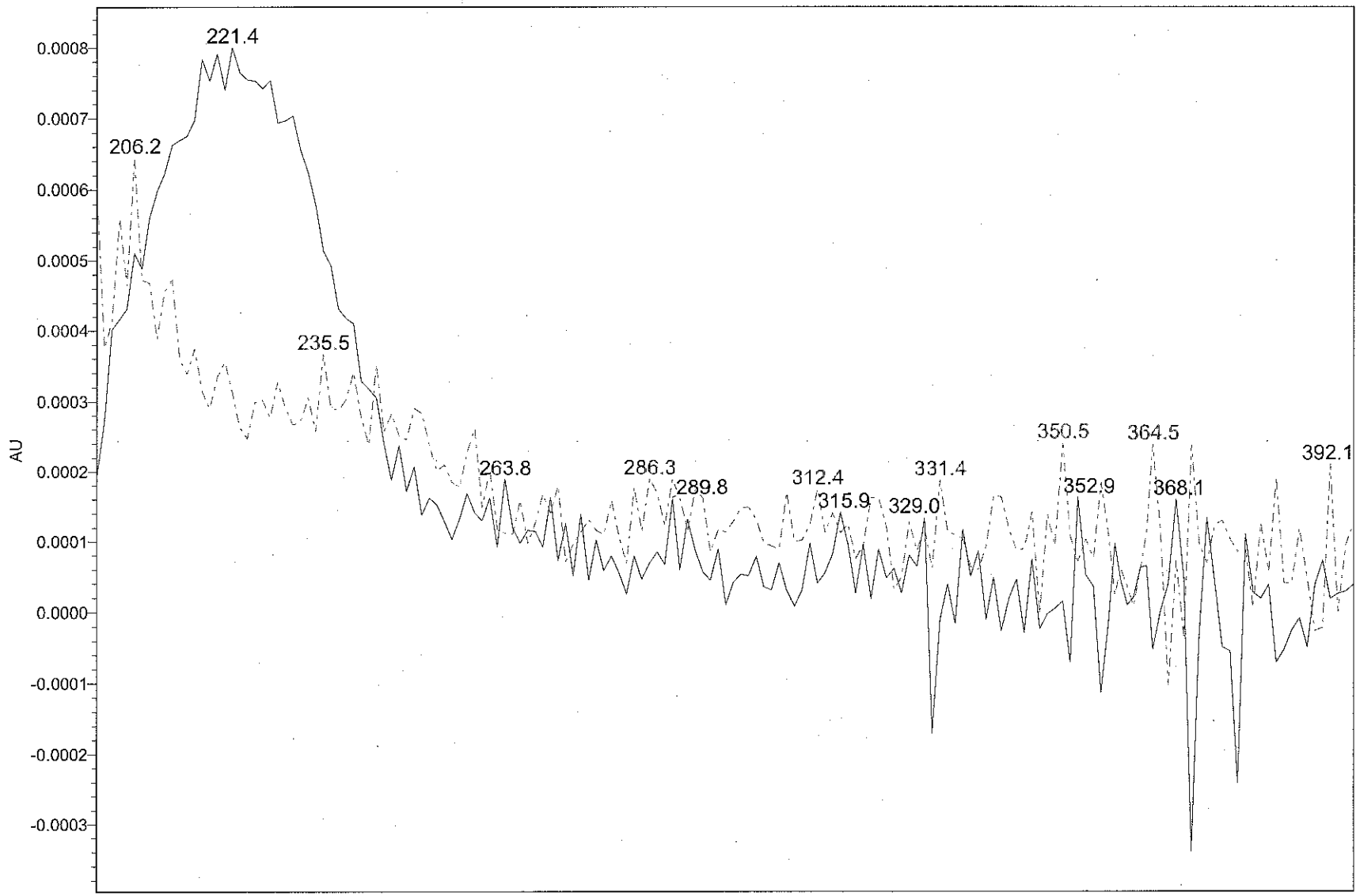
PDA Addendum for 2,6-dinitrotoluene

Retention Time: 20.917 LIMS Name: 200-5816-A-7-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-5517

Spectrum Review Report-TestAmerica Burlington



Retention Time: 20.917 LIMS Name: 200-5816-A-7-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 10ppb

WPR02-5517

PDA Addendum for 2,6-dinitrotoluene

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS18 Lab Sample ID: 200-5816-8

Matrix: Solid Lab File ID: 12JUL111530_111.d

Analysis Method: 8330B Date Collected: 06/28/2011 11:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.54(g) Date Analyzed: 07/13/2011 17:56

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	*RDX*	*58*	*M J*	*95*	23	*10*
99-35-4	*1,3,5-Trinitrobenzene*	*290*	*M*	*95*	23	*8.4*
99-65-0	*1,3-Dinitrobenzene*	*62*	*J*	*95*	23	*8.0*
118-96-7	*2,4,6-Trinitrotoluene*	*23*	*J*	*95*	14	*6.3*
606-20-2	*2,6-Dinitrotoluene*	*56*	*M J*	*95*	14	*5.9*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Lims ID:	200-5816-A-8-B	Client ID:	WPR02-SS18
Inject. Date:	13-Jul-2011 17:56:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000844-011		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	11
Lims Batch ID:	21370	Lims Sample ID:	11
Detector:	A-12JUL111530.R111		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 15:14:19

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX	6.669	6.518	0.151	3162	6.15	A
	18 Nitroglycerin		9.515				1
$	1 1,2-Dinitrobenzene	11.418	11.391	0.027	124155	207.6	M
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene		12.111				1
	3 1,3-Dinitrobenzene	13.765	13.810	-0.045	8272	6.54	
	21 PETN	15.295	15.375	-0.080	4654	365.2	
	15 m-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene	17.340	17.109	0.231	3939	5.95	M
	2 1,3,5-Trinitrobenzene	18.487	18.327	0.160	43600	30.5	M
	7 2,4-Dinitrotoluene	19.296	19.412	-0.116	17510	17.1	A
	23 Tetryl	19.296	19.412	-0.116	17510	17.1	A
	5 2,4,6-Trinitrotoluene	21.670	21.670	0.0	2417	2.42	

QC Flag Legend

Processing Flags
1 - Missing Peaks

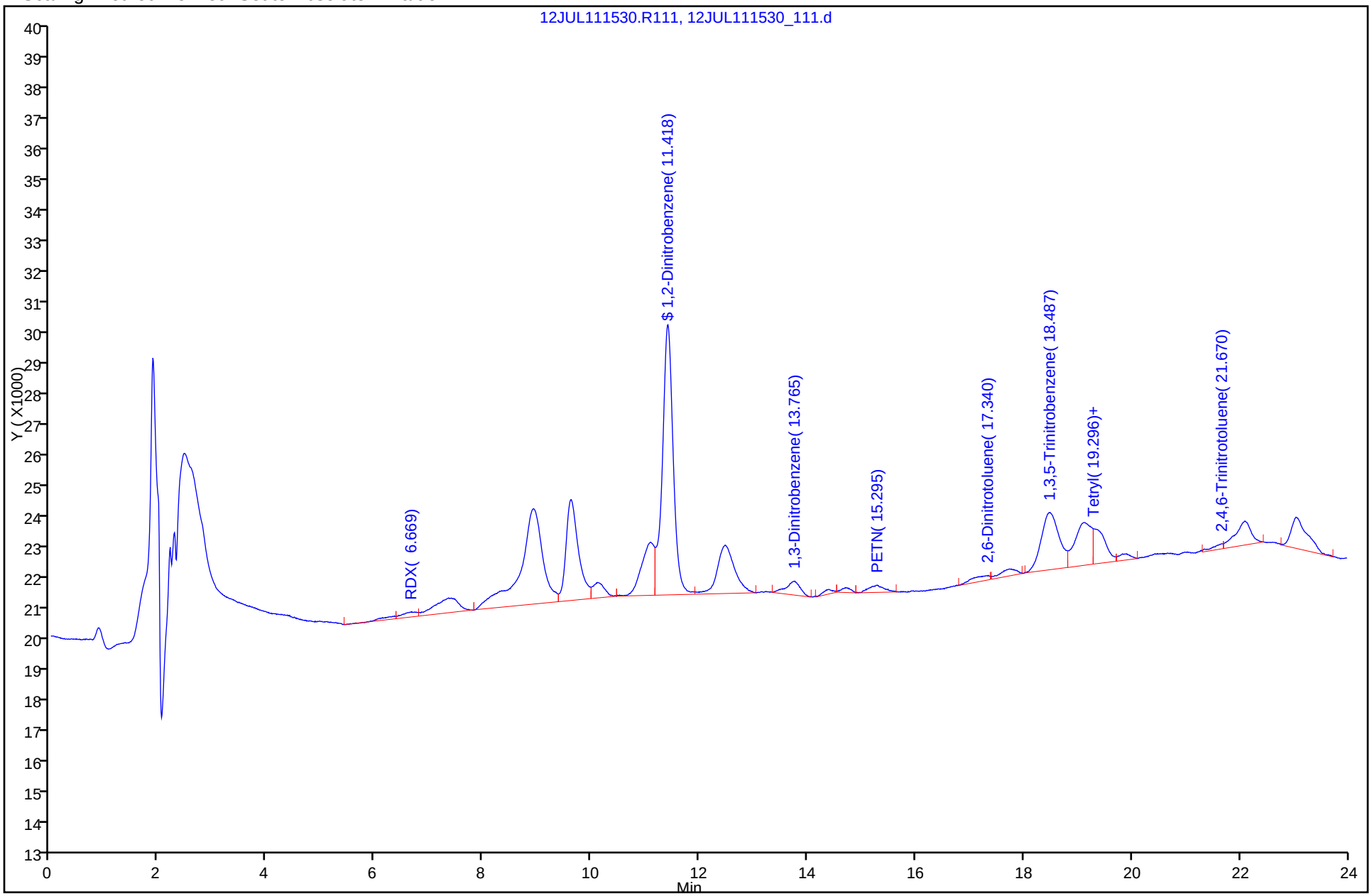
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:18 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d

Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:18 Chrom Revision: 1.2 30-Jun-2011 15:02:28

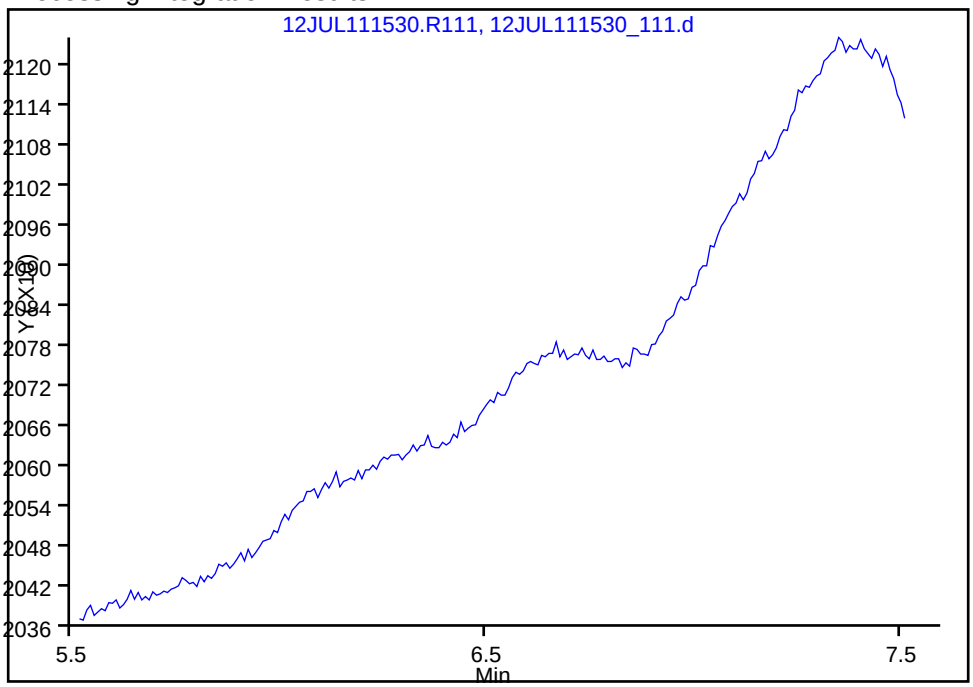
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

22 RDX, Signal: 1, Type: quant, RT: 6.52

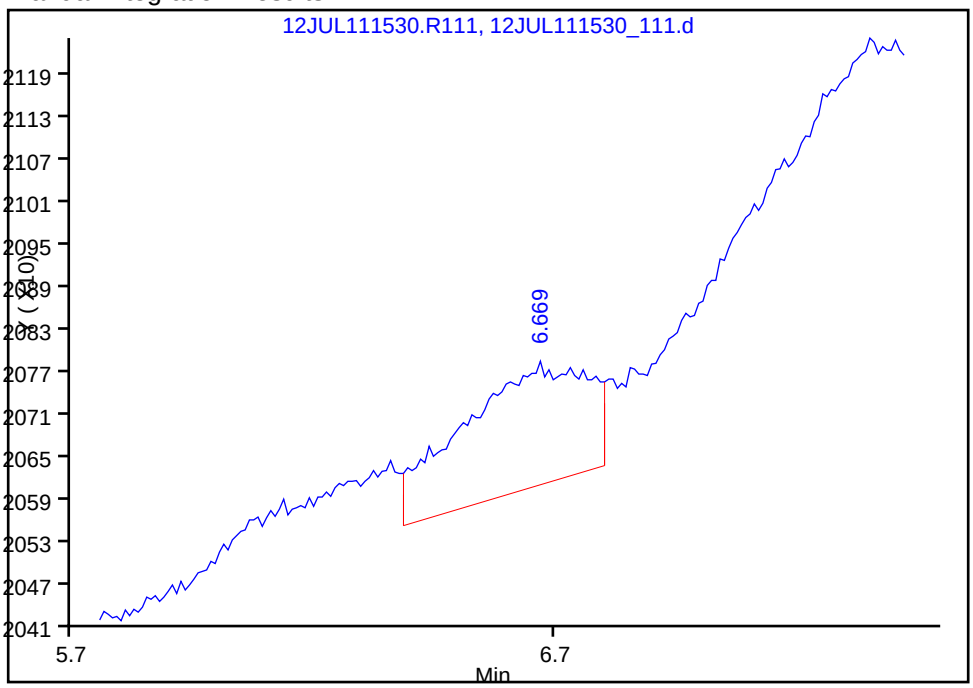
Not Detected
Expected RT: 6.52

Processing Integration Results



Manual Integration Results

RT: 6.67
Response: 3162
Amount: 6.145805



Reviewer: chirgwinb, 15-Jul-2011 15:14:19
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:18 Chrom Revision: 1.2 30-Jun-2011 15:02:28

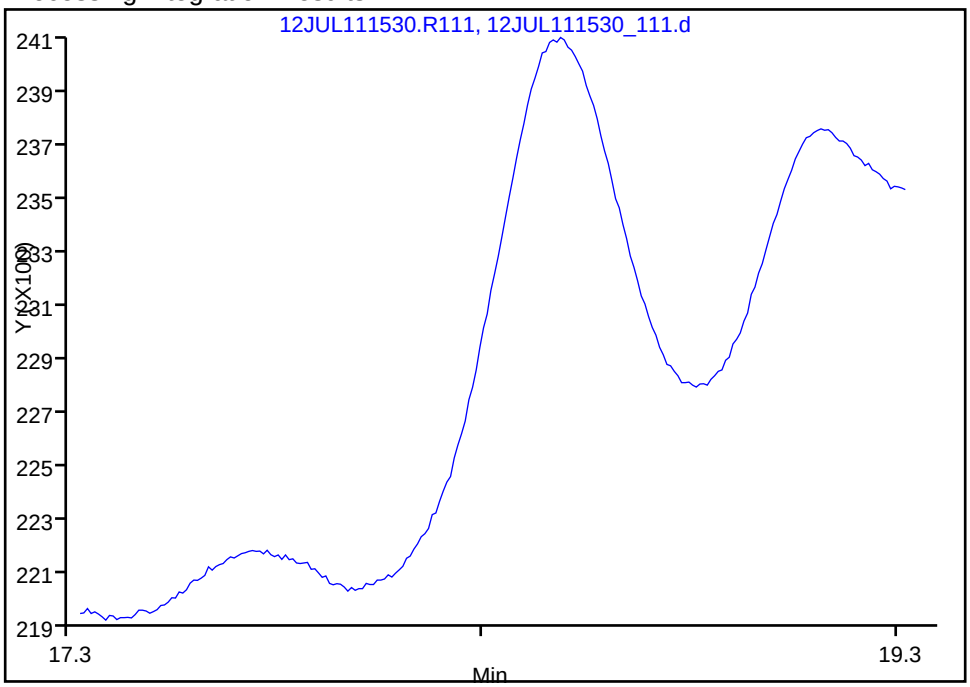
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.33

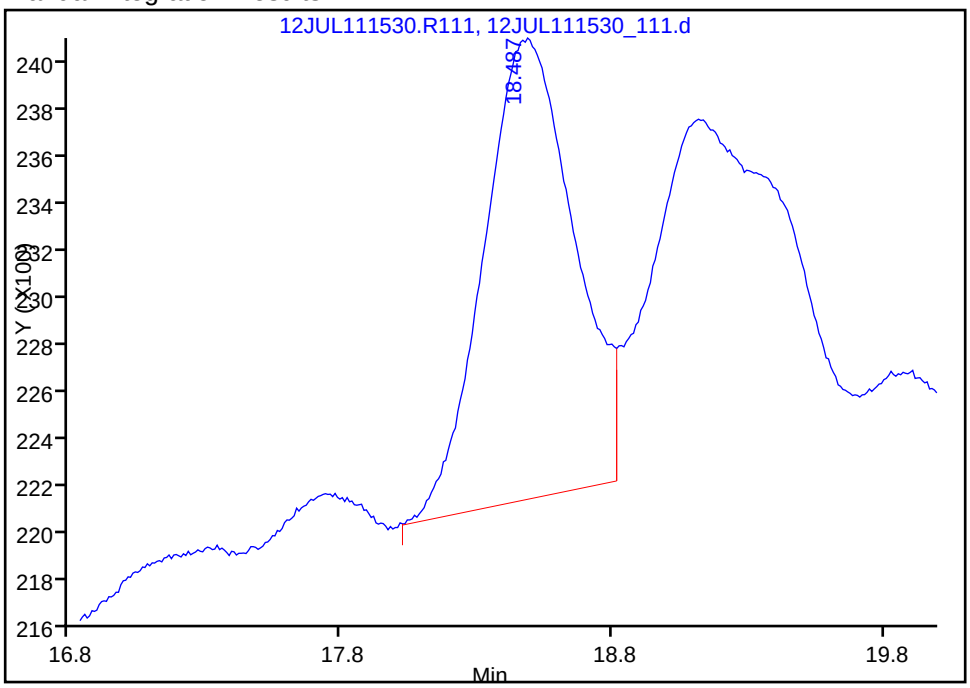
Processing Integration Results

Not Detected
Expected RT: 18.33



Manual Integration Results

RT: 18.49
Response: 43600
Amount: 30.500485



Reviewer: chirgwinb, 15-Jul-2011 15:14:19
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:18 Chrom Revision: 1.2 30-Jun-2011 15:02:28

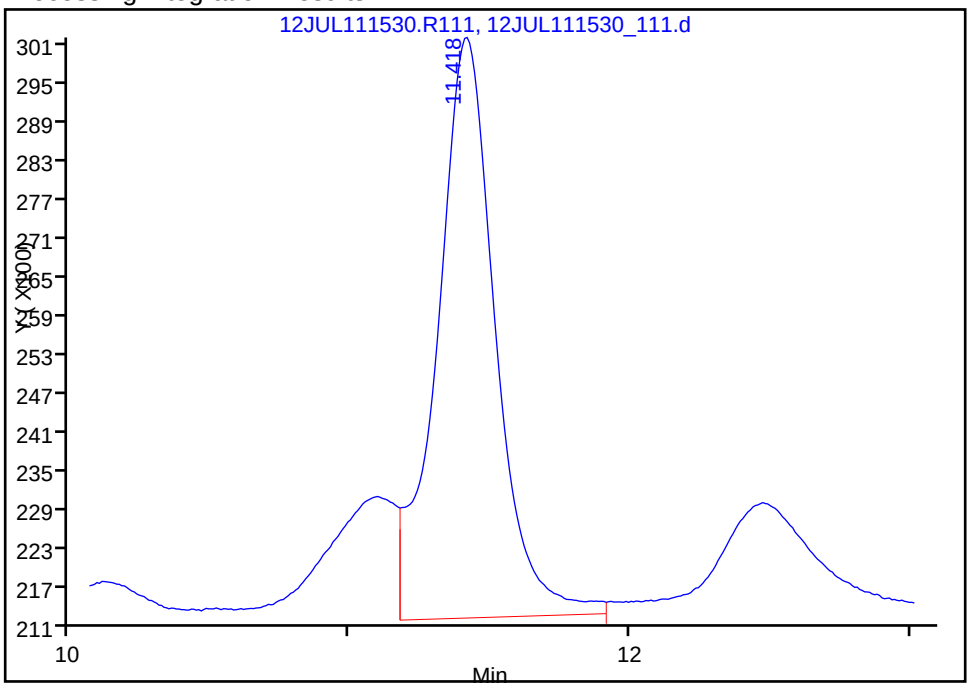
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

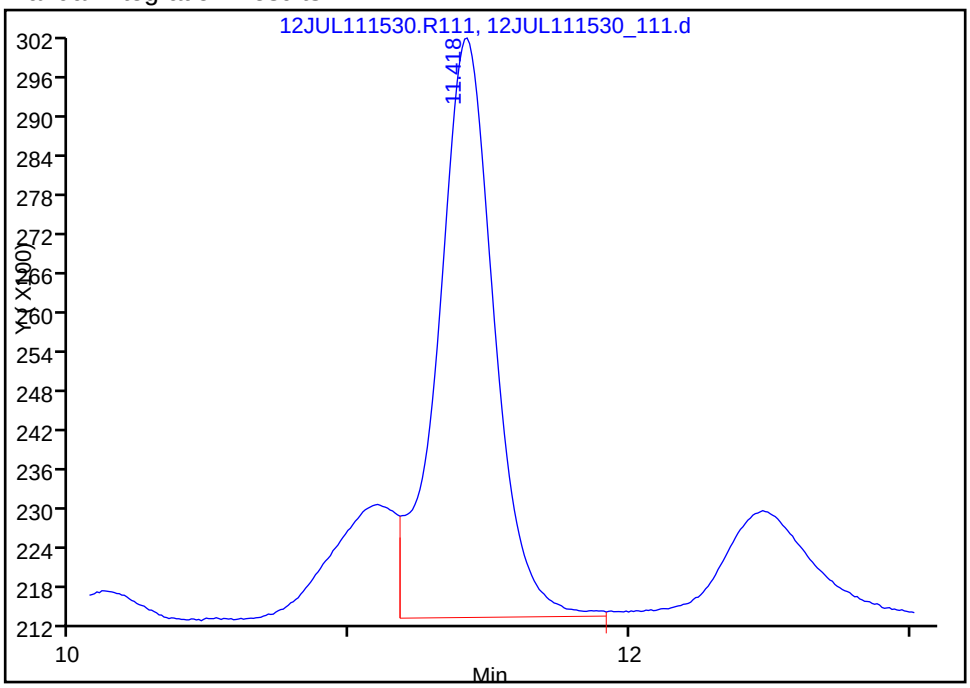
Processing Integration Results

RT: 11.42
Response: 130686
Amount: 218.5705



Manual Integration Results

RT: 11.42
Response: 124155
Amount: 207.5850



Reviewer: chirgwinb, 15-Jul-2011 15:14:19
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:18 Chrom Revision: 1.2 30-Jun-2011 15:02:28

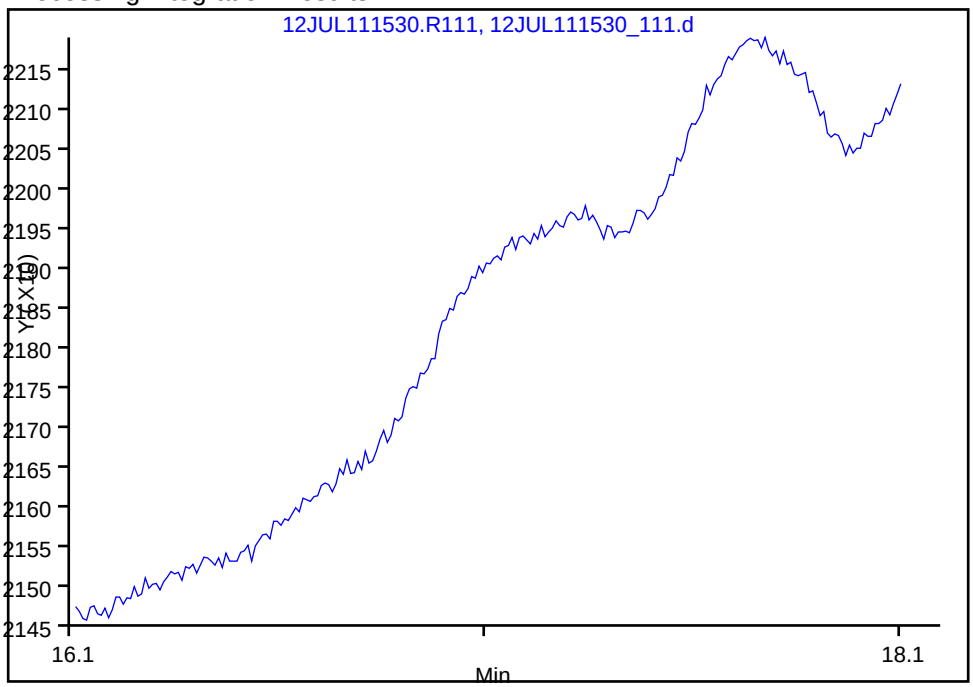
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.11

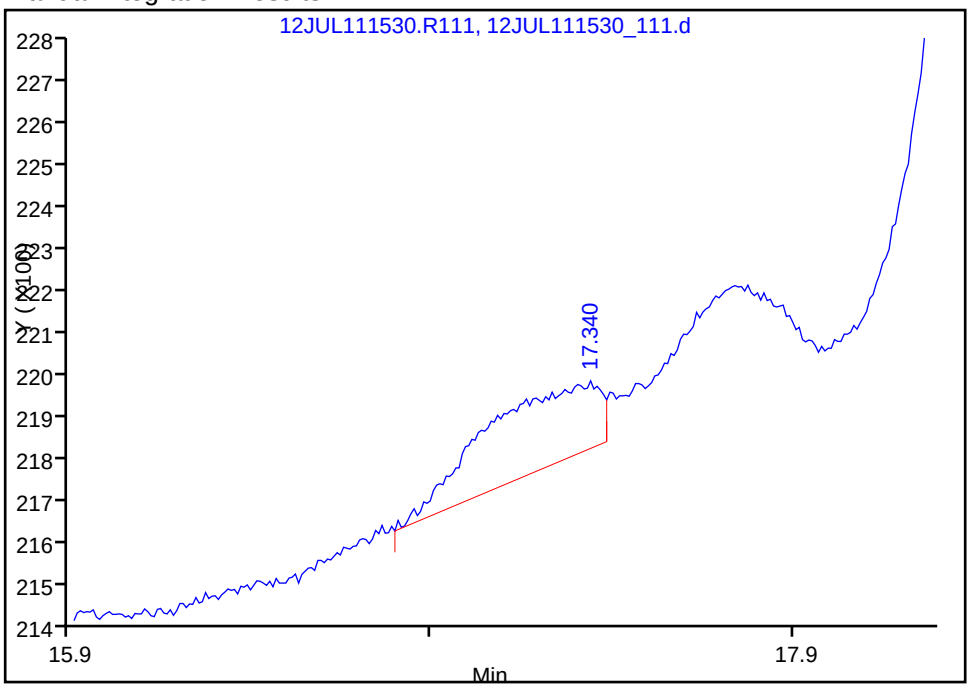
Not Detected
Expected RT: 17.11

Processing Integration Results



Manual Integration Results

RT: 17.34
Response: 3939
Amount: 5.949913



Reviewer: chirgwinb, 15-Jul-2011 15:14:19
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

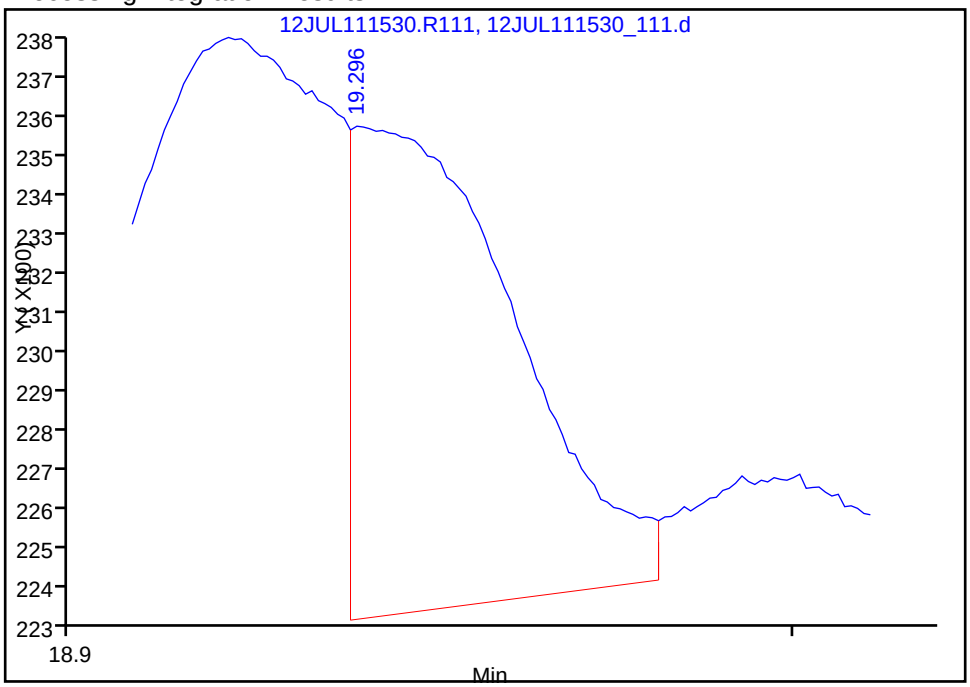
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_111.d		
Injection Date:	13-Jul-2011 17:56:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.41

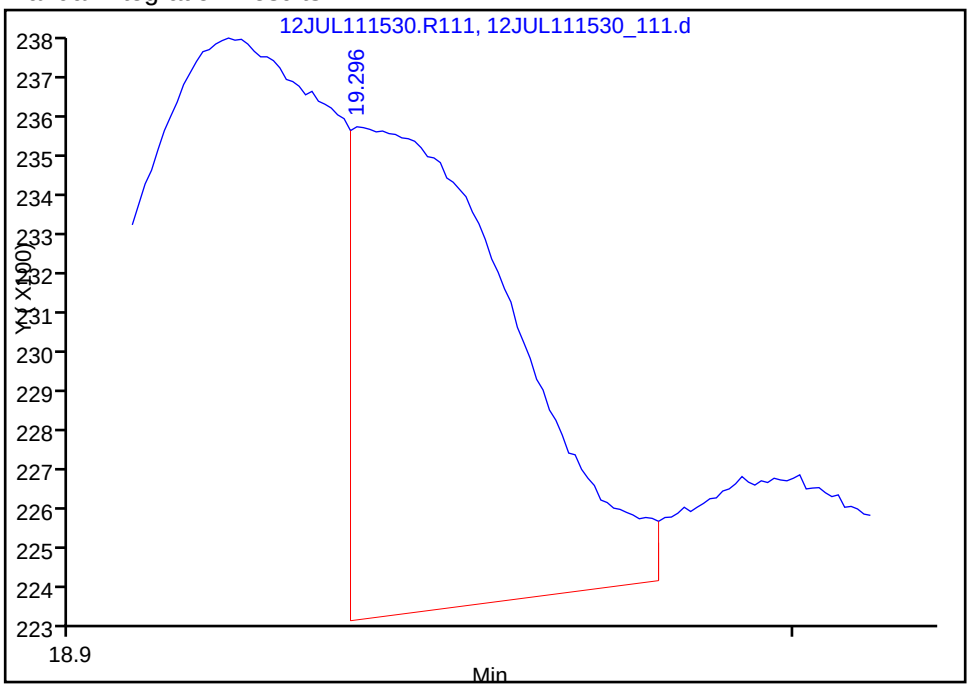
Processing Integration Results

RT: 19.30
Response: 17510
Amount: 17.059922



Manual Integration Results

RT: 19.30
Response: 17510
Amount: 17.059922



Reviewer: robinsonw, 18-Jul-2011 10:25:45
Audit Action: Assigned Compound ID
Audit Reason:

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS18 Lab Sample ID: 200-5816-8

Matrix: Solid Lab File ID: 12JUL111532_111.d

Analysis Method: 8330B Date Collected: 06/28/2011 11:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.54(g) Date Analyzed: 07/13/2011 18:02

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	34	J	95	23	10
99-35-4	1,3,5-Trinitrobenzene	200	M	95	23	8.4
99-65-0	1,3-Dinitrobenzene	27	M J	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	11	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U M	95	23	6.6
606-20-2	2,6-Dinitrotoluene	210	J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U	95	28	15
99-08-1	3-Nitrotoluene	28	U M	95	28	25
78-11-5	PETN	1700	U	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Lims ID:	200-5816-A-8-B	Client ID:	WPR02-SS18
Inject. Date:	13-Jul-2011 18:02:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000843-011		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	11
Lims Batch ID:	21368	Lims Sample ID:	11
Detector:	A-12JUL111532.R111		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 14:08:57

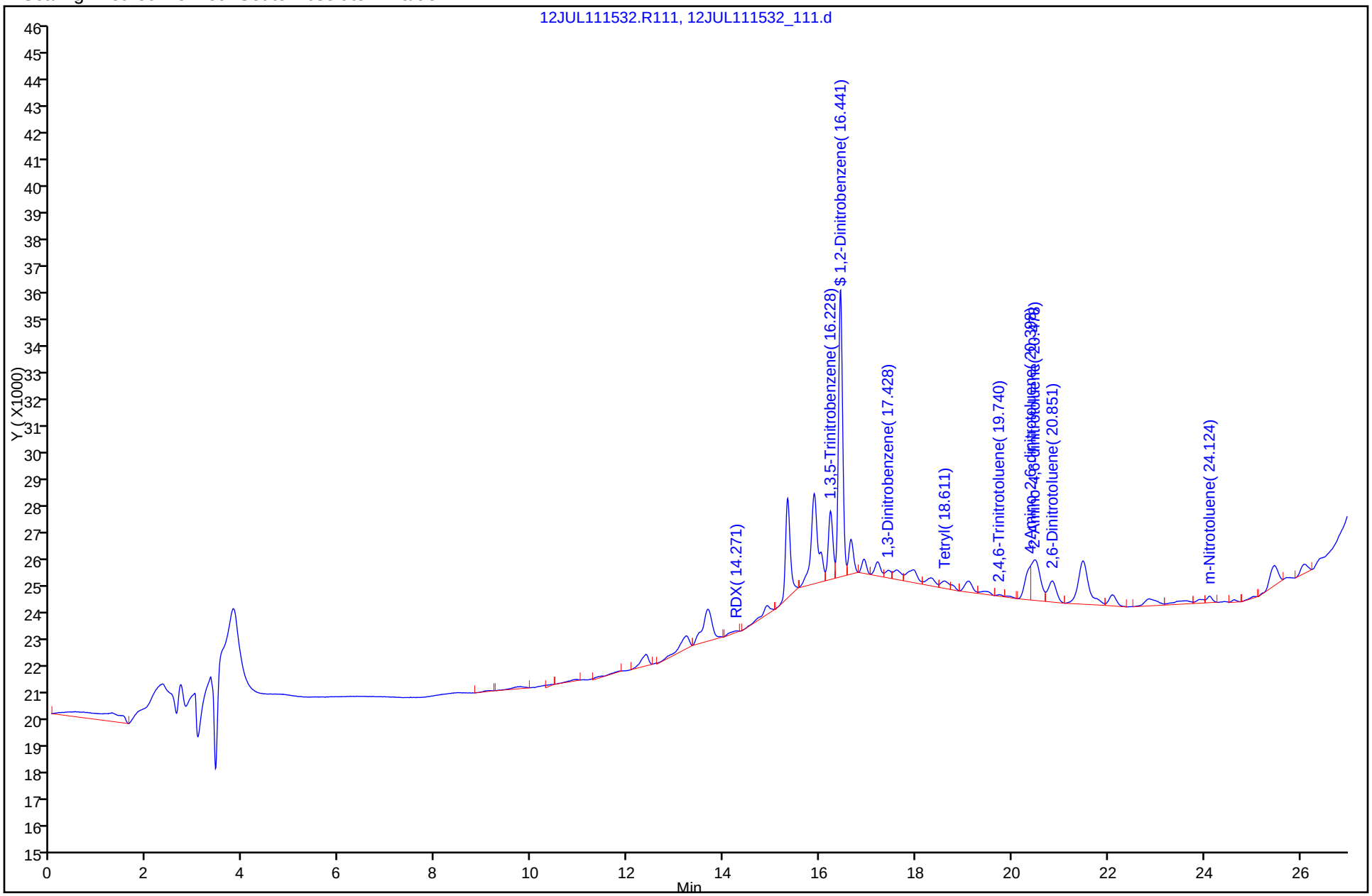
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	7 RDX	14.271	14.369	-0.098	1033	3.54	
	9 1,3,5-Trinitrobenzene	16.228	16.130	0.098	17622	20.9	M
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	66031	185.2	M
	11 1,3-Dinitrobenzene	17.428	17.375	0.053	2406	2.82	A
	13 Tetryl	18.611	18.513	0.098	3126	5.22	M
	14 Nitroglycerin		19.260				
	15 2,4,6-Trinitrotoluene	19.740	19.704	0.036	475	1.18	A
	16 4-Amino-2,6-dinitrotoluene	20.398	20.193	0.205	9647	14.3	A
	17 2-Amino-4,6-dinitrotoluene	20.478	20.567	-0.089	19603	31.0	M
	18 2,6-Dinitrotoluene	20.851	20.887	-0.036	9440	22.4	
	19 2,4-Dinitrotoluene		21.163				
	22 m-Nitrotoluene	24.124	24.088	0.036	1920	8.79	A
	23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d
Injection Date: 13-Jul-2011 18:02:00 Limit Group: LC_8330B_Limits
Client ID: WPR02-SS18 Instrument ID: CH1208
Lims Batch ID: 21368 Lims Sample ID: 11
Operator ID: RJH Injection Vol: 150.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

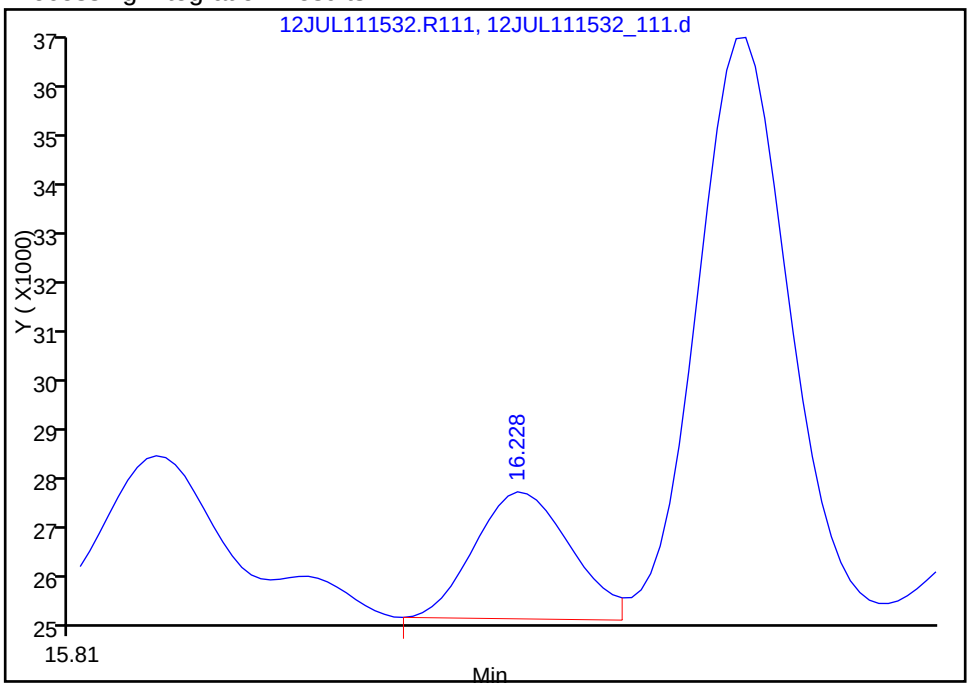
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

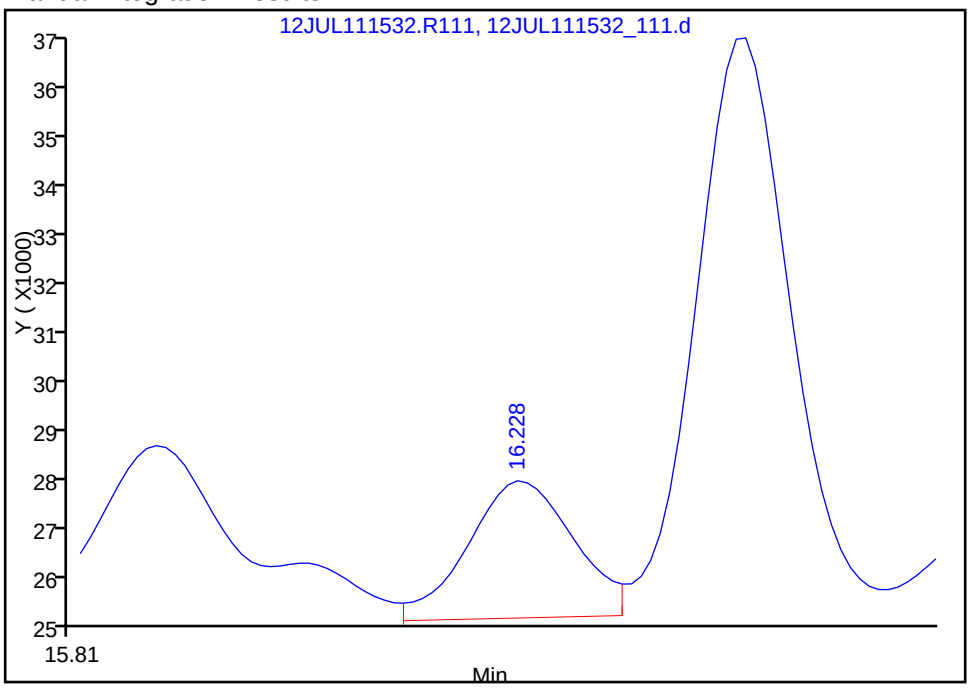
Processing Integration Results

RT: 16.23
Response: 14475
Amount: 17.074667



Manual Integration Results

RT: 16.23
Response: 17622
Amount: 20.871320



Reviewer: chirgwinb, 15-Jul-2011 14:08:57
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

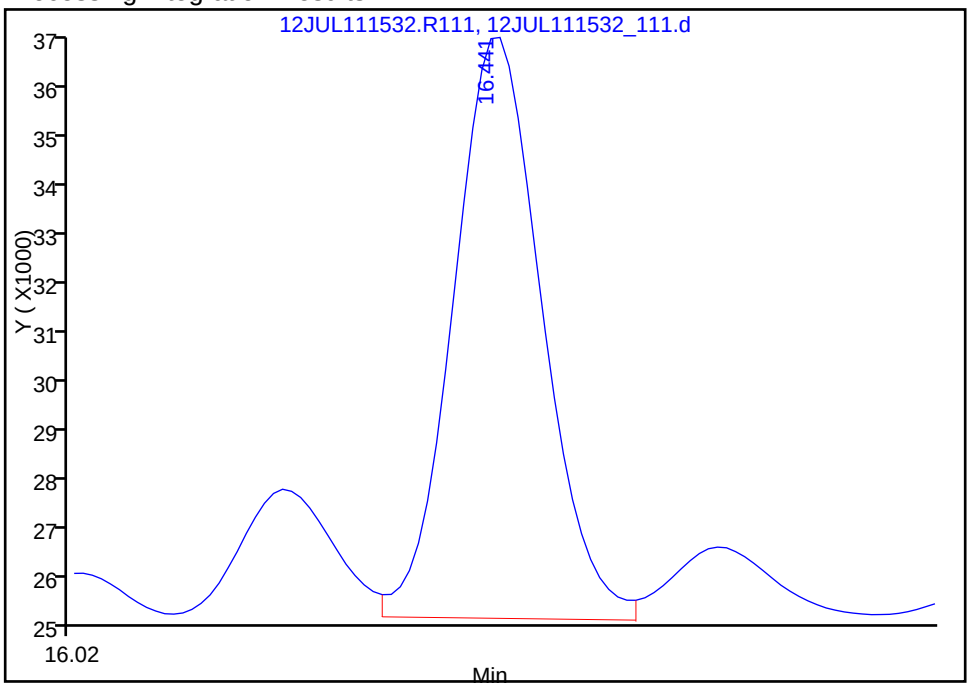
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

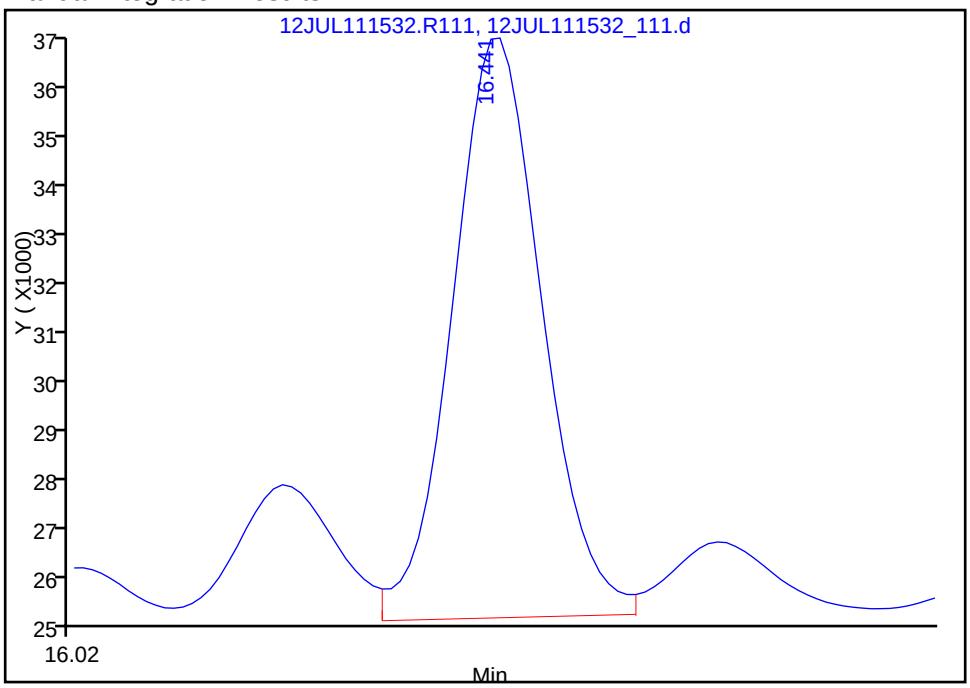
Processing Integration Results

RT: 16.44
Response: 64642
Amount: 181.2760



Manual Integration Results

RT: 16.44
Response: 66031
Amount: 185.1949



Reviewer: chirgwinb, 15-Jul-2011 14:08:57
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

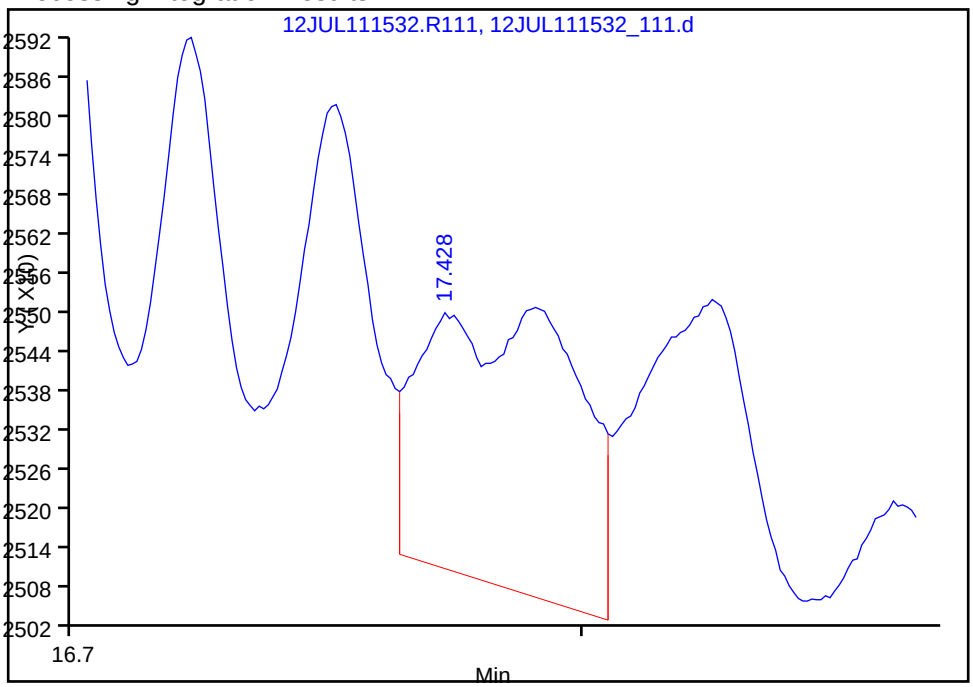
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

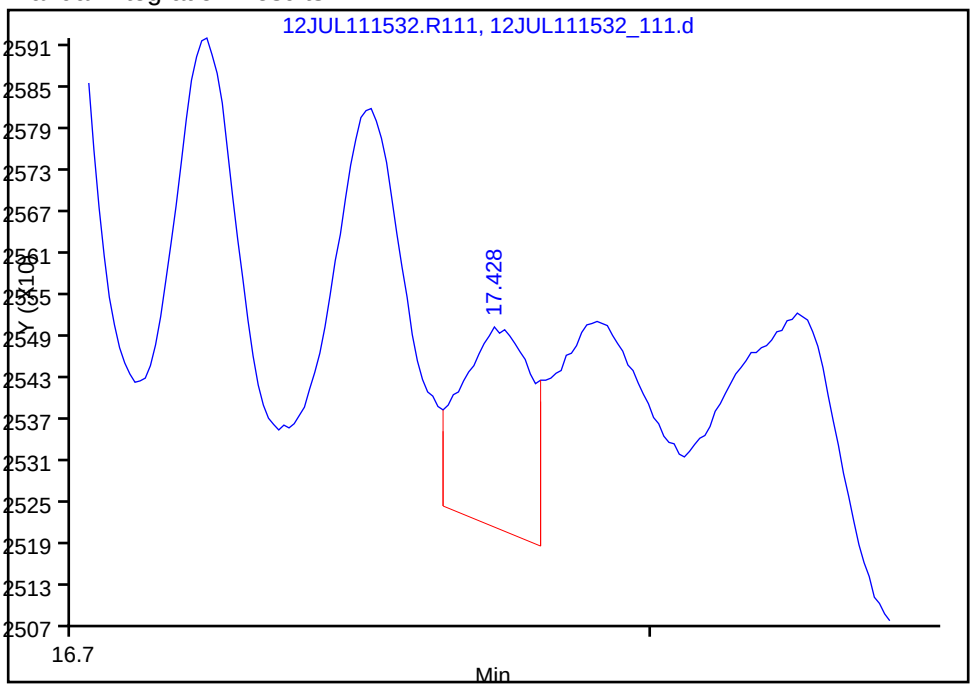
Processing Integration Results

RT: 17.43
Response: 8789
Amount: 10.727150



Manual Integration Results

RT: 17.43
Response: 2406
Amount: 2.821769



Reviewer: robinsonw, 18-Jul-2011 09:57:32
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

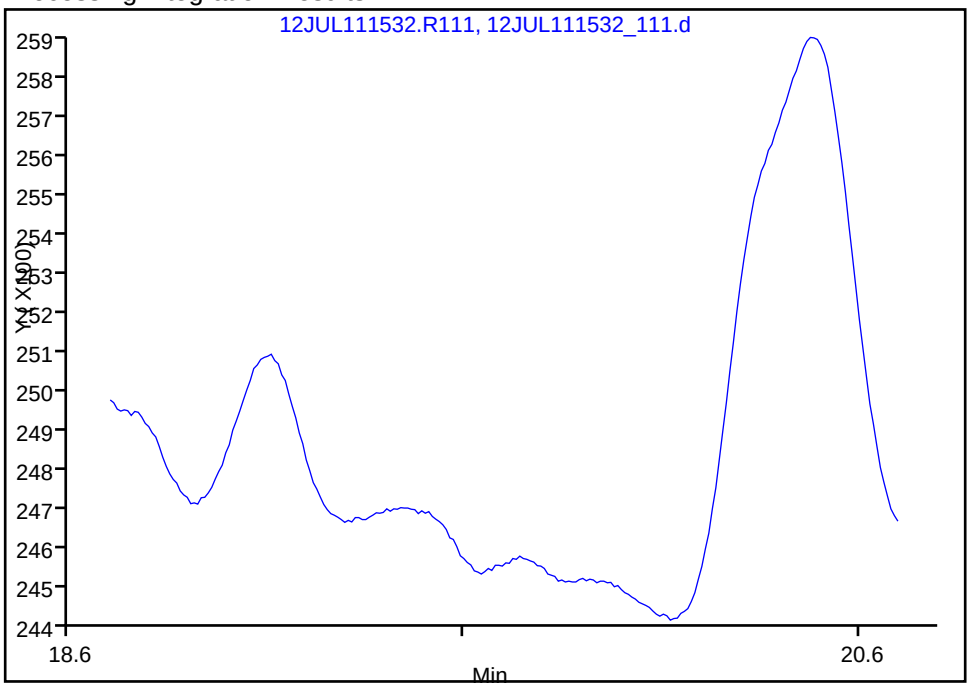
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

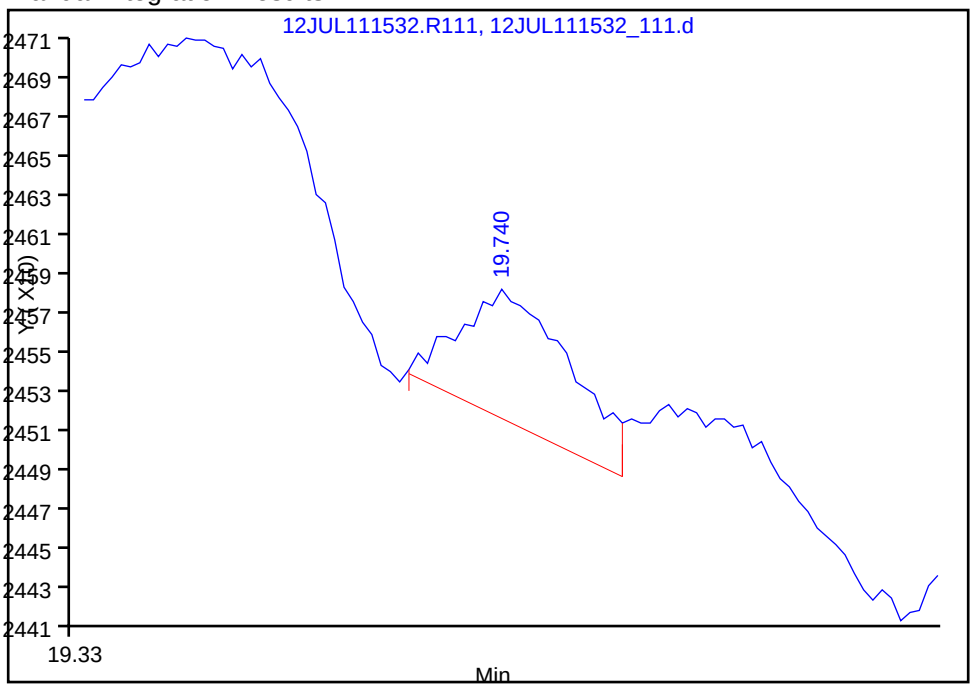
Not Detected
Expected RT: 19.70

Processing Integration Results



Manual Integration Results

RT: 19.74
Response: 475
Amount: 1.182008



Reviewer: chirgwinb, 15-Jul-2011 14:08:57
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

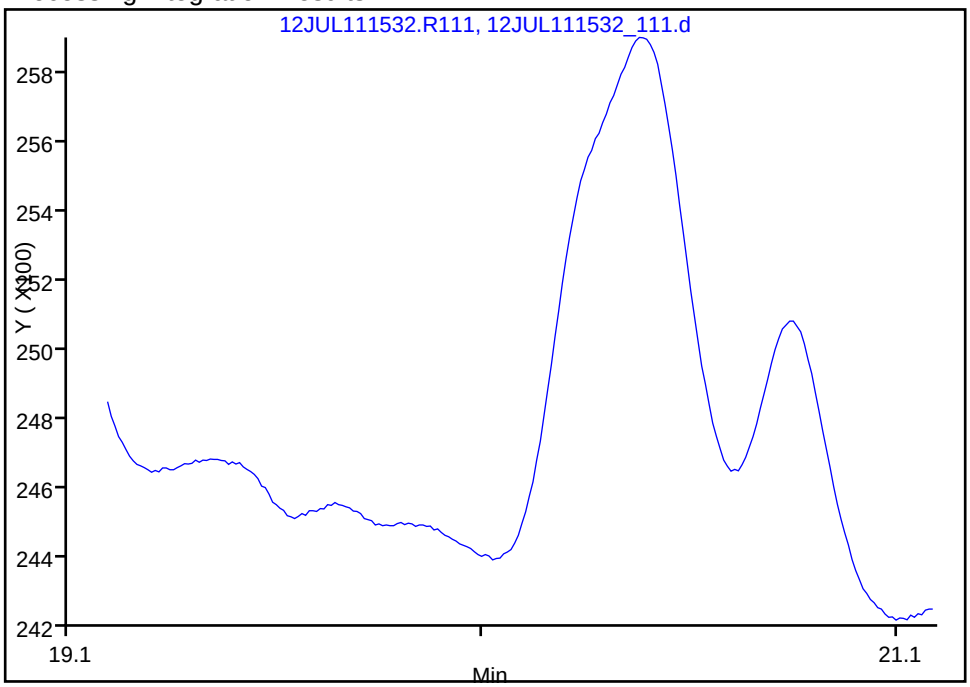
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

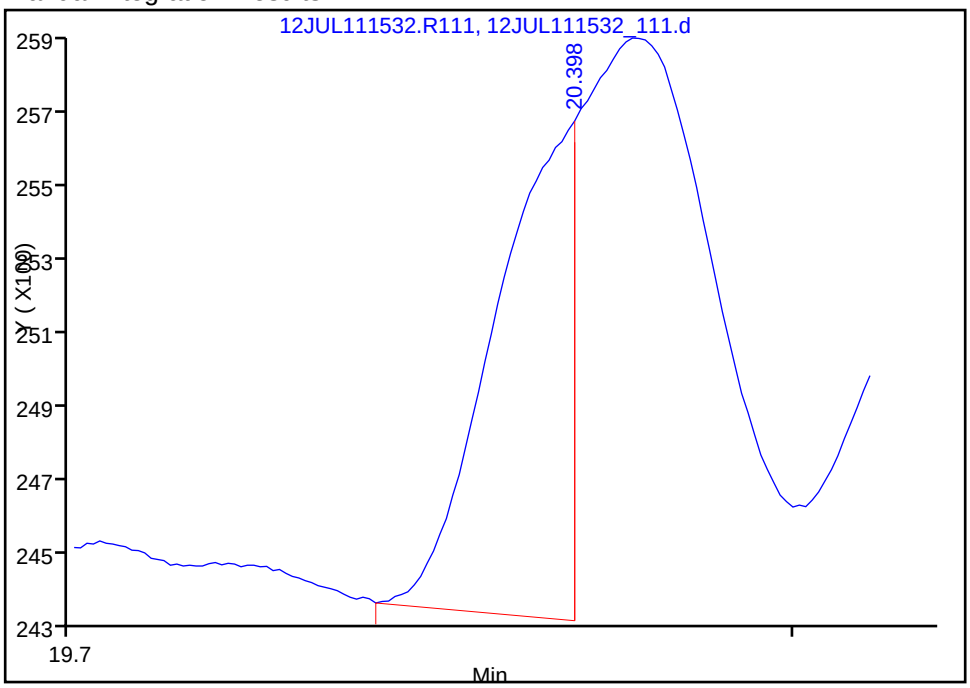
Not Detected
Expected RT: 20.19

Processing Integration Results



Manual Integration Results

RT: 20.40
Response: 9647
Amount: 14.263247



Reviewer: chirgwinb, 15-Jul-2011 14:09:39
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

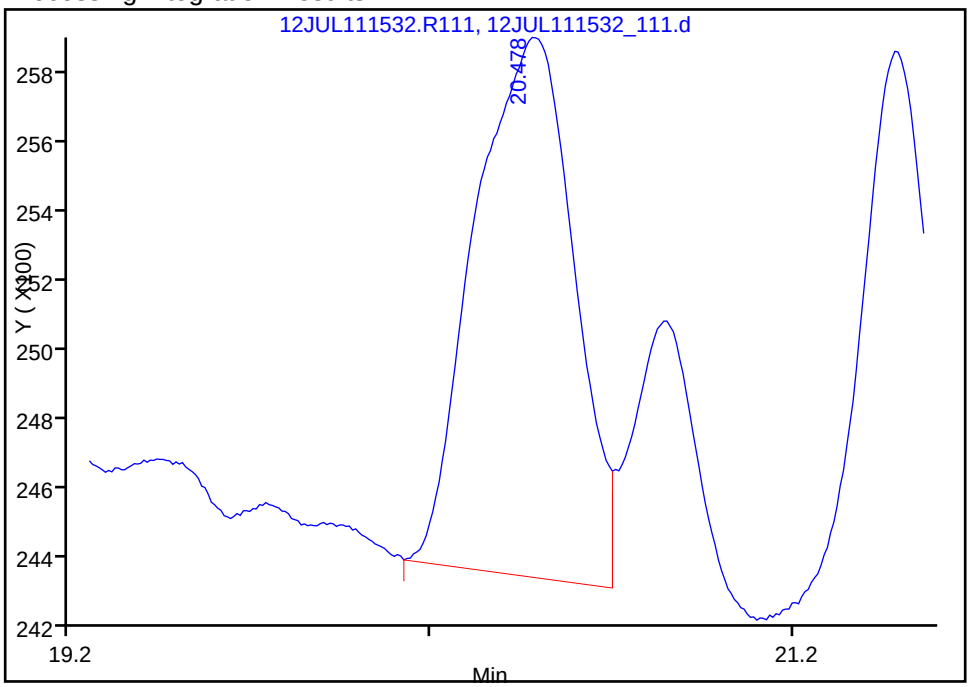
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

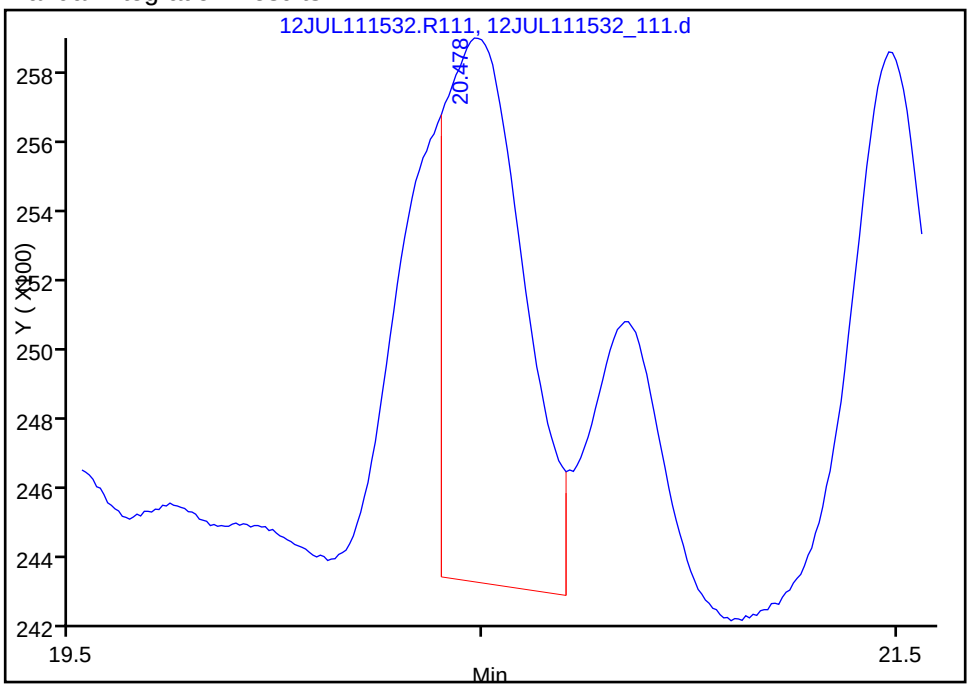
Processing Integration Results

RT: 20.48
Response: 28934
Amount: 45.521803



Manual Integration Results

RT: 20.48
Response: 19603
Amount: 31.028344



Reviewer: chirgwinb, 15-Jul-2011 14:09:39
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:56 Chrom Revision: 1.2 30-Jun-2011 15:02:28

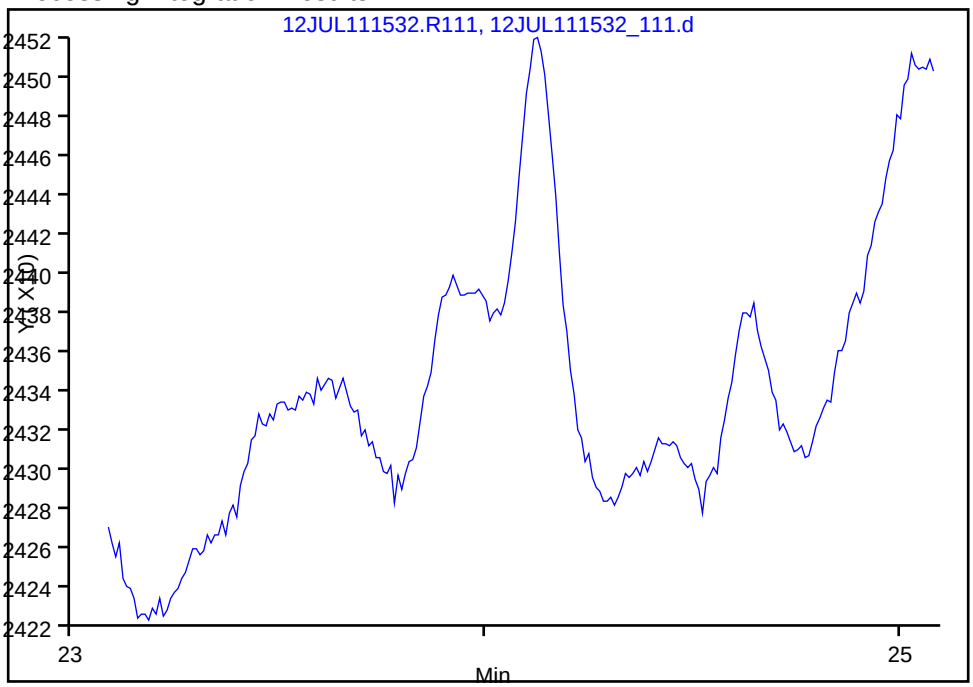
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_111.d		
Injection Date:	13-Jul-2011 18:02:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS18	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	11
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

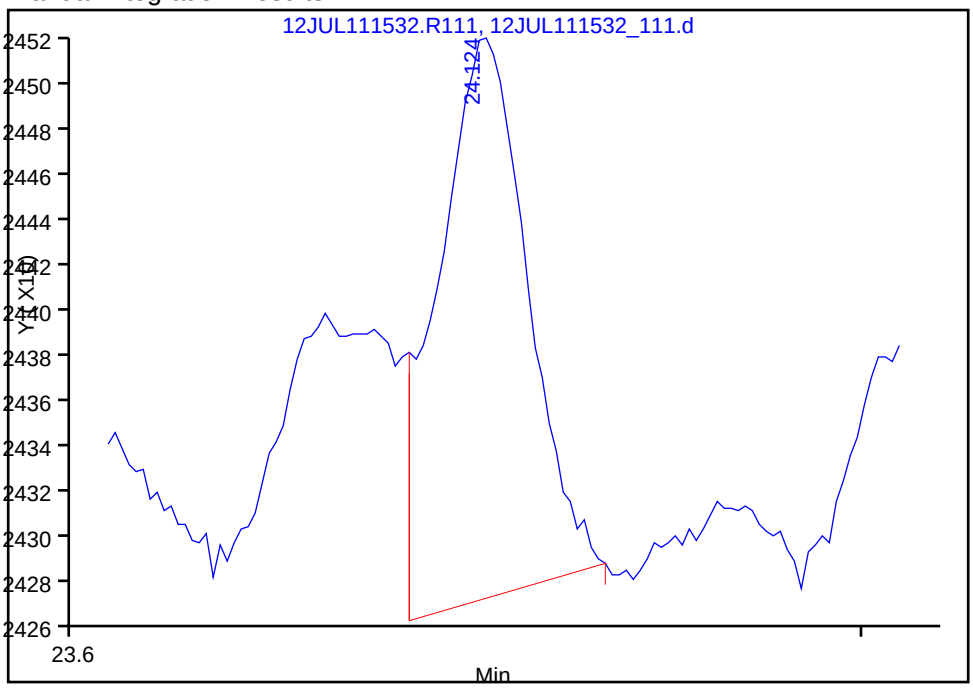
Not Detected
Expected RT: 24.09

Processing Integration Results



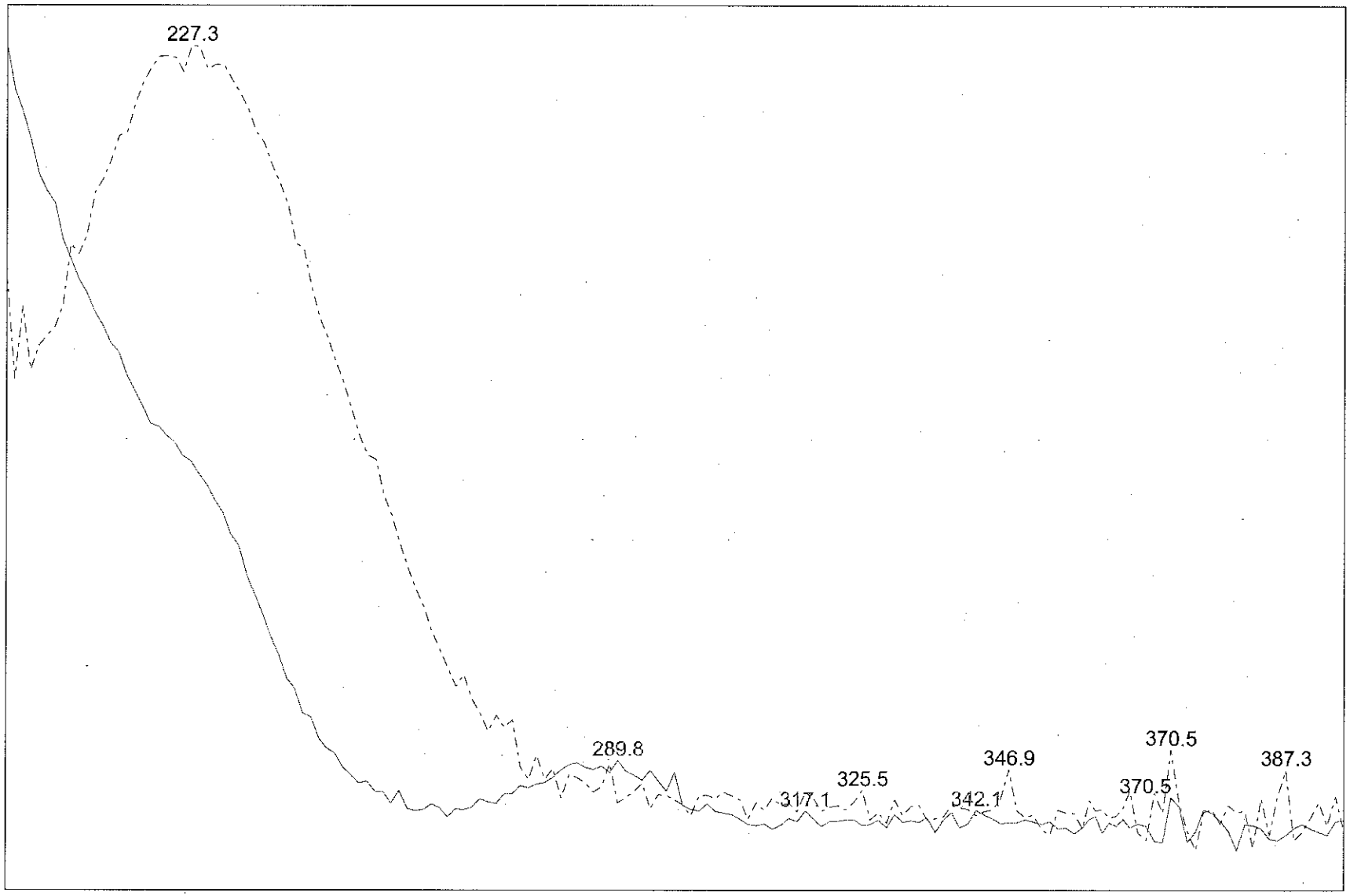
Manual Integration Results

RT: 24.12
Response: 1920
Amount: 8.790030



Reviewer: chirgwinb, 15-Jul-2011 14:08:57
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Spectrum Review Report-TestAmerica Burlington



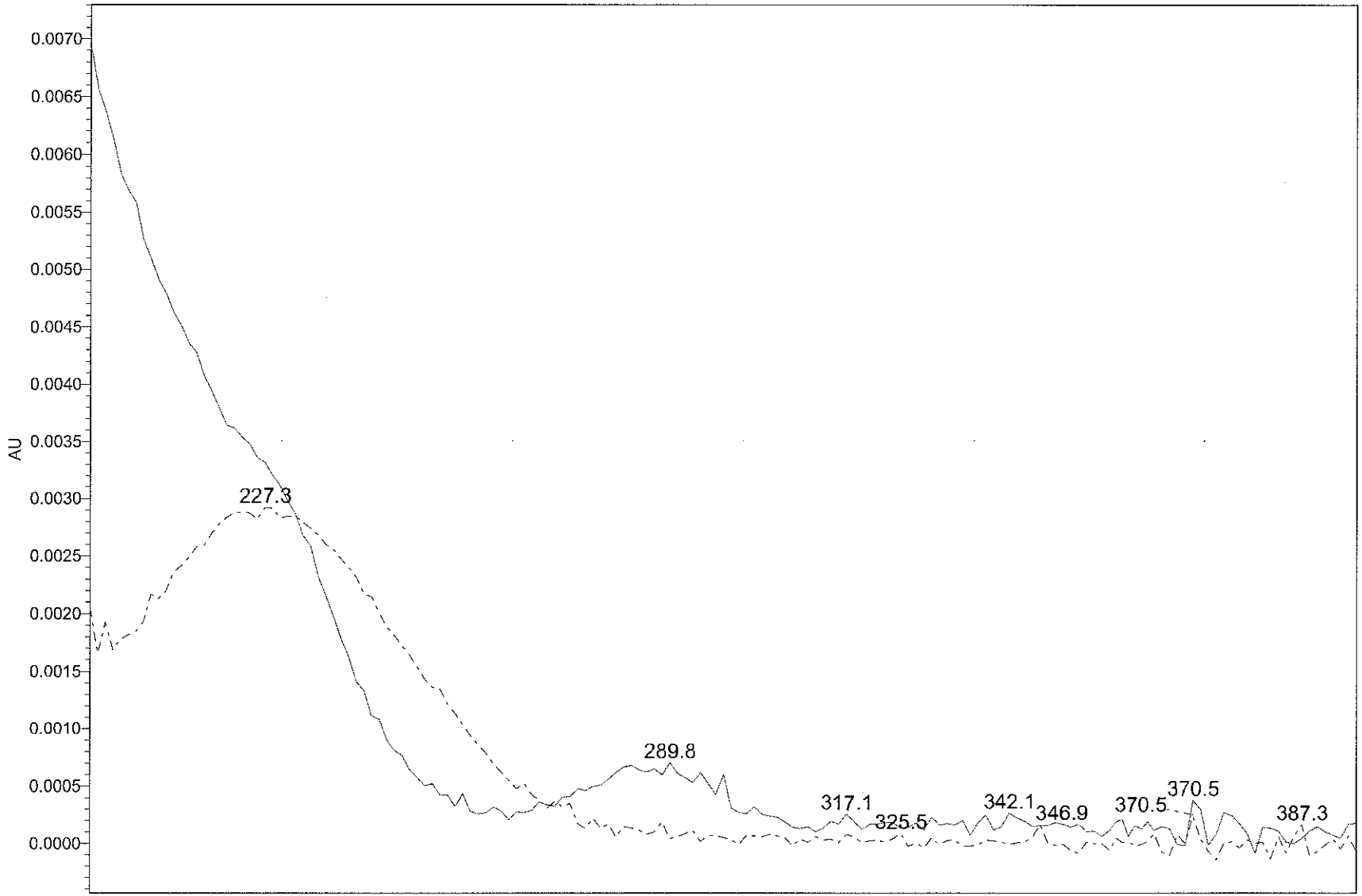
Retention Time: 16.217 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 1,3,5-Trinitrobenzene; 25ppb

Retention Time: 16.334 LIMS Name: 200-5816-A-8-B Description: Analyte Name:

WPR 62-5518

PDA Addendum for 1,3,5-trinitrobenzene

Spectrum Review Report-TestAmerica Burlington



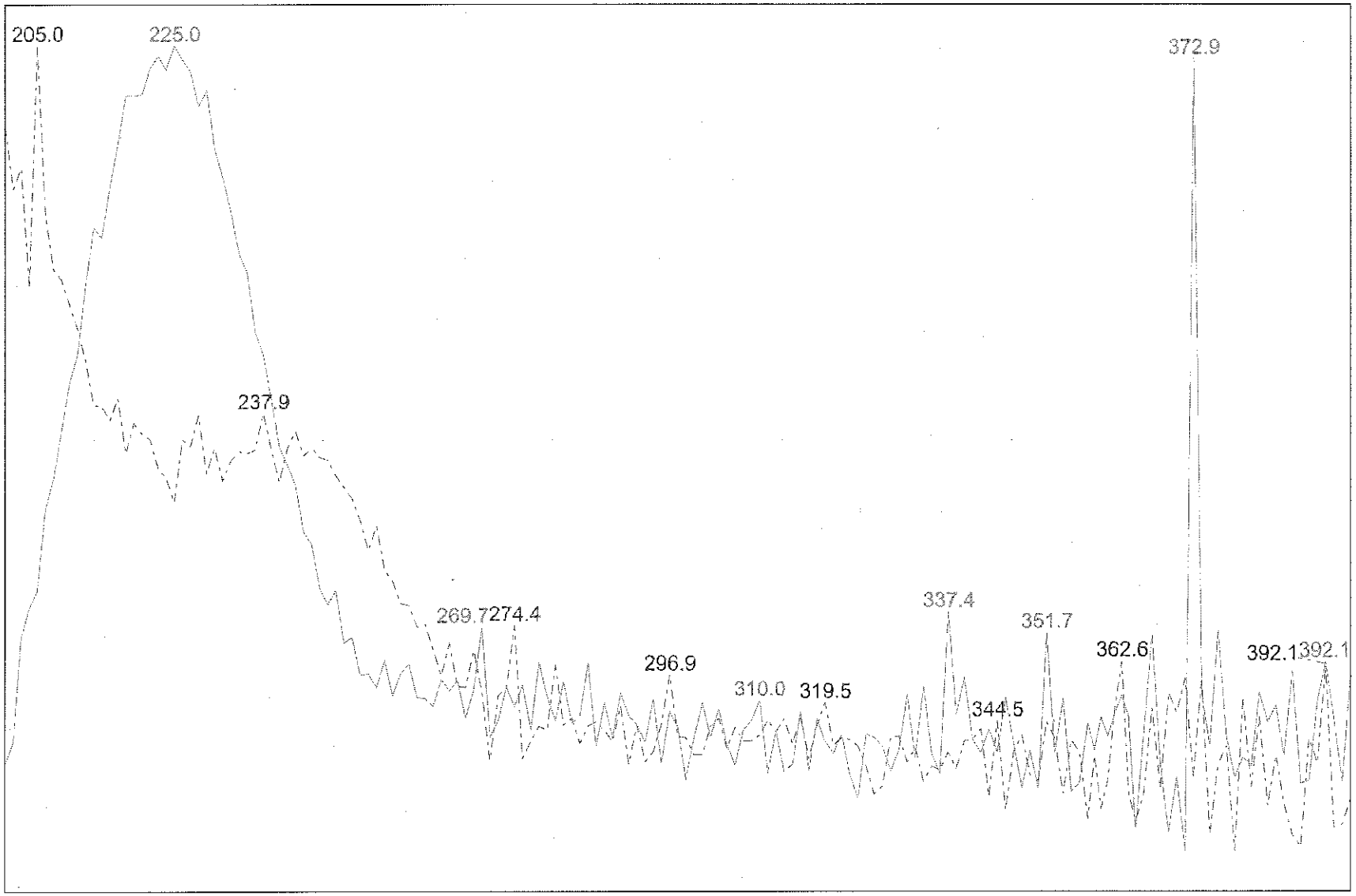
Retention Time: 16.217 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 1,3,5-Trinitrobenzene; 25ppb

Retention Time: 16.334 LIMS Name: 200-5816-A-8-B Description: Analyte Name:

WPR42-5518

PDA Addendum for 1,3,5-trinitrobenzene

Spectrum Review Report-TestAmerica Burlington



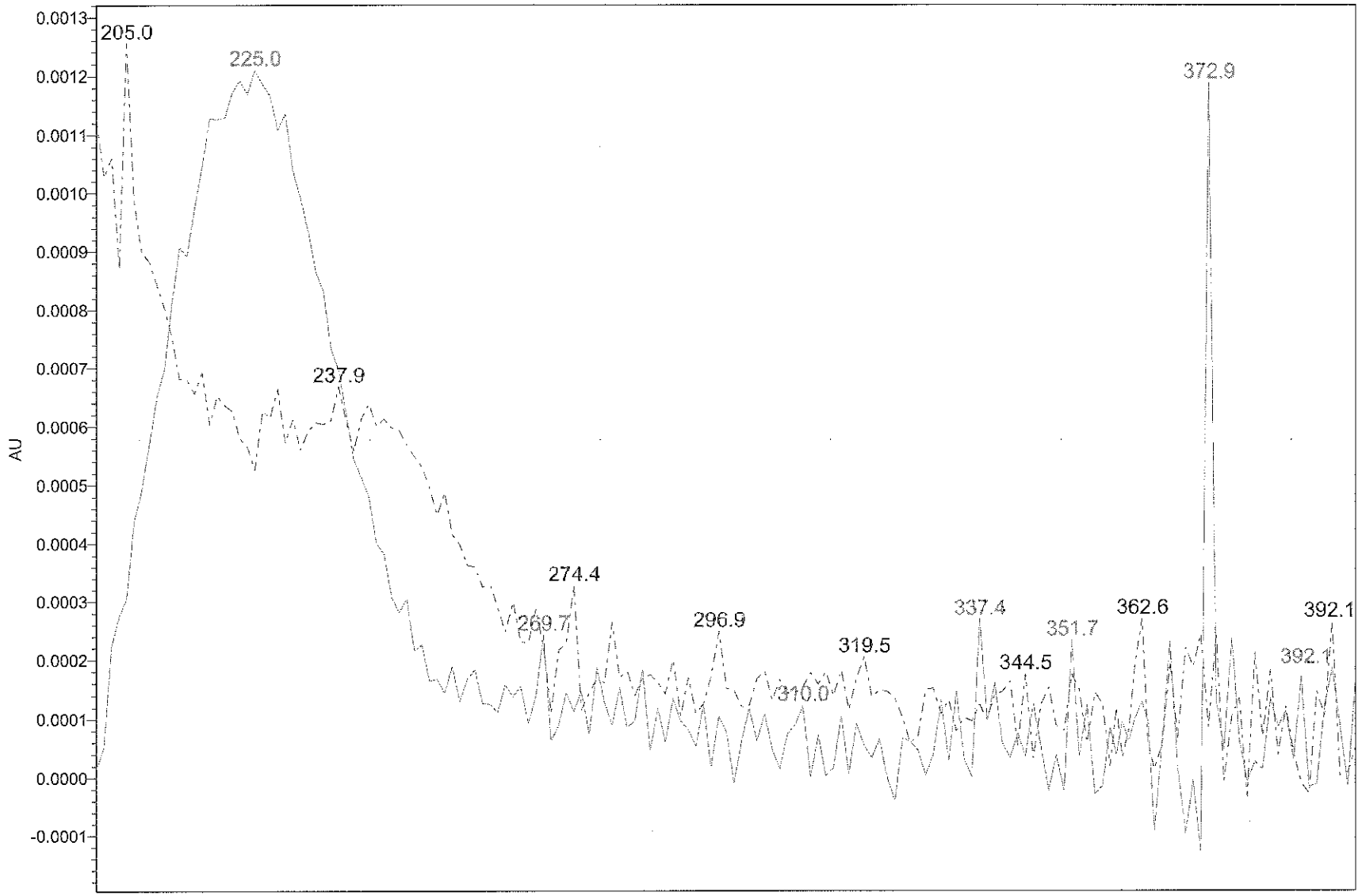
Retention Time: 20.951 LIMS Name: 200-5816-A-8-B Description: Analyte Name:

Retention Time: 20.984 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 25ppb

WPR02-5518

PDA addendum for 2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



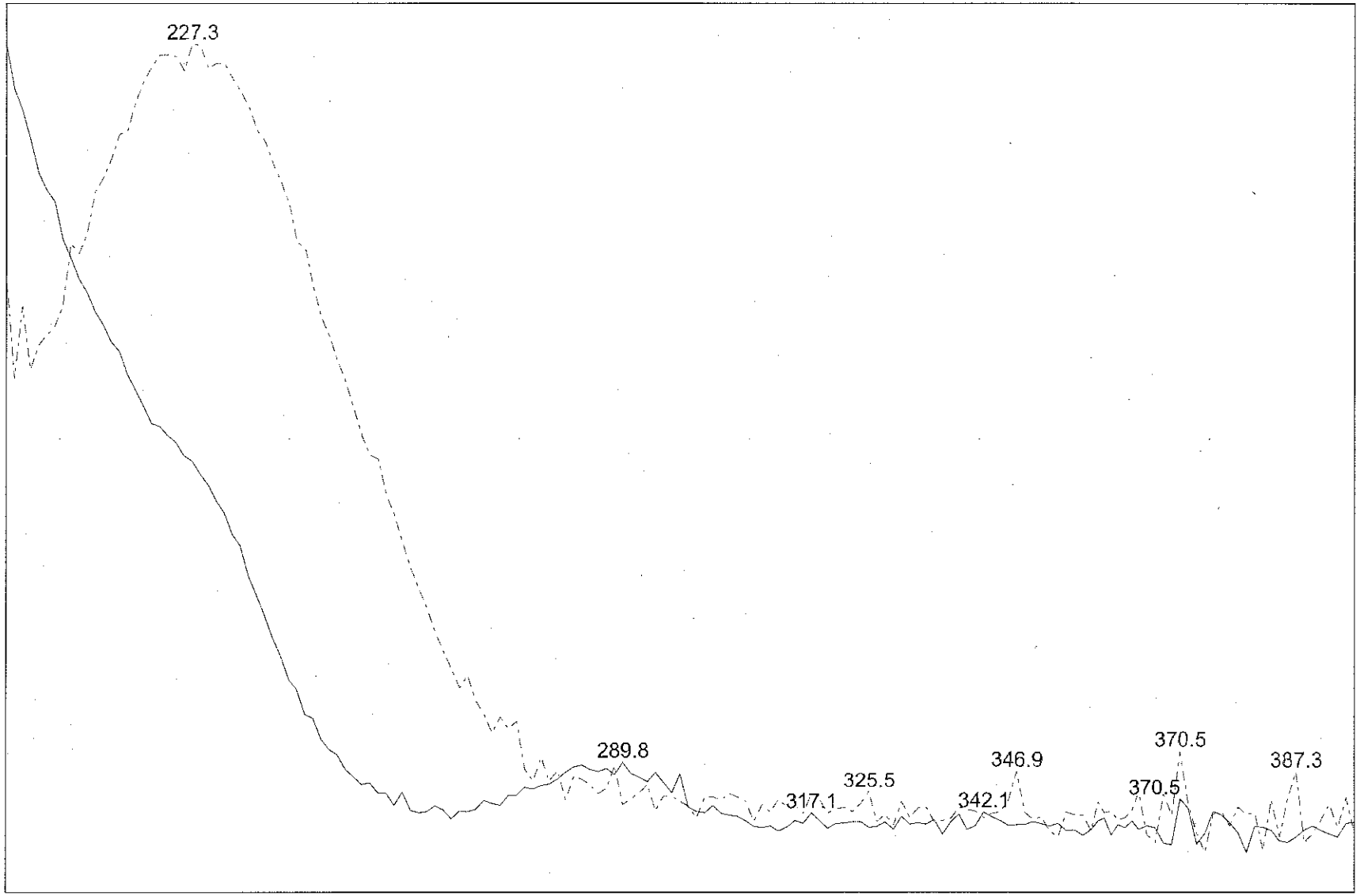
Retention Time: 20.951 LIMS Name: 200-5816-A-8-B Description: Analyte Name:

Retention Time: 20.984 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 25ppb

WPR02-5518

PDA addendum for 2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



Retention Time: 16.217 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 1,3,5-Trinitrobenzene; 25ppb

Retention Time: 16.334 LIMS Name: 200-5816-A-8-B Description: Analyte Name:

WPR02-5518

PDA Addendum for 1,3,5-trinitrobenzene

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12556

SDG No.: 5816

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.683	9.665	9.683	9.683	9.674	9.674					9.577 - 9.777	9.677
HMX	10.697	10.697	10.697	10.697	10.697	10.697					10.597 - 10.797	10.697
2,4-diamino-6-nitrotoluene	11.115	11.106	11.106	11.106	11.106	11.106					11.007 - 11.207	11.108
RDX	14.369	14.360	14.369	14.360	14.360	14.360					14.263 - 14.463	14.363
Picric acid	15.392	15.392	15.392	15.374	15.374	15.356					15.280 - 15.480	15.380
1,3,5-Trinitrobenzene	16.130	16.130	16.130	16.121	16.121	16.121					16.025 - 16.225	16.126
1,3-Dinitrobenzene	17.366	17.366	17.366	17.357	17.357	17.348					17.260 - 17.460	17.360
Nitrobenzene	18.228	18.228	18.237	18.228	18.228	18.219					18.128 - 18.328	18.228
Tetryl	18.495	18.504	18.504	18.495	18.495	18.486					18.396 - 18.596	18.497
Nitroglycerin	19.233	19.242	19.251	19.242	19.242	19.224					19.139 - 19.339	19.239
2,4,6-Trinitrotoluene	19.686	19.686	19.695	19.678	19.686	19.669					19.584 - 19.784	19.683
4-Amino-2,6-dinitrotoluene	20.176	20.176	20.184	20.167	20.167	20.158					20.071 - 20.271	20.171
2-Amino-4,6-dinitrotoluene	20.540	20.549	20.558	20.540	20.549	20.531					20.445 - 20.645	20.545
2,6-Dinitrotoluene	20.878	20.869	20.878	20.869	20.869	20.851					20.769 - 20.969	20.869
2,4-Dinitrotoluene	21.136	21.136	21.145	21.136	21.136	21.118					21.034 - 21.234	21.135
2-Nitrotoluene	22.621	22.621	22.630	22.630	22.630	22.612					22.524 - 22.724	22.624
4-Nitrotoluene	23.350	23.368	23.368	23.368	23.368	23.350					23.262 - 23.462	23.362
3-Nitrotoluene	24.061	24.043	24.070	24.070	24.070	24.052					23.961 - 24.161	24.061
PETN		24.799	24.773	24.799	24.799	24.773					24.689 - 24.889	24.789
1,2-Dinitrobenzene	16.441	16.432	16.432	16.432	16.432	16.423					16.332 - 16.532	16.432

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12556

SDG No.: 5816

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	655.70 710.42	687.96 712.70	691.62	709.05	Lin1	-642.08311	712.552660							1.0000		0.9900
HMX	417.70 437.91	442.00 440.24	434.18	435.03	Lin1	-171.41763	439.309527							1.0000		0.9900
2,4-diamino-6-nitrotoluene	539.30 597.53	583.76 601.92	580.16	587.12	Lin1	-656.88864	600.023715							1.0000		0.9900
RDX	328.90 340.17	329.20 339.92	335.02	338.77	Lin1	-169.68963	340.081310							1.0000		0.9900
Picric acid	396.30 406.45	397.08 410.88	398.00	404.58	Lin1	-246.83049	409.124920							1.0000		0.9900
1,3,5-Trinitrobenzene	847.50 830.25	853.12 828.72	838.10	829.74	Lin1	322.015348	828.887904							1.0000		0.9900
1,3-Dinitrobenzene	830.20 807.78	803.20 807.15	806.26	811.40	Lin1	127.633527	807.424761							1.0000		0.9900
Nitrobenzene	272.90 273.17	276.64 273.89	276.76	272.83	Lin1	27.7708049	273.585084							1.0000		0.9900
Tetryl	584.30 593.87	605.12 592.27	593.52	592.79	Lin1	28.3660755	592.849750							1.0000		0.9900
Nitroglycerin	4.2850 4.2183	4.5240 4.2555	4.2540	4.2063	Lin1	38.2025352	4.23702478							1.0000		0.9900
2,4,6-Trinitrotoluene	566.60 575.98	568.24 577.17	563.52	572.40	Lin1	-206.34300	576.428604							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	671.80 706.66	691.00 707.48	692.02	699.43	Lin1	-436.42508	706.951569							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	615.00 643.37	623.48 644.24	636.74	637.31	Lin1	-373.28638	643.807685							1.0000		0.9900
2,6-Dinitrotoluene	424.40 422.29	419.80 429.62	421.50	424.88	Lin1	-117.39450	427.034379							1.0000		0.9900
2,4-Dinitrotoluene	627.30 623.49	606.84 616.79	613.44	609.87	Lin1	-57.988290	617.912005							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12556

SDG No.: 5816

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	218.50 185.26	200.84 184.25	183.74	185.77	Lin1	322.489768	184.030286							1.0000		0.9900
4-Nitrotoluene	113.10 116.33	120.88 116.04	116.38	115.87	Lin1	10.9506025	116.126216							1.0000		0.9900
3-Nitrotoluene	203.40 157.04	183.92 156.94	169.38	159.21	Lin1	545.449523	156.376080							1.0000		0.9900
PETN	 4.1227	3.6100 4.1880	4.2430	4.0510	Lin1	-194.04310	4.17487931							1.0000		0.9900
1,2-Dinitrobenzene	386.50 356.79	382.60 354.76	359.36	352.34	Lin1	391.224250	354.436221							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12556

SDG No.: 5816

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6557 712698	17199	34581	141810	355209	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4177 440242	11050	21709	87005	218956	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5393 601919	14594	29008	117424	298763	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3289 339916	8230	16751	67754	170087	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	3963 410877	9927	19900	80915	203225	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	8475 828716	21328	41905	165948	415125	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8302 807154	20080	40313	162279	403891	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	2729 273885	6916	13838	54565	136583	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5843 592267	15128	29676	118557	296936	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	857 85110	2262	4254	16825	42183	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5666 577169	14206	28176	114479	287991	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6718 707480	17275	34601	139886	353330	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	6150 644235	15587	31837	127461	321687	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4244 429617	10495	21075	84975	211146	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	6273 616790	15171	30672	121974	311745	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	2185 184251	5021	9187	37153	92632	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12556

SDG No.: 5816

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1131 116040	3022	5819	23173	58166	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	2034 156940	4598	8469	31842	78521	10.0 1000	25.0	50.0	200	500
PETN	Lin1	 83759	1805	4243	16204	41227	 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3865 354757	9565	17968	70468	178393	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

Report Date: 25-Jan-2011 09:28:42 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_021.d		
Lims ID:	IC 2	Client ID:	
Inject. Date:	24-Jan-2011 16:26:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	200-0000366-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	2
Lims Batch ID:	12556	Lims Sample ID:	2
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R021		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:34:49

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	6557	10.1	
	3 HMX	10.697	10.697	0.0	4177	9.90	
	4 2,4-diamino-6-nitrotoluene	11.115	11.107	0.008	5393	10.1	
	7 RDX	14.369	14.363	0.006	3289	10.2	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	3963	10.3	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	8475	9.84	
$	10 1,2-Dinitrobenzene	16.441	16.432	0.009	3865	9.80	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	8302	10.1	
	12 Nitrobenzene	18.228	18.228	0.0	2729	9.87	
	13 Tetryl	18.495	18.496	-0.001	5843	9.81	
	14 Nitroglycerin	19.233	19.239	-0.006	857	193.2	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	5666	10.2	
	16 4-Amino-2,6-dinitrotoluene	20.176	20.171	0.005	6718	10.1	
	17 2-Amino-4,6-dinitrotoluene	20.540	20.545	-0.005	6150	10.1	
	18 2,6-Dinitrotoluene	20.878	20.869	0.009	4244	10.2	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	6273	10.2	
	20 o-Nitrotoluene	22.621	22.624	-0.003	2185	10.1	
	21 p-Nitrotoluene	23.350	23.362	-0.012	1131	9.65	
	22 m-Nitrotoluene	24.061	24.061	0.0	2034	9.52	
	23 PETN		24.789				1

QC Flag Legend

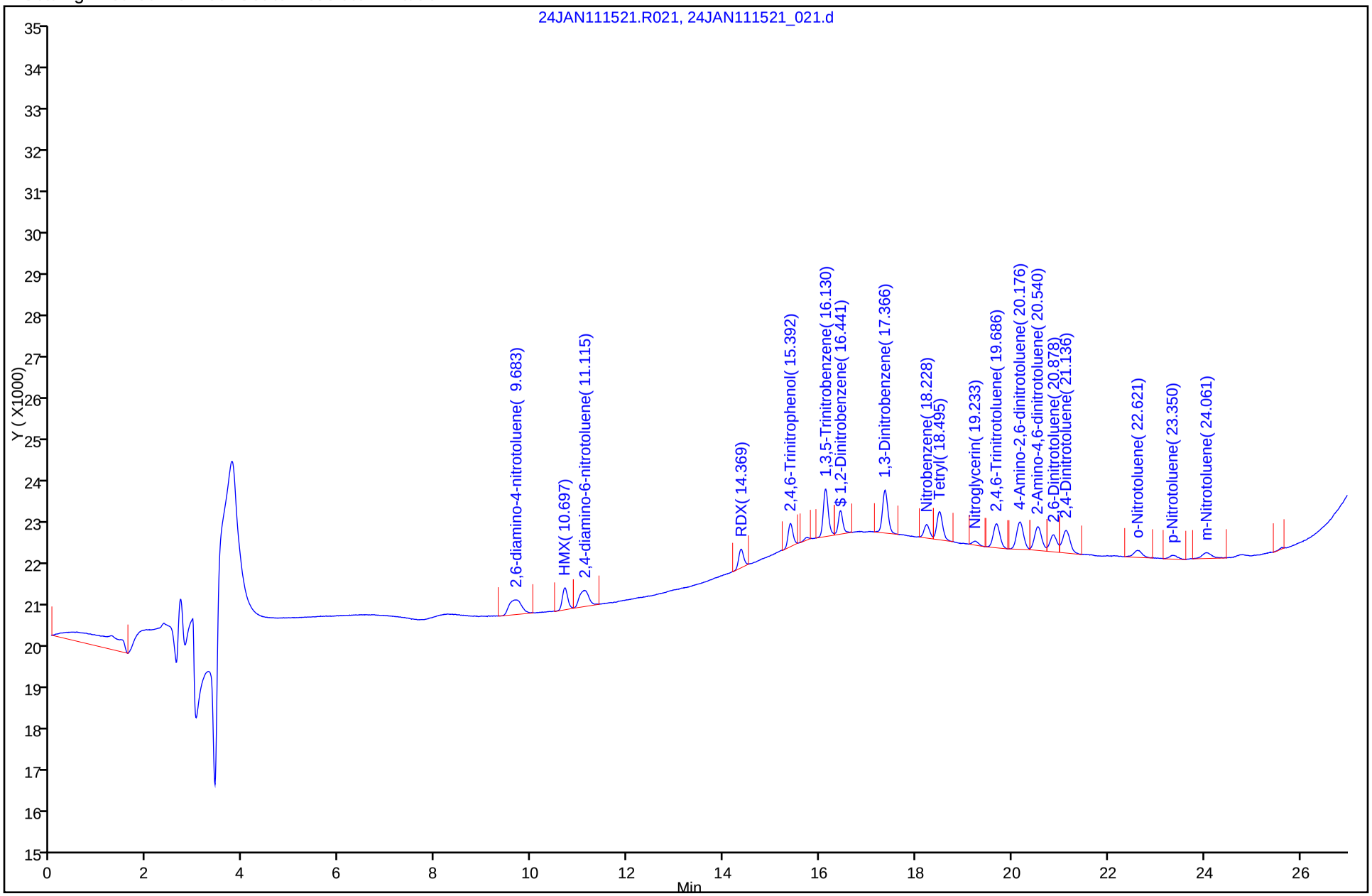
Processing Flags
1 - Missing Peaks

Report Date: 25-Jan-2011 09:28:42 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_021.d

Injection Date:	24-Jan-2011 16:26:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 09:28:43 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_031.d		
Lims ID:	IC 3	Client ID:	
Inject. Date:	24-Jan-2011 17:03:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	200-0000366-003		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	3
Lims Batch ID:	12556	Lims Sample ID:	3
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R031		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: robinsonw		Date:	25-Jan-2011 08:37:04

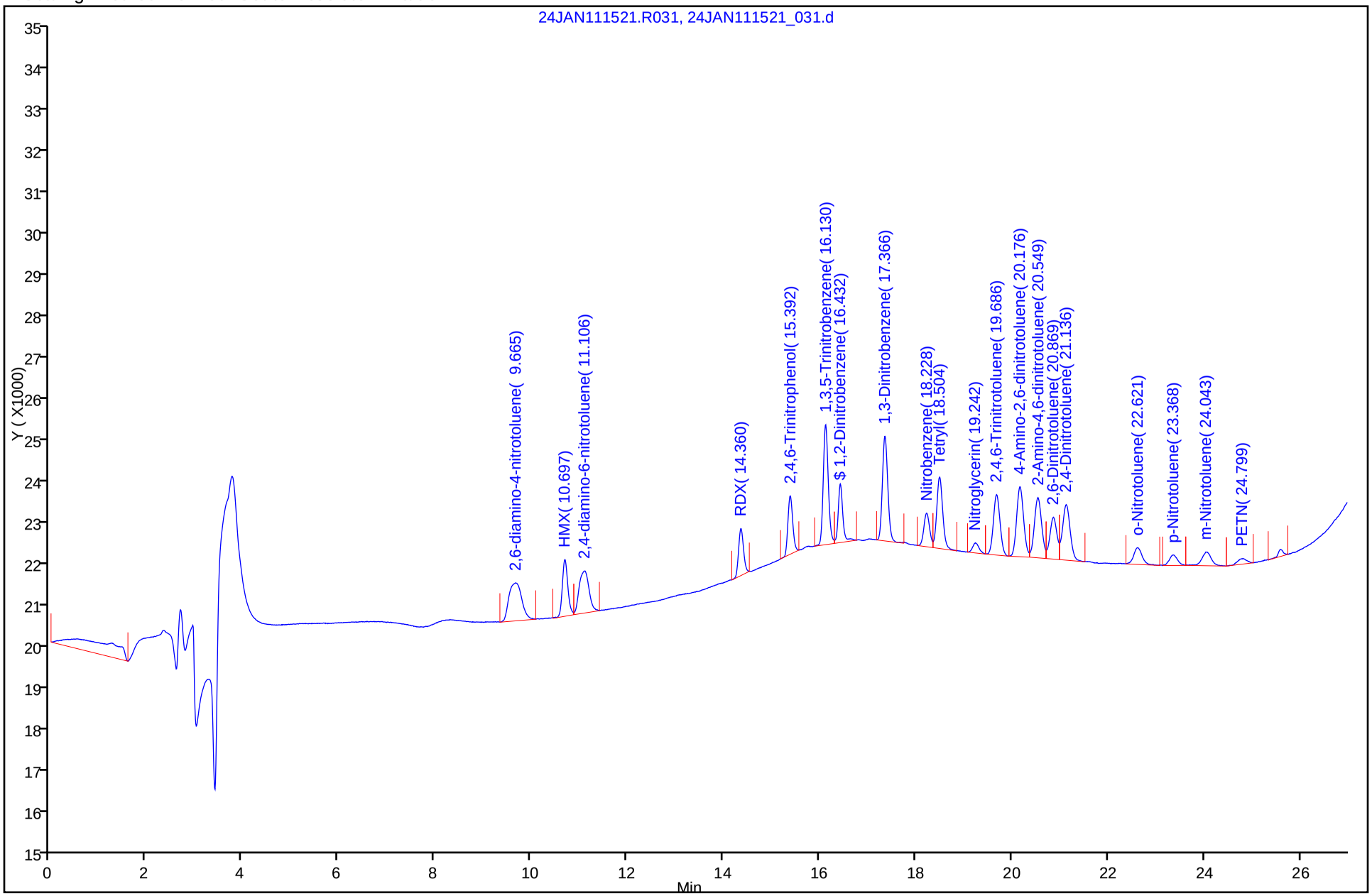
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.665	9.677	-0.012	17199	25.0	
	3 HMX	10.697	10.697	0.0	11050	25.5	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	14594	25.4	
	7 RDX	14.360	14.363	-0.003	8230	24.7	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	9927	24.9	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	21328	25.3	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	9565	25.9	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	20080	24.7	
	12 Nitrobenzene	18.228	18.228	0.0	6916	25.2	
	13 Tetryl	18.504	18.496	0.008	15128	25.5	
	14 Nitroglycerin	19.242	19.239	0.003	2262	524.8	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	14206	25.0	
	16 4-Amino-2,6-dinitrotoluene	20.176	20.171	0.005	17275	25.1	
	17 2-Amino-4,6-dinitrotoluene	20.549	20.545	0.004	15587	24.8	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	10495	24.9	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	15171	24.6	
	20 o-Nitrotoluene	22.621	22.624	-0.003	5021	25.5	
	21 p-Nitrotoluene	23.368	23.362	0.006	3022	25.9	
	22 m-Nitrotoluene	24.043	24.061	-0.018	4598	25.9	
	23 PETN	24.799	24.789	0.010	1805	478.8	

Report Date: 25-Jan-2011 09:28:43 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_031.d

Injection Date:	24-Jan-2011 17:03:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_041.d		
Lims ID:	IC 4	Client ID:	
Inject. Date:	24-Jan-2011 17:41:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	4
Sample ID:	200-0000366-004		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	4
Lims Batch ID:	12556	Lims Sample ID:	4
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R041		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:37:54

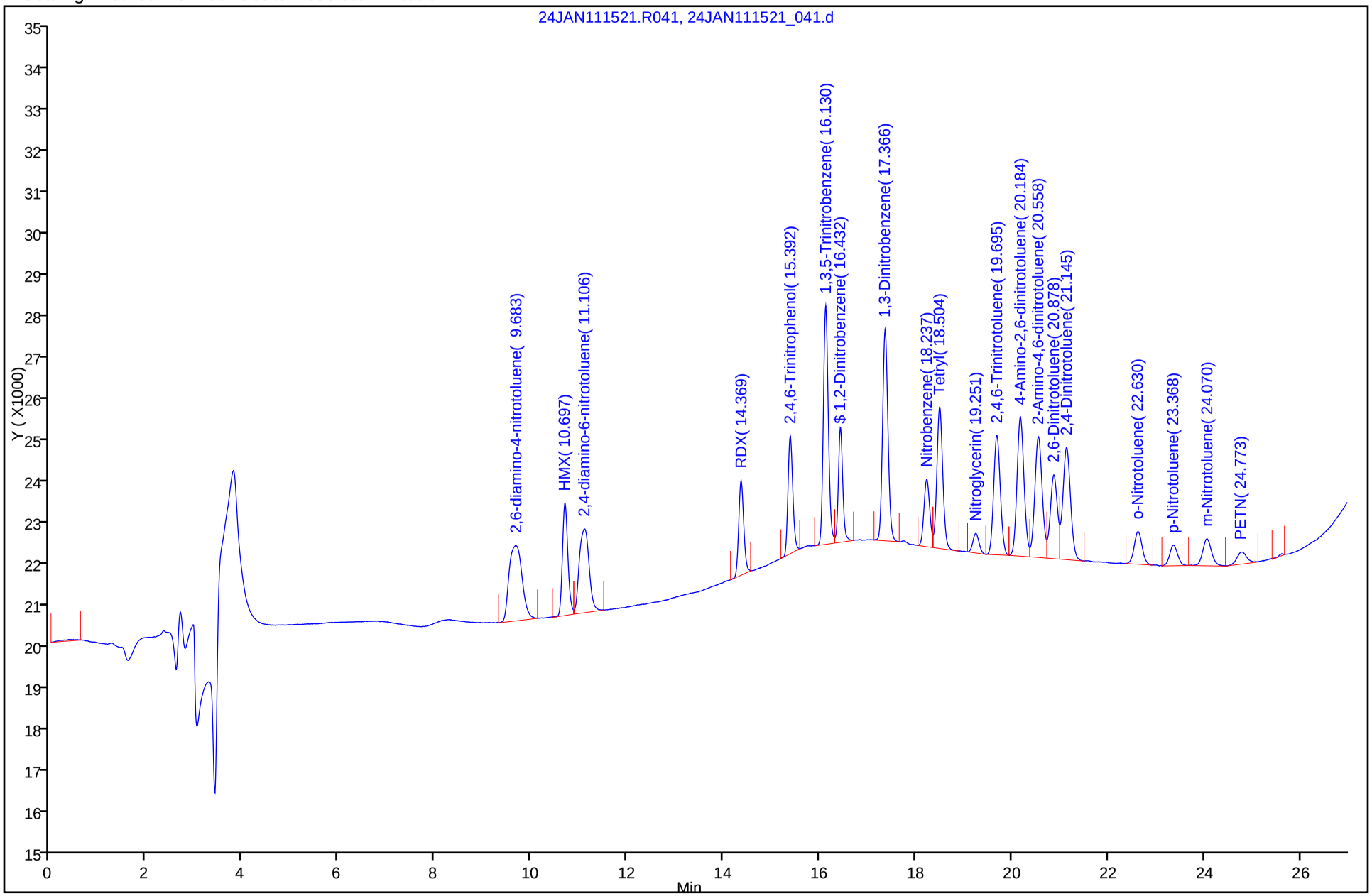
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	34581	49.4	
	3 HMX	10.697	10.697	0.0	21709	49.8	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	29008	49.4	
	7 RDX	14.369	14.363	0.006	16751	49.8	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	19900	49.2	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	41905	50.2	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	17968	49.6	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	40313	49.8	
	12 Nitrobenzene	18.237	18.228	0.009	13838	50.5	
	13 Tetryl	18.504	18.496	0.008	29676	50.0	
	14 Nitroglycerin	19.251	19.239	0.012	4254	995.0	
	15 2,4,6-Trinitrotoluene	19.695	19.684	0.011	28176	49.2	
	16 4-Amino-2,6-dinitrotoluene	20.184	20.171	0.013	34601	49.6	
	17 2-Amino-4,6-dinitrotoluene	20.558	20.545	0.013	31837	50.0	
	18 2,6-Dinitrotoluene	20.878	20.869	0.009	21075	49.6	
	19 2,4-Dinitrotoluene	21.145	21.134	0.011	30672	49.7	
	20 o-Nitrotoluene	22.630	22.624	0.006	9187	48.2	
	21 p-Nitrotoluene	23.368	23.362	0.006	5819	50.0	
	22 m-Nitrotoluene	24.070	24.061	0.009	8469	50.7	
	23 PETN	24.773	24.789	-0.016	4243	1062.8	

Report Date: 25-Jan-2011 09:28:44 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_041.d

Injection Date:	24-Jan-2011 17:41:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 09:42:37 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_051.d		
Lims ID:	ICRTAV 5	Client ID:	
Inject. Date:	24-Jan-2011 18:18:00	Dil. Factor:	1.0000
Sample Type:	ICRTAV	Calib Level:	5
Sample ID:	200-0000366-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	12556	Lims Sample ID:	5
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:28:53	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:42:50

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	141810	199.9	
	3 HMX	10.697	10.697	0.0	87005	198.4	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	117424	196.8	
	7 RDX	14.360	14.363	-0.003	67754	199.7	
	8 2,4,6-Trinitrophenol	15.374	15.380	-0.006	80915	198.4	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	165948	199.8	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	70468	197.7	
	11 1,3-Dinitrobenzene	17.357	17.360	-0.003	162279	200.8	
	12 Nitrobenzene	18.228	18.228	0.0	54565	199.3	
	13 Tetryl	18.495	18.496	-0.001	118557	199.9	
	14 Nitroglycerin	19.242	19.239	0.003	16825	3961.9	
	15 2,4,6-Trinitrotoluene	19.678	19.684	-0.006	114479	199.0	
	16 4-Amino-2,6-dinitrotoluene	20.167	20.171	-0.004	139886	198.5	
	17 2-Amino-4,6-dinitrotoluene	20.540	20.545	-0.005	127461	198.6	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	84975	199.3	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	121974	197.5	
	20 o-Nitrotoluene	22.630	22.624	0.006	37153	200.1	
	21 p-Nitrotoluene	23.368	23.362	0.006	23173	199.5	
	22 m-Nitrotoluene	24.070	24.061	0.009	31842	200.1	
	23 PETN	24.799	24.789	0.010	16204	3927.8	

Report Date: 25-Jan-2011 09:42:37 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_051.d

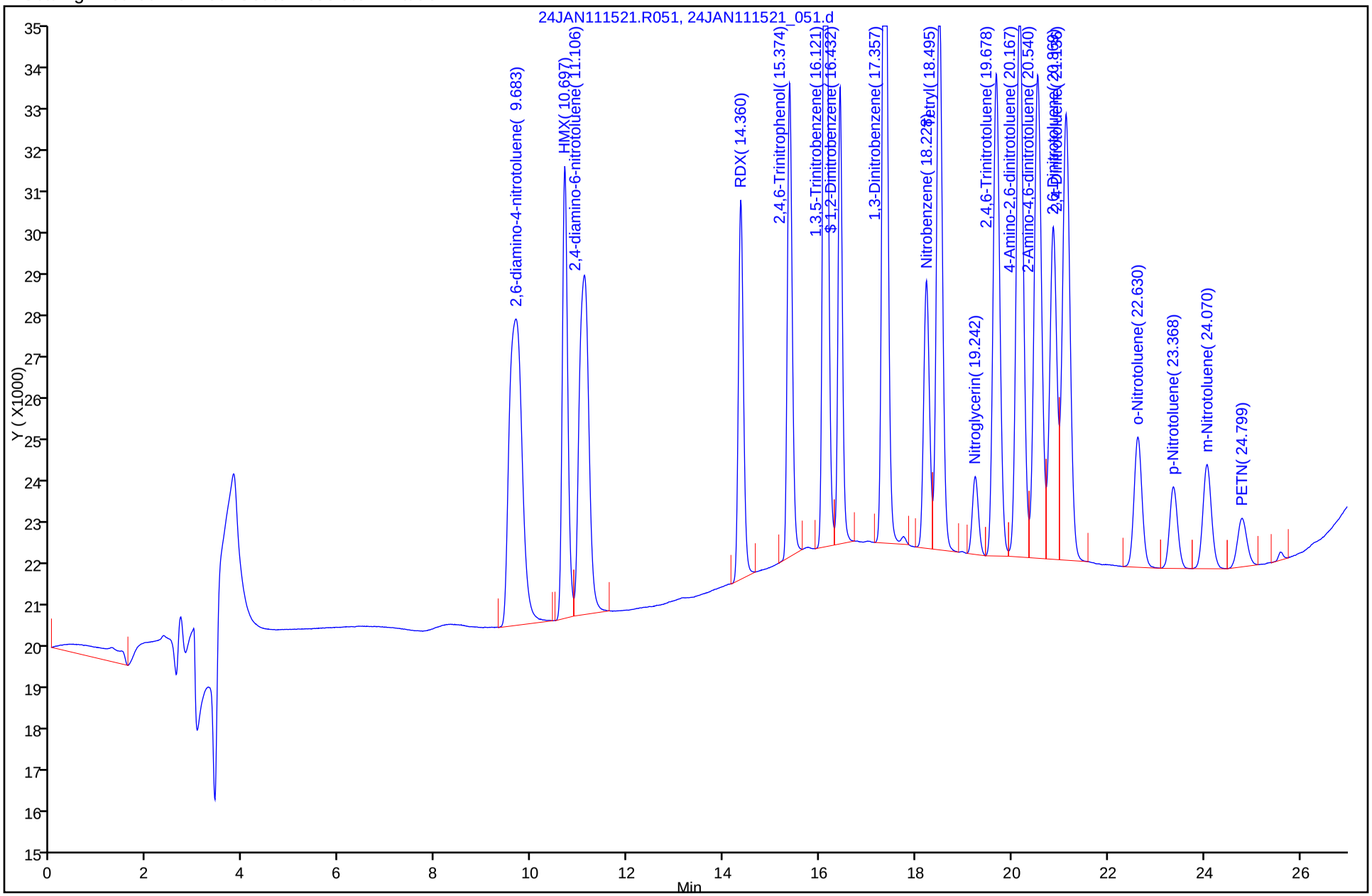
Injection Date: 24-Jan-2011 18:18:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 12556 Lims Sample ID: 5

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 09:28:45 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_061.d		
Lims ID:	IC 6	Client ID:	
Inject. Date:	24-Jan-2011 18:55:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	200-0000366-006		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	6
Lims Batch ID:	12556	Lims Sample ID:	6
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R061		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: robinsonw		Date:	25-Jan-2011 08:48:18

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	355209	499.4	
	3 HMX	10.697	10.697	0.0	218956	498.8	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	298763	499.0	
	7 RDX	14.360	14.363	-0.003	170087	500.6	
	8 2,4,6-Trinitrophenol	15.374	15.380	-0.006	203225	497.3	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	415125	500.4	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	178393	502.2	
	11 1,3-Dinitrobenzene	17.357	17.360	-0.003	403891	500.1	
	12 Nitrobenzene	18.228	18.228	0.0	136583	499.1	
	13 Tetryl	18.495	18.496	-0.001	296936	500.8	
	14 Nitroglycerin	19.242	19.239	0.003	42183	9946.8	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	287991	500.0	
	16 4-Amino-2,6-dinitrotoluene	20.167	20.171	-0.004	353330	500.4	
	17 2-Amino-4,6-dinitrotoluene	20.549	20.545	0.004	321687	500.2	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	211146	494.7	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	311745	504.6	
	20 o-Nitrotoluene	22.630	22.624	0.006	92632	501.6	
	21 p-Nitrotoluene	23.368	23.362	0.006	58166	500.8	
	22 m-Nitrotoluene	24.070	24.061	0.009	78521	498.6	
	23 PETN	24.799	24.789	0.010	41227	9921.5	

Report Date: 25-Jan-2011 09:28:45 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_061.d

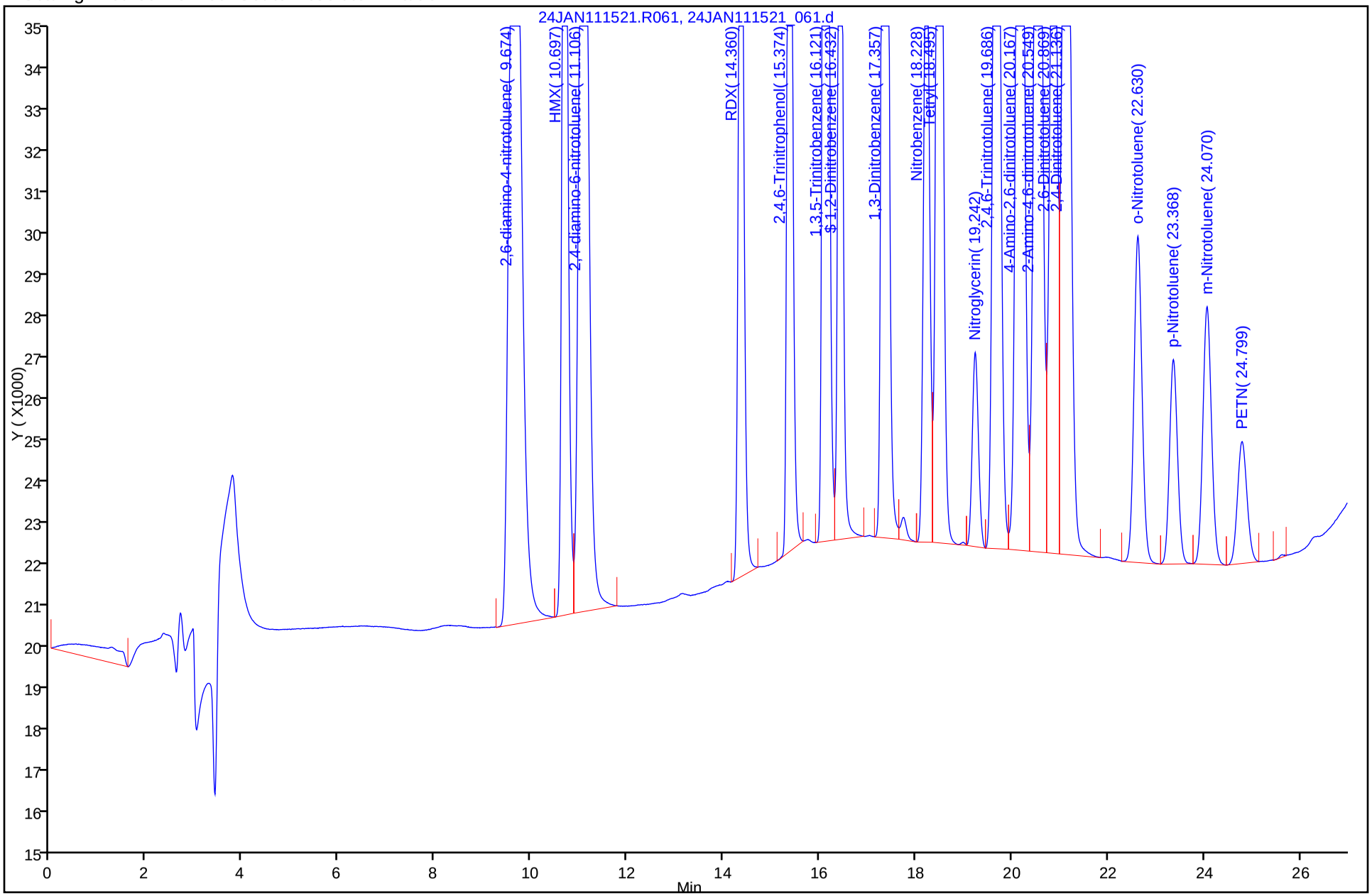
Injection Date: 24-Jan-2011 18:55:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 12556 Lims Sample ID: 6

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 09:28:46 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_071.d		
Lims ID:	IC 7	Client ID:	
Inject. Date:	24-Jan-2011 19:33:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	200-0000366-007		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	7
Lims Batch ID:	12556	Lims Sample ID:	7
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R071		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:49:03

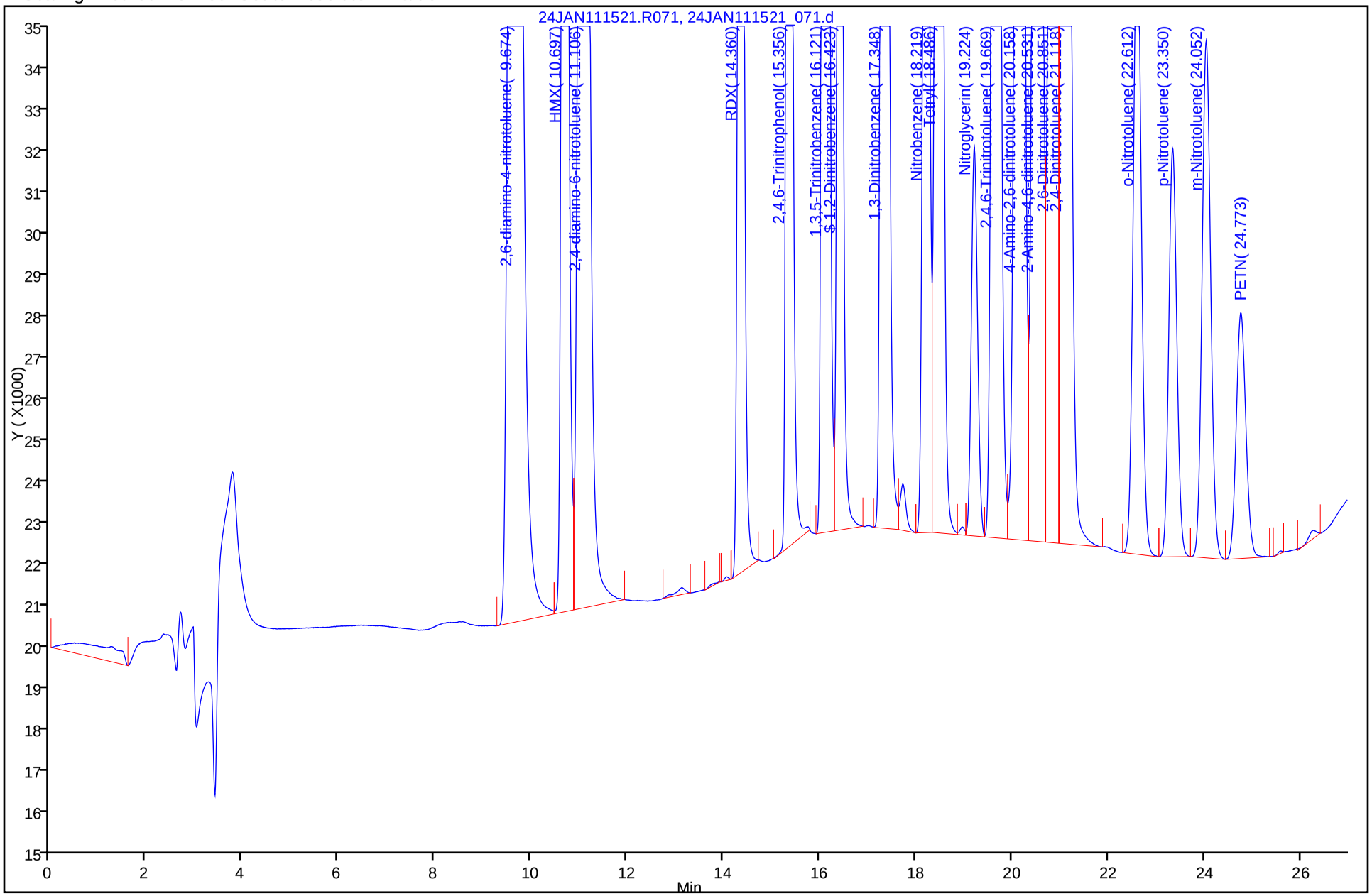
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	712698	1001.1	
	3 HMX	10.697	10.697	0.0	440242	1002.5	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	601919	1004.3	
	7 RDX	14.360	14.363	-0.003	339916	1000.0	
	8 2,4,6-Trinitrophenol	15.356	15.380	-0.024	410877	1004.9	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	828716	999.4	
$	10 1,2-Dinitrobenzene	16.423	16.432	-0.009	354757	999.8	
	11 1,3-Dinitrobenzene	17.348	17.360	-0.012	807154	999.5	
	12 Nitrobenzene	18.219	18.228	-0.009	273885	1001.0	
	13 Tetryl	18.486	18.496	-0.010	592267	999.0	
	14 Nitroglycerin	19.224	19.239	-0.015	85110	20078	
	15 2,4,6-Trinitrotoluene	19.669	19.684	-0.015	577169	1001.6	
	16 4-Amino-2,6-dinitrotoluene	20.158	20.171	-0.013	707480	1001.4	
	17 2-Amino-4,6-dinitrotoluene	20.531	20.545	-0.014	644235	1001.2	
	18 2,6-Dinitrotoluene	20.851	20.869	-0.018	429617	1006.3	
	19 2,4-Dinitrotoluene	21.118	21.134	-0.016	616790	998.3	
	20 o-Nitrotoluene	22.612	22.624	-0.012	184251	999.4	
	21 p-Nitrotoluene	23.350	23.362	-0.012	116040	999.2	
	22 m-Nitrotoluene	24.052	24.061	-0.009	156940	1000.1	
	23 PETN	24.773	24.789	-0.016	83759	20109	

Report Date: 25-Jan-2011 09:28:46 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_071.d

Injection Date:	24-Jan-2011 19:33:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12535

SDG No.: 5816

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,4-diamino-6-nitrotoluene	4.588	4.579	4.588	4.588	4.597	4.597					4.488 - 4.688	4.590
2,6-diamino-4-nitrotoluene	4.588	4.579	4.588	4.588	4.597	4.597					4.488 - 4.688	4.590
HMX	5.486	5.495	5.495	5.495	5.495	5.495					5.395 - 5.595	5.494
RDX	6.545	6.527	6.518	6.527	6.536	6.536					6.431 - 6.631	6.532
Picric acid	7.336	7.309	7.283	7.292	7.292	7.283					7.099 - 7.499	7.299
Nitroglycerin	9.515	9.532	9.524	9.532	9.532	9.541					9.429 - 9.629	9.529
Nitrobenzene	10.937	10.955	10.946	10.964	10.964	10.973					10.857 - 11.057	10.957
4-Amino-2,6-dinitrotoluene	11.916	11.907	11.916	11.916	11.924	11.933					11.818 - 12.018	11.919
2-Amino-4,6-dinitrotoluene	12.129	12.129	12.138	12.138	12.147	12.156					12.039 - 12.239	12.140
1,3-Dinitrobenzene	13.872	13.863	13.872	13.881	13.881	13.890					13.776 - 13.976	13.877
2-Nitrotoluene	15.143	15.170	15.188	15.188	15.188	15.197					15.088 - 15.288	15.179
PETN		15.481	15.472	15.464	15.472	15.472					15.368 - 15.568	15.472
3-Nitrotoluene	16.468	16.459	16.459	16.459	16.468	16.477					16.365 - 16.565	16.465
4-Nitrotoluene	16.468	16.459	16.459	16.459	16.468	16.477					16.365 - 16.565	16.465
2,6-Dinitrotoluene	17.197	17.197	17.197	17.197	17.197	17.206					17.099 - 17.299	17.199
1,3,5-Trinitrobenzene	18.478	18.451	18.460	18.442	18.425	18.407					18.344 - 18.544	18.444
2,4-Dinitrotoluene	19.518	19.509	19.518	19.518	19.518	19.518					19.417 - 19.617	19.517
Tetryl	19.518	19.509	19.518	19.518	19.518	19.518					19.417 - 19.617	19.517
2,4,6-Trinitrotoluene	21.786	21.759	21.777	21.768	21.768	21.768					21.671 - 21.871	21.771
1,2-Dinitrobenzene	11.426	11.409	11.426	11.426	11.426	11.435					11.325 - 11.525	11.425

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12535

SDG No.: 5816

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,4-diamino-6-nitrotoluene	901.75 1096.3	899.64 1090.4	988.97	1071.4	Lin1	-6110.6104	1093.62680							1.0000		0.9900
2,6-diamino-4-nitrotoluene	901.75 1096.3	899.64 1090.4	988.97	1071.4	Lin1	-6110.6104	1093.62680							1.0000		0.9900
HMX	733.90 847.94	698.72 835.44	762.12	823.67	Lin1	-2007.1412	839.831287							1.0000		0.9900
RDX	548.30 581.95	558.96 573.50	556.26	577.22	Lin1	-382.54343	576.741883							1.0000		0.9900
Picric acid	595.50 713.62	677.84 704.27	643.36	700.95	Lin1	-1267.9206	708.091610							1.0000		0.9900
Nitroglycerin	6.5650 7.9725	7.9800 7.7246	8.0230	7.7583	Lin1	-107.70958	7.82135175							1.0000		0.9900
Nitrobenzene	569.70 454.89	438.80 447.21	450.36	453.97	Lin1	745.910925	448.270327							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	1150.8 1138.1	1142.5 1121.0	1126.5	1120.7	Lin1	279.518702	1125.43131							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	1365.6 1233.6	1234.4 1208.7	1210.3	1246.6	Lin1	1163.10664	1217.29768							1.0000		0.9900
1,3-Dinitrobenzene	1340.3 1394.0	1329.2 1384.9	1357.3	1395.3	Lin1	-811.25239	1389.54707							1.0000		0.9900
2-Nitrotoluene	249.50 316.00	311.00 320.41	304.72	317.59	Lin1	-596.12221	319.895089							1.0000		0.9900
PETN	 8.5131	10.152 8.3567	11.316	8.8020	Lin1	1610.67006	8.33269436							0.9980		0.9900
3-Nitrotoluene	252.85 252.88	260.34 253.40	247.16	248.37	Lin1	-9.0495680	252.626694							1.0000		0.9900
4-Nitrotoluene	252.85 252.88	260.34 253.40	247.16	248.37	Lin1	-9.0495680	252.626694							1.0000		0.9900
2,6-Dinitrotoluene	683.90 739.14	726.76 735.47	732.06	727.90	Lin1	-443.90069	736.632719							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12535

SDG No.: 5816

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
1,3,5-Trinitrobenzene	1424.6 1439.0	1439.5 1427.5	1424.9	1422.0	Lin1	-24.796783	1430.29848							1.0000		0.9900
2,4-Dinitrotoluene	1049.8 1045.8	1018.8 1035.4	1027.3	1035.8	Lin1	-204.10323	1038.34611							1.0000		0.9900
Tetryl	1049.8 1045.8	1018.8 1035.4	1027.3	1035.8	Lin1	-204.10323	1038.34611							1.0000		0.9900
2,4,6-Trinitrotoluene	839.50 826.63	859.16 816.42	828.18	817.57	Lin1	437.384266	818.995907							1.0000		0.9900
1,2-Dinitrobenzene	714.30 601.71	584.96 594.14	603.16	593.74	Lin1	743.701683	594.509686							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12535

SDG No.: 5816

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-diamino-6-nitrotoluene	Lin1	18035 2180774	44982	98897	428551	1096345	20.0 2000	50.0	100	400	1000
2,6-diamino-4-nitrotoluene	Lin1	18035 2180774	44982	98897	428551	1096345	20.0 2000	50.0	100	400	1000
HMX	Lin1	7339 835440	17468	38106	164734	423969	10.0 1000	25.0	50.0	200	500
RDX	Lin1	5483 573503	13974	27813	115443	290973	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	5955 704265	16946	32168	140190	356812	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	1313 154492	3990	8023	31033	79725	200 20000	500	1000	4000	10000
Nitrobenzene	Lin1	5697 447213	10970	22518	90794	227446	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	11508 1121006	28563	56323	224139	569033	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	13656 1208685	30859	60514	249327	616814	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	13403 1384917	33229	67867	279053	697005	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	2495 320412	7775	15236	63518	158000	10.0 1000	25.0	50.0	200	500
PETN	Lin1	 167133	5076	11316	35208	85131	 20000	500	1000	4000	10000
3-Nitrotoluene	Lin1	5057 506807	13017	24716	99347	252879	20.0 2000	50.0	100	400	1000
4-Nitrotoluene	Lin1	5057 506807	13017	24716	99347	252879	20.0 2000	50.0	100	400	1000
2,6-Dinitrotoluene	Lin1	6839 735466	18169	36603	145579	369570	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	14246 1427535	35988	71247	284398	719520	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5816-1 Analy Batch No.: 12535

SDG No.: 5816

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-Dinitrotoluene	Lin1	20996 2070853	50939	102728	414327	1045828	20.0 2000	50.0	100	400	1000
Tetryl	Lin1	20996 2070853	50939	102728	414327	1045828	20.0 2000	50.0	100	400	1000
2,4,6-Trinitrotoluene	Lin1	8395 816421	21479	41409	163513	413315	10.0 1000	25.0	50.0	200	500
1,2-Dinitrobenzene	Lin1	7143 594135	14624	30158	118747	300855	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_021.d		
Lims ID:	IC 2	Client ID:	
Inject. Date:	24-Jan-2011 13:27:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	200-0000363-002		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	2
Lims Batch ID:	12535	Lims Sample ID:	2
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R021		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:35:19

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	18035	22.1	
	6 2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	18035	22.1	
	14 HMX	5.486	5.495	-0.009	7339	11.1	
	22 RDX	6.545	6.531	0.014	5483	10.2	
	4 2,4,6-Trinitrophenol	7.336	7.299	0.037	5955	10.2	
	18 Nitroglycerin	9.515	9.529	-0.014	1313	181.6	
	17 Nitrobenzene	10.937	10.957	-0.020	5697	11.0	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	7143	10.8	
	11 4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	11508	9.98	
	10 2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	13656	10.3	
	3 1,3-Dinitrobenzene	13.872	13.876	-0.004	13403	10.2	
	19 o-Nitrotoluene	15.143	15.188	-0.045	2495	9.66	
	21 PETN	15.490	15.468	0.022	2385	92.9	
	15 m-Nitrotoluene	16.468	16.465	0.003	5057	20.1	
	20 p-Nitrotoluene	16.468	16.465	0.003	5057	20.1	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	6839	9.89	
	2 1,3,5-Trinitrobenzene	18.478	18.444	0.034	14246	9.98	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	20996	20.4	
	23 Tetryl	19.518	19.517	0.001	20996	20.4	
	5 2,4,6-Trinitrotoluene	21.786	21.771	0.015	8395	9.72	

Report Date: 25-Jan-2011 13:05:55 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_021.d

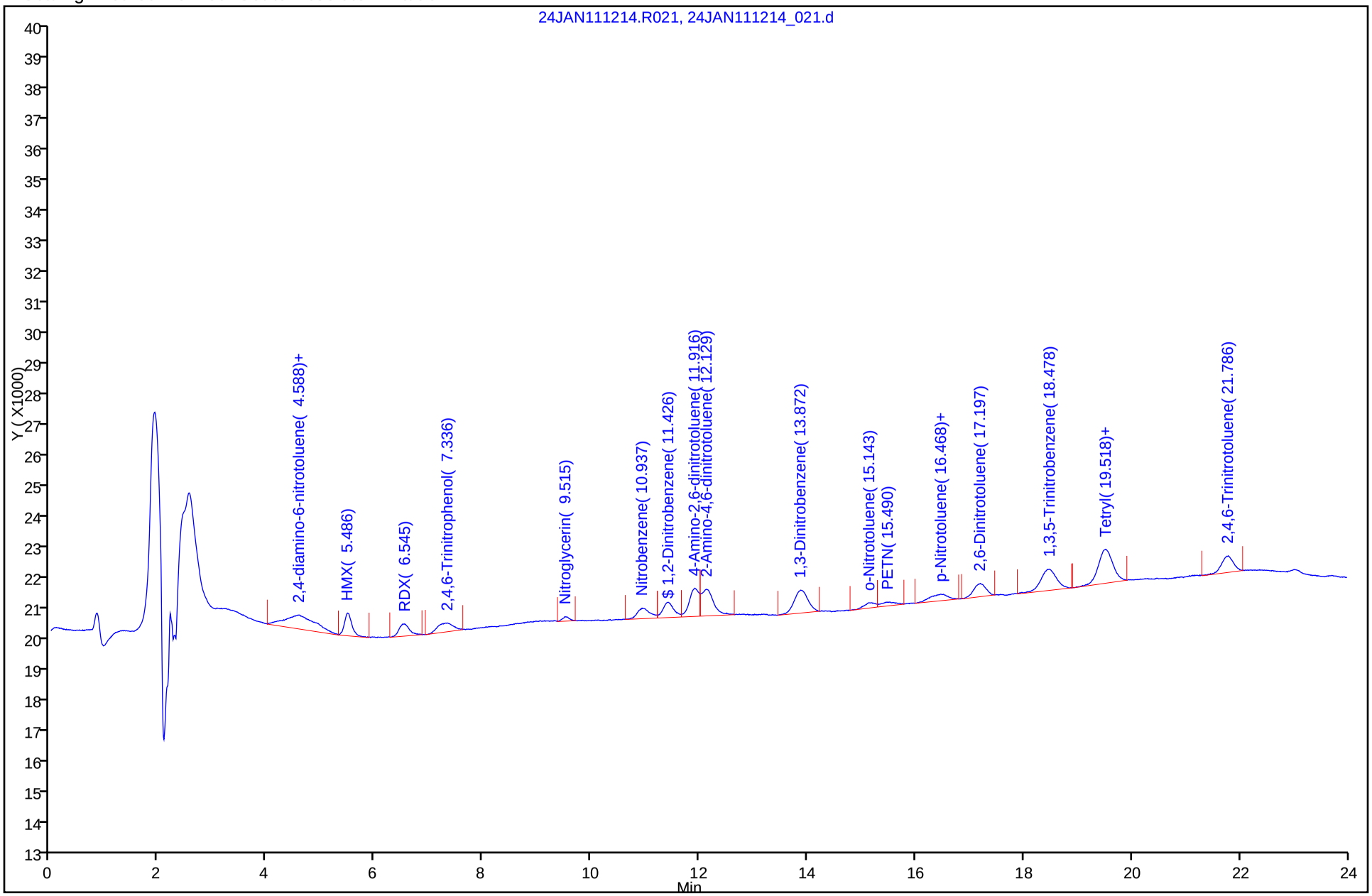
Injection Date: 24-Jan-2011 13:27:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1488

Lims Batch ID: 12535 Lims Sample ID: 2

Operator ID: WBR Injection Vol: 450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value

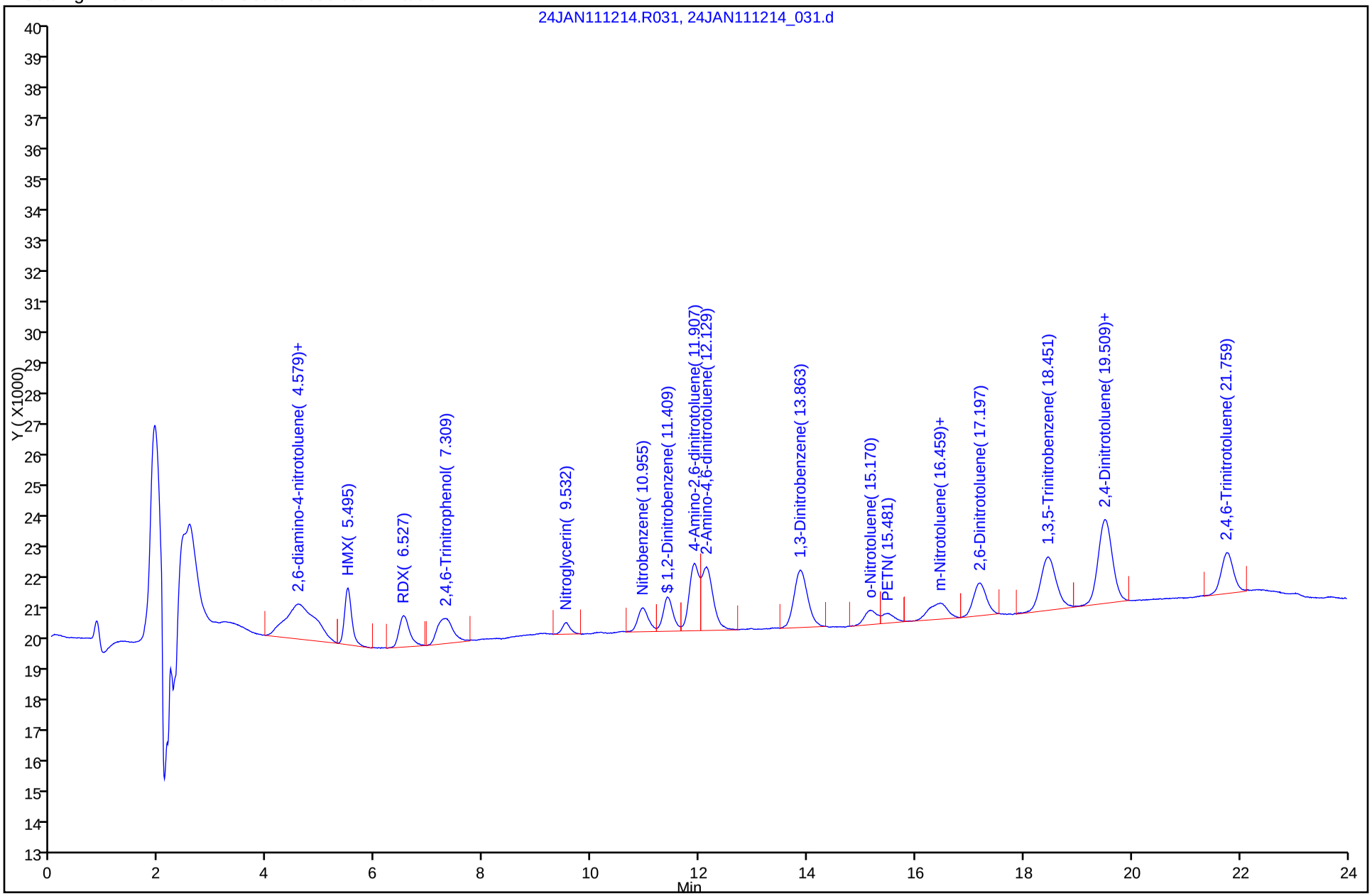


TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_031.d		
Lims ID:	IC 3	Client ID:	
Inject. Date:	24-Jan-2011 14:02:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	200-0000363-003		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	3
Lims Batch ID:	12535	Lims Sample ID:	3
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R031		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:33:37

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.579	4.588	-0.009	44982	46.7	
	6 2,4-diamino-6-nitrotoluene	4.579	4.588	-0.009	44982	46.7	
	14 HMX	5.495	5.495	0.0	17468	23.2	
	22 RDX	6.527	6.531	-0.004	13974	24.9	
	4 2,4,6-Trinitrophenol	7.309	7.299	0.010	16946	25.7	
	18 Nitroglycerin	9.532	9.529	0.003	3990	523.9	
	17 Nitrobenzene	10.955	10.957	-0.002	10970	22.8	
$	1 1,2-Dinitrobenzene	11.409	11.425	-0.016	14624	23.3	
	11 4-Amino-2,6-dinitrotoluene	11.907	11.918	-0.011	28563	25.1	
	10 2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	30859	24.4	
	3 1,3-Dinitrobenzene	13.863	13.876	-0.013	33229	24.5	
	19 o-Nitrotoluene	15.170	15.188	-0.018	7775	26.2	
	21 PETN	15.481	15.468	0.013	5076	415.9	
	15 m-Nitrotoluene	16.459	16.465	-0.006	13017	51.6	
	20 p-Nitrotoluene	16.459	16.465	-0.006	13017	51.6	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	18169	25.3	
	2 1,3,5-Trinitrobenzene	18.451	18.444	0.007	35988	25.2	
	7 2,4-Dinitrotoluene	19.509	19.517	-0.008	50939	49.3	
	23 Tetryl	19.509	19.517	-0.008	50939	49.3	
	5 2,4,6-Trinitrotoluene	21.759	21.771	-0.012	21479	25.7	

Report Date: 25-Jan-2011 13:05:56 Chrom Revision: 1.2 17-Jan-2011 07:58:36
Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_031.d
Injection Date: 24-Jan-2011 14:02:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 12535 Lims Sample ID: 3
Operator ID: WBR Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Lims ID:	IC 4	Client ID:	
Inject. Date:	24-Jan-2011 14:36:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	4
Sample ID:	200-0000363-004		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	4
Lims Batch ID:	12535	Lims Sample ID:	4
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R041		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer:	hammondr	Date:	25-Jan-2011 11:20:05

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	98897	96.0	M
	6 2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	98897	96.0	M
	14 HMX	5.495	5.495	0.0	38106	47.8	M
	22 RDX	6.518	6.531	-0.013	27813	48.9	
	4 2,4,6-Trinitrophenol	7.283	7.299	-0.016	32168	47.2	
	18 Nitroglycerin	9.524	9.529	-0.005	8023	1039.6	
	17 Nitrobenzene	10.946	10.957	-0.011	22518	48.6	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	30158	49.5	
	11 4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	56323	49.8	
	10 2-Amino-4,6-dinitrotoluene	12.138	12.139	-0.001	60514	48.8	
	3 1,3-Dinitrobenzene	13.872	13.876	-0.004	67867	49.4	
	19 o-Nitrotoluene	15.188	15.188	0.0	15236	49.5	
	21 PETN	15.472	15.468	0.004	11316	1164.7	
	15 m-Nitrotoluene	16.459	16.465	-0.006	24716	97.9	
	20 p-Nitrotoluene	16.459	16.465	-0.006	24716	97.9	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	36603	50.3	
	2 1,3,5-Trinitrobenzene	18.460	18.444	0.016	71247	49.8	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	102728	99.1	
	23 Tetryl	19.518	19.517	0.001	102728	99.1	
	5 2,4,6-Trinitrotoluene	21.777	21.771	0.006	41409	50.0	

QC Flag Legend

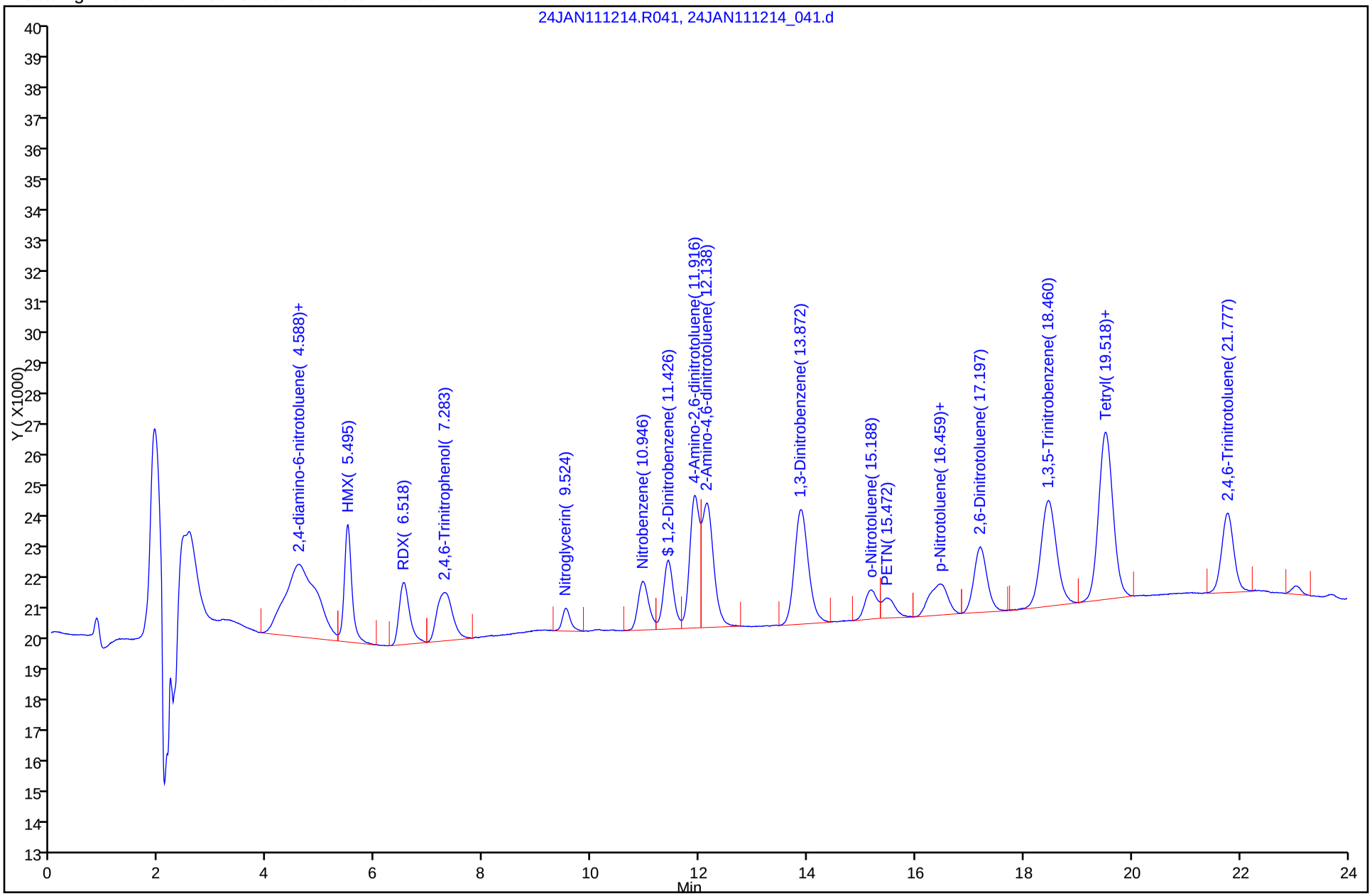
Review Flags
M - Manually Integrated

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d

Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

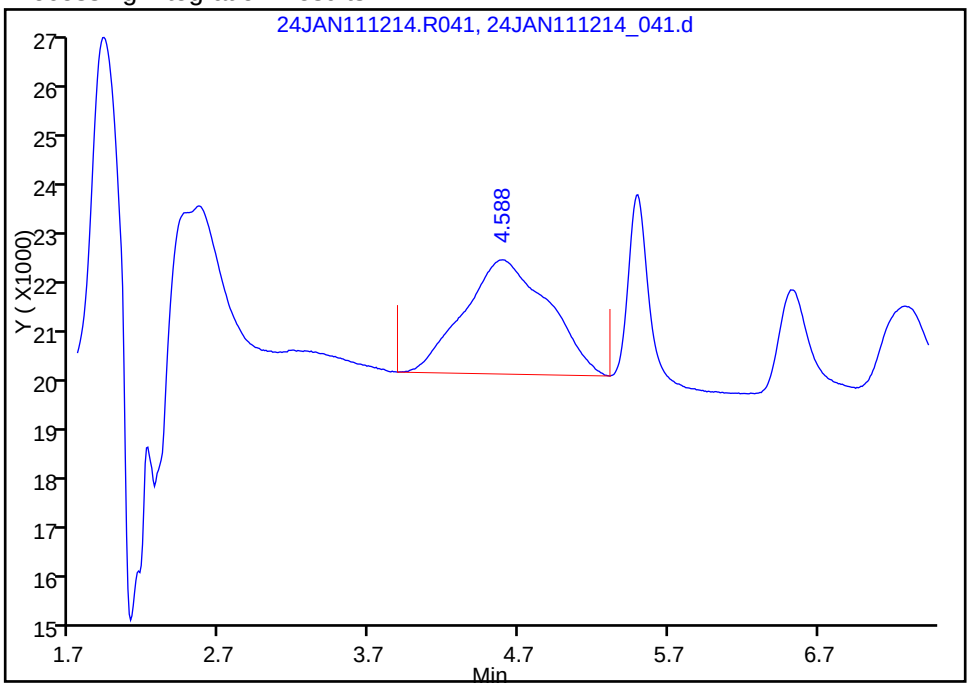
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

6 2,4-diamino-6-nitrotoluene, Signal: 1, Type: quant, RT: 4.59

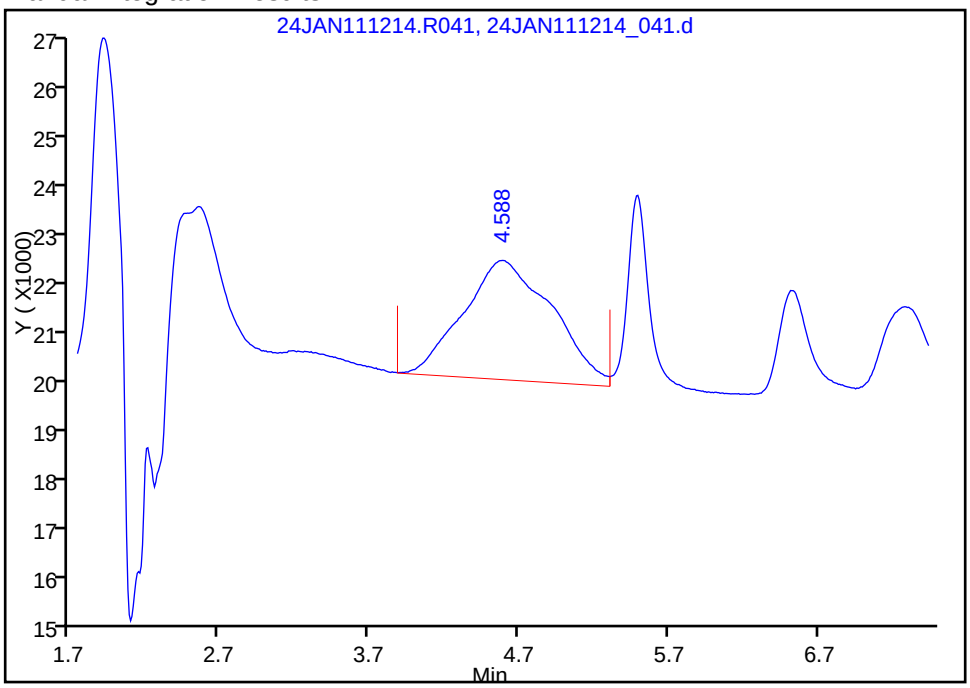
Processing Integration Results

RT: 4.59
Response: 90318
Amount: 89.119729



Manual Integration Results

RT: 4.59
Response: 98897
Amount: 96.017774



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

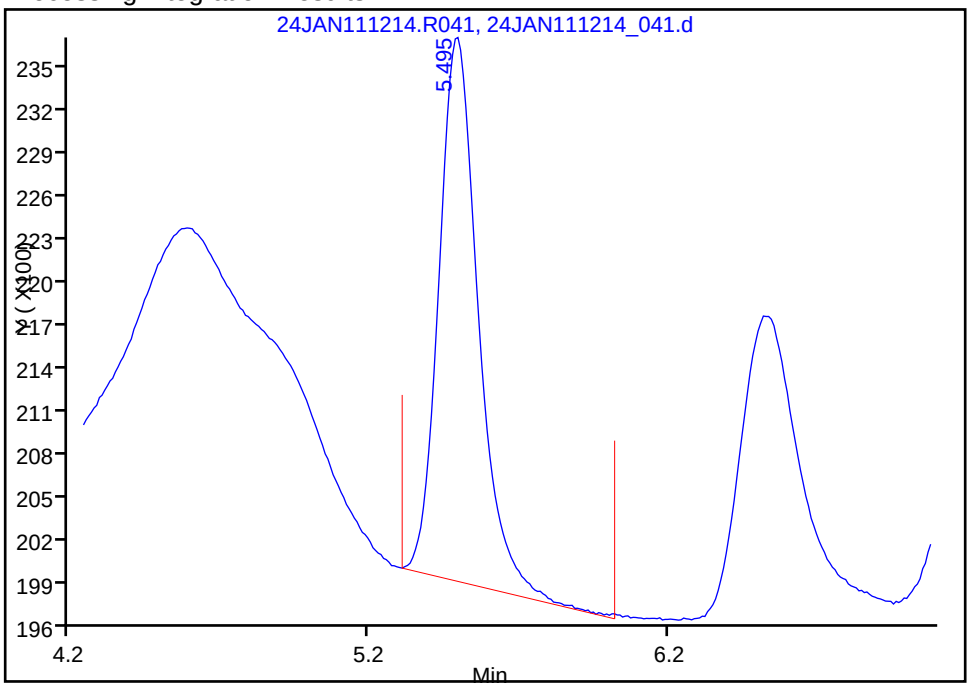
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

14 HMX, Signal: 1, Type: quant, RT: 5.50

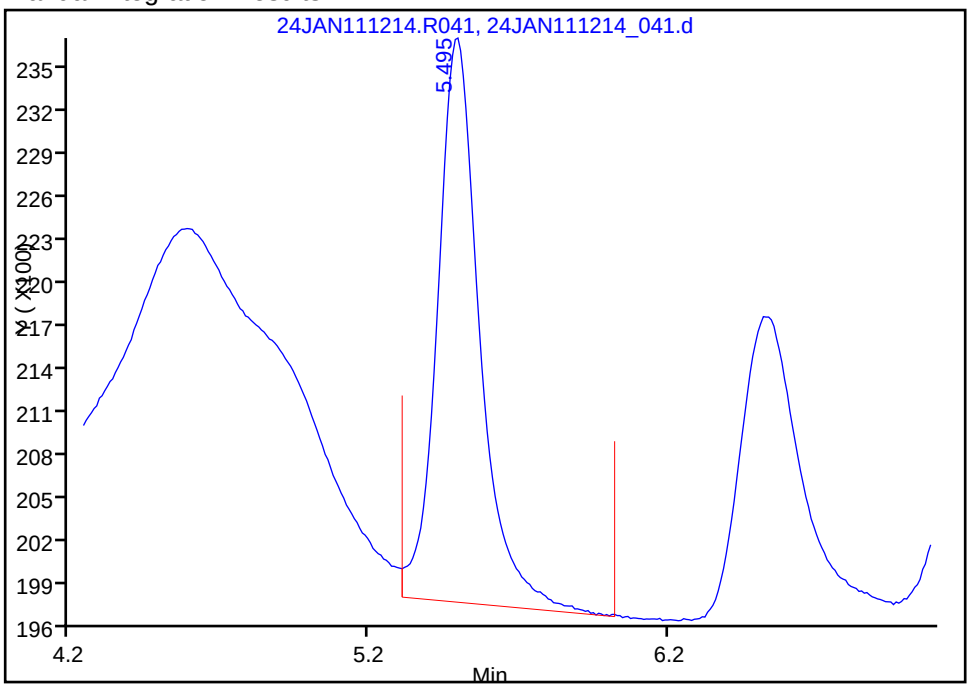
Processing Integration Results

RT: 5.50
Response: 34371
Amount: 43.852037



Manual Integration Results

RT: 5.50
Response: 38106
Amount: 47.763333



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

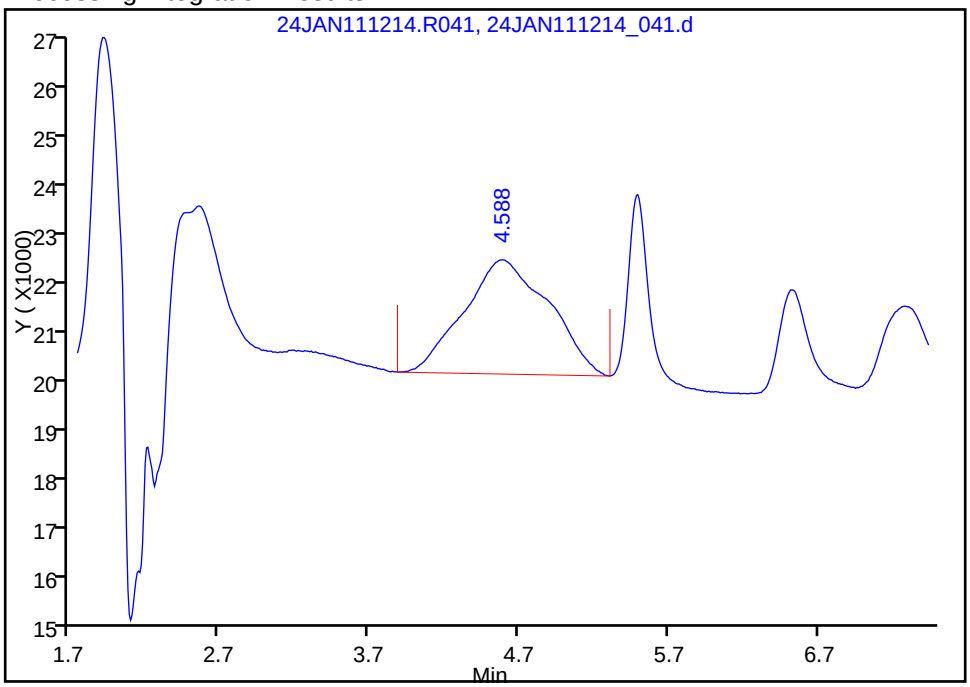
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

8 2,6-diamino-4-nitrotoluene, Signal: 1, Type: quant, RT: 4.59

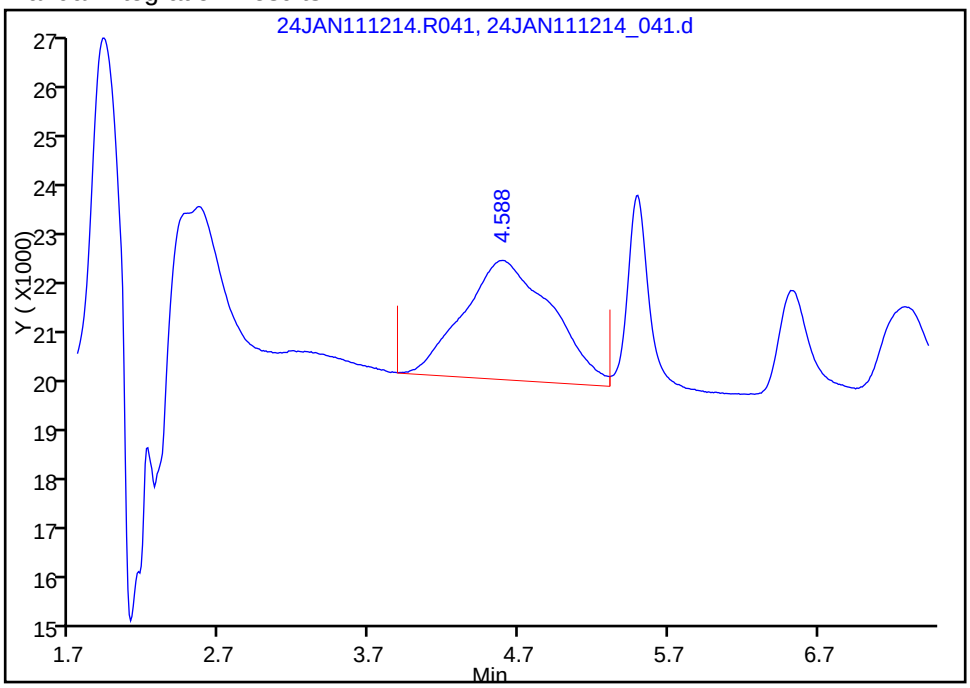
Processing Integration Results

RT: 4.59
Response: 90318
Amount: 89.119729



Manual Integration Results

RT: 4.59
Response: 98897
Amount: 96.017774



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Lims ID:	ICRTAV 5	Client ID:	
Inject. Date:	24-Jan-2011 15:10:00	Dil. Factor:	1.0000
Sample Type:	ICRTAV	Calib Level:	5
Sample ID:	200-0000363-005		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	5
Lims Batch ID:	12535	Lims Sample ID:	5
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R051		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: hammondr Date: 25-Jan-2011 11:26:21

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8	2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	428551	397.4	
6	2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	428551	397.4	
14	HMX	5.495	5.495	0.0	164734	198.5	
22	RDX	6.527	6.531	-0.004	115443	200.8	
4	2,4,6-Trinitrophenol	7.292	7.299	-0.007	140190	199.8	
18	Nitroglycerin	9.532	9.529	0.003	31033	3981.5	
17	Nitrobenzene	10.964	10.957	0.007	90794	200.9	
$ 1	1,2-Dinitrobenzene	11.426	11.425	0.001	118747	198.5	
11	4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	224139	198.9	
10	2-Amino-4,6-dinitrotoluene	12.138	12.139	-0.001	249327	203.9	
3	1,3-Dinitrobenzene	13.881	13.876	0.005	279053	201.4	
19	o-Nitrotoluene	15.188	15.188	0.0	63518	200.4	M
21	PETN	15.464	15.468	-0.004	35208	4032.0	A
15	m-Nitrotoluene	16.459	16.465	-0.006	99347	393.3	
20	p-Nitrotoluene	16.459	16.465	-0.006	99347	393.3	
9	2,6-Dinitrotoluene	17.197	17.199	-0.002	145579	198.2	
2	1,3,5-Trinitrobenzene	18.442	18.444	-0.002	284398	198.9	
7	2,4-Dinitrotoluene	19.518	19.517	0.001	414327	399.2	
23	Tetryl	19.518	19.517	0.001	414327	399.2	
5	2,4,6-Trinitrotoluene	21.768	21.771	-0.003	163513	199.1	

QC Flag Legend

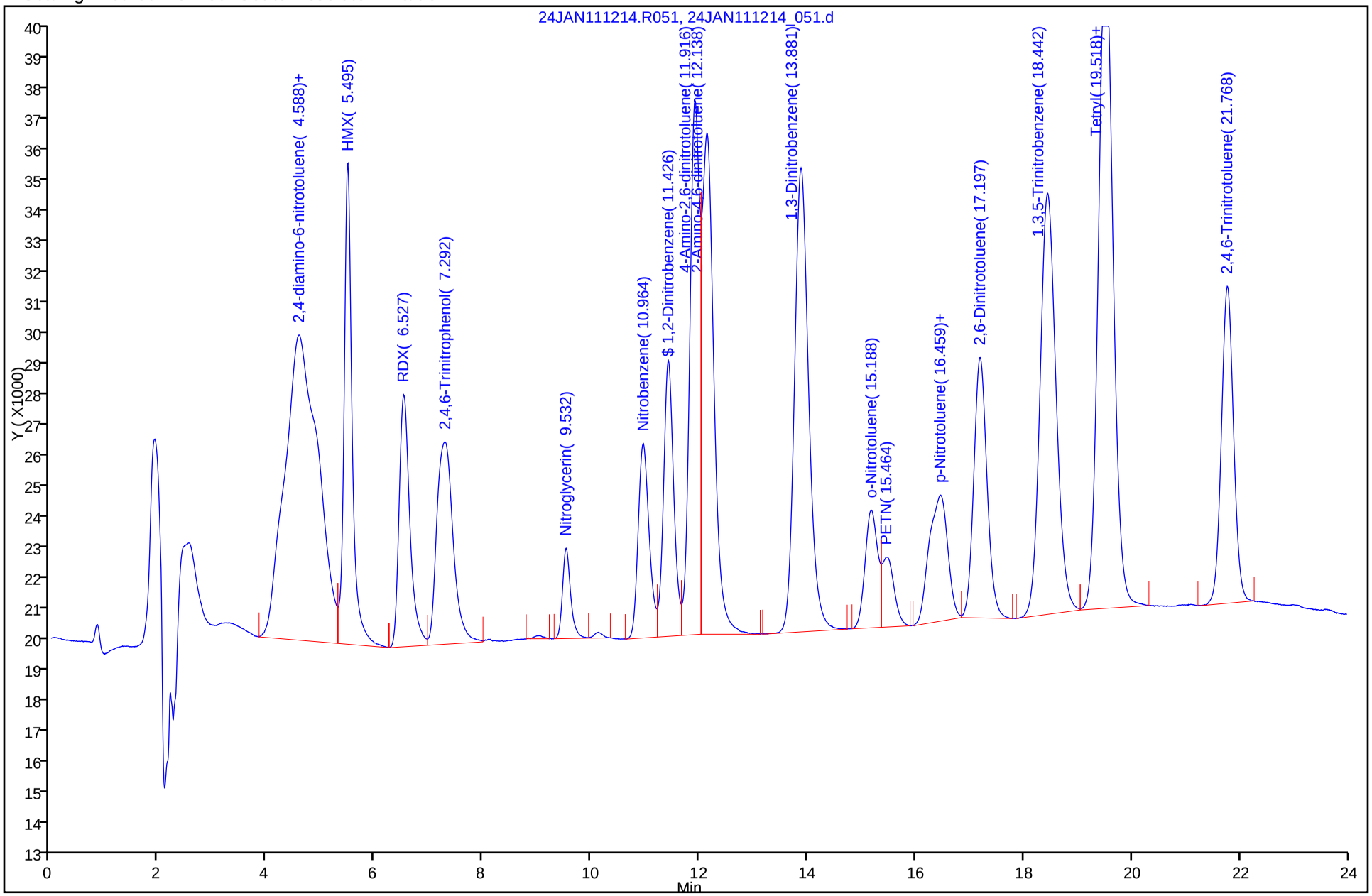
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d

Injection Date:	24-Jan-2011 15:10:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	5
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

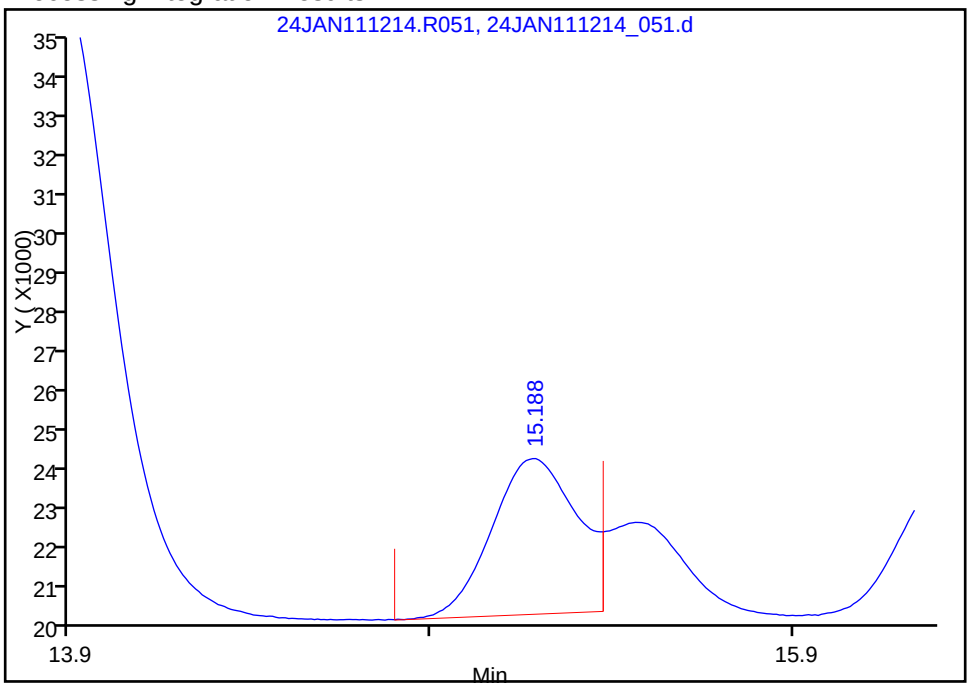
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Injection Date:	24-Jan-2011 15:10:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	5
Operator ID:	WBR	Injection Vol:	450.00 ul

19 o-Nitrotoluene, Signal: 1, Type: quant, RT: 15.19

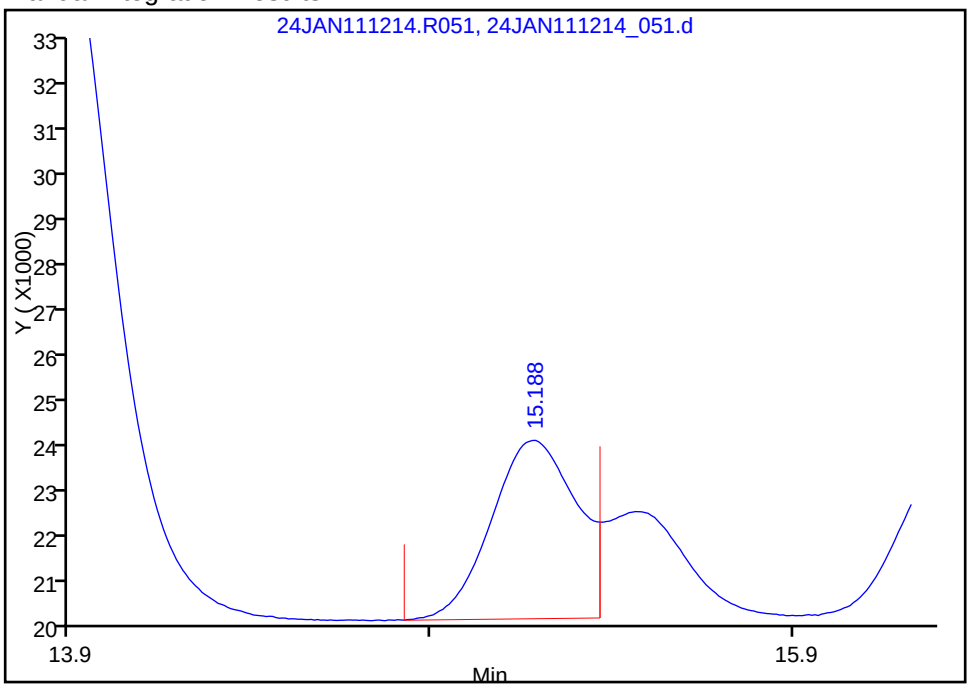
Processing Integration Results

RT: 15.19
Response: 62146
Amount: 196.6220



Manual Integration Results

RT: 15.19
Response: 63518
Amount: 200.4223



Reviewer: hammondr, 25-Jan-2011 11:46:24
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

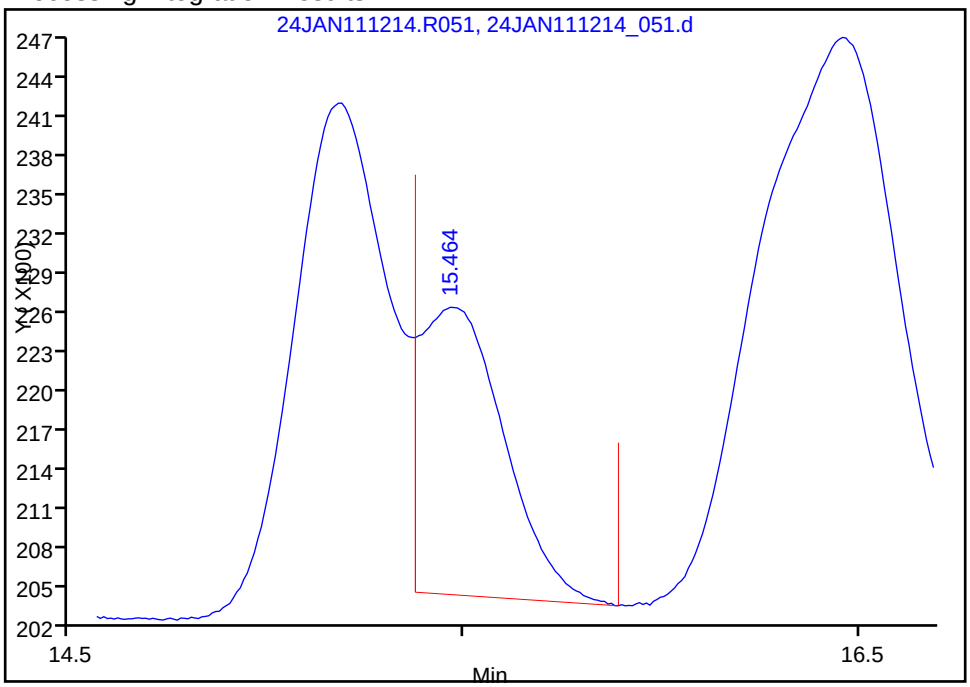
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Injection Date:	24-Jan-2011 15:10:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	5
Operator ID:	WBR	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.47

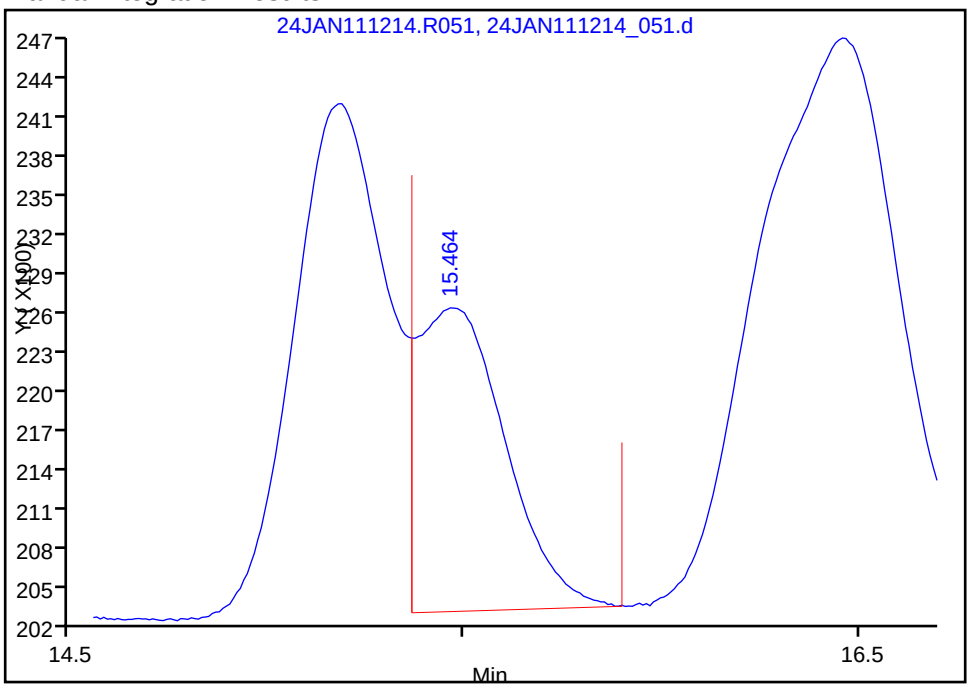
Processing Integration Results

RT: 15.46
Response: 31778
Amount: 3670.9728



Manual Integration Results

RT: 15.46
Response: 35208
Amount: 4031.9888



Reviewer: hammondr, 25-Jan-2011 11:46:24
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_061.d		
Lims ID:	IC 6	Client ID:	
Inject. Date:	24-Jan-2011 15:44:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	200-0000363-006		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	6
Lims Batch ID:	12535	Lims Sample ID:	6
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R061		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:32:43

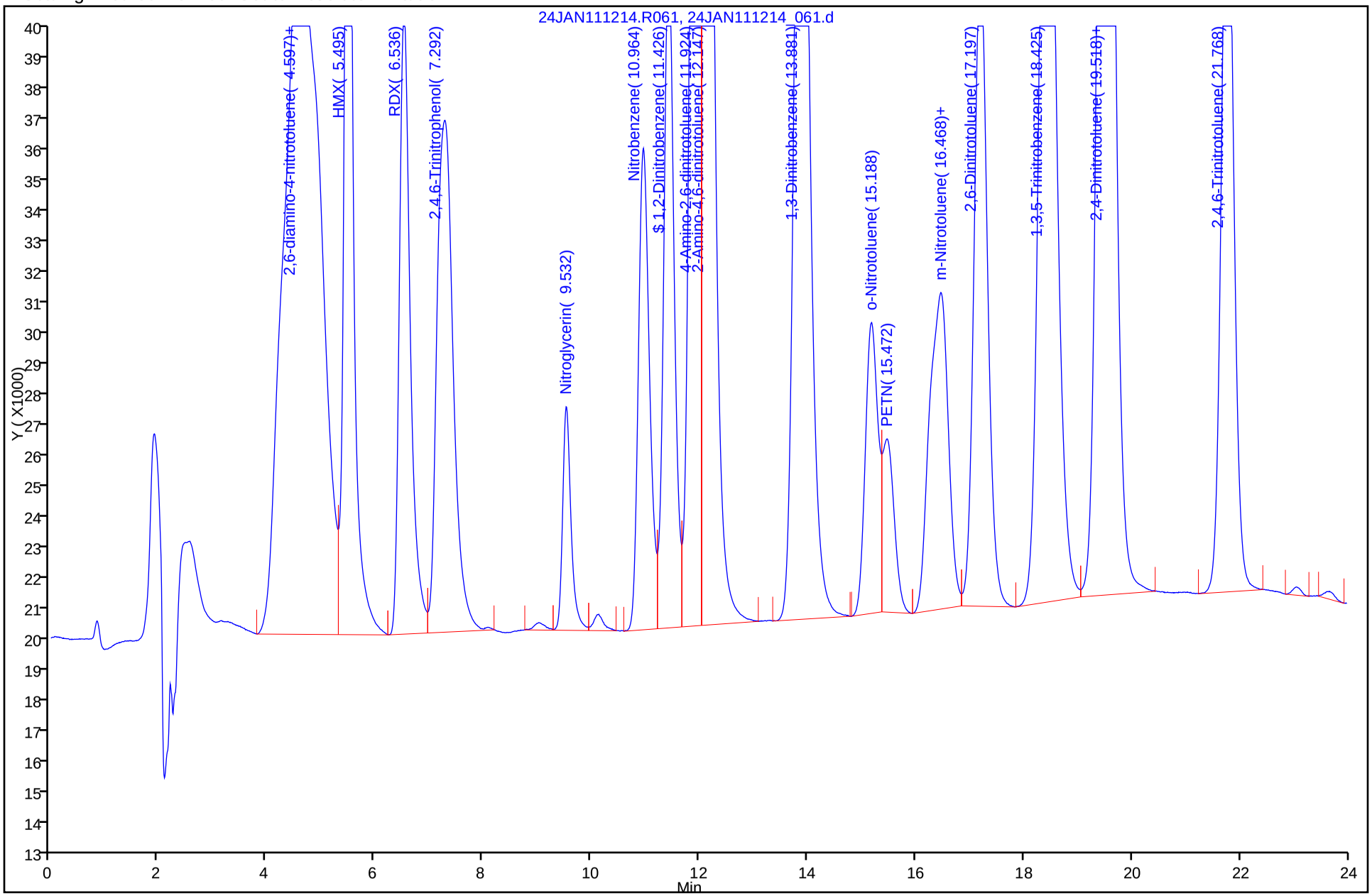
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.597	4.588	0.009	1096345	1008.1	
	6 2,4-diamino-6-nitrotoluene	4.597	4.588	0.009	1096345	1008.1	
	14 HMX	5.495	5.495	0.0	423969	507.2	
	22 RDX	6.536	6.531	0.005	290973	505.2	
	4 2,4,6-Trinitrophenol	7.292	7.299	-0.007	356812	505.7	
	18 Nitroglycerin	9.532	9.529	0.003	79725	10207	
	17 Nitrobenzene	10.964	10.957	0.007	227446	505.7	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	300855	504.8	
	11 4-Amino-2,6-dinitrotoluene	11.924	11.918	0.006	569033	505.4	
	10 2-Amino-4,6-dinitrotoluene	12.147	12.139	0.008	616814	505.8	
	3 1,3-Dinitrobenzene	13.881	13.876	0.005	697005	502.2	
	19 o-Nitrotoluene	15.188	15.188	0.0	158000	495.8	
	21 PETN	15.472	15.468	0.004	85131	10023	
	15 m-Nitrotoluene	16.468	16.465	0.003	252879	1001.0	
	20 p-Nitrotoluene	16.468	16.465	0.003	252879	1001.0	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	369570	502.3	
	2 1,3,5-Trinitrobenzene	18.425	18.444	-0.019	719520	503.1	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	1045828	1007.4	
	23 Tetryl	19.518	19.517	0.001	1045828	1007.4	
	5 2,4,6-Trinitrotoluene	21.768	21.771	-0.003	413315	504.1	

Report Date: 25-Jan-2011 13:05:59 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_061.d

Injection Date:	24-Jan-2011 15:44:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	6
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_071.d		
Lims ID:	IC 7	Client ID:	
Inject. Date:	24-Jan-2011 16:18:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	200-0000363-007		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	7
Lims Batch ID:	12535	Lims Sample ID:	7
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R071		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:32:36

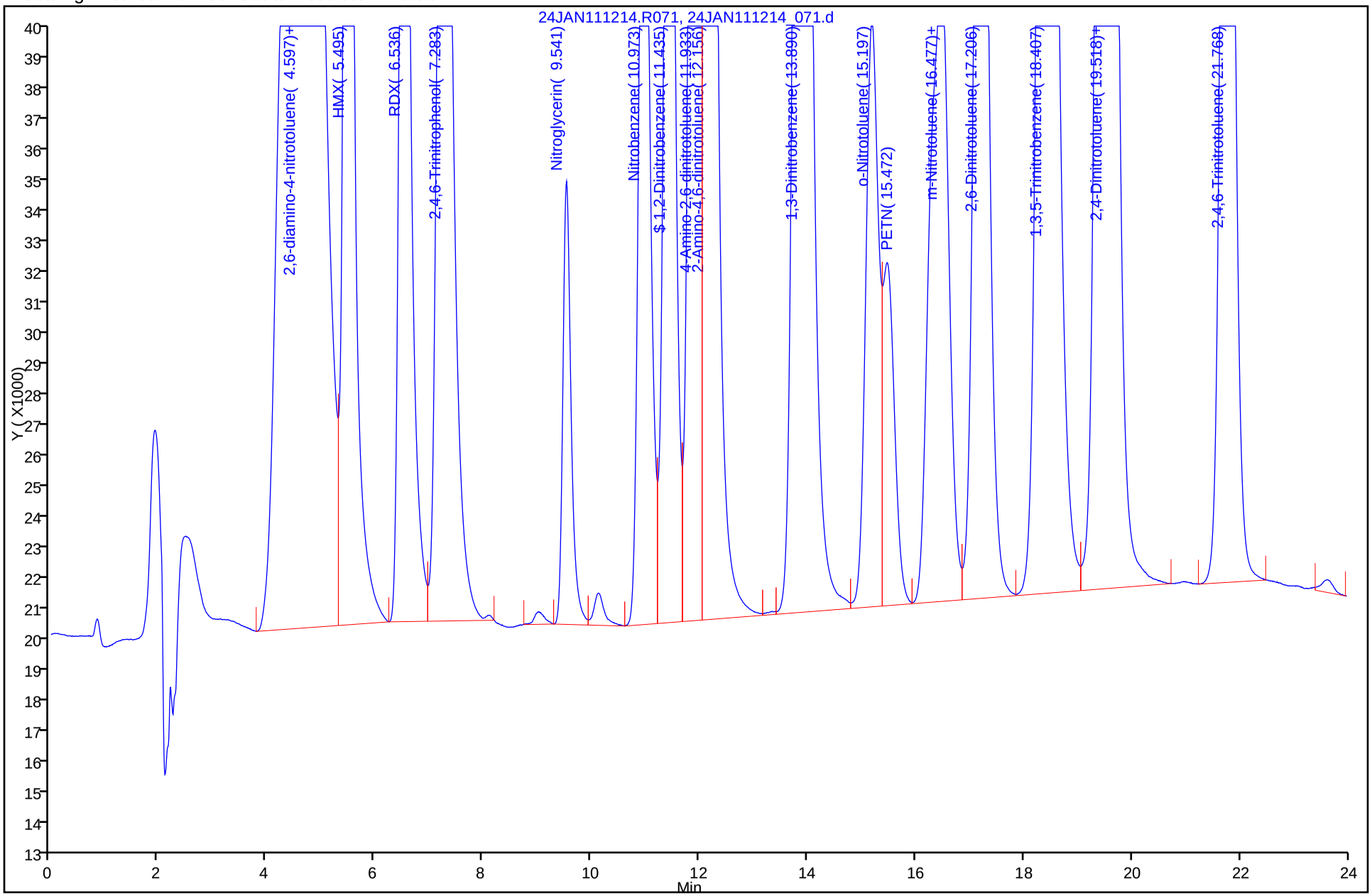
Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8 2,6-diamino-4-nitrotoluene	4.597	4.588	0.009	2180774	1999.7	
6 2,4-diamino-6-nitrotoluene	4.597	4.588	0.009	2180774	1999.7	
14 HMX	5.495	5.495	0.0	835440	997.2	
22 RDX	6.536	6.531	0.005	573503	995.0	
4 2,4,6-Trinitrophenol	7.283	7.299	-0.016	704265	996.4	
18 Nitroglycerin	9.541	9.529	0.012	154492	19766	
17 Nitrobenzene	10.973	10.957	0.016	447213	996.0	
$ 1 1,2-Dinitrobenzene	11.435	11.425	0.010	594135	998.1	
11 4-Amino-2,6-dinitrotoluene	11.933	11.918	0.015	1121006	995.8	
10 2-Amino-4,6-dinitrotoluene	12.156	12.139	0.017	1208685	992.0	
3 1,3-Dinitrobenzene	13.890	13.876	0.014	1384917	997.3	
19 o-Nitrotoluene	15.197	15.188	0.009	320412	1003.5	
21 PETN	15.472	15.468	0.004	167133	19864	
15 m-Nitrotoluene	16.477	16.465	0.012	506807	2006.2	
20 p-Nitrotoluene	16.477	16.465	0.012	506807	2006.2	
9 2,6-Dinitrotoluene	17.206	17.199	0.007	735466	999.0	
2 1,3,5-Trinitrobenzene	18.407	18.444	-0.037	1427535	998.1	
7 2,4-Dinitrotoluene	19.518	19.517	0.001	2070853	1994.6	
23 Tetryl	19.518	19.517	0.001	2070853	1994.6	
5 2,4,6-Trinitrotoluene	21.768	21.771	-0.003	816421	996.3	

Report Date: 25-Jan-2011 13:06:00 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_071.d

Injection Date:	24-Jan-2011 16:18:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	7
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: ICV 200-12556/16 Calibration Date: 01/25/2011 01:10

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 24JAN111521_161.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		666.1		188	200	-6.1	30.0
HMX	Lin1		432.3		197	200	-1.4	30.0
2,4-diamino-6-nitrotoluene	Lin1		611.0		205	200	2.4	30.0
RDX	Lin1		362.7		214	200	6.9	30.0
Picric acid	Lin1		395.8		194	200	-3.0	30.0
1,3,5-Trinitrobenzene	Lin1		858.5		207	200	3.4	30.0
1,3-Dinitrobenzene	Lin1		828.3		205	200	2.5	30.0
Nitrobenzene	Lin1		269.1		197	200	-1.7	30.0
Tetryl	Lin1		579.9		196	200	-2.2	30.0
Nitroglycerin	Lin1		4.210		3970	4000	-0.9	30.0
2,4,6-Trinitrotoluene	Lin1		638.5		222	200	10.9	30.0
4-Amino-2,6-dinitrotoluene	Lin1		756.1		215	200	7.3	30.0
2-Amino-4,6-dinitrotoluene	Lin1		673.4		210	200	4.9	30.0
2,6-Dinitrotoluene	Lin1		431.2		202	200	1.1	30.0
2,4-Dinitrotoluene	Lin1		654.4		212	200	5.9	30.0
2-Nitrotoluene	Lin1		182.5		197	200	-1.7	30.0
4-Nitrotoluene	Lin1		116.6		201	200	0.4	30.0
3-Nitrotoluene	Lin1		158.3		199	200	-0.5	30.0
PETN	Lin1		4.219		4090	4000	2.2	30.0
1,2-Dinitrobenzene	Lin1		358.4		201	200	0.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: ICV 200-12556/16 Calibration Date: 01/25/2011 01:10

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 24JAN111521_161.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.58	9.78
HMX	10.69	10.60	10.80
2,4-diamino-6-nitrotoluene	11.10	11.01	11.21
RDX	14.35	14.26	14.46
Picric acid	15.37	15.28	15.48
1,3,5-Trinitrobenzene	16.11	16.03	16.23
1,3-Dinitrobenzene	17.35	17.26	17.46
Nitrobenzene	18.21	18.13	18.33
Tetryl	18.48	18.40	18.60
Nitroglycerin	19.22	19.14	19.34
2,4,6-Trinitrotoluene	19.66	19.58	19.78
4-Amino-2,6-dinitrotoluene	20.14	20.07	20.27
2-Amino-4,6-dinitrotoluene	20.51	20.45	20.65
2,6-Dinitrotoluene	20.83	20.77	20.97
2,4-Dinitrotoluene	21.10	21.03	21.23
2-Nitrotoluene	22.59	22.52	22.72
4-Nitrotoluene	23.33	23.26	23.46
3-Nitrotoluene	24.04	23.96	24.16
PETN	24.77	24.69	24.89
1,2-Dinitrobenzene	16.41	16.33	16.53

Report Date: 25-Jan-2011 09:28:53 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_161.d
Lims ID: ICV Client ID:
Inject. Date: 25-Jan-2011 01:10:00 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: 200-0000366-016
Misc. Info.:
Operator: RJH Instrument ID: CH1208
Vol. Injected: 150.0000 ALS Bottle#: 16
Lims Batch ID: 12556 Lims Sample ID: 16
Sublist:
Detector: A-24JAN111521.R161

Method: \\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m
Last Update: 25-Jan-2011 09:28:52 Calib Date: 24-Jan-2011 23:18:00
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d
Limit Group: LC_8330B_Limits
Integrator: Falcon
Process Host: TAIBUR0100

First Level Reviewer: robinsonw Date: 25-Jan-2011 09:19:30

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	133223	187.9	
3	HMX	10.688	10.697	-0.009	86455	197.2	
4	2,4-diamino-6-nitrotoluene	11.097	11.107	-0.010	122191	204.7	
7	RDX	14.351	14.363	-0.012	72533	213.8	
8	2,4,6-Trinitrophenol	15.365	15.380	-0.015	79156	194.1	
9	1,3,5-Trinitrobenzene	16.112	16.125	-0.013	171706	206.8	
$ 10	1,2-Dinitrobenzene	16.414	16.432	-0.018	71680	201.1	
11	1,3-Dinitrobenzene	17.348	17.360	-0.012	165667	205.0	
12	Nitrobenzene	18.210	18.228	-0.018	53825	196.6	
13	Tetryl	18.477	18.496	-0.019	115979	195.6	
14	Nitroglycerin	19.224	19.239	-0.015	16840	3965.5	
15	2,4,6-Trinitrotoluene	19.660	19.684	-0.024	127694	221.9	
16	4-Amino-2,6-dinitrotoluene	20.140	20.171	-0.031	151216	214.5	
17	2-Amino-4,6-dinitrotoluene	20.513	20.545	-0.032	134674	209.8	
18	2,6-Dinitrotoluene	20.834	20.869	-0.035	86247	202.2	
19	2,4-Dinitrotoluene	21.100	21.134	-0.034	130871	211.9	
20	o-Nitrotoluene	22.594	22.624	-0.030	36503	196.6	
21	p-Nitrotoluene	23.332	23.362	-0.030	23323	200.7	
22	m-Nitrotoluene	24.035	24.061	-0.026	31651	198.9	
23	PETN	24.773	24.789	-0.016	16877	4089.0	

Report Date: 25-Jan-2011 09:28:53 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_161.d

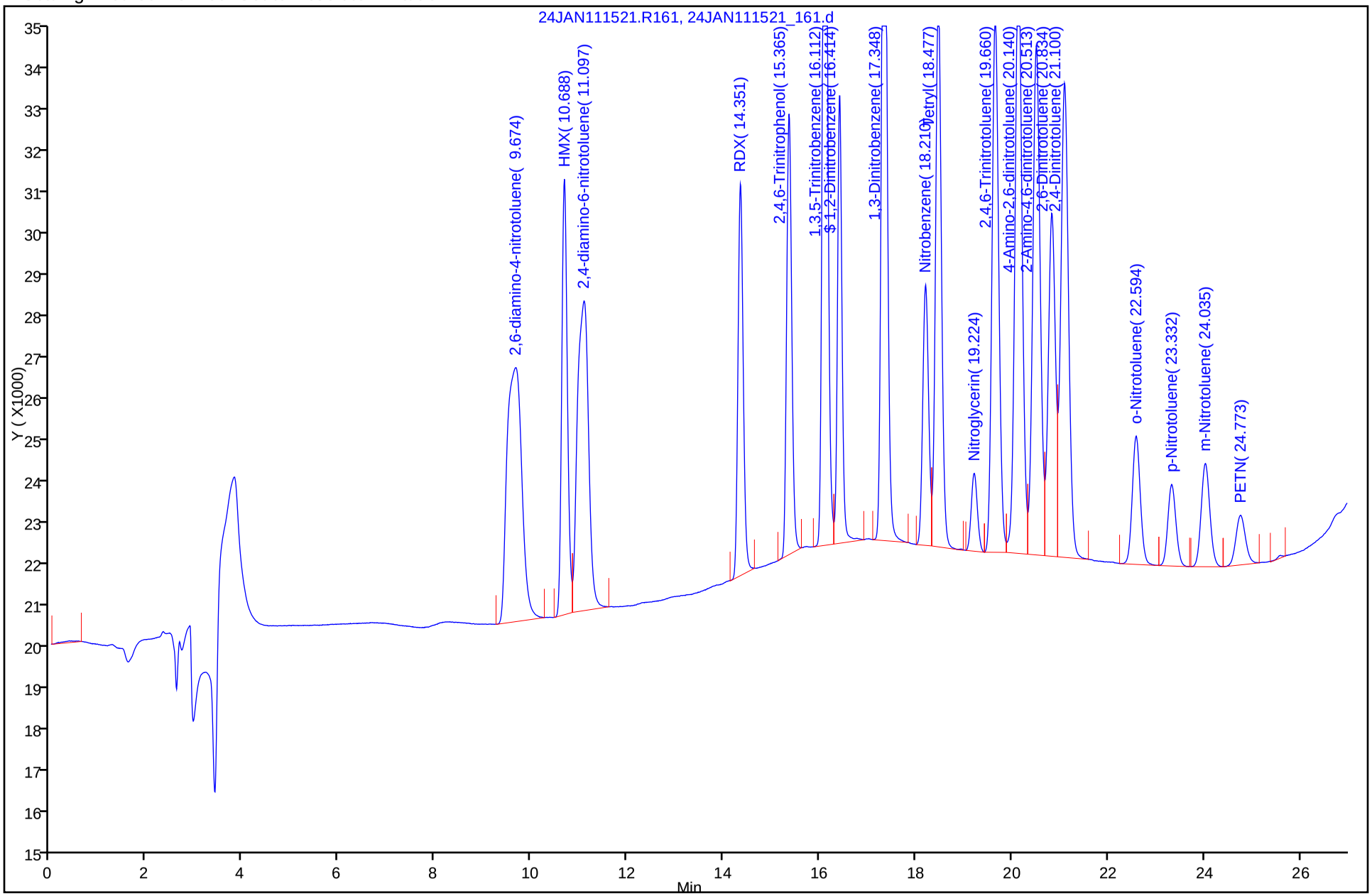
Injection Date: 25-Jan-2011 01:10:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 12556 Lims Sample ID: 16

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCVRT 200-21368/1 Calibration Date: 07/13/2011 11:48

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 12JUL111532_011.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		684.5		193	200	-3.5	20.0
HMX	Lin1		444.3		203	200	1.3	20.0
2,4-diamino-6-nitrotoluene	Lin1		574.7		193	200	-3.7	20.0
RDX	Lin1		344.8		203	200	1.6	20.0
Picric acid	Lin1		403.7		198	200	-1.0	20.0
1,3,5-Trinitrobenzene	Lin1		849.7		205	200	2.3	20.0
1,3-Dinitrobenzene	Lin1		785.2		194	200	-2.9	20.0
Nitrobenzene	Lin1		276.6		202	200	1.0	20.0
Tetryl	Lin1		595.3		201	200	0.4	20.0
Nitroglycerin	Lin1		4.124		3880	4000	-2.9	20.0
2,4,6-Trinitrotoluene	Lin1		592.9		206	200	3.1	20.0
4-Amino-2,6-dinitrotoluene	Lin1		711.7		202	200	1.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		648.5		202	200	1.0	20.0
2,6-Dinitrotoluene	Lin1		439.8		206	200	3.1	20.0
2,4-Dinitrotoluene	Lin1		616.8		200	200	-0.2	20.0
2-Nitrotoluene	Lin1		190.6		205	200	2.7	20.0
4-Nitrotoluene	Lin1		118.5		204	200	2.0	20.0
3-Nitrotoluene	Lin1		161.8		203	200	1.7	20.0
PETN	Lin1		4.181		4050	4000	1.3	20.0
1,2-Dinitrobenzene	Lin1		338.3		190	200	-5.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCVRT 200-21368/1 Calibration Date: 07/13/2011 11:48

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 12JUL111532_011.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.69	9.59	9.79
HMX	10.72	10.62	10.82
2,4-diamino-6-nitrotoluene	11.12	11.02	11.22
RDX	14.37	14.27	14.47
Picric acid	15.40	15.30	15.50
1,3,5-Trinitrobenzene	16.13	16.03	16.23
1,3-Dinitrobenzene	17.38	17.28	17.48
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.51	18.41	18.61
Nitroglycerin	19.26	19.16	19.36
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.19	20.09	20.29
2-Amino-4,6-dinitrotoluene	20.57	20.47	20.67
2,6-Dinitrotoluene	20.89	20.79	20.99
2,4-Dinitrotoluene	21.16	21.06	21.26
2-Nitrotoluene	22.66	22.56	22.76
4-Nitrotoluene	23.39	23.29	23.49
3-Nitrotoluene	24.09	23.99	24.19
PETN	24.82	24.72	24.92
1,2-Dinitrobenzene	16.44	16.34	16.54

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_011.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Jul-2011 11:48:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000843-001		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	1
Lims Batch ID:	21368	Lims Sample ID:	1
Sublist:	chrom-8330_C18*sub1		
Detector:	A-12JUL111532.R011		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	14-Jul-2011 09:16:07

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.692	9.692	0.0	136902	193.0	
	3 HMX	10.715	10.715	0.0	88850	202.6	
	4 2,4-diamino-6-nitrotoluene	11.115	11.115	0.0	114944	192.7	
	7 RDX	14.369	14.369	0.0	68951	203.2	
	8 2,4,6-Trinitrophenol	15.401	15.401	0.0	80735	197.9	
	9 1,3,5-Trinitrobenzene	16.130	16.130	0.0	169943	204.6	
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	67669	189.8	
	11 1,3-Dinitrobenzene	17.375	17.375	0.0	157030	194.3	
	12 Nitrobenzene	18.237	18.237	0.0	55317	202.1	
	13 Tetryl	18.513	18.513	0.0	119066	200.8	
	14 Nitroglycerin	19.260	19.260	0.0	16496	3884.3	
	15 2,4,6-Trinitrotoluene	19.704	19.704	0.0	118583	206.1	
	16 4-Amino-2,6-dinitrotoluene	20.193	20.193	0.0	142334	202.0	
	17 2-Amino-4,6-dinitrotoluene	20.567	20.567	0.0	129693	202.0	
	18 2,6-Dinitrotoluene	20.887	20.887	0.0	87954	206.2	
	19 2,4-Dinitrotoluene	21.163	21.163	0.0	123363	199.7	
	20 o-Nitrotoluene	22.656	22.656	0.0	38126	205.4	
	21 p-Nitrotoluene	23.394	23.394	0.0	23697	204.0	
	22 m-Nitrotoluene	24.088	24.088	0.0	32359	203.4	
	23 PETN	24.817	24.817	0.0	16722	4051.9	

Report Date: 18-Jul-2011 11:58:46 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_011.d

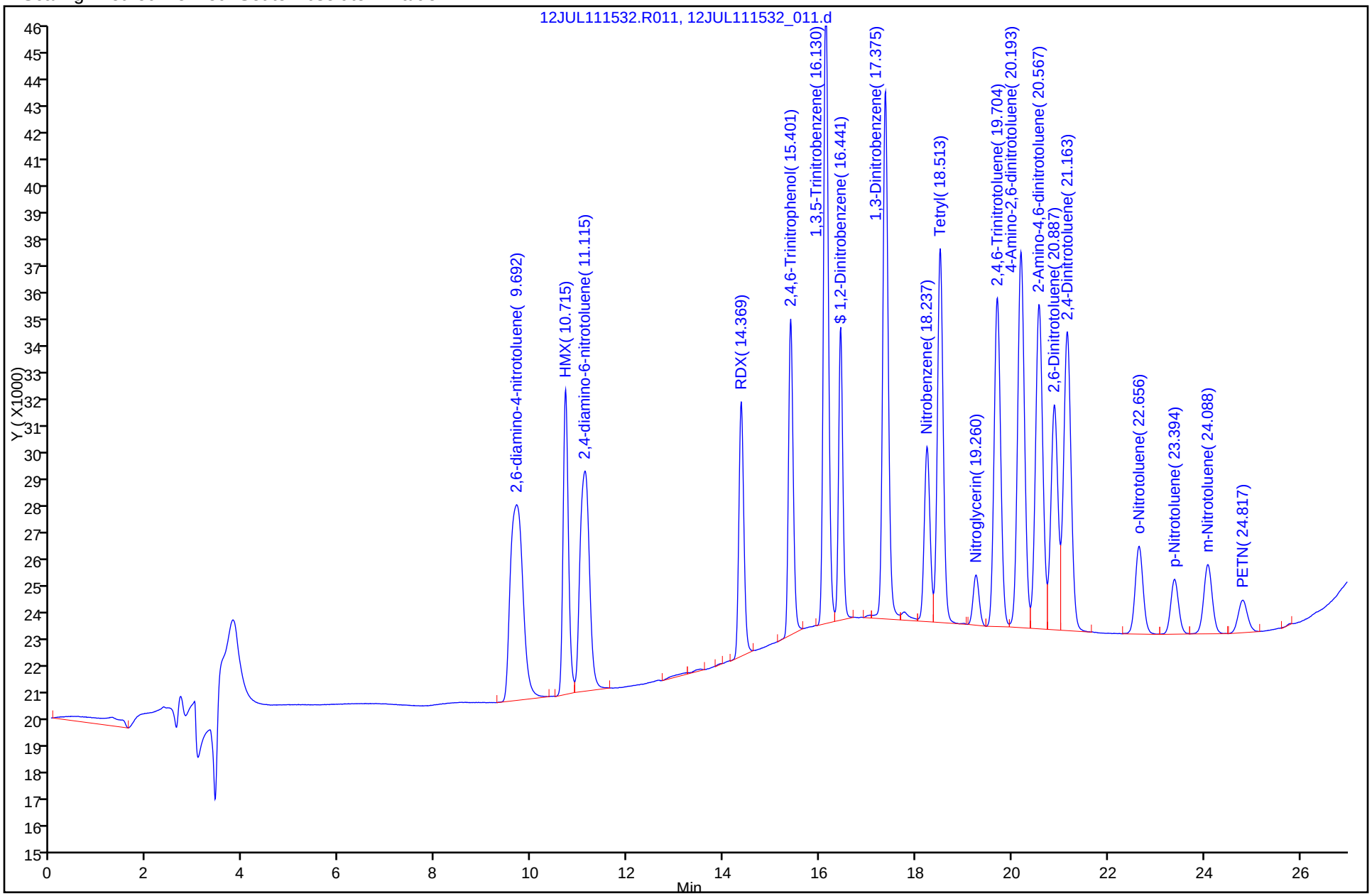
Injection Date: 13-Jul-2011 11:48:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 21368 Lims Sample ID: 1

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCV 200-21368/15 Calibration Date: 07/13/2011 20:32

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 12JUL111532_151.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		679.5		192	200	-4.2	20.0
HMX	Lin1		442.2		202	200	0.8	20.0
2,4-diamino-6-nitrotoluene	Lin1		569.9		191	200	-4.5	20.0
RDX	Lin1		344.6		203	200	1.6	20.0
Picric acid	Lin1		406.6		199	200	-0.3	20.0
1,3,5-Trinitrobenzene	Lin1		850.7		205	200	2.5	20.0
1,3-Dinitrobenzene	Lin1		778.8		193	200	-3.6	20.0
Nitrobenzene	Lin1		270.9		198	200	-1.0	20.0
Tetryl	Lin1		588.4		198	200	-0.8	20.0
Nitroglycerin	Lin1		4.140		3900	4000	-2.5	20.0
2,4,6-Trinitrotoluene	Lin1		591.4		206	200	2.8	20.0
4-Amino-2,6-dinitrotoluene	Lin1		709.8		201	200	0.7	20.0
2-Amino-4,6-dinitrotoluene	Lin1		647.0		202	200	0.8	20.0
2,6-Dinitrotoluene	Lin1		438.6		206	200	2.9	20.0
2,4-Dinitrotoluene	Lin1		621.6		201	200	0.7	20.0
2-Nitrotoluene	Lin1		189.1		204	200	1.9	20.0
4-Nitrotoluene	Lin1		118.8		205	200	2.3	20.0
3-Nitrotoluene	Lin1		160.1		201	200	0.6	20.0
PETN	Lin1		4.157		4030	4000	0.7	20.0
1,2-Dinitrobenzene	Lin1		340.1		191	200	-4.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCV 200-21368/15 Calibration Date: 07/13/2011 20:32

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 12JUL111532_151.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.70	9.59	9.79
HMX	10.72	10.62	10.82
2,4-diamino-6-nitrotoluene	11.12	11.02	11.22
RDX	14.37	14.27	14.47
Picric acid	15.41	15.30	15.50
1,3,5-Trinitrobenzene	16.14	16.03	16.23
1,3-Dinitrobenzene	17.38	17.28	17.48
Nitrobenzene	18.25	18.14	18.34
Tetryl	18.52	18.41	18.61
Nitroglycerin	19.27	19.16	19.36
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.20	20.09	20.29
2-Amino-4,6-dinitrotoluene	20.59	20.47	20.67
2,6-Dinitrotoluene	20.91	20.79	20.99
2,4-Dinitrotoluene	21.17	21.06	21.26
2-Nitrotoluene	22.67	22.56	22.76
4-Nitrotoluene	23.40	23.29	23.49
3-Nitrotoluene	24.10	23.99	24.19
PETN	24.83	24.72	24.92
1,2-Dinitrobenzene	16.44	16.34	16.54

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_151.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Jul-2011 20:32:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000843-015		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	15
Lims Batch ID:	21368	Lims Sample ID:	15
Sublist:	chrom-8330_C18*sub1		
Detector:	A-12JUL111532.R151		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:59:00	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

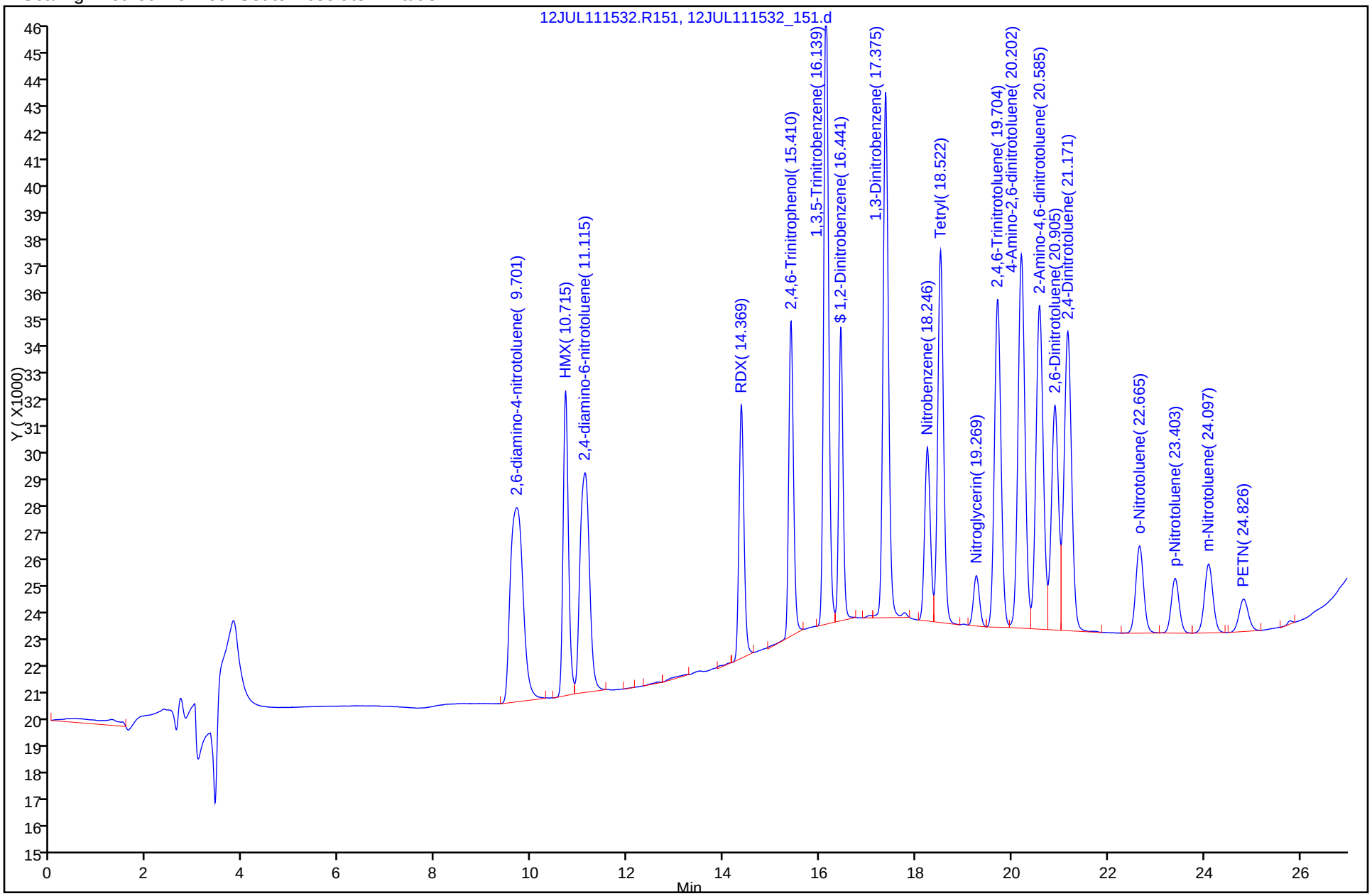
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.701	9.692	0.009	135890	191.6	
	3 HMX	10.715	10.715	0.0	88438	201.7	
	4 2,4-diamino-6-nitrotoluene	11.115	11.115	0.0	113973	191.0	
	7 RDX	14.369	14.369	0.0	68921	203.2	
	8 2,4,6-Trinitrophenol	15.410	15.401	0.009	81314	199.4	
	9 1,3,5-Trinitrobenzene	16.139	16.130	0.009	170133	204.9	
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	68026	190.8	
	11 1,3-Dinitrobenzene	17.375	17.375	0.0	155769	192.8	
	12 Nitrobenzene	18.246	18.237	0.009	54171	197.9	
	13 Tetryl	18.522	18.513	0.009	117676	198.4	
	14 Nitroglycerin	19.269	19.260	0.009	16560	3899.4	
	15 2,4,6-Trinitrotoluene	19.704	19.704	0.0	118279	205.6	
	16 4-Amino-2,6-dinitrotoluene	20.202	20.193	0.009	141964	201.4	
	17 2-Amino-4,6-dinitrotoluene	20.585	20.567	0.018	129409	201.6	
	18 2,6-Dinitrotoluene	20.905	20.887	0.018	87716	205.7	
	19 2,4-Dinitrotoluene	21.171	21.163	0.008	124322	201.3	
	20 o-Nitrotoluene	22.665	22.656	0.009	37824	203.8	
	21 p-Nitrotoluene	23.403	23.394	0.009	23763	204.5	
	22 m-Nitrotoluene	24.097	24.088	0.009	32016	201.2	
	23 PETN	24.826	24.817	0.009	16627	4029.1	

Report Date: 18-Jul-2011 11:59:00 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_151.d

Injection Date:	13-Jul-2011 20:32:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	15
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: ICV 200-12535/16 Calibration Date: 01/24/2011 21:26

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 24JAN111214_161.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1053		391	400	-2.4	30.0
2,6-diamino-4-nitrotoluene	Lin1		1053		391	400	-2.4	30.0
HMX	Lin1		839.6		202	200	1.2	30.0
RDX	Lin1		618.9		215	200	7.6	30.0
Picric acid	Lin1		710.5		202	200	1.2	30.0
Nitroglycerin	Lin1		7.858		4030	4000	0.8	30.0
Nitrobenzene	Lin1		456.8		202	200	1.1	30.0
4-Amino-2,6-dinitrotoluene	Lin1		1208		214	200	7.2	30.0
2-Amino-4,6-dinitrotoluene	Lin1		1311		214	200	7.2	30.0
1,3-Dinitrobenzene	Lin1		1444		208	200	4.2	30.0
2-Nitrotoluene	Lin1		316.0		199	200	-0.3	30.0
PETN	Lin1		8.419		3850	4000	-3.8	30.0
3-Nitrotoluene	Lin1		252.4		400	400	-0.0	30.0
4-Nitrotoluene	Lin1		252.4		400	400	-0.0	30.0
2,6-Dinitrotoluene	Lin1		761.0		207	200	3.6	30.0
1,3,5-Trinitrobenzene	Lin1		1502		210	200	5.1	30.0
2,4-Dinitrotoluene	Lin1		1084		418	400	4.4	30.0
Tetryl	Lin1		1084		418	400	4.4	30.0
2,4,6-Trinitrotoluene	Lin1		929.5		226	200	13.2	30.0
1,2-Dinitrobenzene	Lin1		598.7		200	200	0.0	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: ICV 200-12535/16 Calibration Date: 01/24/2011 21:26

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 24JAN111214_161.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.56	4.49	4.69
2,6-diamino-4-nitrotoluene	4.56	4.49	4.69
HMX	5.47	5.40	5.60
RDX	6.50	6.43	6.63
Picric acid	7.30	7.10	7.50
Nitroglycerin	9.54	9.43	9.63
Nitrobenzene	10.96	10.86	11.06
4-Amino-2,6-dinitrotoluene	11.93	11.82	12.02
2-Amino-4,6-dinitrotoluene	12.13	12.04	12.24
1,3-Dinitrobenzene	13.88	13.78	13.98
2-Nitrotoluene	15.18	15.09	15.29
PETN	15.47	15.37	15.57
3-Nitrotoluene	16.45	16.37	16.57
4-Nitrotoluene	16.45	16.37	16.57
2,6-Dinitrotoluene	17.20	17.10	17.30
1,3,5-Trinitrobenzene	18.45	18.34	18.54
2,4-Dinitrotoluene	19.53	19.42	19.62
Tetryl	19.53	19.42	19.62
2,4,6-Trinitrotoluene	21.79	21.67	21.87
1,2-Dinitrobenzene	11.44	11.33	11.53

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_161.d		
Lims ID:	ICV	Client ID:	
Inject. Date:	24-Jan-2011 21:26:00	Dil. Factor:	1.0000
Sample Type:	ICV		
Sample ID:	200-0000363-016		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	16
Lims Batch ID:	12535	Lims Sample ID:	16
Sublist:			
Detector:	A-24JAN111214.R161		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:06:06	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer:	robinsonw	Date:	25-Jan-2011 13:03:36

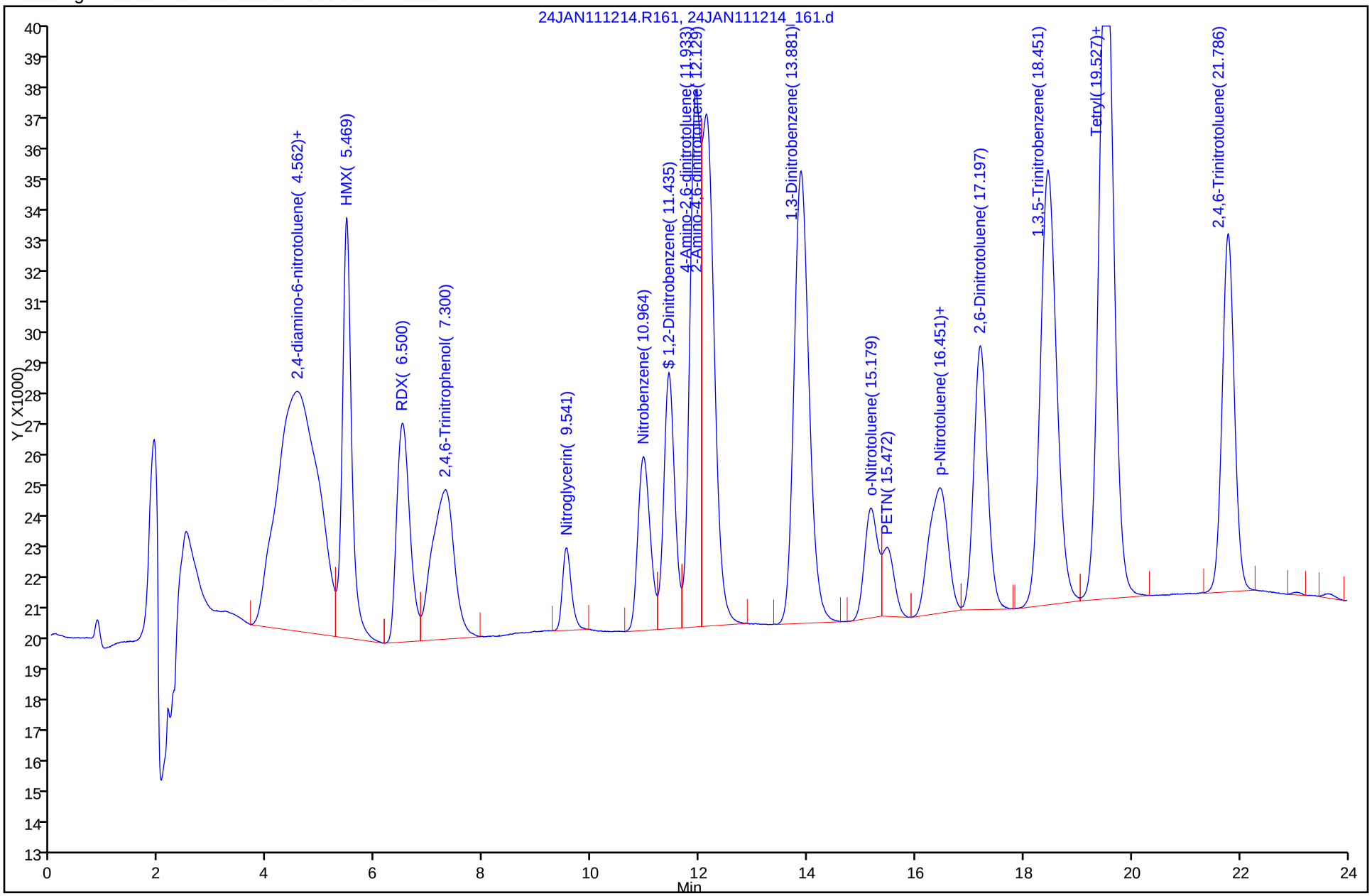
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.562	4.588	-0.026	421053	390.6	
	6 2,4-diamino-6-nitrotoluene	4.562	4.588	-0.026	421053	390.6	
	14 HMX	5.469	5.495	-0.026	167920	202.3	
	22 RDX	6.500	6.531	-0.031	123787	215.3	
	4 2,4,6-Trinitrophenol	7.300	7.299	0.001	142092	202.5	
	18 Nitroglycerin	9.541	9.529	0.012	31433	4032.6	
	17 Nitrobenzene	10.964	10.957	0.007	91367	202.2	
$	1 1,2-Dinitrobenzene	11.435	11.425	0.010	119748	200.2	
	11 4-Amino-2,6-dinitrotoluene	11.933	11.918	0.015	241667	214.5	
	10 2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	262157	214.4	
	3 1,3-Dinitrobenzene	13.881	13.876	0.005	288717	208.4	
	19 o-Nitrotoluene	15.179	15.188	-0.009	63197	199.4	
	21 PETN	15.472	15.468	0.004	33676	3848.1	
	15 m-Nitrotoluene	16.451	16.465	-0.014	100979	399.8	
	20 p-Nitrotoluene	16.451	16.465	-0.014	100979	399.8	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	152194	207.2	
	2 1,3,5-Trinitrobenzene	18.451	18.444	0.007	300490	210.1	
	7 2,4-Dinitrotoluene	19.527	19.517	0.010	433581	417.8	
	23 Tetryl	19.527	19.517	0.010	433581	417.8	
	5 2,4,6-Trinitrotoluene	21.786	21.771	0.015	185908	226.5	

Report Date: 25-Jan-2011 13:06:07 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_161.d

Injection Date:	24-Jan-2011 21:26:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	16
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCVRT 200-21370/1 Calibration Date: 07/13/2011 12:14

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 12JUL111530_011.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1103		409	400	2.3	20.0
2,6-diamino-4-nitrotoluene	Lin1		1103		409	400	2.3	20.0
HMX	Lin1		875.4		211	200	5.5	20.0
RDX	Lin1		628.1		219	200	9.3	20.0
Picric acid	Lin1		736.3		210	200	4.9	20.0
Nitroglycerin	Lin1		8.045		4130	4000	3.2	20.0
Nitrobenzene	Lin1		478.7		212	200	6.0	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1209		215	200	7.3	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1281		210	200	4.8	20.0
1,3-Dinitrobenzene	Lin1		1377		199	200	-0.7	20.0
2-Nitrotoluene	Lin1		326.0		206	200	2.9	20.0
PETN	Lin1		8.584		3930	4000	-1.8	20.0
3-Nitrotoluene	Lin1		252.0		399	400	-0.2	20.0
4-Nitrotoluene	Lin1		252.0		399	400	-0.2	20.0
2,6-Dinitrotoluene	Lin1		770.8		210	200	5.0	20.0
1,3,5-Trinitrobenzene	Lin1		1543		216	200	7.9	20.0
2,4-Dinitrotoluene	Lin1		1096		423	400	5.7	20.0
Tetryl	Lin1		1096		423	400	5.7	20.0
2,4,6-Trinitrotoluene	Lin1		897.2		219	200	9.3	20.0
1,2-Dinitrobenzene	Lin1		612.5		205	200	2.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCVRT 200-21370/1 Calibration Date: 07/13/2011 12:14

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 12JUL111530_011.d

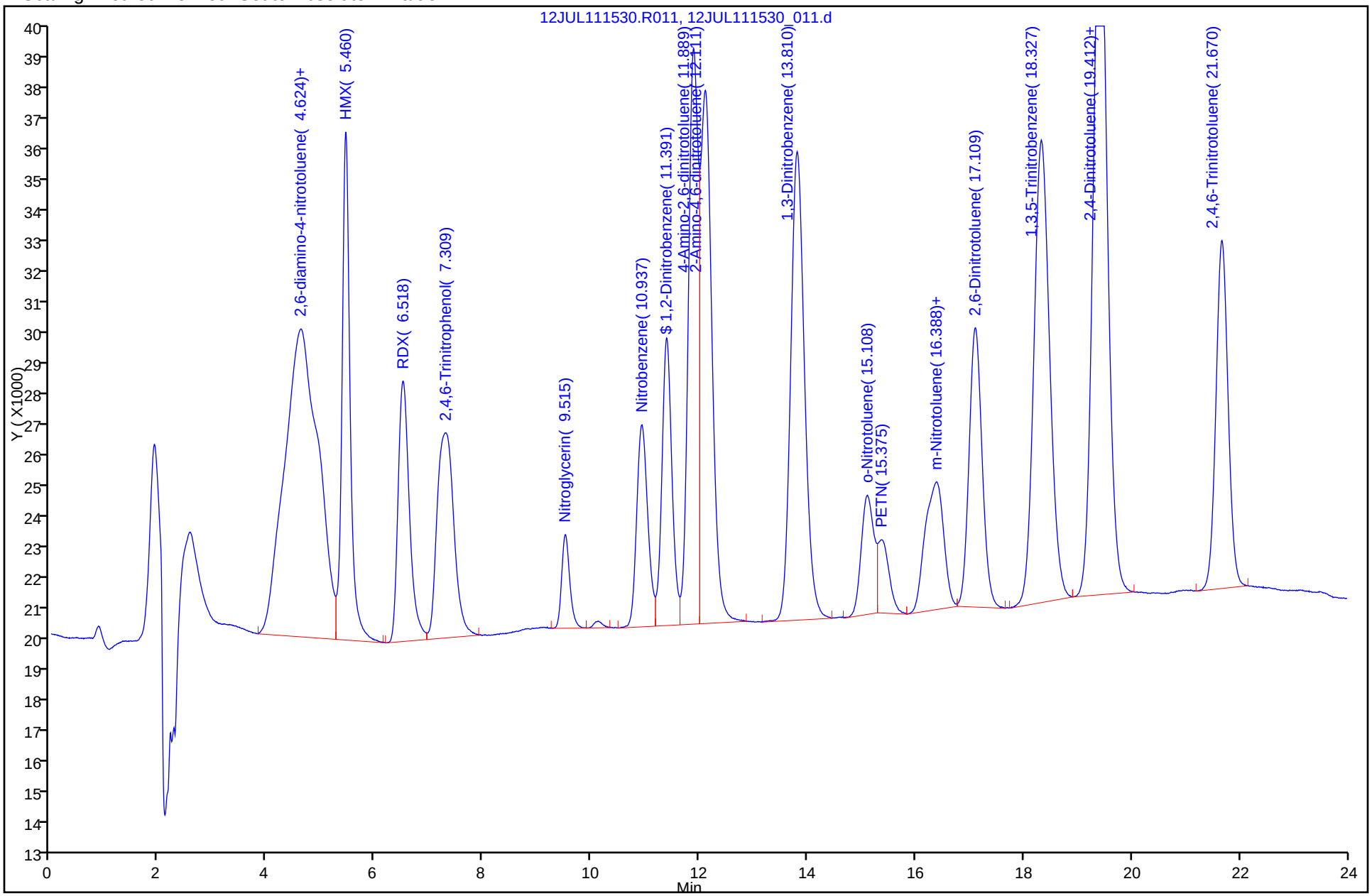
Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.62	4.52	4.72
2,6-diamino-4-nitrotoluene	4.62	4.52	4.72
HMX	5.46	5.36	5.56
RDX	6.52	6.42	6.62
Picric acid	7.31	7.11	7.51
Nitroglycerin	9.52	9.42	9.62
Nitrobenzene	10.94	10.84	11.04
4-Amino-2,6-dinitrotoluene	11.89	11.79	11.99
2-Amino-4,6-dinitrotoluene	12.11	12.01	12.21
1,3-Dinitrobenzene	13.81	13.71	13.91
2-Nitrotoluene	15.11	15.02	15.22
PETN	15.38	15.28	15.48
3-Nitrotoluene	16.39	16.29	16.49
4-Nitrotoluene	16.39	16.29	16.49
2,6-Dinitrotoluene	17.11	17.01	17.21
1,3,5-Trinitrobenzene	18.33	18.23	18.43
2,4-Dinitrotoluene	19.41	19.31	19.51
Tetryl	19.41	19.31	19.51
2,4,6-Trinitrotoluene	21.67	21.57	21.77
1,2-Dinitrobenzene	11.39	11.29	11.49

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_011.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Jul-2011 12:14:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000844-001		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	1
Lims Batch ID:	21370	Lims Sample ID:	1
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-12JUL111530.R011		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	14-Jul-2011 09:21:29

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.624	4.624	0.0	441397	409.2	
	6 2,4-diamino-6-nitrotoluene	4.624	4.624	0.0	441397	409.2	
	14 HMX	5.460	5.460	0.0	175075	210.9	
	22 RDX	6.518	6.518	0.0	125619	218.5	
	4 2,4,6-Trinitrophenol	7.309	7.309	0.0	147251	209.7	
	18 Nitroglycerin	9.515	9.515	0.0	32179	4128.0	
	17 Nitrobenzene	10.937	10.937	0.0	95737	211.9	
$	1 1,2-Dinitrobenzene	11.391	11.391	0.0	122502	204.8	
	11 4-Amino-2,6-dinitrotoluene	11.889	11.889	0.0	241835	214.6	
	10 2-Amino-4,6-dinitrotoluene	12.111	12.111	0.0	256226	209.5	
	3 1,3-Dinitrobenzene	13.810	13.810	0.0	275331	198.7	
	19 o-Nitrotoluene	15.108	15.117	-0.009	65200	205.7	
	21 PETN	15.375	15.375	0.0	34336	3927.3	
	15 m-Nitrotoluene	16.388	16.388	0.0	100806	399.1	
	20 p-Nitrotoluene	16.388	16.388	0.0	100806	399.1	
	9 2,6-Dinitrotoluene	17.109	17.109	0.0	154151	209.9	
	2 1,3,5-Trinitrobenzene	18.327	18.327	0.0	308542	215.7	
	7 2,4-Dinitrotoluene	19.412	19.412	0.0	438569	422.6	
	23 Tetryl	19.412	19.412	0.0	438569	422.6	
	5 2,4,6-Trinitrotoluene	21.670	21.670	0.0	179436	218.6	

Report Date: 18-Jul-2011 12:06:08 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_011.d
Injection Date: 13-Jul-2011 12:14:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 21370 Lims Sample ID: 1
Operator ID: RJH Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCV 200-21370/15 Calibration Date: 07/13/2011 20:12

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 12JUL111530_151.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1097		407	400	1.7	20.0
2,6-diamino-4-nitrotoluene	Lin1		1097		407	400	1.7	20.0
HMX	Lin1		879.1		212	200	5.9	20.0
RDX	Lin1		624.7		217	200	8.7	20.0
Picric acid	Lin1		737.6		210	200	5.1	20.0
Nitroglycerin	Lin1		8.072		4140	4000	3.6	20.0
Nitrobenzene	Lin1		467.7		207	200	3.5	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1177		209	200	4.5	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1303		213	200	6.6	20.0
1,3-Dinitrobenzene	Lin1		1378		199	200	-0.5	20.0
2-Nitrotoluene	Lin1		334.2		211	200	5.4	20.0
PETN	Lin1		8.387		3830	4000	-4.2	20.0
3-Nitrotoluene	Lin1		256.0		405	400	1.3	20.0
4-Nitrotoluene	Lin1		256.0		405	400	1.3	20.0
2,6-Dinitrotoluene	Lin1		790.3		215	200	7.6	20.0
1,3,5-Trinitrobenzene	Lin1		1551		217	200	8.5	20.0
2,4-Dinitrotoluene	Lin1		1101		424	400	6.1	20.0
Tetryl	Lin1		1101		424	400	6.1	20.0
2,4,6-Trinitrotoluene	Lin1		910.7		222	200	11.0	20.0
1,2-Dinitrobenzene	Lin1		608.9		204	200	1.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Lab Sample ID: CCV 200-21370/15 Calibration Date: 07/13/2011 20:12

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 12JUL111530_151.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.63	4.52	4.72
2,6-diamino-4-nitrotoluene	4.63	4.52	4.72
HMX	5.48	5.36	5.56
RDX	6.53	6.42	6.62
Picric acid	7.32	7.11	7.51
Nitroglycerin	9.54	9.42	9.62
Nitrobenzene	10.96	10.84	11.04
4-Amino-2,6-dinitrotoluene	11.92	11.79	11.99
2-Amino-4,6-dinitrotoluene	12.13	12.01	12.21
1,3-Dinitrobenzene	13.83	13.71	13.91
2-Nitrotoluene	15.12	15.02	15.22
PETN	15.38	15.28	15.48
3-Nitrotoluene	16.41	16.29	16.49
4-Nitrotoluene	16.41	16.29	16.49
2,6-Dinitrotoluene	17.13	17.01	17.21
1,3,5-Trinitrobenzene	18.35	18.23	18.43
2,4-Dinitrotoluene	19.43	19.31	19.51
Tetryl	19.43	19.31	19.51
2,4,6-Trinitrotoluene	21.69	21.57	21.77
1,2-Dinitrobenzene	11.42	11.29	11.49

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_151.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	13-Jul-2011 20:12:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000844-015		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	15
Lims Batch ID:	21370	Lims Sample ID:	15
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-12JUL111530.R151		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:22	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 14-Jul-2011 09:22:43

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8	2,6-diamino-4-nitrotoluene	4.633	4.624	0.009	438854	406.9	
6	2,4-diamino-6-nitrotoluene	4.633	4.624	0.009	438854	406.9	
14	HMX	5.478	5.460	0.018	175812	211.7	
22	RDX	6.527	6.518	0.009	124943	217.3	
4	2,4,6-Trinitrophenol	7.318	7.309	0.009	147510	210.1	
18	Nitroglycerin	9.541	9.515	0.026	32288	4142.0	
17	Nitrobenzene	10.955	10.937	0.018	93543	207.0	
$ 1	1,2-Dinitrobenzene	11.418	11.391	0.027	121786	203.6	
11	4-Amino-2,6-dinitrotoluene	11.916	11.889	0.027	235411	208.9	
10	2-Amino-4,6-dinitrotoluene	12.129	12.111	0.018	260680	213.2	
3	1,3-Dinitrobenzene	13.827	13.810	0.017	275525	198.9	
19	o-Nitrotoluene	15.117	15.117	0.0	66835	210.8	M
21	PETN	15.375	15.375	0.0	33549	3832.9	A
15	m-Nitrotoluene	16.406	16.388	0.018	102415	405.4	
20	p-Nitrotoluene	16.406	16.388	0.018	102415	405.4	
9	2,6-Dinitrotoluene	17.126	17.109	0.017	158058	215.2	
2	1,3,5-Trinitrobenzene	18.345	18.327	0.018	310159	216.9	
7	2,4-Dinitrotoluene	19.429	19.412	0.017	440496	424.4	
23	Tetryl	19.429	19.412	0.017	440496	424.4	
5	2,4,6-Trinitrotoluene	21.688	21.670	0.018	182134	221.9	

QC Flag Legend

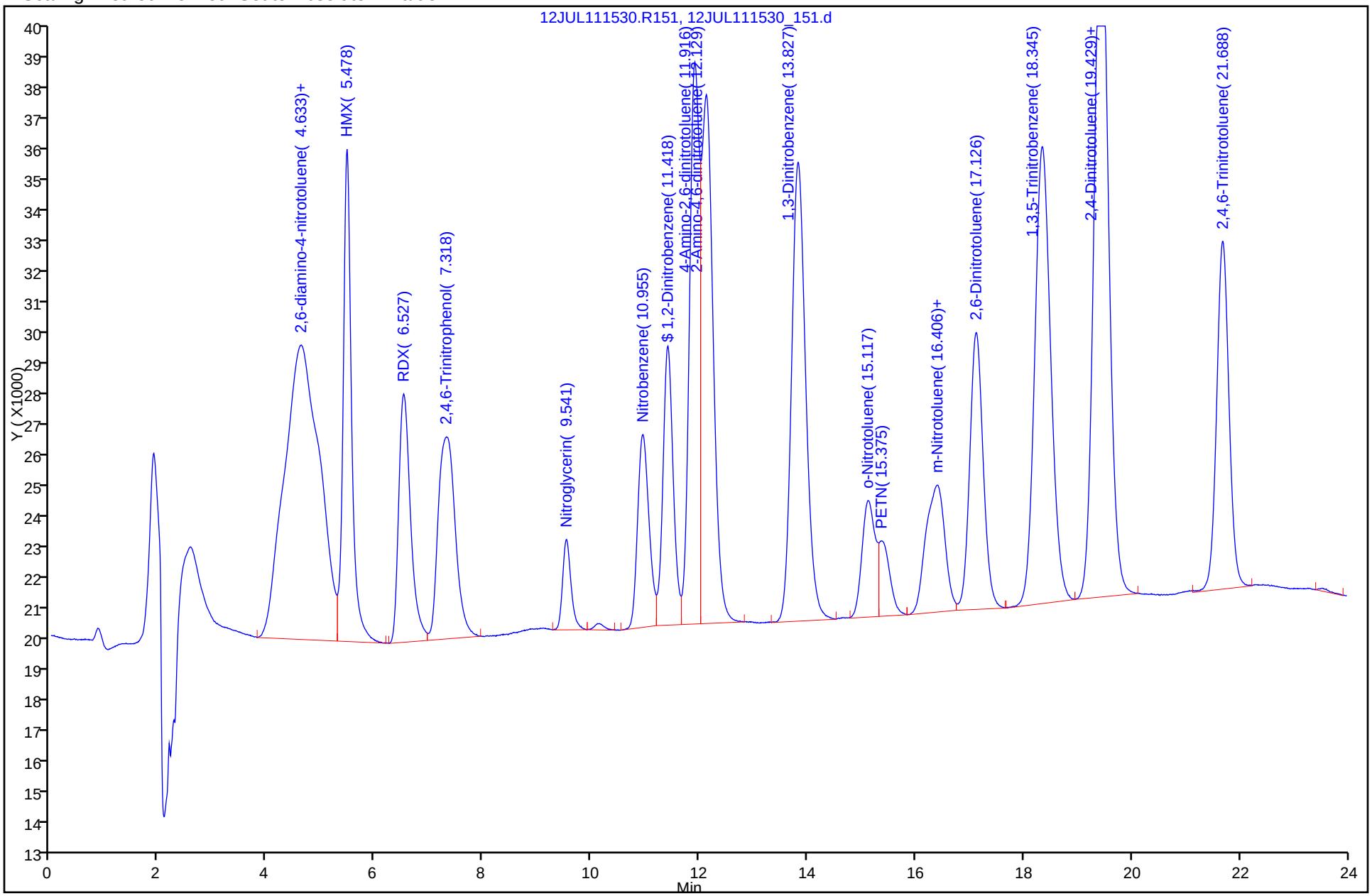
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:22 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_151.d

Injection Date:	13-Jul-2011 20:12:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	15
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:22 Chrom Revision: 1.2 30-Jun-2011 15:02:28

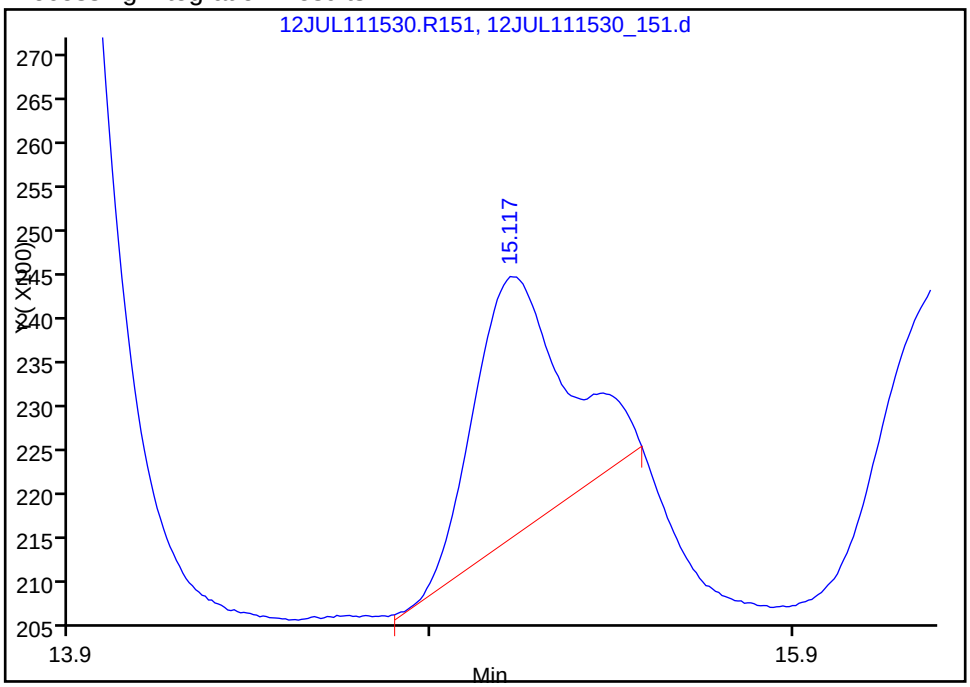
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_151.d		
Injection Date:	13-Jul-2011 20:12:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	15
Operator ID:	RJH	Injection Vol:	450.00 ul

19 o-Nitrotoluene, Signal: 1, Type: quant, RT: 15.12

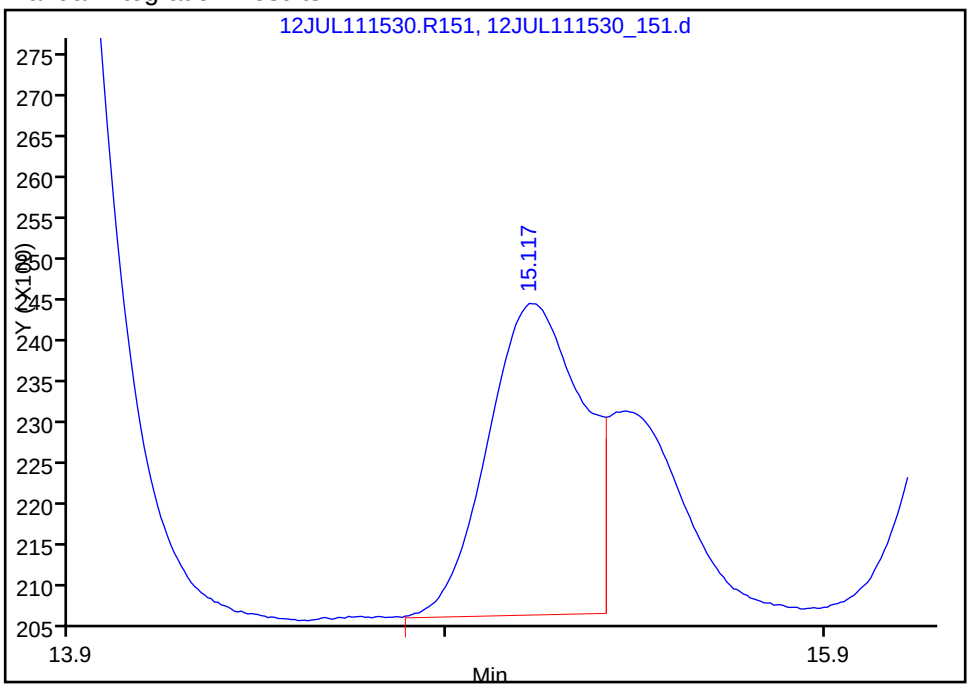
Processing Integration Results

RT: 15.12
Response: 51664
Amount: 163.3664



Manual Integration Results

RT: 15.12
Response: 66835
Amount: 210.7914



Reviewer: chirgwinb, 14-Jul-2011 09:22:43
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:22 Chrom Revision: 1.2 30-Jun-2011 15:02:28

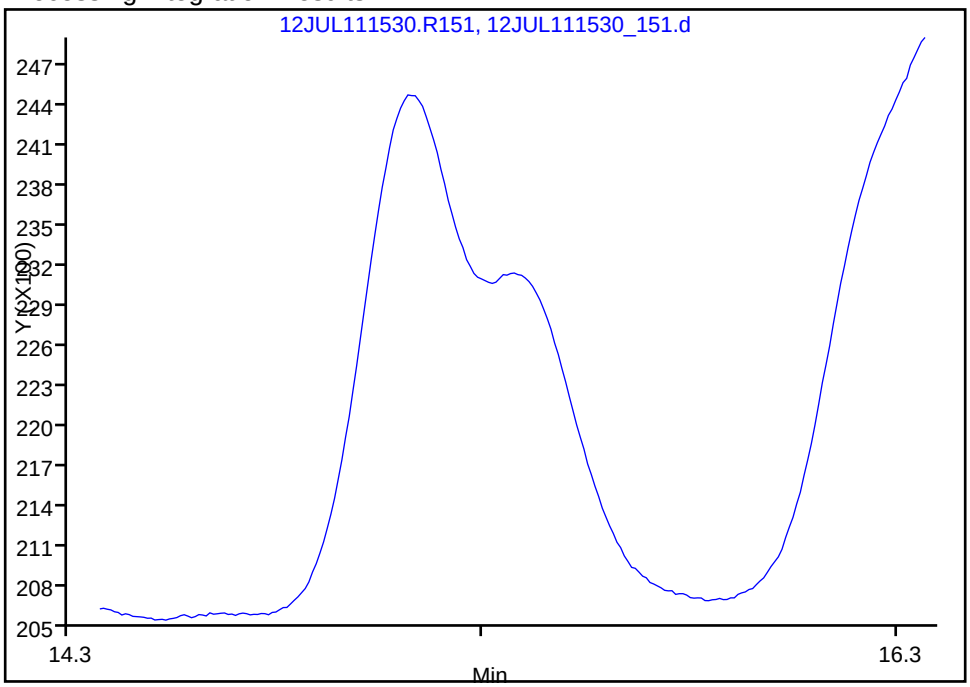
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_151.d		
Injection Date:	13-Jul-2011 20:12:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	15
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.37

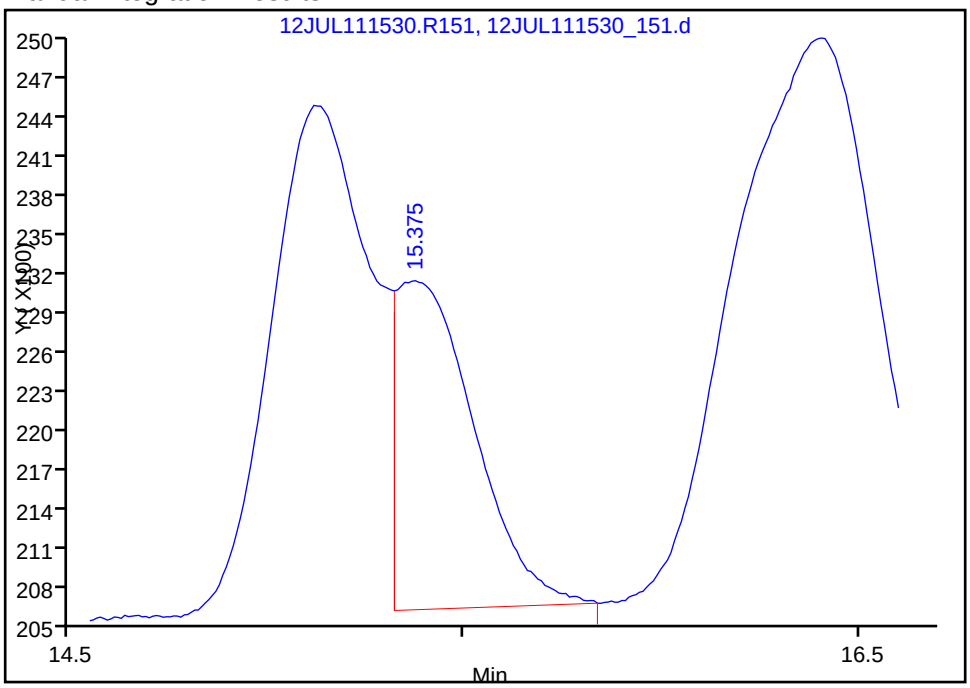
Not Detected
Expected RT: 15.37

Processing Integration Results



Manual Integration Results

RT: 15.37
Response: 33549
Amount: 3832.8935



Reviewer: chirgwinb, 14-Jul-2011 09:22:43
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: | Lab Sample ID: MB 200-21109/12-A

Matrix: Solid | Lab File ID: 12JUL111532_021.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:57

Sample wt/vol: 10.52(g) | Date Analyzed: 07/13/2011 12:25

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
479-45-8	Tetryl	29	U	95	29	15
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.7
606-20-2	2,6-Dinitrotoluene	14	U M	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	29	U M	95	29	25
78-11-5	PETN	1700	U	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_021.d		
Lims ID:	MB 200-21109/12-A	Client ID:	
Inject. Date:	13-Jul-2011 12:25:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0000843-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	2
Lims Batch ID:	21368	Lims Sample ID:	2
Detector:	A-12JUL111532.R021		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	14-Jul-2011 09:16:37

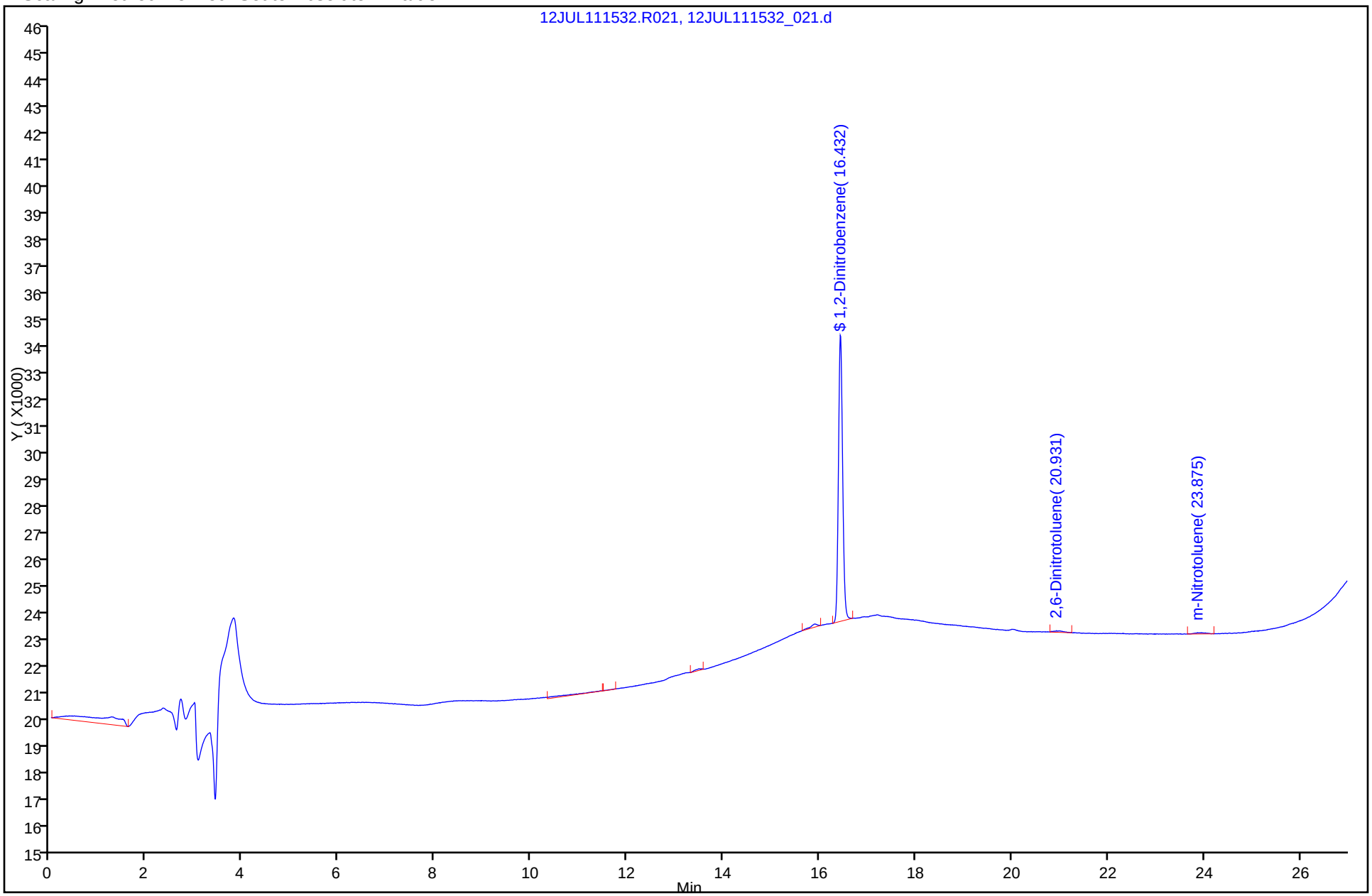
Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene		9.692				1
3 HMX		10.715				1
4 2,4-diamino-6-nitrotoluene		11.115				1
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
6 MNX		13.228				1
7 RDX		14.369				1
8 2,4,6-Trinitrophenol		15.401				1
9 1,3,5-Trinitrobenzene		16.130				
$ 10 1,2-Dinitrobenzene	16.432	16.441	-0.009	65332	183.2	M
11 1,3-Dinitrobenzene		17.375				1
12 Nitrobenzene		18.237				1
13 Tetryl		18.513				1
14 Nitroglycerin		19.260				1
15 2,4,6-Trinitrotoluene		19.704				1
16 4-Amino-2,6-dinitrotoluene		20.193				1
17 2-Amino-4,6-dinitrotoluene		20.567				1
18 2,6-Dinitrotoluene	20.931	20.887	0.044	802	2.15	A
19 2,4-Dinitrotoluene		21.163				1
20 o-Nitrotoluene		22.656				1
21 p-Nitrotoluene		23.394				1
22 m-Nitrotoluene	23.875	24.088	-0.213	761	1.38	A
23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:47 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_021.d
Injection Date: 13-Jul-2011 12:25:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1208
Lims Batch ID: 21368 Lims Sample ID: 2
Operator ID: RJH Injection Vol: 150.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:47 Chrom Revision: 1.2 30-Jun-2011 15:02:28

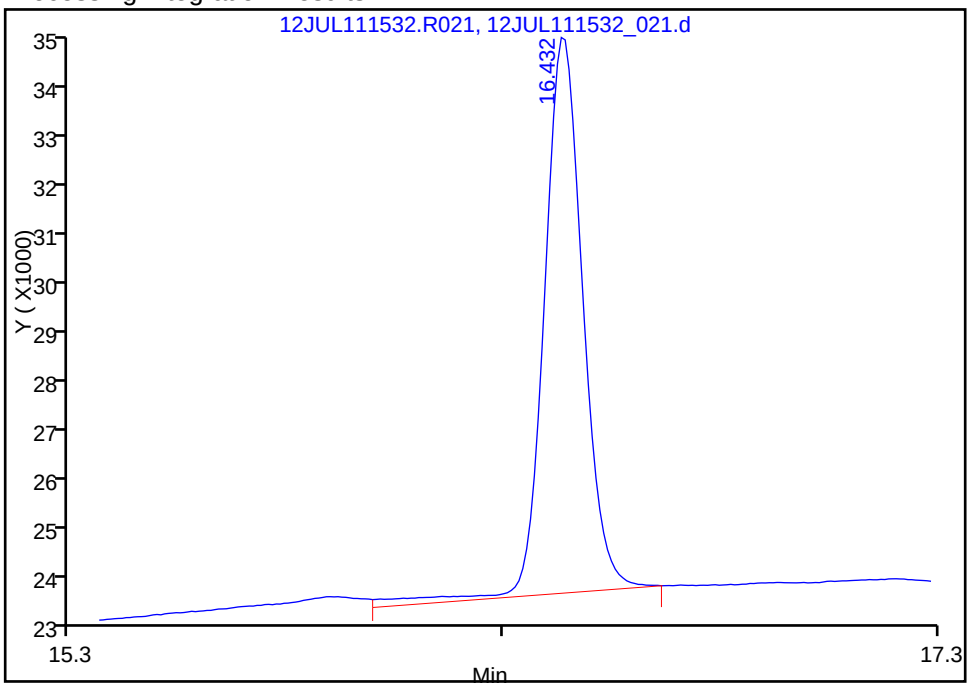
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_021.d		
Injection Date:	13-Jul-2011 12:25:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

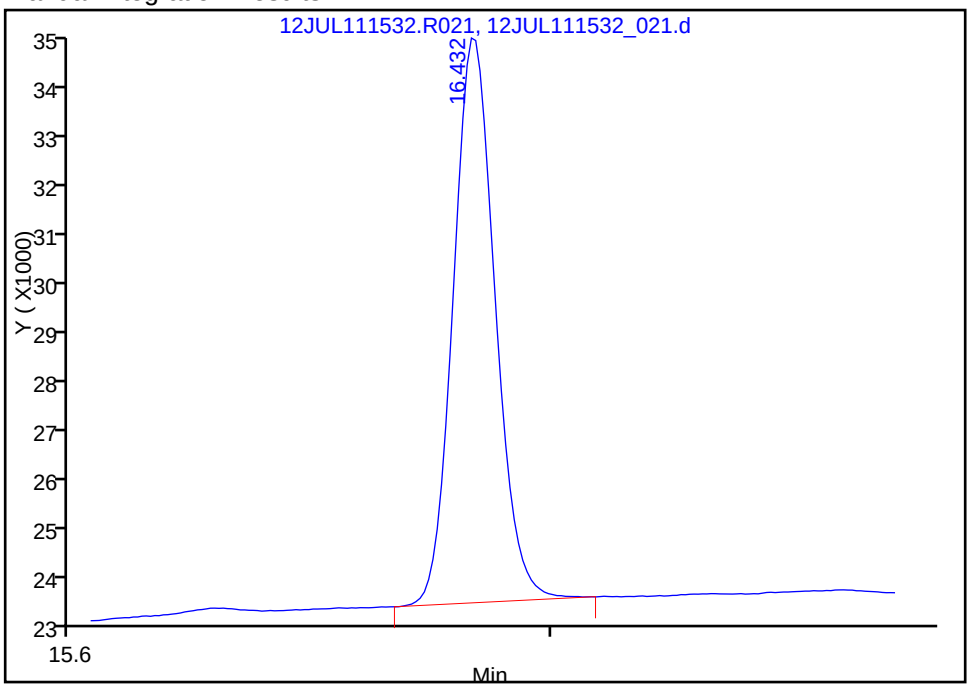
Processing Integration Results

RT: 16.43
Response: 67803
Amount: 190.1944



Manual Integration Results

RT: 16.43
Response: 65332
Amount: 183.2227



Reviewer: chirgwinb, 15-Jul-2011 13:40:34
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:47 Chrom Revision: 1.2 30-Jun-2011 15:02:28

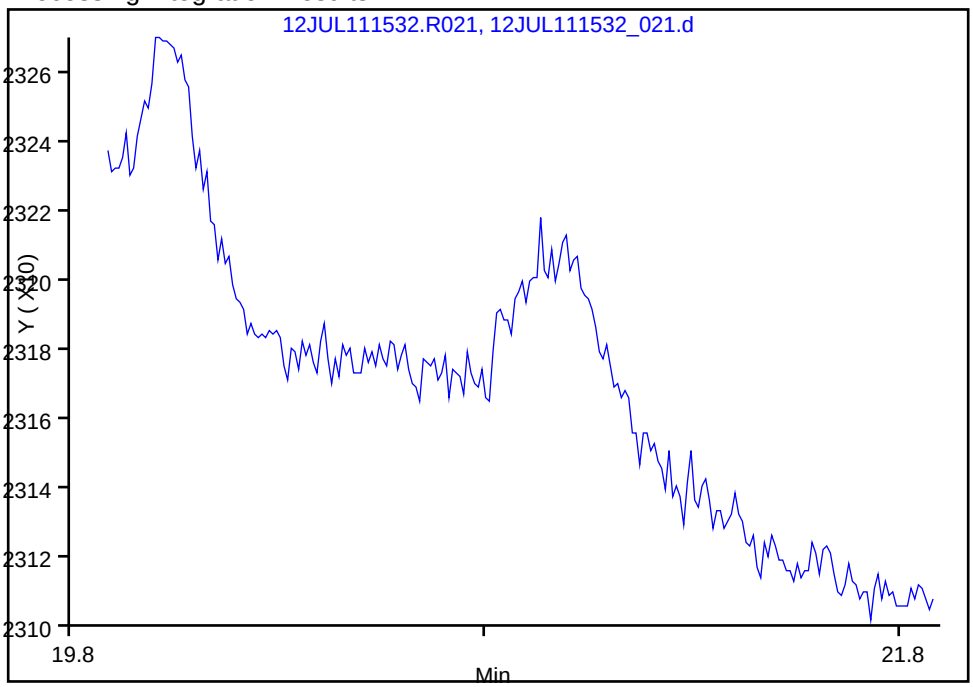
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_021.d		
Injection Date:	13-Jul-2011 12:25:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

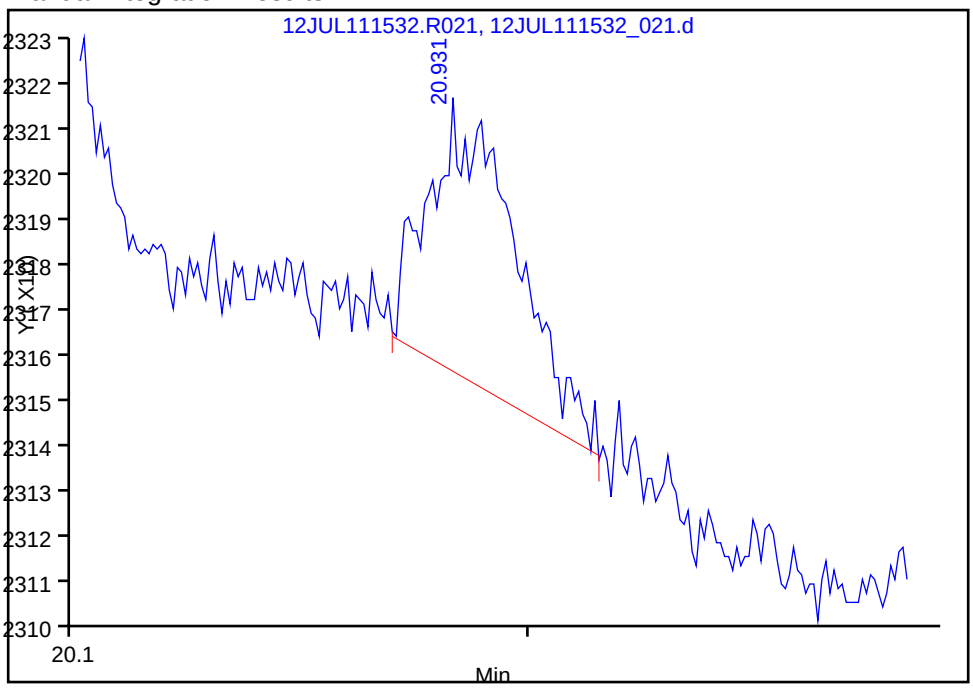
Not Detected
Expected RT: 20.89

Processing Integration Results



Manual Integration Results

RT: 20.93
Response: 802
Amount: 2.152975



Reviewer: chirgwinb, 15-Jul-2011 13:40:34
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:47 Chrom Revision: 1.2 30-Jun-2011 15:02:28

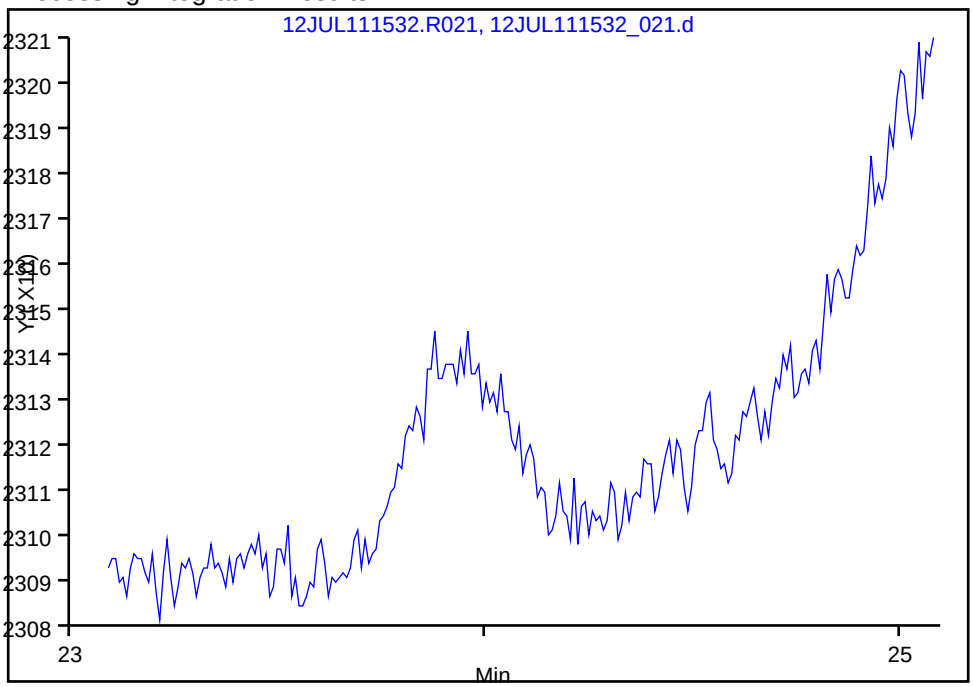
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_021.d		
Injection Date:	13-Jul-2011 12:25:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

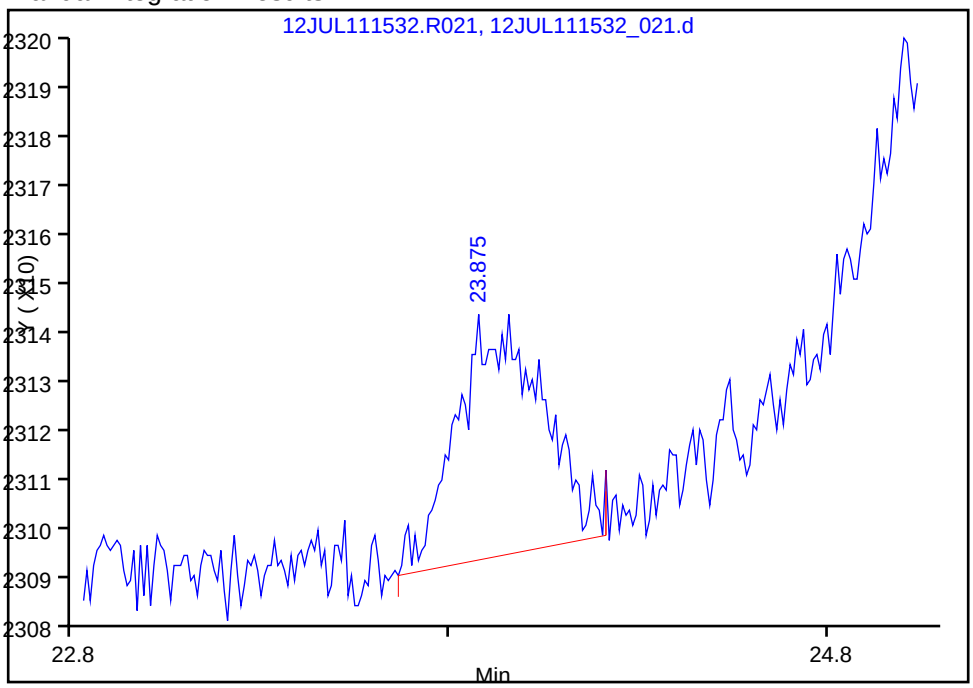
Processing Integration Results

Not Detected
Expected RT: 24.09



Manual Integration Results

RT: 23.87
Response: 761
Amount: 1.378411



Reviewer: chirgwinb, 15-Jul-2011 13:40:34
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: Lab Sample ID: MB 200-21109/12-A

Matrix: Solid Lab File ID: 12JUL111530_021.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/08/2011 15:57

Sample wt/vol: 10.52(g) Date Analyzed: 07/13/2011 12:48

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_021.d		
Lims ID:	MB 200-21109/12-A	Client ID:	
Inject. Date:	13-Jul-2011 12:48:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0000844-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	2
Lims Batch ID:	21370	Lims Sample ID:	2
Detector:	A-12JUL111530.R021		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

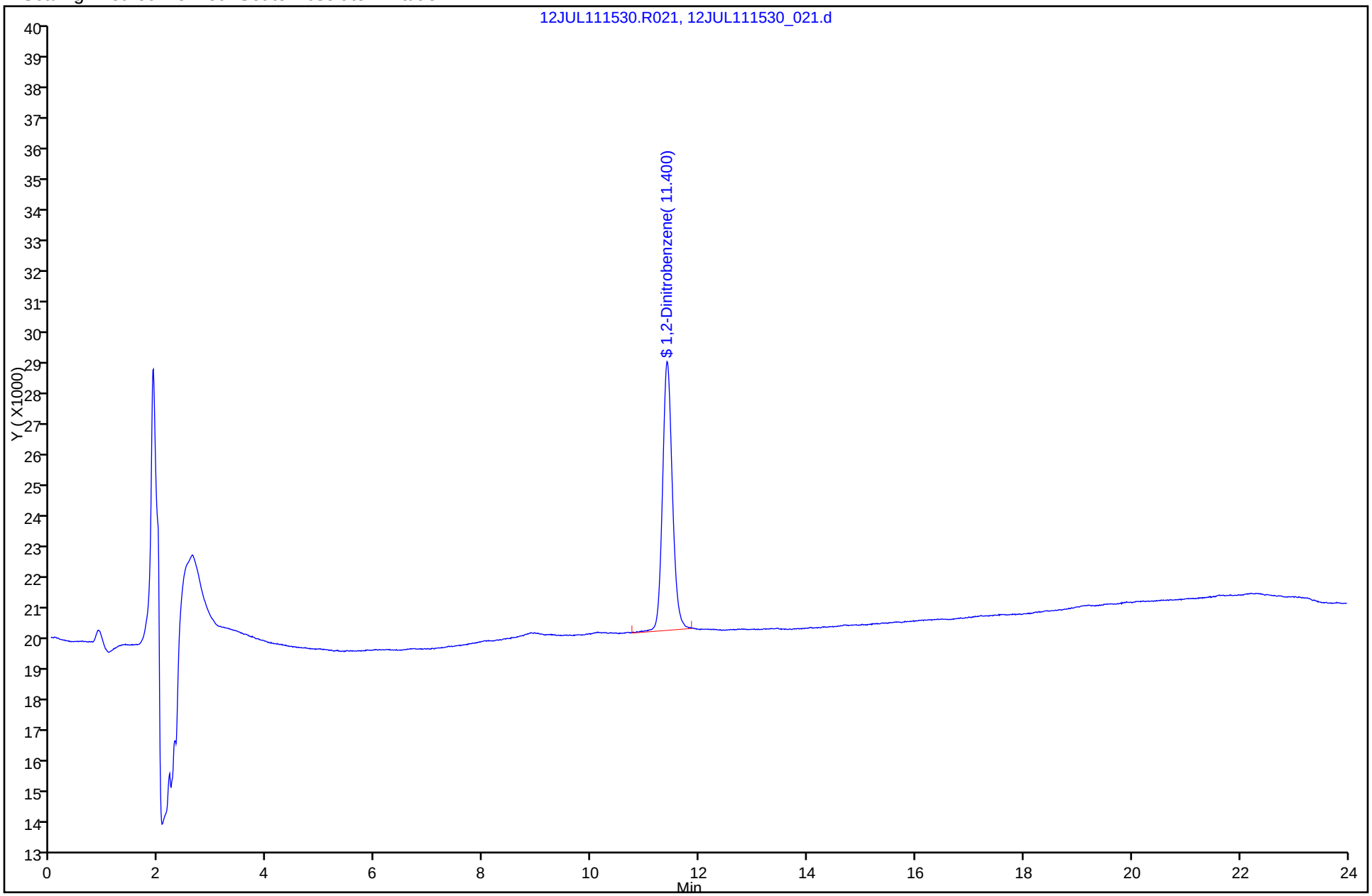
First Level Reviewer: chirgwinb Date: 14-Jul-2011 09:21:45

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene		4.624				1
6 2,4-diamino-6-nitrotoluene		4.624				1
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX		5.460				1
16 MNX		5.873				1
22 RDX		6.518				1
4 2,4,6-Trinitrophenol		7.309				1
18 Nitroglycerin		9.515				1
17 Nitrobenzene		10.937				1
$ 1 1,2-Dinitrobenzene	11.400	11.391	0.009	112275	187.6	
11 4-Amino-2,6-dinitrotoluene		11.889				1
10 2-Amino-4,6-dinitrotoluene		12.111				1
3 1,3-Dinitrobenzene		13.810				1
19 o-Nitrotoluene		15.117				1
21 PETN		15.375				1
15 m-Nitrotoluene		16.388				1
20 p-Nitrotoluene		16.388				1
9 2,6-Dinitrotoluene		17.109				1
2 1,3,5-Trinitrobenzene		18.327				1
7 2,4-Dinitrotoluene		19.412				1
23 Tetryl		19.412				1
5 2,4,6-Trinitrotoluene		21.670				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Report Date: 18-Jul-2011 12:06:09 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_021.d
Injection Date: 13-Jul-2011 12:48:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 21370 Lims Sample ID: 2
Operator ID: RJH Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: Lab Sample ID: GB 200-20821/11-B

Matrix: Solid Lab File ID: 12JUL111530_121.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.52(g) Date Analyzed: 07/13/2011 18:30

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_121.d		
Lims ID:	GB 200-20821/11-B	Client ID:	
Inject. Date:	13-Jul-2011 18:30:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0000844-012		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	12
Lims Batch ID:	21370	Lims Sample ID:	12
Detector:	A-12JUL111530.R121		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
	8 2,6-diamino-4-nitrotoluene		4.624				1
	6 2,4-diamino-6-nitrotoluene		4.624				1
	13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
	14 HMX		5.460				1
	16 MNX		5.873				1
	22 RDX		6.518				1
	4 2,4,6-Trinitrophenol		7.309				1
	18 Nitroglycerin		9.515				1
	17 Nitrobenzene		10.937				1
$	1 1,2-Dinitrobenzene	11.418	11.391	0.027	106836	178.5	
	11 4-Amino-2,6-dinitrotoluene		11.889				1
	10 2-Amino-4,6-dinitrotoluene		12.111				1
	3 1,3-Dinitrobenzene		13.810				1
	19 o-Nitrotoluene		15.117				1
	21 PETN		15.375				1
	15 m-Nitrotoluene		16.388				1
	20 p-Nitrotoluene		16.388				1
	9 2,6-Dinitrotoluene		17.109				1
	2 1,3,5-Trinitrobenzene		18.327				1
	7 2,4-Dinitrotoluene		19.412				1
	23 Tetryl		19.412				1
	5 2,4,6-Trinitrotoluene		21.670				1

QC Flag Legend

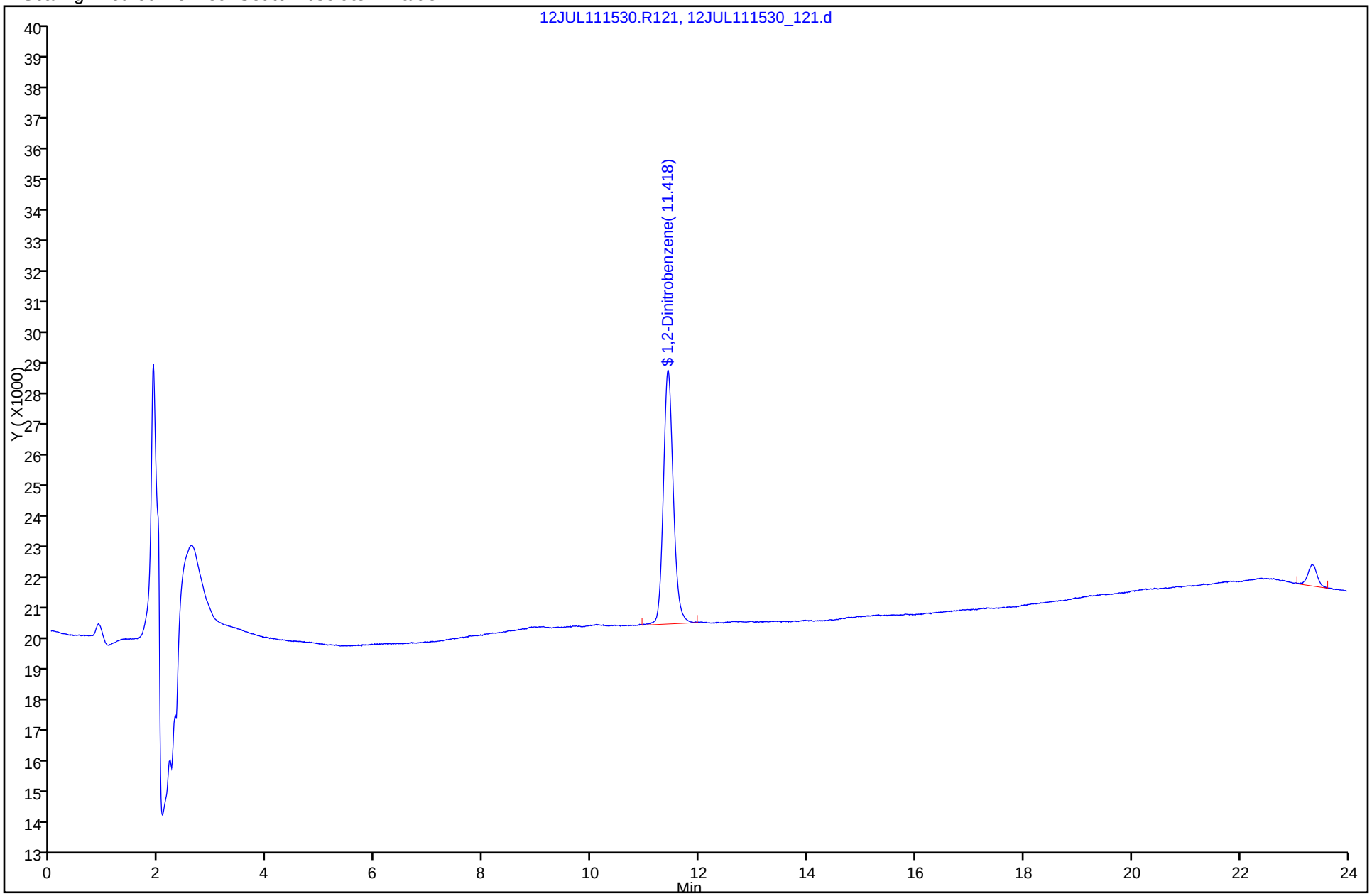
Processing Flags
1 - Missing Peaks

Report Date: 18-Jul-2011 12:06:19 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_121.d

Injection Date:	13-Jul-2011 18:30:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	12
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: | Lab Sample ID: GB 200-20821/11-B

Matrix: Solid | Lab File ID: 12JUL111532_121.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.52(g) | Date Analyzed: 07/13/2011 18:40

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
479-45-8	Tetryl	29	U	95	29	15
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.7
606-20-2	2,6-Dinitrotoluene	14	U M	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	29	U M	95	29	25
78-11-5	PETN	1700	U	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d		
Lims ID:	GB 200-20821/11-B	Client ID:	
Inject. Date:	13-Jul-2011 18:40:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0000843-012		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	12
Lims Batch ID:	21368	Lims Sample ID:	12
Detector:	A-12JUL111532.R121		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:10:56

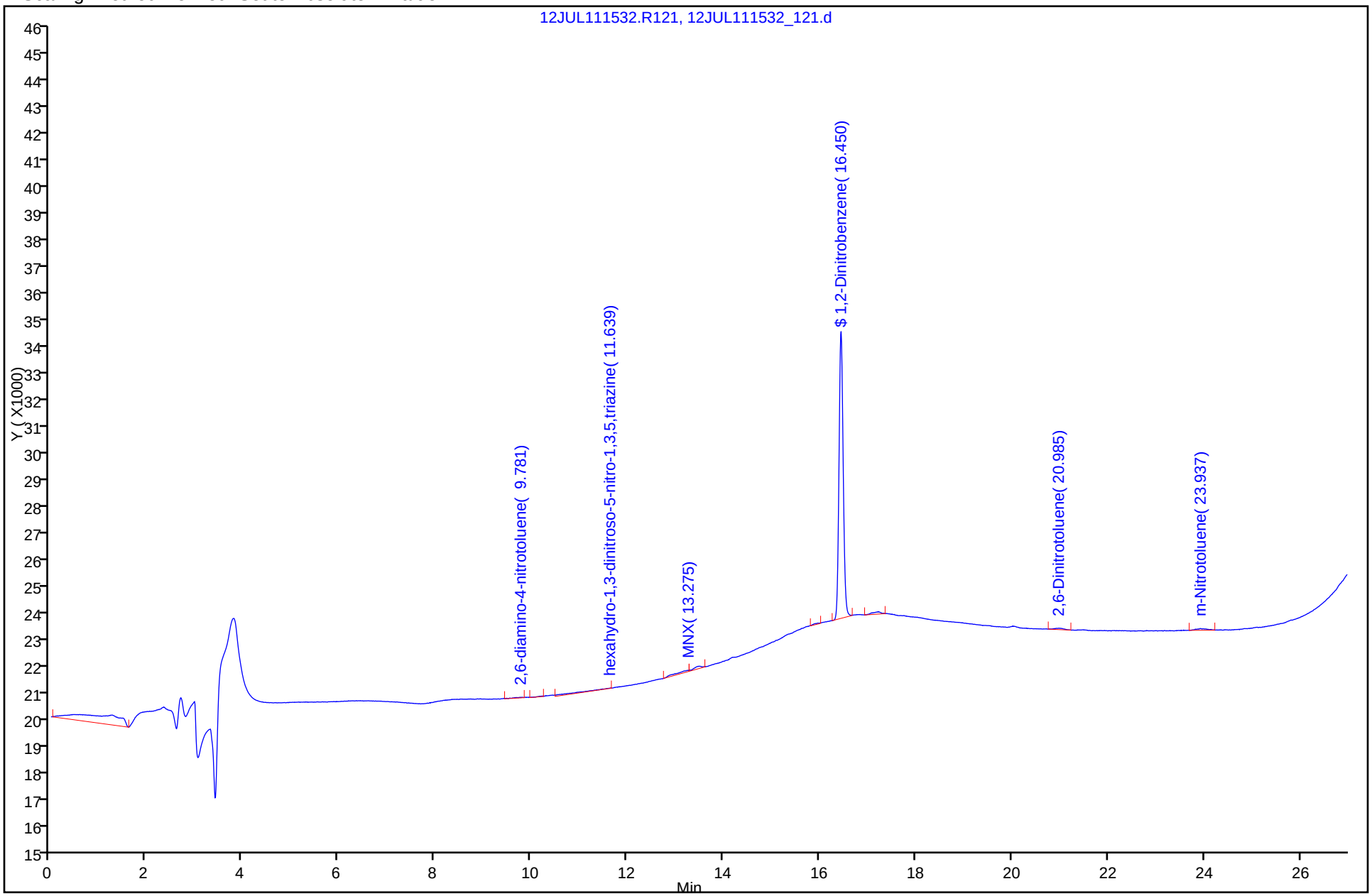
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
	1 2,6-diamino-4-nitrotoluene	9.781	9.692	0.089	285	1.30	
	3 HMX		10.715				1
	4 2,4-diamino-6-nitrotoluene		11.115				1
	5 hexahydro-1,3-dinitroso-5-nitro-1,3,5	11.639	11.545	0.094	1700	3.39	
	6 MNX	13.275	13.228	0.047	1481	3.77	
	7 RDX		14.369				1
	8 2,4,6-Trinitrophenol		15.401				1
	9 1,3,5-Trinitrobenzene		16.130				
$	10 1,2-Dinitrobenzene	16.450	16.441	0.009	65286	183.1	M
	11 1,3-Dinitrobenzene		17.375				1
	12 Nitrobenzene		18.237				1
	13 Tetryl		18.513				1
	14 Nitroglycerin		19.260				1
	15 2,4,6-Trinitrotoluene		19.704				1
	16 4-Amino-2,6-dinitrotoluene		20.193				1
	17 2-Amino-4,6-dinitrotoluene		20.567				1
	18 2,6-Dinitrotoluene	20.985	20.887	0.098	729	1.98	A
	19 2,4-Dinitrotoluene		21.163				1
	20 o-Nitrotoluene		22.656				1
	21 p-Nitrotoluene		23.394				1
	22 m-Nitrotoluene	23.937	24.088	-0.151	1041	3.17	A
	23 PETN		24.817				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 11:58:57 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d
Injection Date: 13-Jul-2011 18:40:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1208
Lims Batch ID: 21368 Lims Sample ID: 12
Operator ID: RJH Injection Vol: 150.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:57 Chrom Revision: 1.2 30-Jun-2011 15:02:28

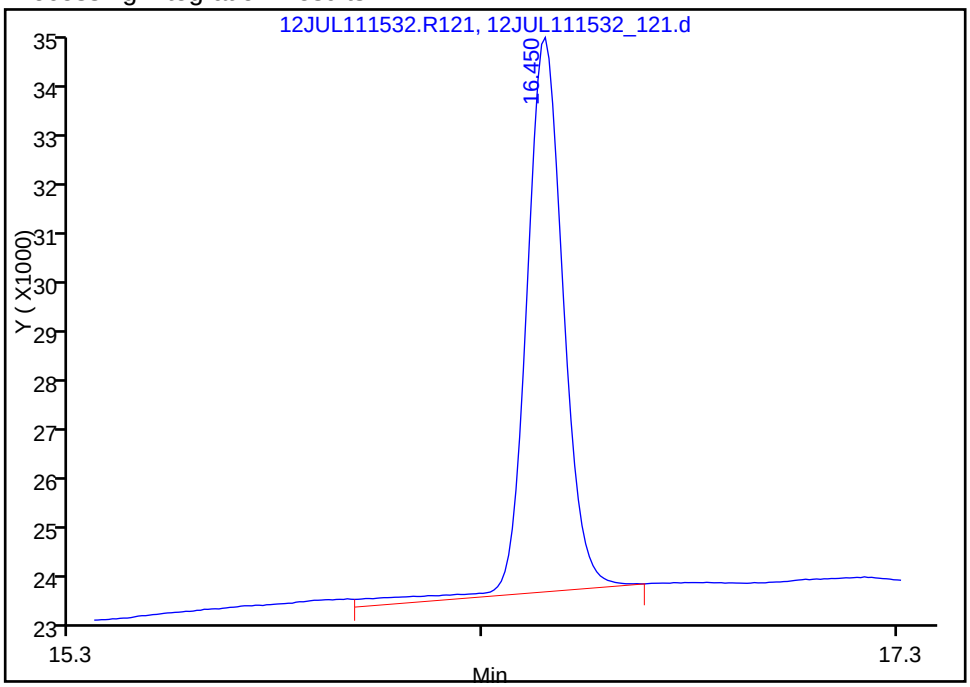
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d		
Injection Date:	13-Jul-2011 18:40:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	12
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

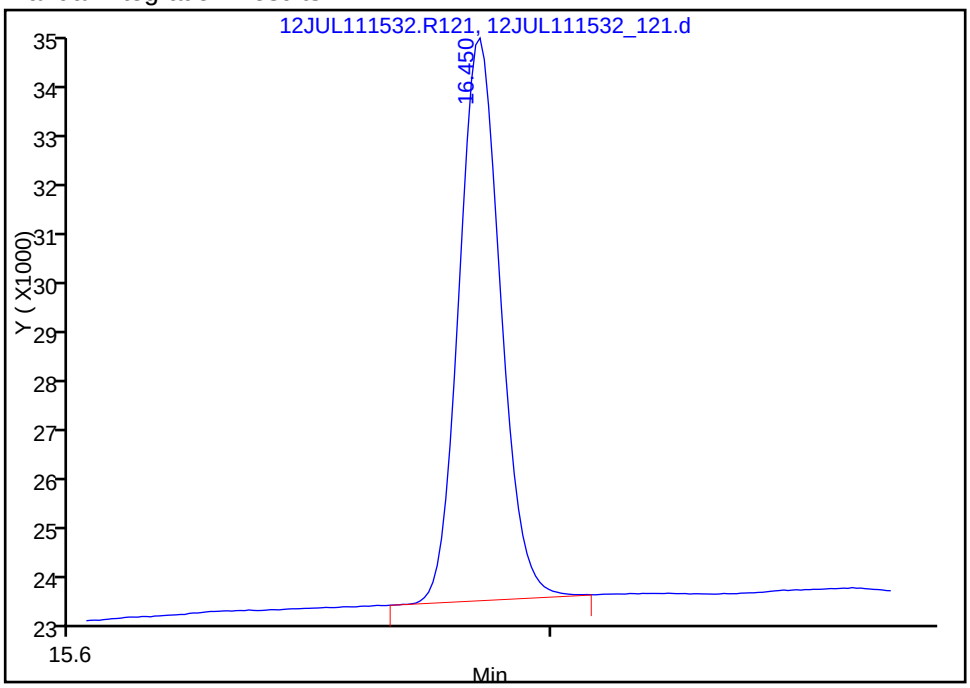
Processing Integration Results

RT: 16.45
Response: 68133
Amount: 191.1254



Manual Integration Results

RT: 16.45
Response: 65286
Amount: 183.0930



Reviewer: chirgwinb, 15-Jul-2011 14:10:56
Audit Action: Manually Integrated
Audit Reason: Baseline Event

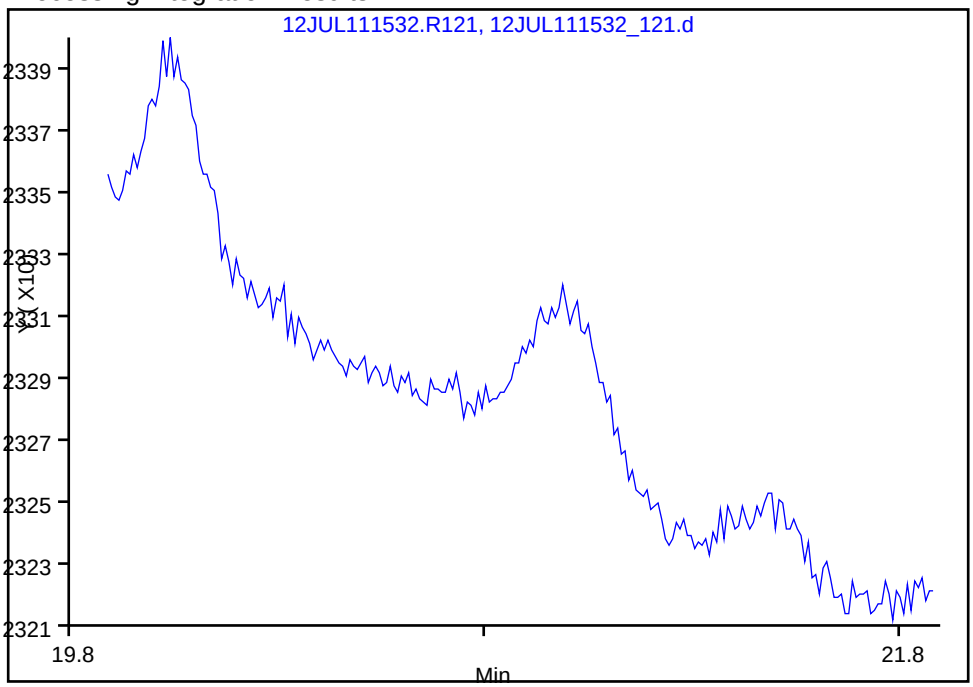
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d		
Injection Date:	13-Jul-2011 18:40:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	12
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

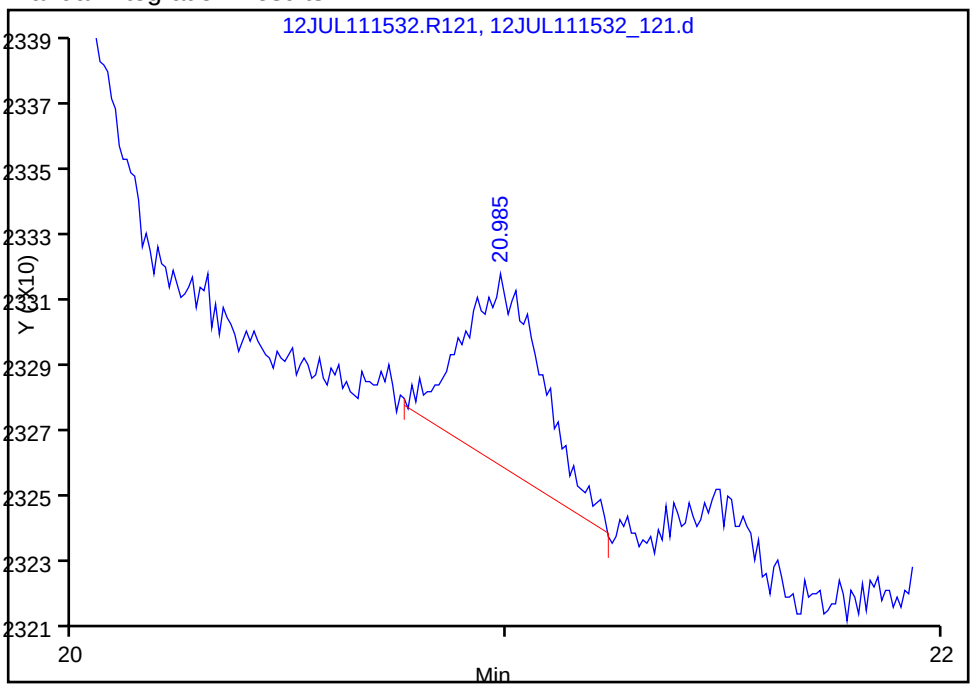
Not Detected
Expected RT: 20.89

Processing Integration Results



RT: 20.98
Response: 729
Amount: 1.982029

Manual Integration Results



Reviewer: chirgwinb, 15-Jul-2011 14:10:56
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 18-Jul-2011 11:58:57 Chrom Revision: 1.2 30-Jun-2011 15:02:28

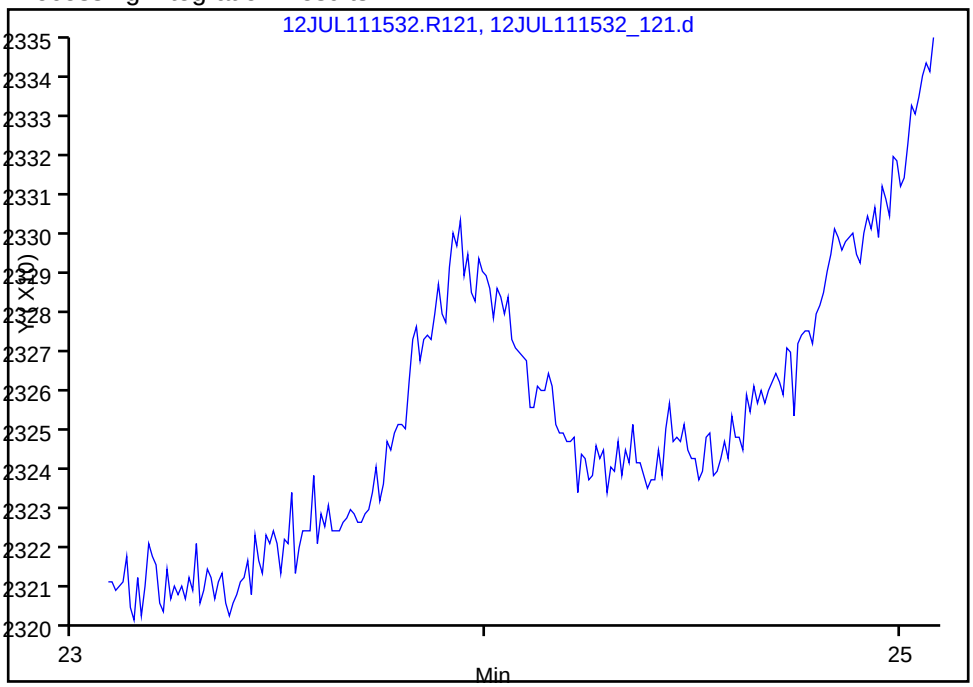
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d		
Injection Date:	13-Jul-2011 18:40:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	12
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.09

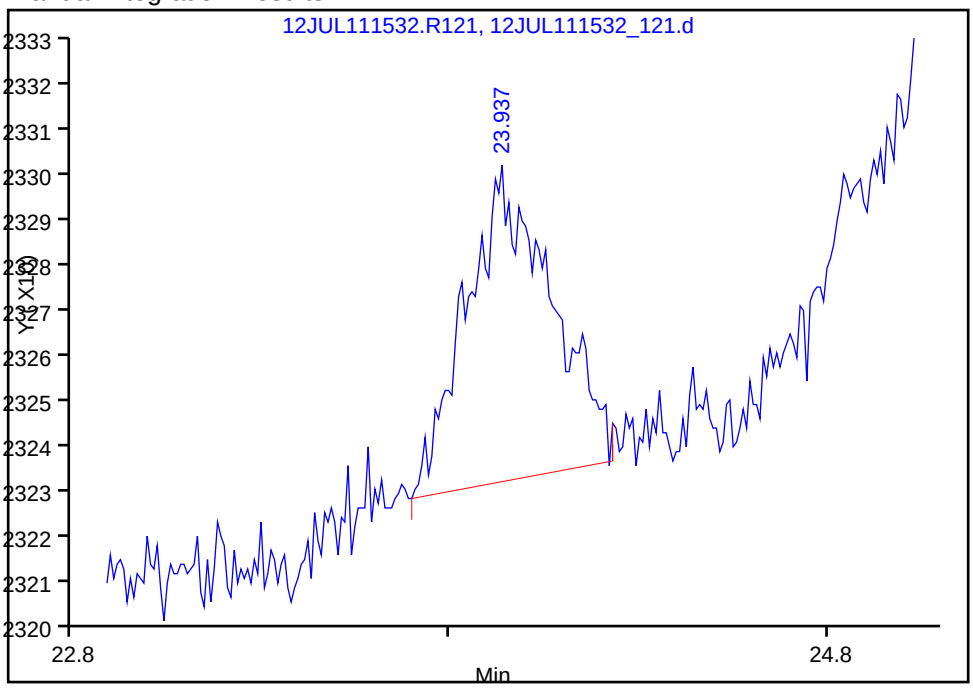
Not Detected
Expected RT: 24.09

Processing Integration Results



Manual Integration Results

RT: 23.94
Response: 1041
Amount: 3.168966



Reviewer: chirgwinb, 15-Jul-2011 14:10:56
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: | Lab Sample ID: LCS 200-21109/13-A

Matrix: Solid | Lab File ID: 12JUL111532_031.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:57

Sample wt/vol: 10.62(g) | Date Analyzed: 07/13/2011 13:03

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	1870		94	23	10
99-35-4	1,3,5-Trinitrobenzene	1870		94	23	8.4
99-65-0	1,3-Dinitrobenzene	1750		94	23	7.9
479-45-8	Tetryl	1770	J	94	28	15
55-63-0	Nitroglycerin	36600		1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	1880		94	14	6.2
19406-51-0	4-Amino-2,6-dinitrotoluene	1870		94	23	9.4
35572-78-2	2-Amino-4,6-dinitrotoluene	1840		94	23	6.6
606-20-2	2,6-Dinitrotoluene	1840		94	14	5.8
121-14-2	2,4-Dinitrotoluene	1850	J	94	28	15
99-08-1	3-Nitrotoluene	1880	J	94	28	24
78-11-5	PETN	37900		4700	1700	800

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_031.d		
Lims ID:	LCS 200-21109/13-A	Client ID:	
Inject. Date:	13-Jul-2011 13:03:00	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	200-0000843-003		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	3
Lims Batch ID:	21368	Lims Sample ID:	3
Detector:	A-12JUL111532.R031		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

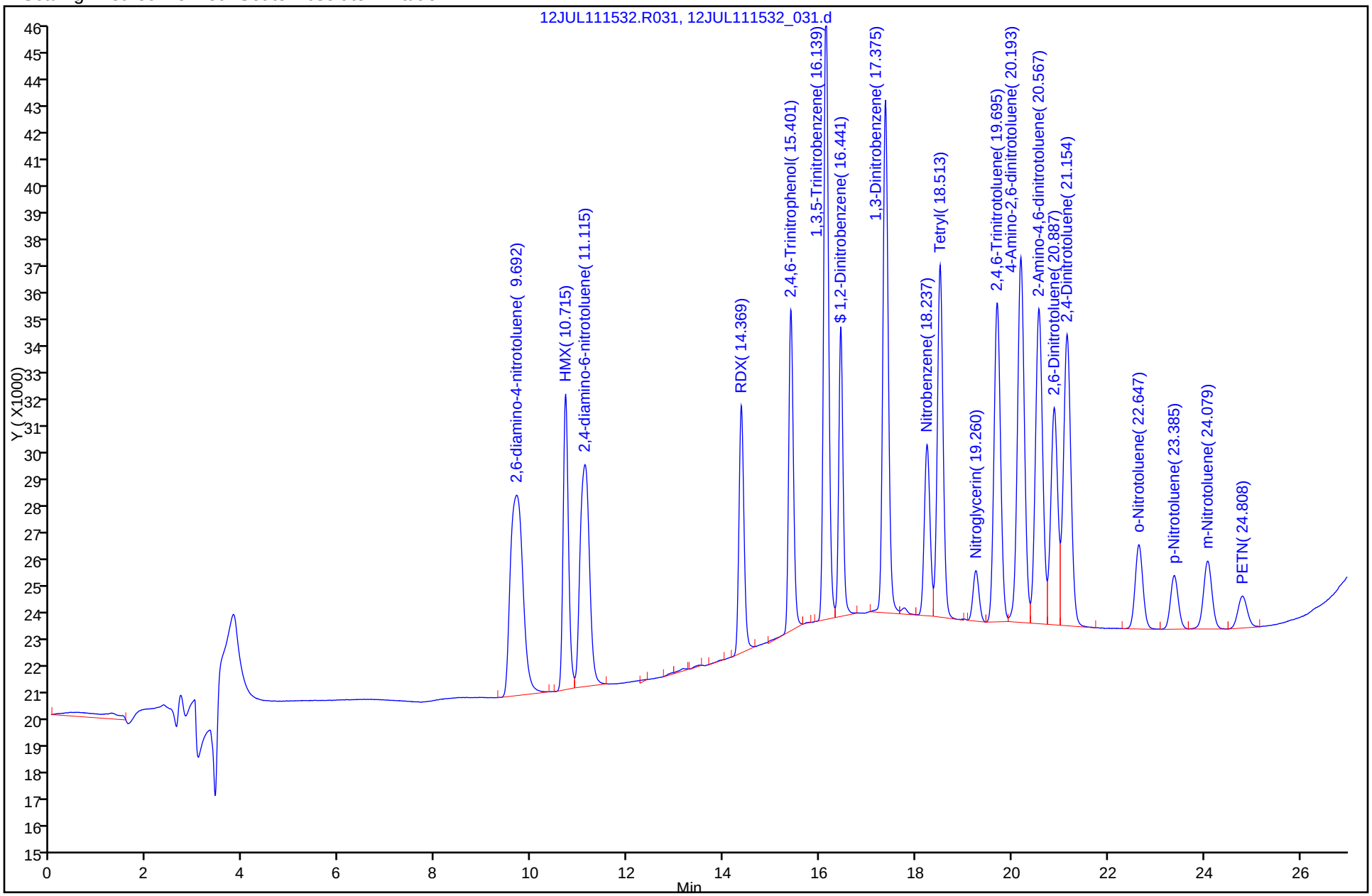
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.692	9.692	0.0	139580	196.8	
	3 HMX	10.715	10.715	0.0	85928	196.0	
	4 2,4-diamino-6-nitrotoluene	11.115	11.115	0.0	114637	192.1	
	7 RDX	14.369	14.369	0.0	67415	198.7	
	8 2,4,6-Trinitrophenol	15.401	15.401	0.0	82760	202.9	
	9 1,3,5-Trinitrobenzene	16.139	16.130	0.009	164852	198.5	
$	10 1,2-Dinitrobenzene	16.441	16.441	0.0	67863	190.4	
	11 1,3-Dinitrobenzene	17.375	17.375	0.0	150407	186.1	
	12 Nitrobenzene	18.237	18.237	0.0	53751	196.4	
	13 Tetryl	18.513	18.513	0.0	111272	187.6	
	14 Nitroglycerin	19.260	19.260	0.0	16528	3891.8	
	15 2,4,6-Trinitrotoluene	19.695	19.704	-0.009	114788	199.5	
	16 4-Amino-2,6-dinitrotoluene	20.193	20.193	0.0	139618	198.1	
	17 2-Amino-4,6-dinitrotoluene	20.567	20.567	0.0	125553	195.6	
	18 2,6-Dinitrotoluene	20.887	20.887	0.0	83291	195.3	
	19 2,4-Dinitrotoluene	21.154	21.163	-0.009	121072	196.0	
	20 o-Nitrotoluene	22.647	22.656	-0.009	35914	193.4	
	21 p-Nitrotoluene	23.385	23.394	-0.009	23013	198.1	
	22 m-Nitrotoluene	24.079	24.088	-0.009	31767	199.7	
	23 PETN	24.808	24.817	-0.009	16589	4020.0	

Report Date: 18-Jul-2011 11:58:48 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_031.d

Injection Date:	13-Jul-2011 13:03:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: Lab Sample ID: LCS 200-21109/13-A

Matrix: Solid Lab File ID: 12JUL111530_031.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/08/2011 15:57

Sample wt/vol: 10.62(g) Date Analyzed: 07/13/2011 13:22

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Lims ID:	LCS 200-21109/13-A	Client ID:	
Inject. Date:	13-Jul-2011 13:22:00	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	200-0000844-003		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	3
Lims Batch ID:	21370	Lims Sample ID:	3
Detector:	A-12JUL111530.R031		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

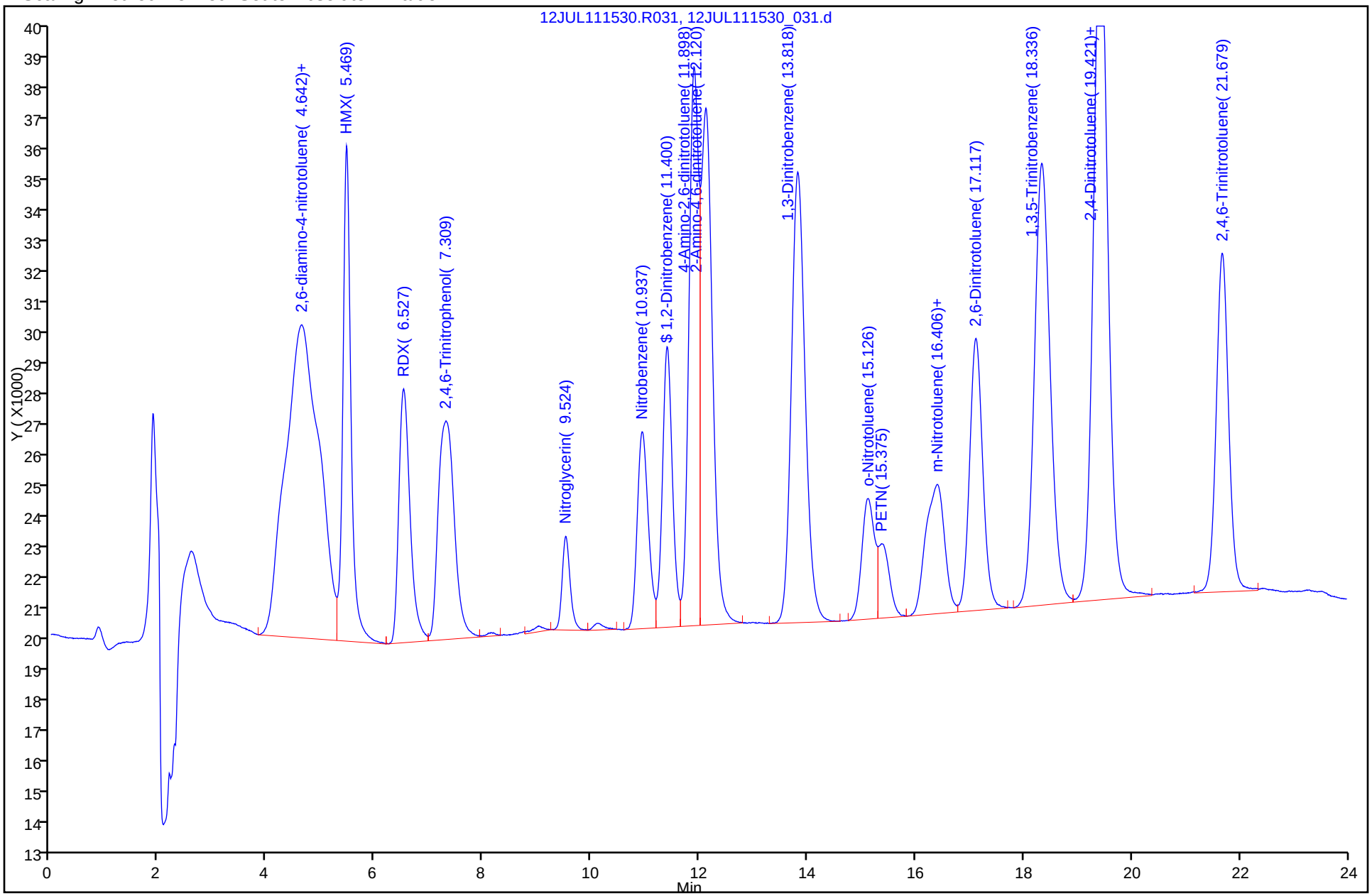
First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:39:43

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8 2,6-diamino-4-nitrotoluene	4.642	4.624	0.018	447424	414.7	
6 2,4-diamino-6-nitrotoluene	4.642	4.624	0.018	447424	414.7	
14 HMX	5.469	5.460	0.009	171026	206.0	
22 RDX	6.527	6.518	0.009	121574	211.5	
4 2,4,6-Trinitrophenol	7.309	7.309	0.0	149997	213.6	
18 Nitroglycerin	9.524	9.515	0.009	31925	4095.5	M
17 Nitrobenzene	10.937	10.937	0.0	92961	205.7	M
$ 1 1,2-Dinitrobenzene	11.400	11.391	0.009	119330	199.5	M
11 4-Amino-2,6-dinitrotoluene	11.898	11.889	0.009	232646	206.5	M
10 2-Amino-4,6-dinitrotoluene	12.120	12.111	0.009	248937	203.5	M
3 1,3-Dinitrobenzene	13.818	13.810	0.008	264574	191.0	
19 o-Nitrotoluene	15.126	15.117	0.009	66111	208.5	M
21 PETN	15.375	15.375	0.0	34446	3940.5	A
15 m-Nitrotoluene	16.406	16.388	0.018	103284	408.9	
20 p-Nitrotoluene	16.406	16.388	0.018	103284	408.9	
9 2,6-Dinitrotoluene	17.117	17.109	0.008	152248	207.3	
2 1,3,5-Trinitrobenzene	18.336	18.327	0.009	295887	206.9	
7 2,4-Dinitrotoluene	19.421	19.412	0.009	426546	411.0	
23 Tetryl	19.421	19.412	0.009	426546	411.0	
5 2,4,6-Trinitrotoluene	21.679	21.670	0.009	178548	217.5	

QC Flag Legend

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d
Injection Date: 13-Jul-2011 13:22:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 21370 Lims Sample ID: 3
Operator ID: RJH Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28

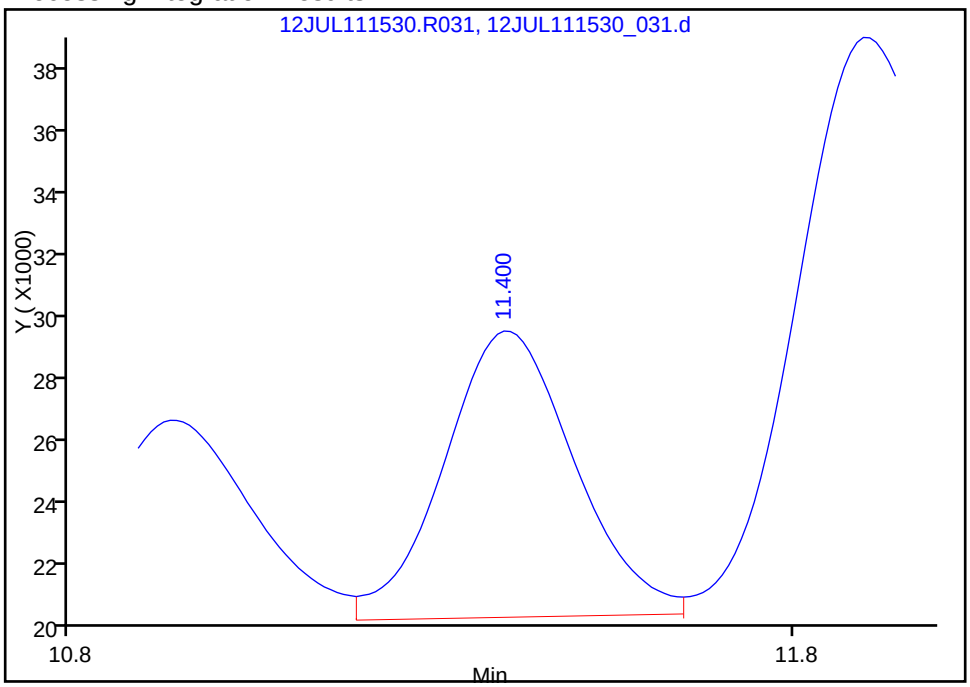
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Injection Date:	13-Jul-2011 13:22:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

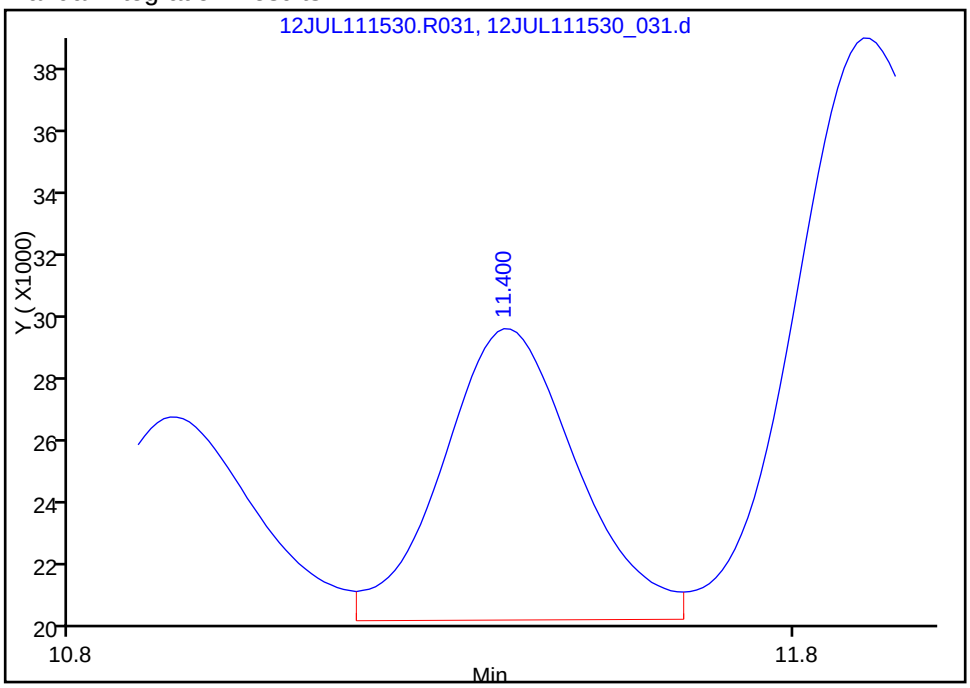
Processing Integration Results

RT: 11.40
Response: 112282
Amount: 187.6139



Manual Integration Results

RT: 11.40
Response: 119330
Amount: 199.4691



Reviewer: chirgwinb, 15-Jul-2011 14:39:43
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28

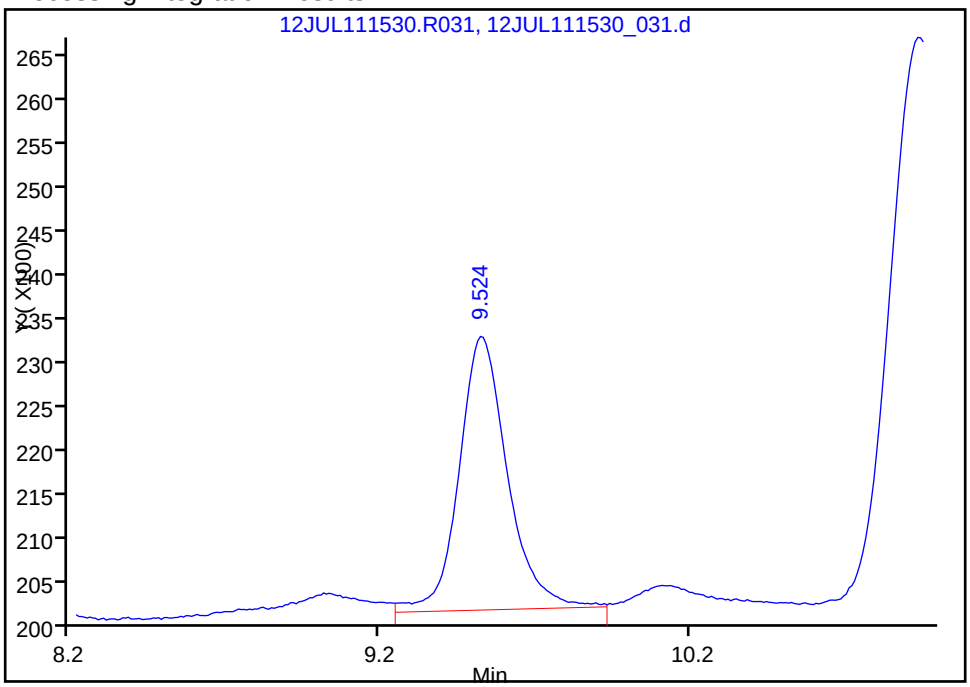
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Injection Date:	13-Jul-2011 13:22:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

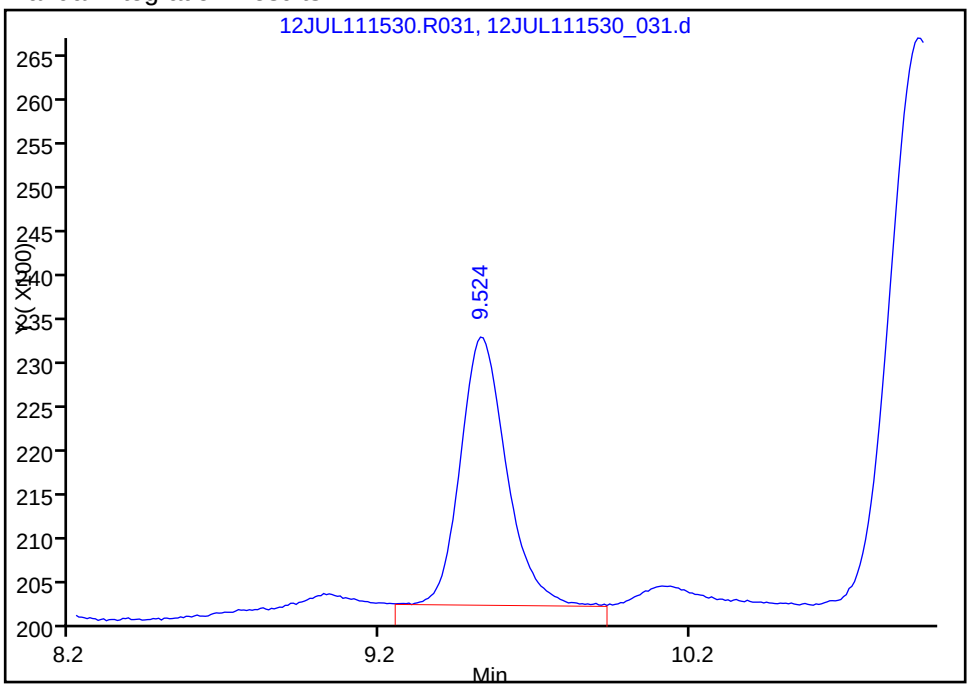
Processing Integration Results

RT: 9.52
Response: 34143
Amount: 4379.1292



Manual Integration Results

RT: 9.52
Response: 31925
Amount: 4095.5465



Reviewer: chirgwinb, 15-Jul-2011 14:39:43
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28

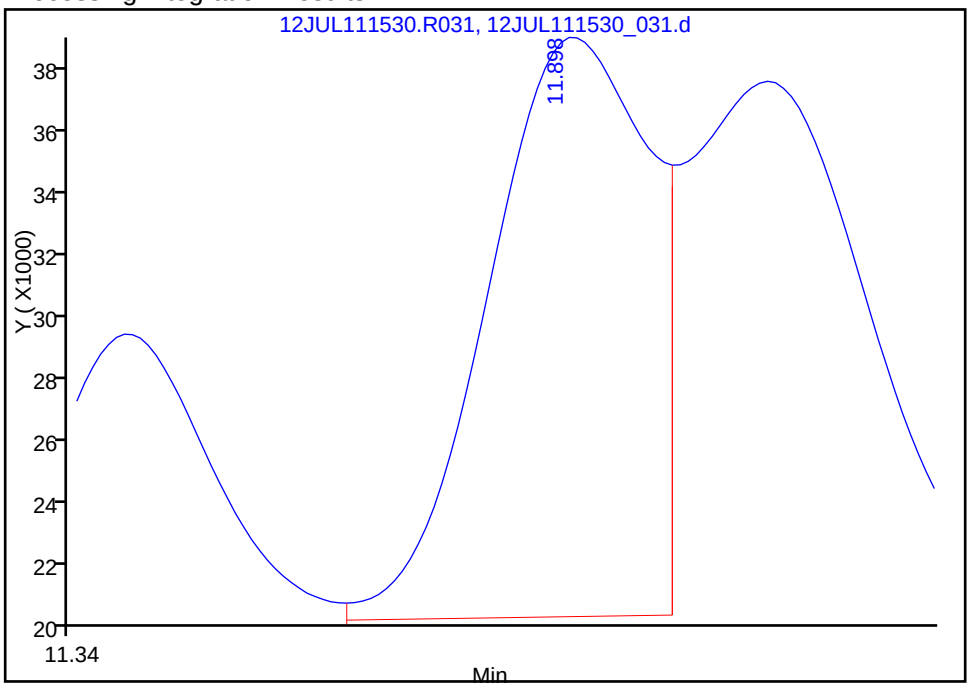
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Injection Date:	13-Jul-2011 13:22:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

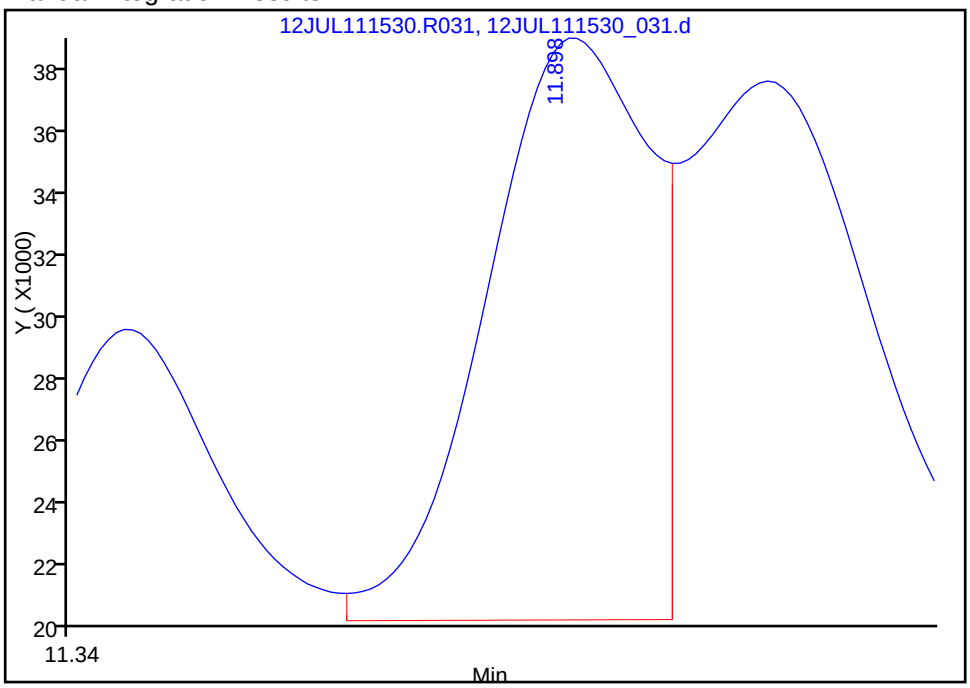
Processing Integration Results

RT: 11.90
Response: 224049
Amount: 198.8300



Manual Integration Results

RT: 11.90
Response: 232646
Amount: 206.4688



Reviewer: chirgwinb, 15-Jul-2011 14:39:43
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28

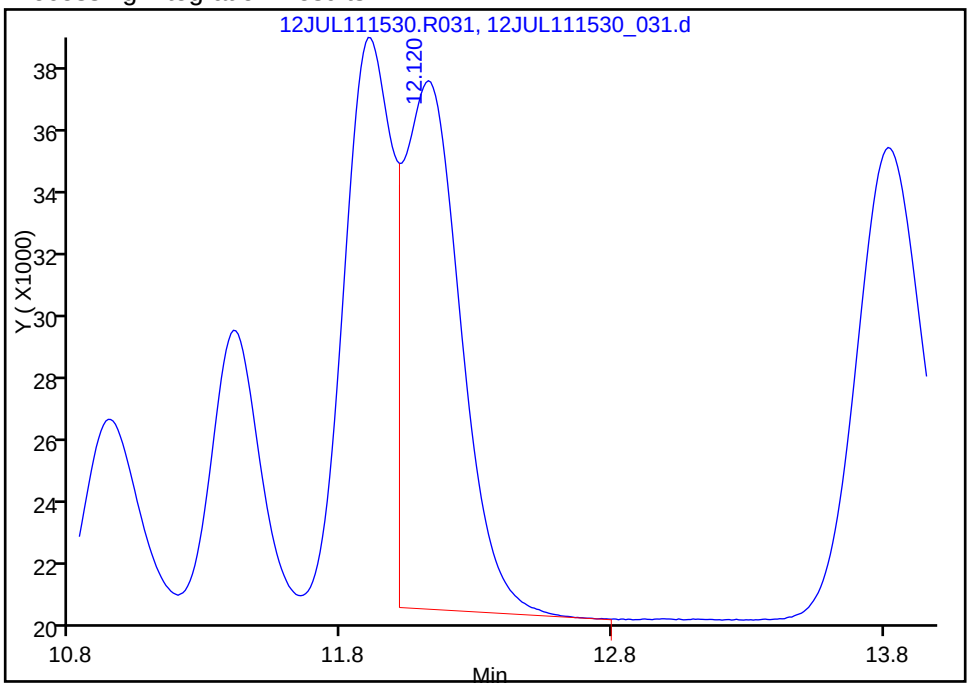
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Injection Date:	13-Jul-2011 13:22:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

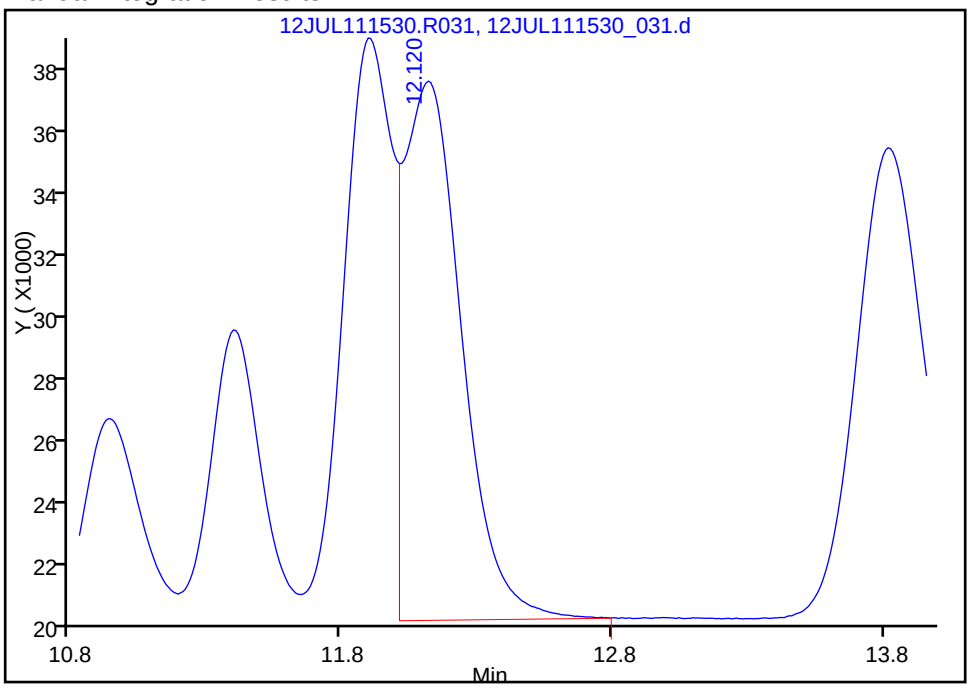
Processing Integration Results

RT: 12.12
Response: 238538
Amount: 195.0015



Manual Integration Results

RT: 12.12
Response: 248937
Amount: 203.5442



Reviewer: chirgwinb, 15-Jul-2011 14:39:43
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:10 Chrom Revision: 1.2 30-Jun-2011 15:02:28

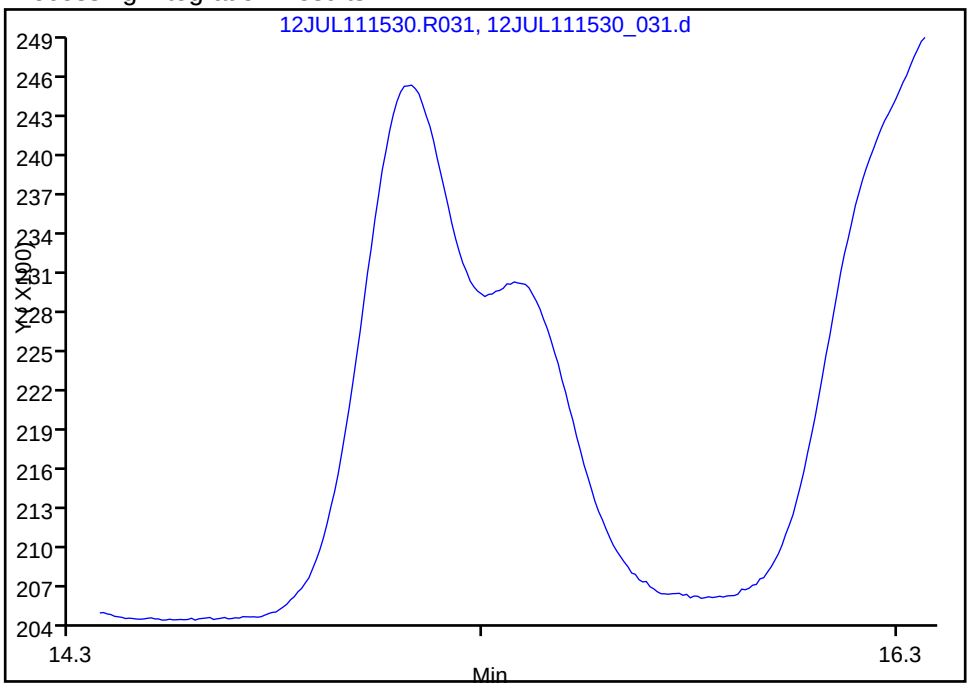
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_031.d		
Injection Date:	13-Jul-2011 13:22:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.37

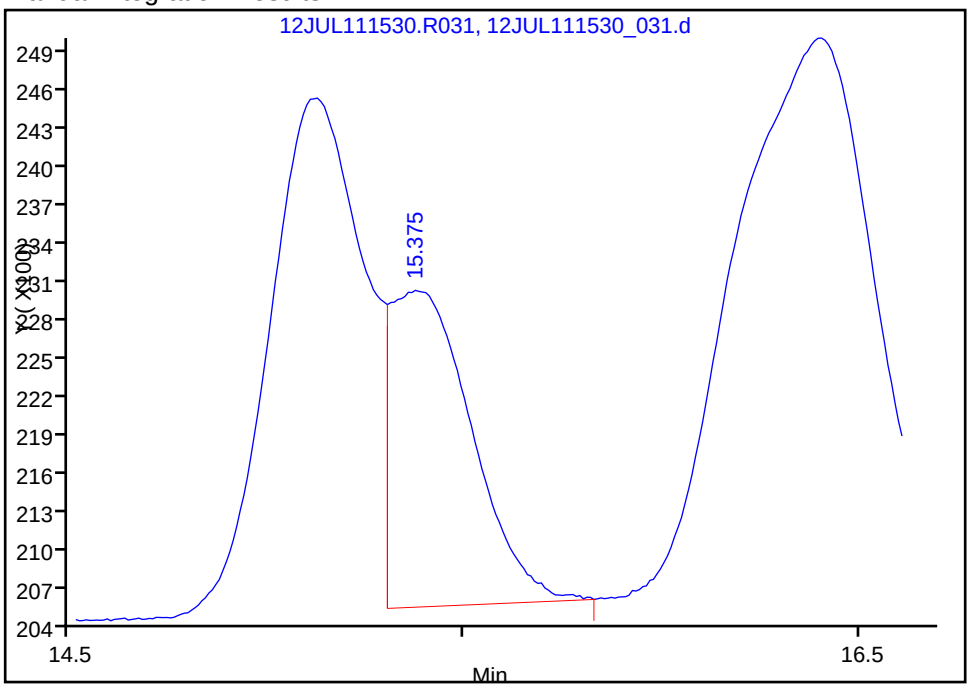
Not Detected
Expected RT: 15.37

Processing Integration Results



Manual Integration Results

RT: 15.37
Response: 34446
Amount: 3940.5417



Reviewer: chirgwinb, 15-Jul-2011 14:39:43
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MS Lab Sample ID: 200-5816-6 MS

Matrix: Solid Lab File ID: 12JUL111530_131.d

Analysis Method: 8330B Date Collected: 06/28/2011 10:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.55(g) Date Analyzed: 07/13/2011 19:04

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Lims ID:	200-5816-A-6-E MS	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 19:04:00	Dil. Factor:	1.0000
Sample Type:	MS		
Sample ID:	200-0000844-013		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	13
Lims Batch ID:	21370	Lims Sample ID:	13
Detector:	A-12JUL111530.R131		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 15:16:35

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene	4.615	4.624	-0.009	41218	43.3	
6 2,4-diamino-6-nitrotoluene	4.615	4.624	-0.009	41218	43.3	
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX	5.469	5.460	0.009	137269	165.8	
16 MNX		5.873				1
22 RDX	6.527	6.518	0.009	106307	185.0	M
4 2,4,6-Trinitrophenol	7.336	7.309	0.027	15054	23.1	M
18 Nitroglycerin	9.541	9.515	0.026	34717	4452.5	M
17 Nitrobenzene	10.964	10.937	0.027	95592	211.6	M
$ 1 1,2-Dinitrobenzene	11.418	11.391	0.027	103937	173.6	M
11 4-Amino-2,6-dinitrotoluene	11.916	11.889	0.027	185387	164.5	M
10 2-Amino-4,6-dinitrotoluene	12.138	12.111	0.027	208180	170.1	
3 1,3-Dinitrobenzene	13.827	13.810	0.017	235128	169.8	
19 o-Nitrotoluene	15.126	15.117	0.009	63254	199.6	M
21 PETN	15.357	15.375	-0.018	26136	2943.3	A
15 m-Nitrotoluene	16.415	16.388	0.027	86443	342.2	
20 p-Nitrotoluene	16.415	16.388	0.027	86443	342.2	
9 2,6-Dinitrotoluene	17.126	17.109	0.017	131416	179.0	
2 1,3,5-Trinitrobenzene	18.353	18.327	0.026	253729	177.4	
7 2,4-Dinitrotoluene	19.429	19.412	0.017	390863	376.6	
23 Tetryl	19.429	19.412	0.017	390863	376.6	
5 2,4,6-Trinitrotoluene	21.688	21.670	0.018	161096	196.2	

QC Flag Legend

Processing Flags
1 - Missing Peaks

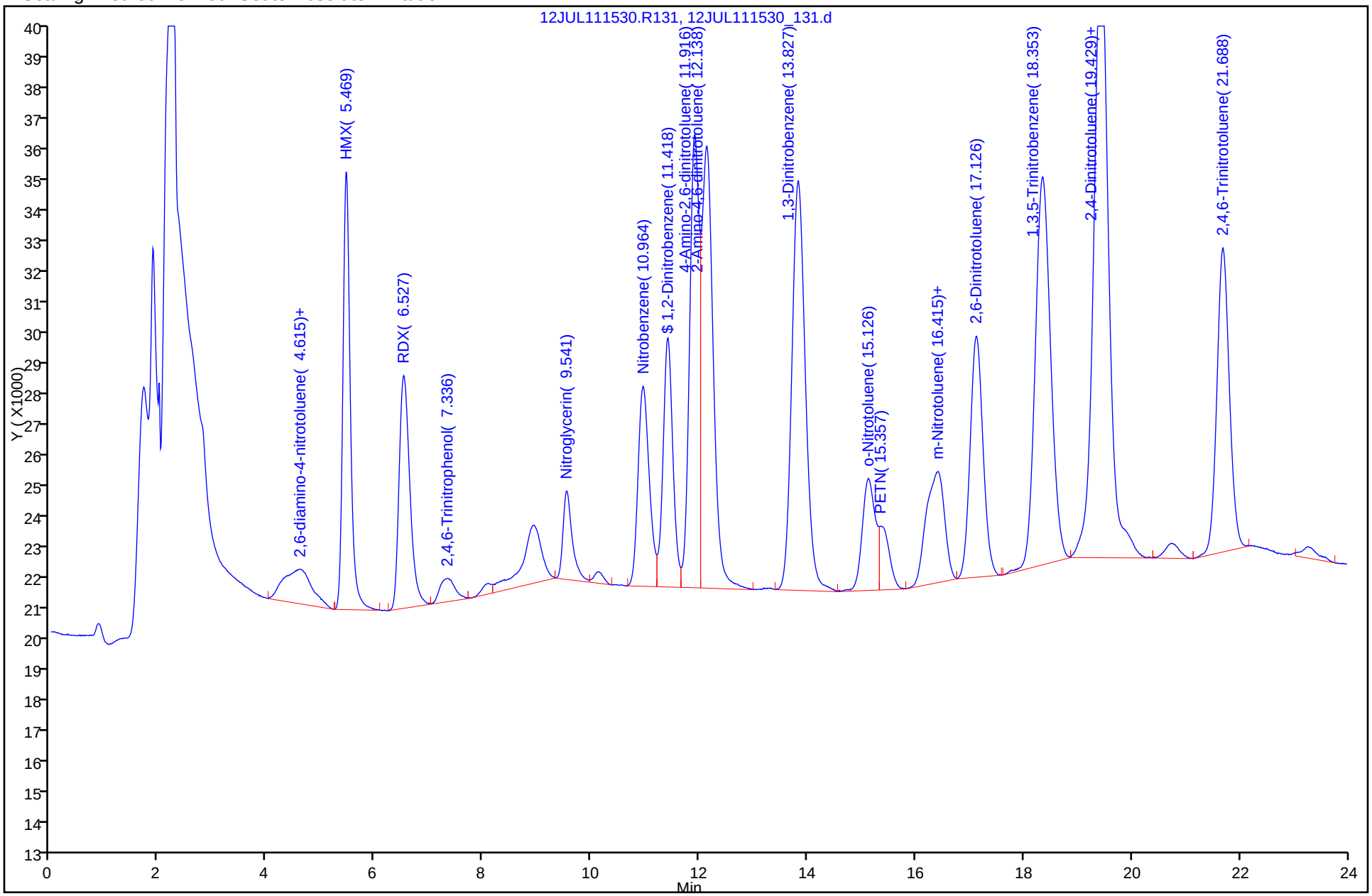
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:20 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d

Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:20 Chrom Revision: 1.2 30-Jun-2011 15:02:28

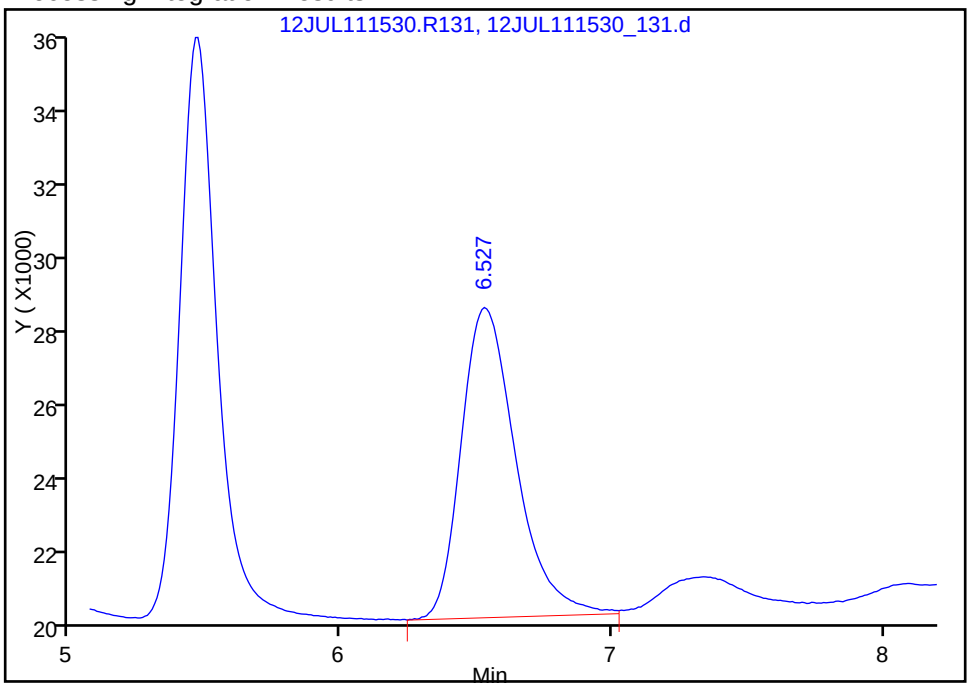
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

22 RDX, Signal: 1, Type: quant, RT: 6.52

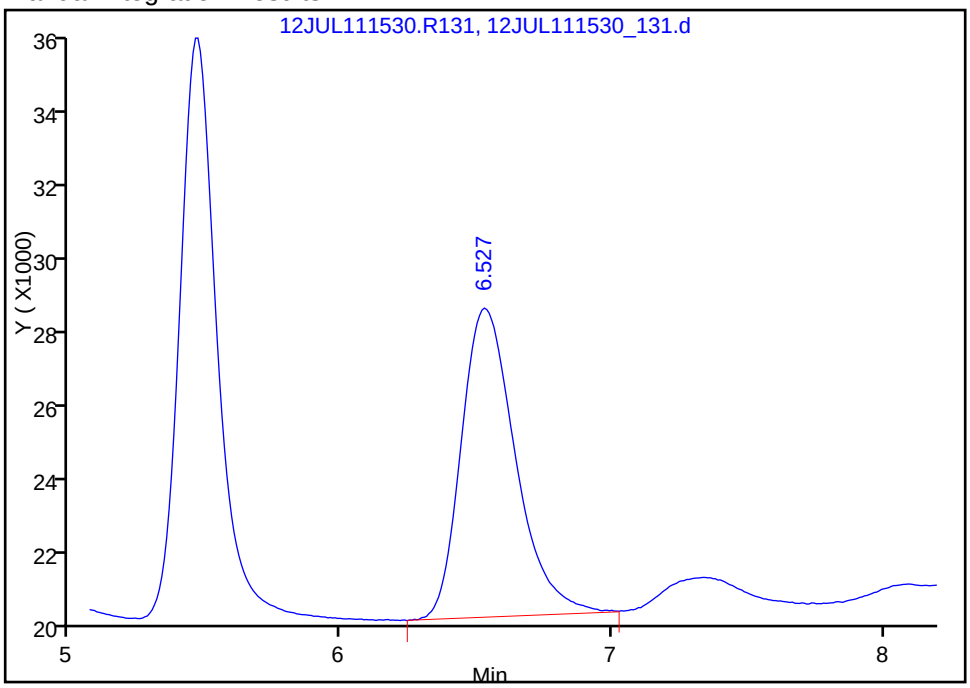
Processing Integration Results

RT: 6.53
Response: 107974
Amount: 187.8770



Manual Integration Results

RT: 6.53
Response: 106307
Amount: 184.9866



Reviewer: chirgwinb, 15-Jul-2011 15:16:35
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:20 Chrom Revision: 1.2 30-Jun-2011 15:02:28

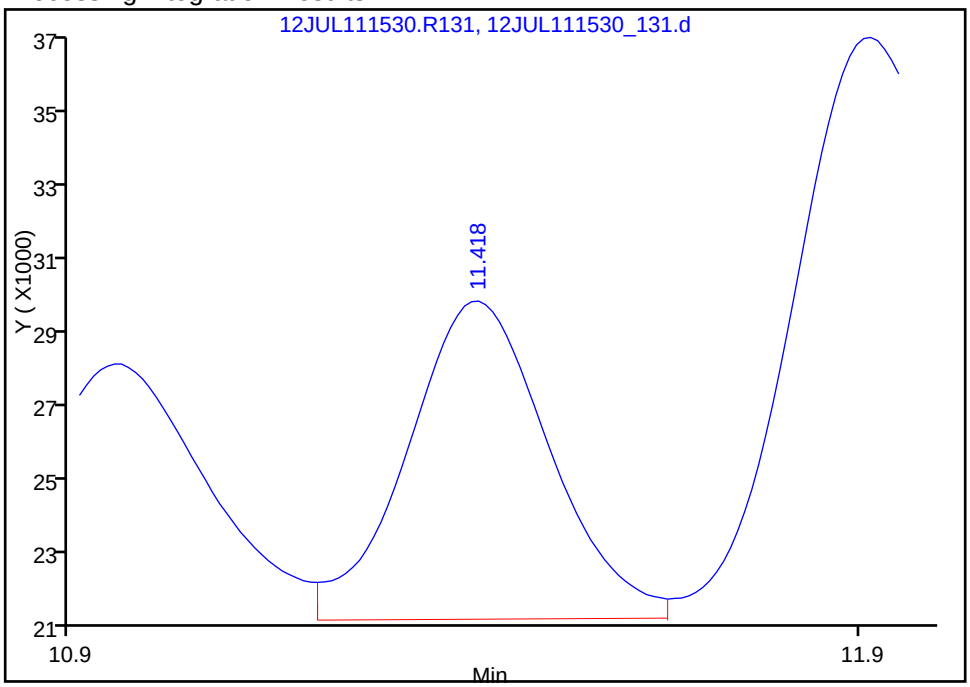
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

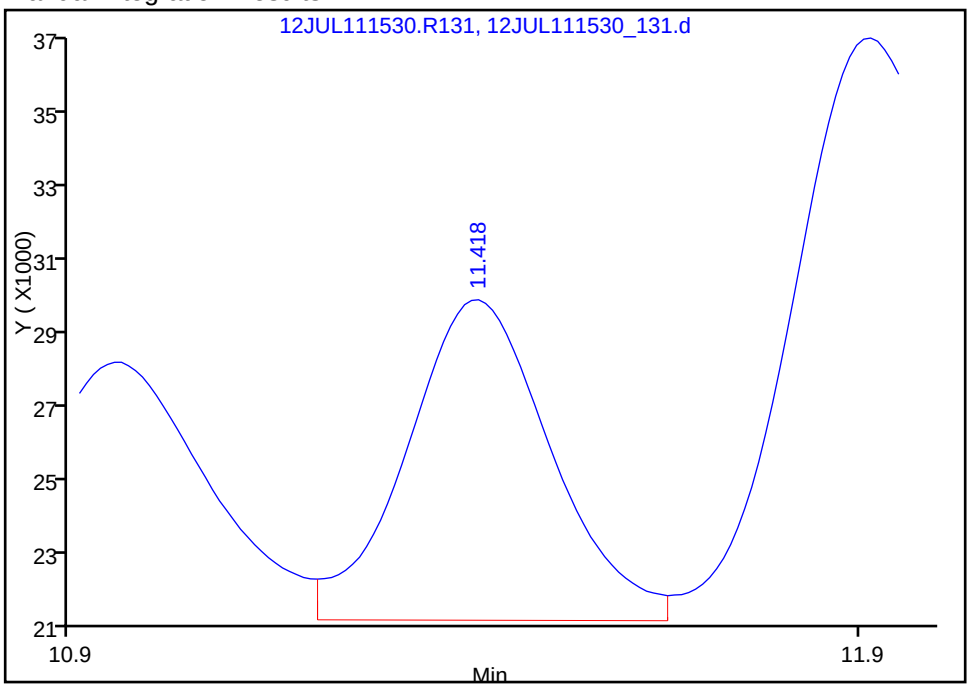
Processing Integration Results

RT: 11.42
Response: 100736
Amount: 168.1929



Manual Integration Results

RT: 11.42
Response: 103937
Amount: 173.5772



Reviewer: chirgwinb, 15-Jul-2011 15:16:35
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:20 Chrom Revision: 1.2 30-Jun-2011 15:02:28

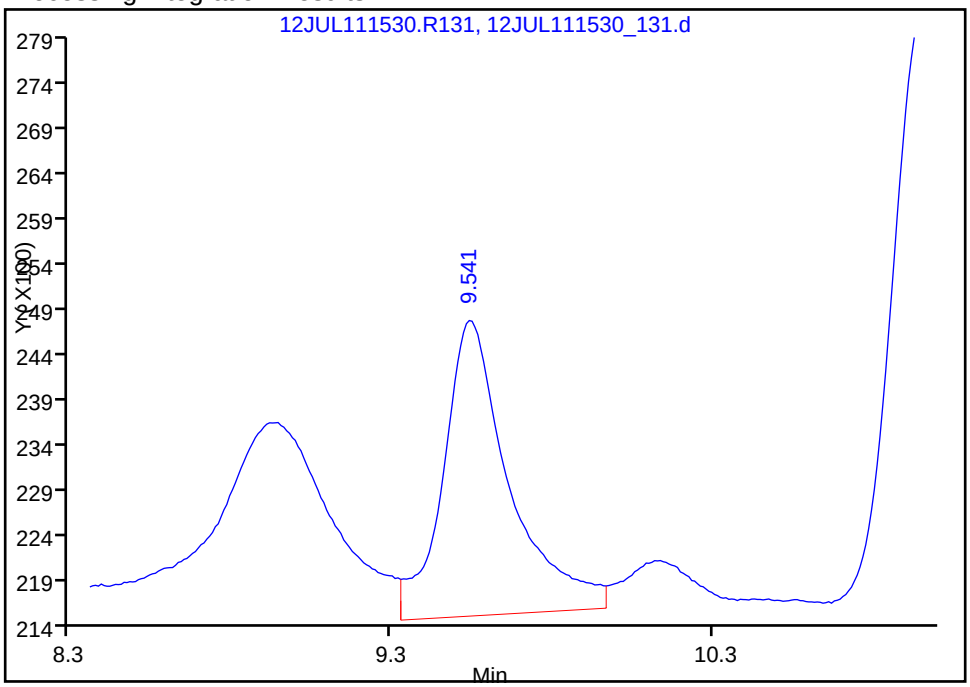
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

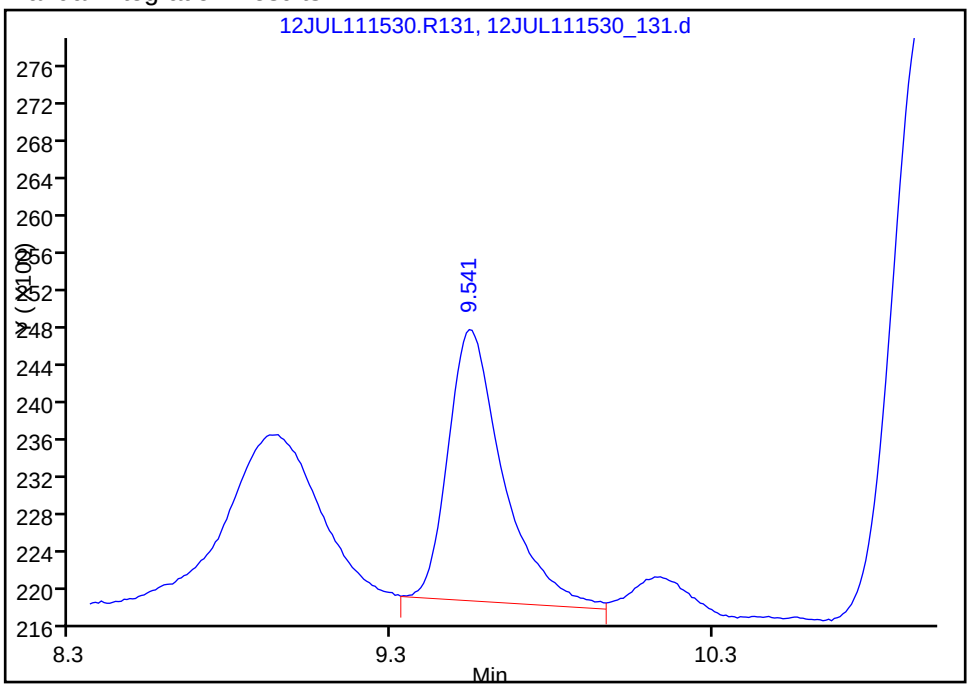
Processing Integration Results

RT: 9.54
Response: 46721
Amount: 5987.2911



Manual Integration Results

RT: 9.54
Response: 34717
Amount: 4452.5180



Reviewer: chirgwinb, 15-Jul-2011 15:16:35
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

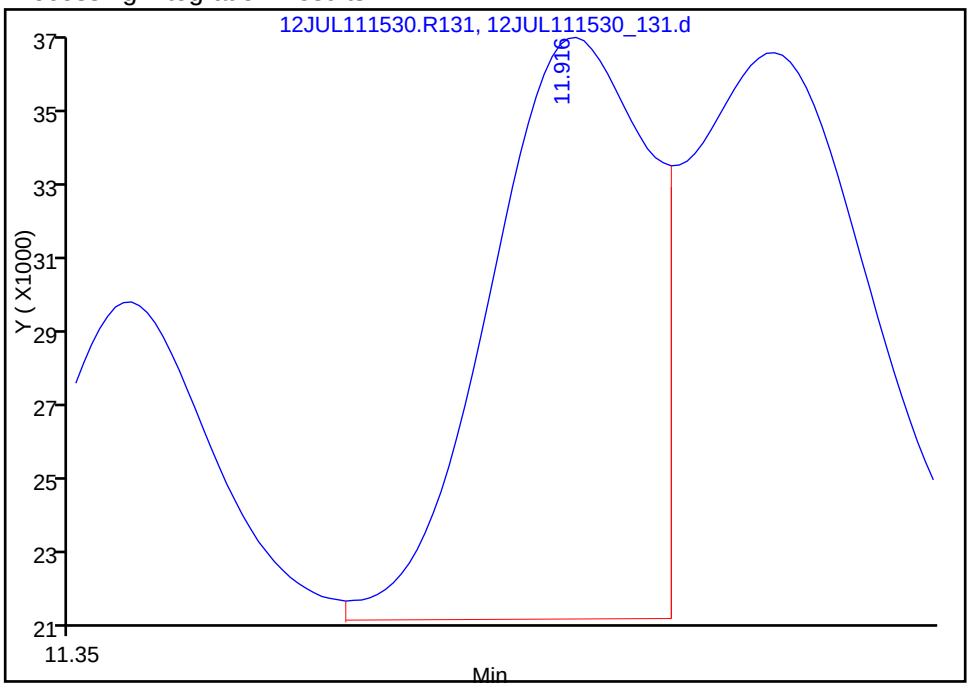
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

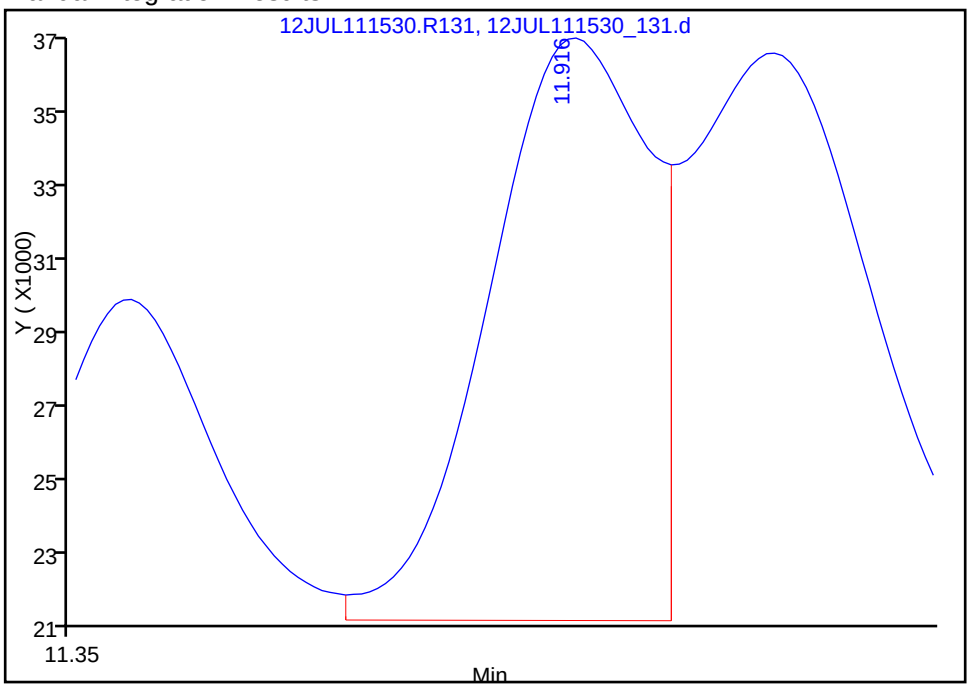
Processing Integration Results

RT: 11.92
Response: 181308
Amount: 160.8525



Manual Integration Results

RT: 11.92
Response: 185387
Amount: 164.4769



Reviewer: chirgwinb, 15-Jul-2011 15:16:35
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:20 Chrom Revision: 1.2 30-Jun-2011 15:02:28

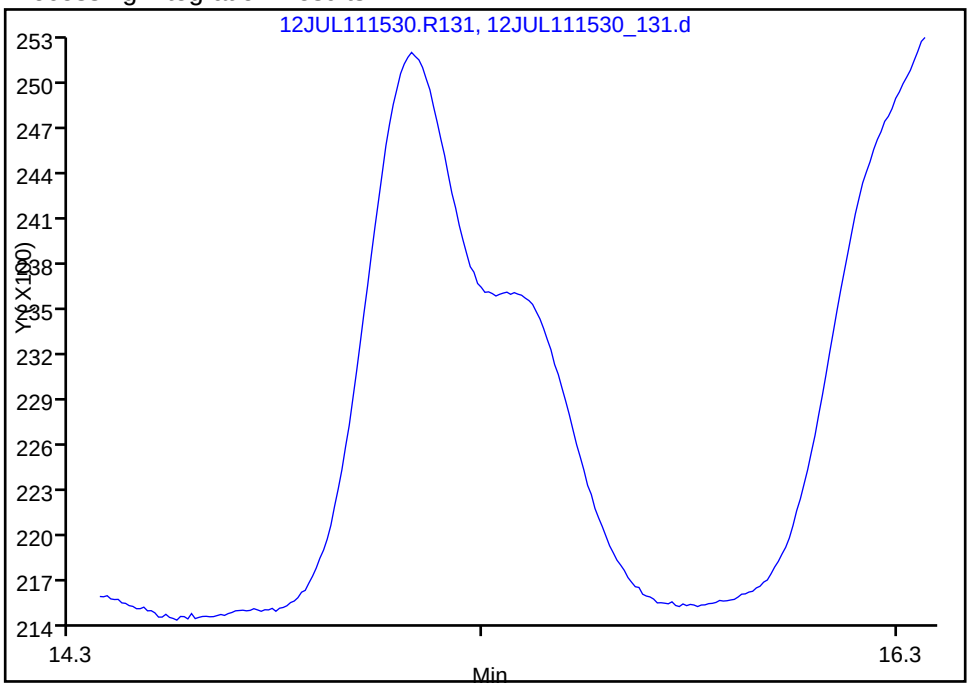
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_131.d		
Injection Date:	13-Jul-2011 19:04:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.37

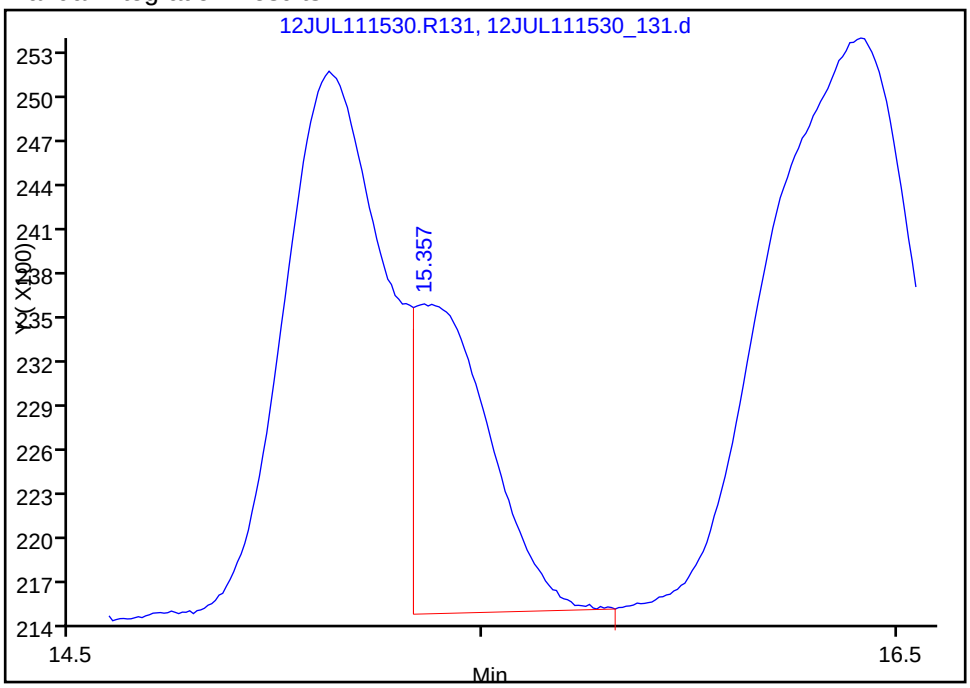
Not Detected
Expected RT: 15.37

Processing Integration Results



Manual Integration Results

RT: 15.36
Response: 26136
Amount: 2943.2653



Reviewer: chirgwinb, 15-Jul-2011 15:16:35
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MS | Lab Sample ID: 200-5816-6 MS

Matrix: Solid | Lab File ID: 12JUL111532_131.d

Analysis Method: 8330B | Date Collected: 06/28/2011 10:35

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.55(g) | Date Analyzed: 07/13/2011 19:17

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	1770	M	95	23	10
99-35-4	1,3,5-Trinitrobenzene	1950	M	95	23	8.4
99-65-0	1,3-Dinitrobenzene	1760	M	95	23	8.0
479-45-8	Tetryl	1750	M J	95	28	15
55-63-0	Nitroglycerin	45500		1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	1880	M	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	1630	M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	1740	M	95	23	6.6
606-20-2	2,6-Dinitrotoluene	1920	M	95	14	5.9
121-14-2	2,4-Dinitrotoluene	1780	M J	95	28	15
99-08-1	3-Nitrotoluene	1910	J	95	28	25
78-11-5	PETN	40300		4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	40-140

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Lims ID:	200-5816-A-6-E MS	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 19:17:00	Dil. Factor:	1.0000
Sample Type:	MS		
Sample ID:	200-0000843-013		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	13
Lims Batch ID:	21368	Lims Sample ID:	13
Detector:	A-12JUL111532.R131		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 14:13:31

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene	9.692	9.692	0.0	23748	34.2	
3 HMX	10.715	10.715	0.0	84232	192.1	M
4 2,4-diamino-6-nitrotoluene	11.115	11.115	0.0	7084	12.9	M
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
6 MNX	13.240	13.228	0.012	4398	10.6	
7 RDX	14.369	14.369	0.0	63391	186.9	M
8 2,4,6-Trinitrophenol	15.401	15.401	0.0	12894	32.1	
9 1,3,5-Trinitrobenzene	16.130	16.130	0.0	170614	205.4	M
$ 10 1,2-Dinitrobenzene	16.441	16.441	0.0	65866	184.7	M
11 1,3-Dinitrobenzene	17.375	17.375	0.0	150049	185.7	M
12 Nitrobenzene	18.237	18.237	0.0	51561	188.4	M
13 Tetryl	18.513	18.513	0.0	109548	184.7	M
14 Nitroglycerin	19.260	19.260	0.0	20388	4802.9	
15 2,4,6-Trinitrotoluene	19.704	19.704	0.0	114165	198.4	M
16 4-Amino-2,6-dinitrotoluene	20.193	20.193	0.0	121309	172.2	M
17 2-Amino-4,6-dinitrotoluene	20.576	20.567	0.009	117506	183.1	M
18 2,6-Dinitrotoluene	20.896	20.887	0.009	86176	202.1	M
19 2,4-Dinitrotoluene	21.163	21.163	0.0	115969	187.8	M
20 o-Nitrotoluene	22.656	22.656	0.0	35571	191.5	M
21 p-Nitrotoluene	23.394	23.394	0.0	22549	194.1	
22 m-Nitrotoluene	24.088	24.088	0.0	32006	201.2	
23 PETN	24.817	24.817	0.0	17576	4256.4	

QC Flag Legend

Processing Flags
1 - Missing Peaks

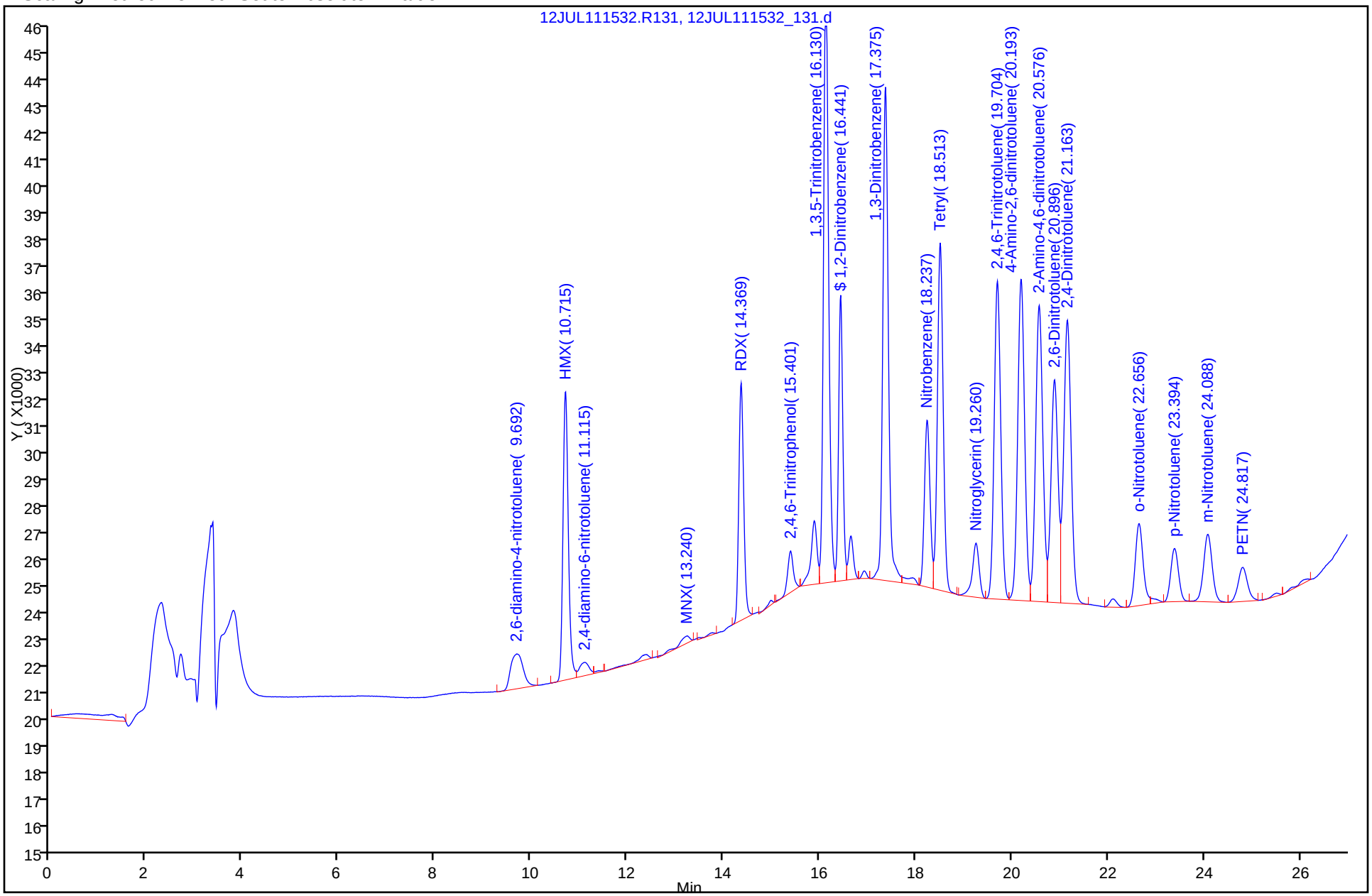
Review Flags
M - Manually Integrated

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d

Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

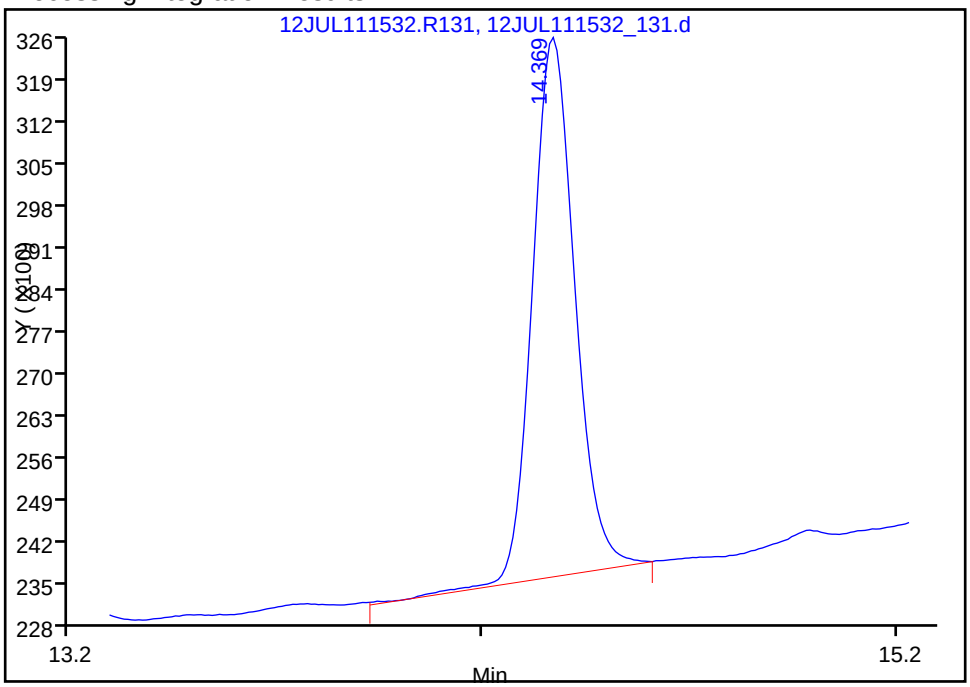
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

7 RDX, Signal: 1, Type: quant, RT: 14.37

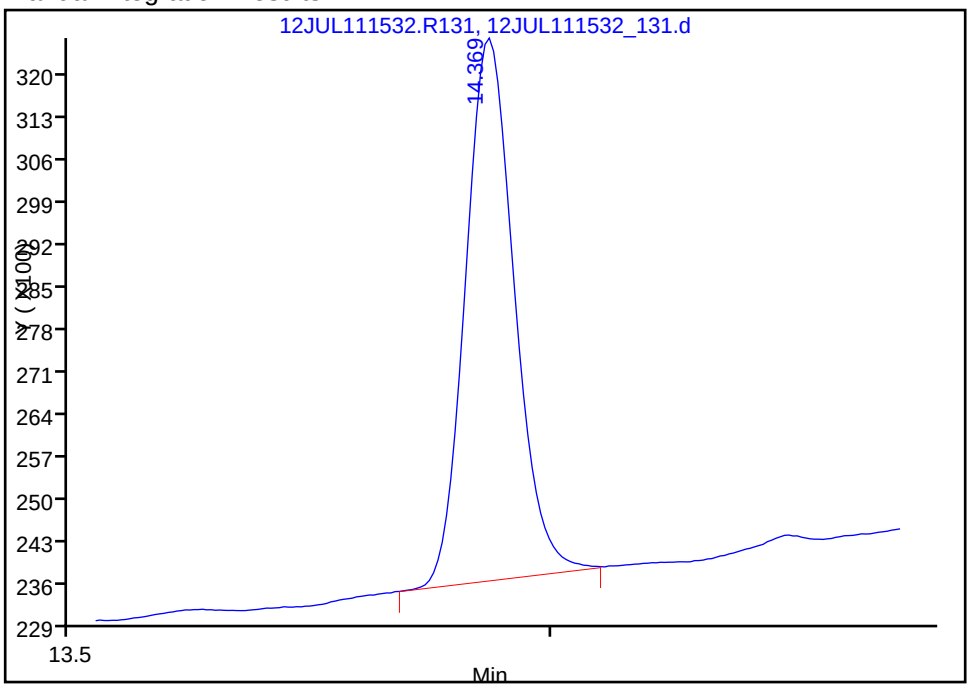
Processing Integration Results

RT: 14.37
Response: 64347
Amount: 189.7096



Manual Integration Results

RT: 14.37
Response: 63391
Amount: 186.8985



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

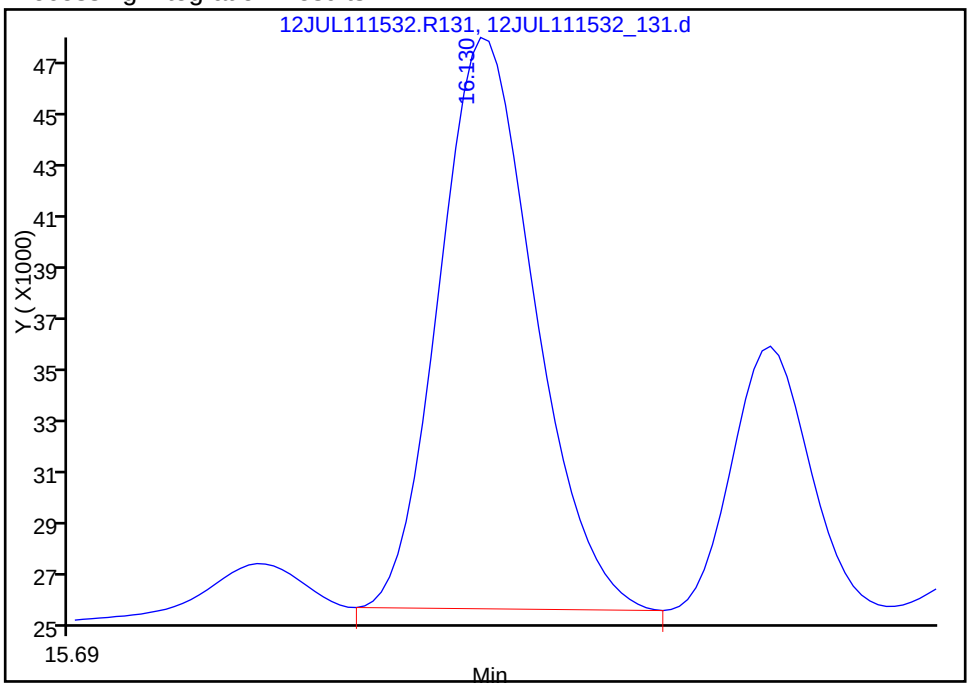
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

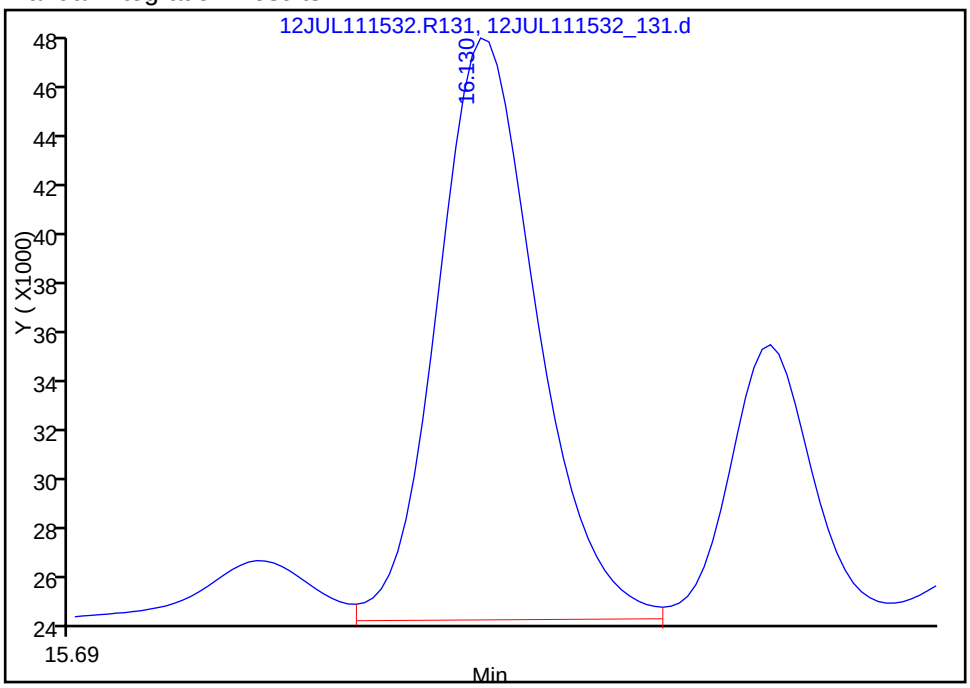
Processing Integration Results

RT: 16.13
Response: 159748
Amount: 192.3372



Manual Integration Results

RT: 16.13
Response: 170614
Amount: 205.4463



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

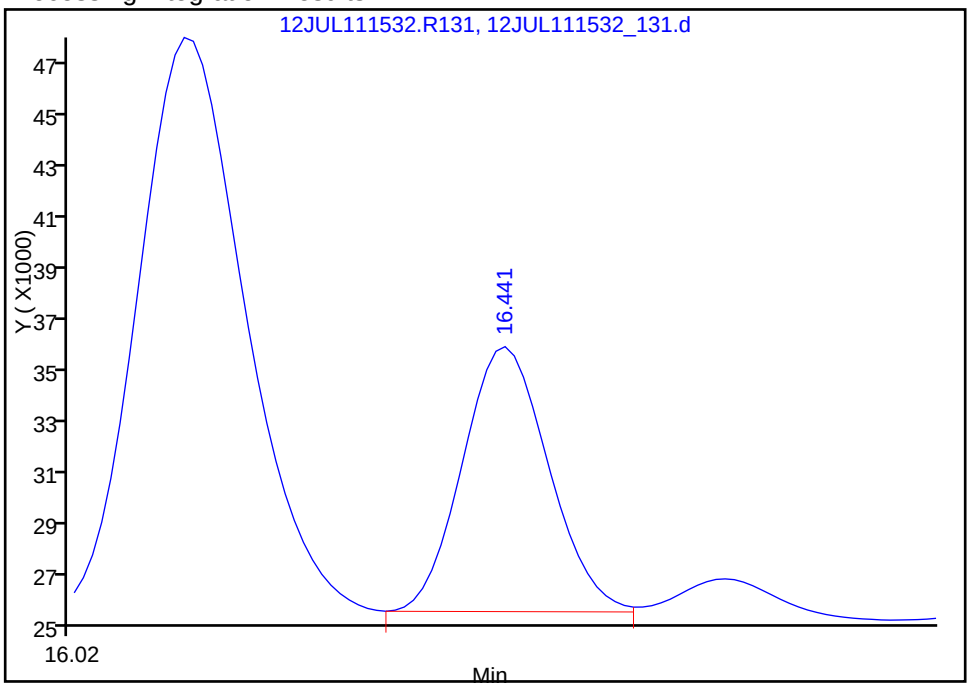
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

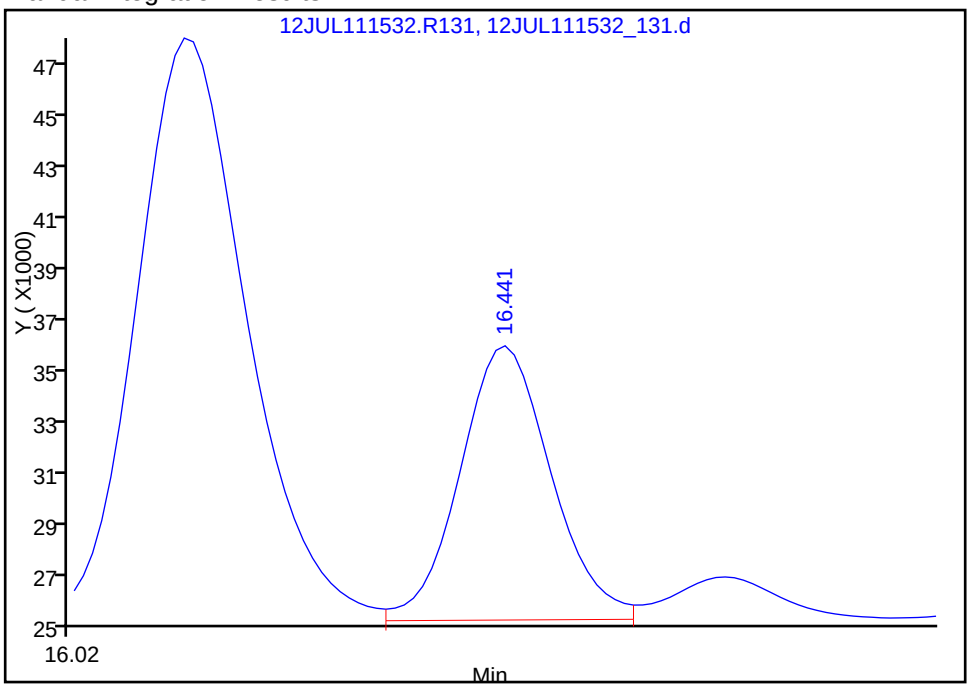
Processing Integration Results

RT: 16.44
Response: 59953
Amount: 168.0465



Manual Integration Results

RT: 16.44
Response: 65866
Amount: 184.7294



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

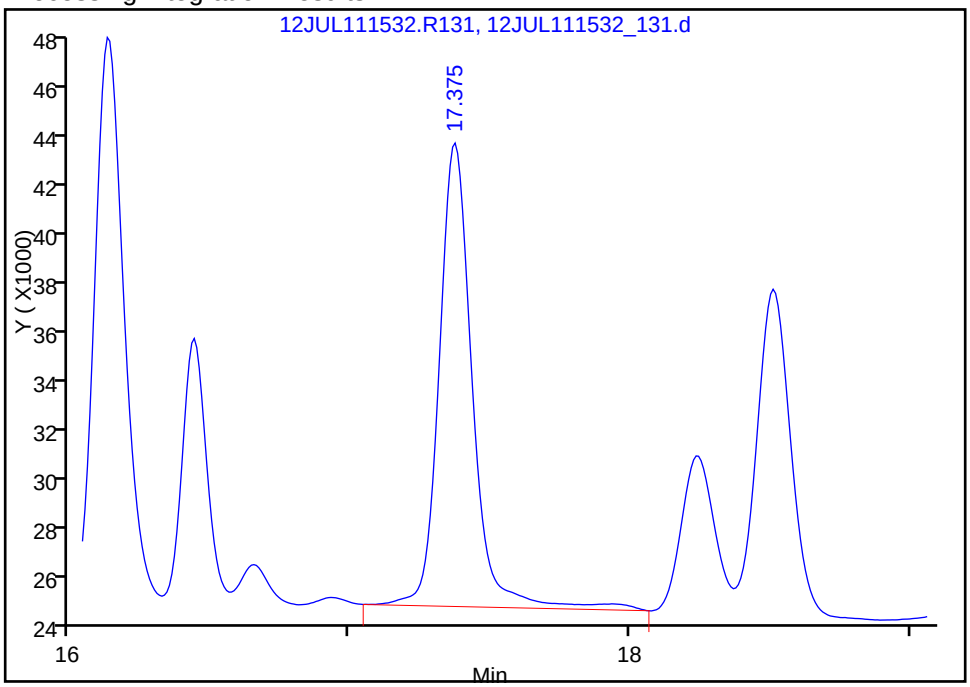
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.37

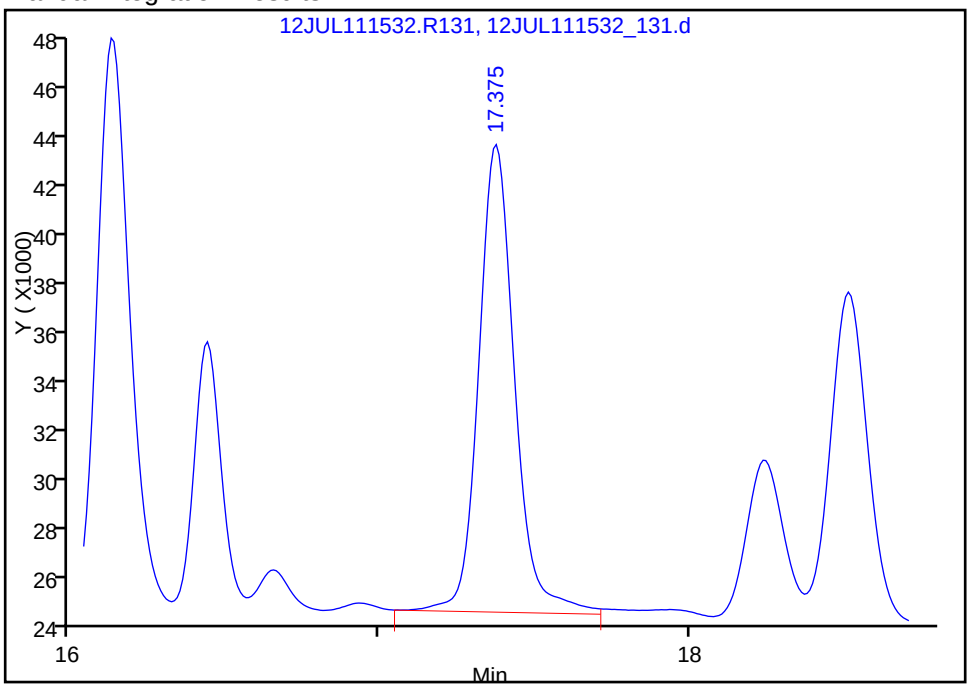
Processing Integration Results

RT: 17.37
Response: 153940
Amount: 190.4975



Manual Integration Results

RT: 17.37
Response: 150049
Amount: 185.6784



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

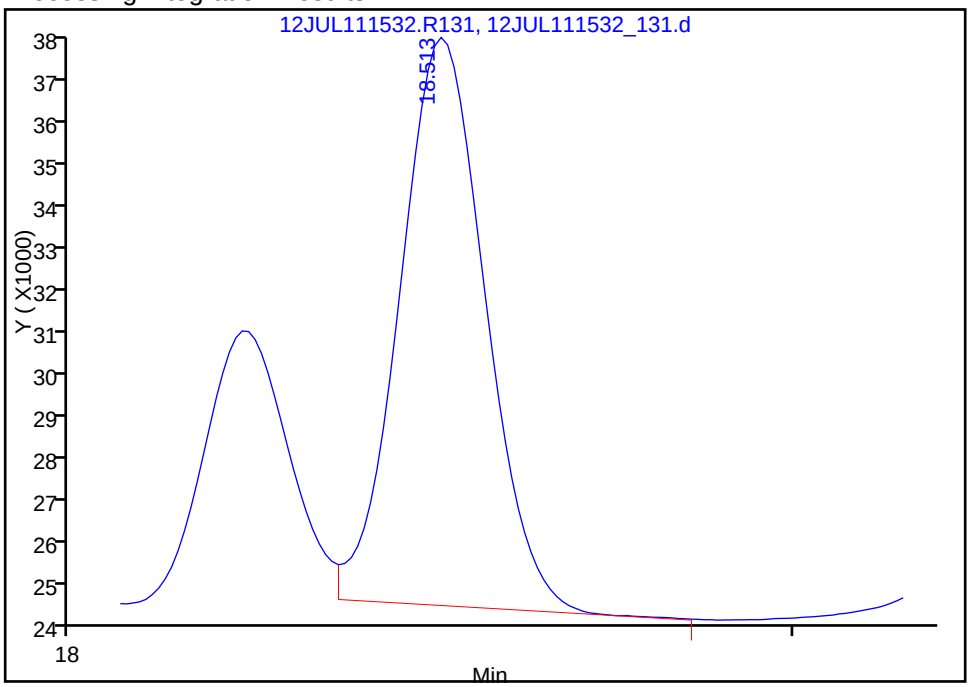
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

13 Tetryl, Signal: 1, Type: quant, RT: 18.51

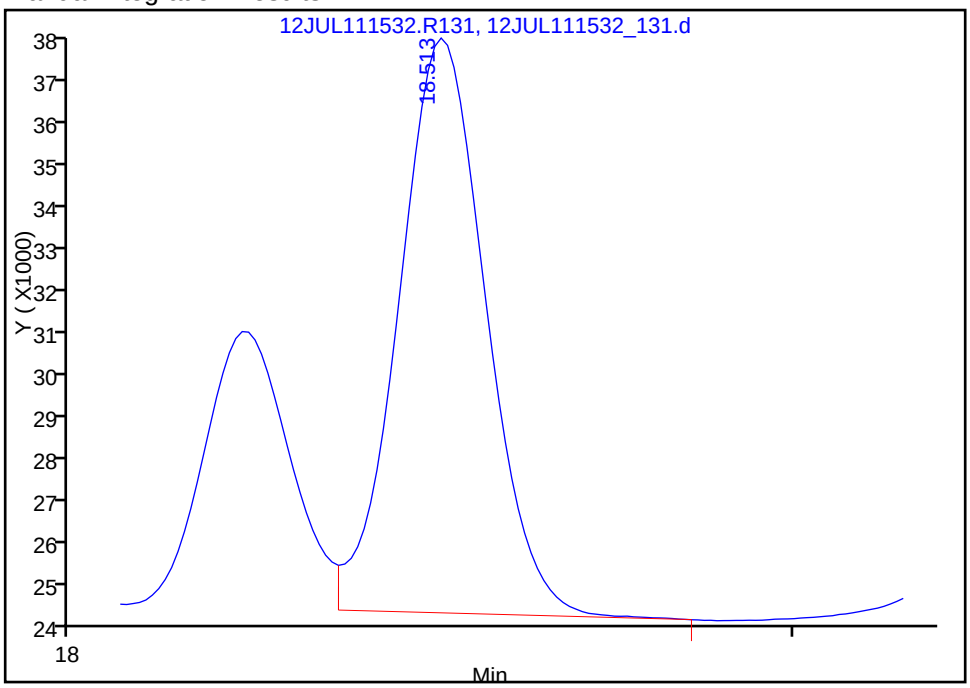
Processing Integration Results

RT: 18.51
Response: 106599
Amount: 179.7599



Manual Integration Results

RT: 18.51
Response: 109548
Amount: 184.7342



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

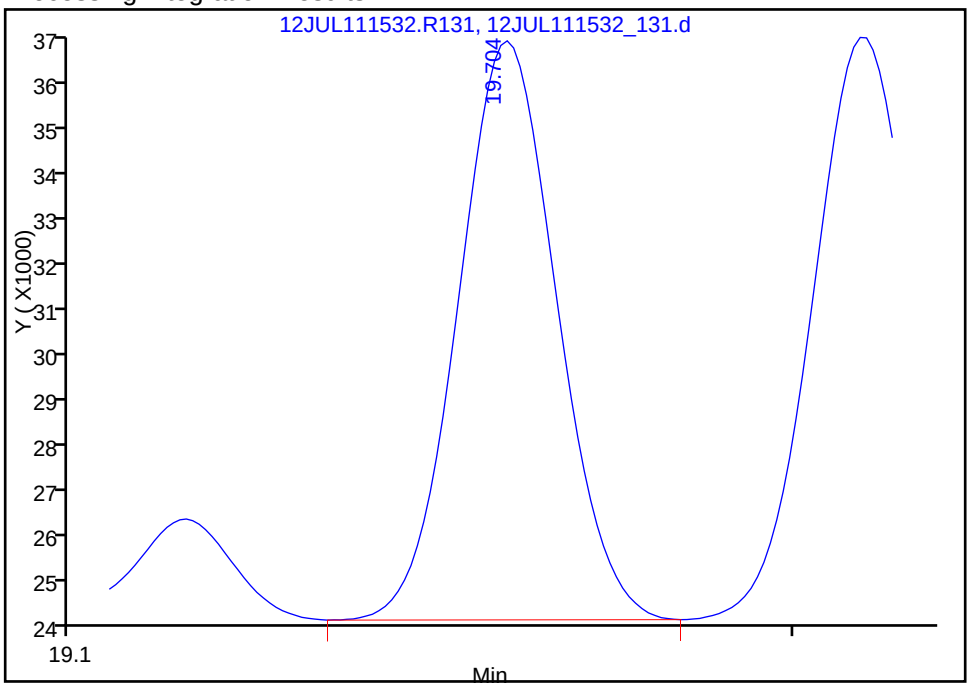
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.70

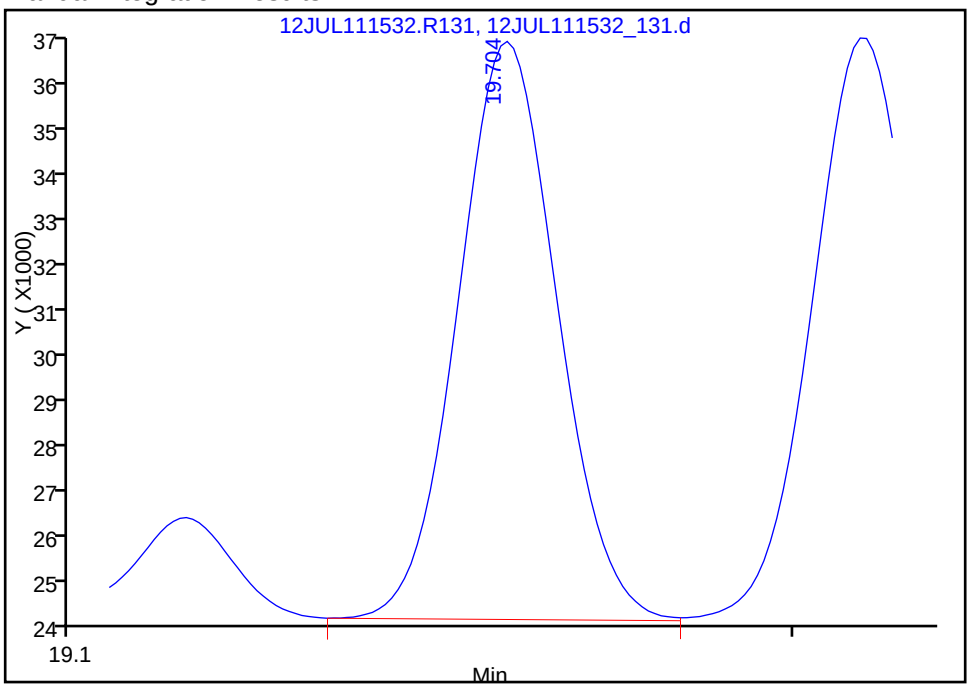
Processing Integration Results

RT: 19.70
Response: 113284
Amount: 196.8853



Manual Integration Results

RT: 19.70
Response: 114165
Amount: 198.4137



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

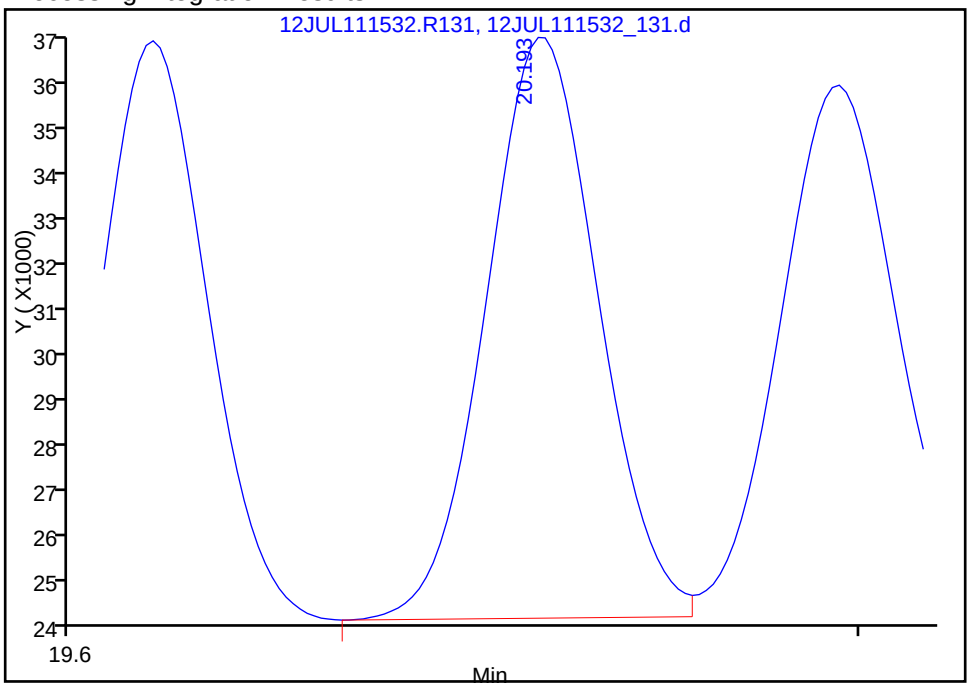
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.19

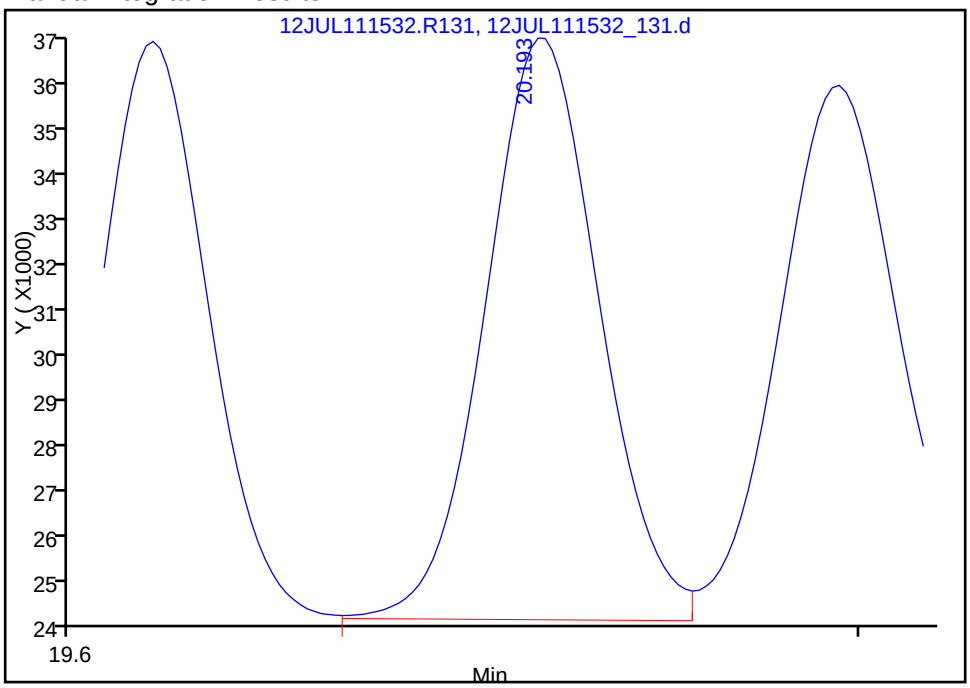
Processing Integration Results

RT: 20.19
Response: 118108
Amount: 167.6839



Manual Integration Results

RT: 20.19
Response: 121309
Amount: 172.2118



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

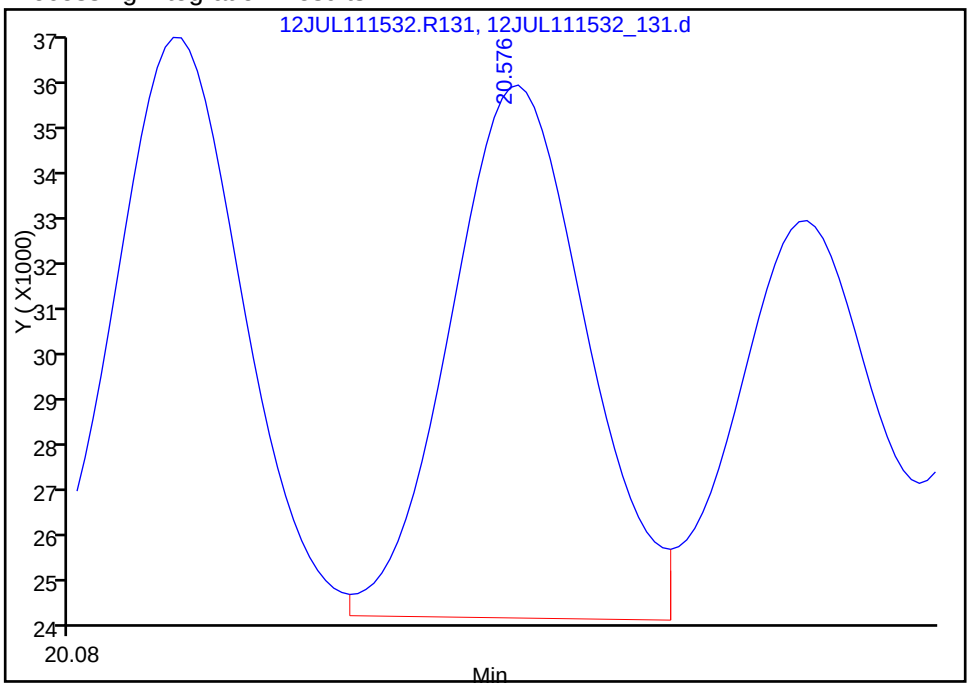
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.57

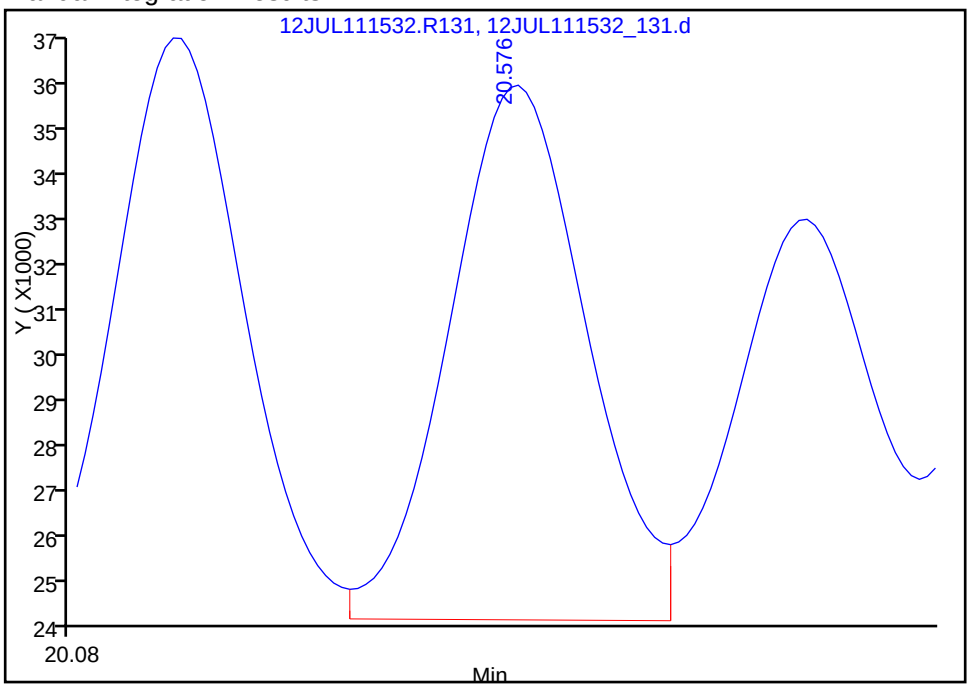
Processing Integration Results

RT: 20.58
Response: 114262
Amount: 178.0583



Manual Integration Results

RT: 20.58
Response: 117506
Amount: 183.0970



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

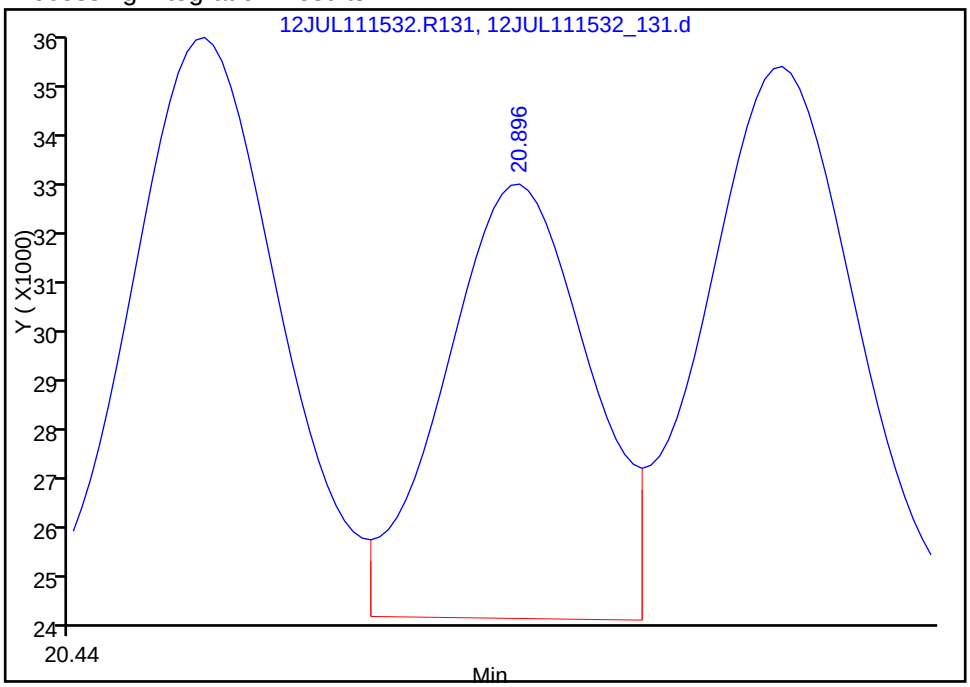
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.89

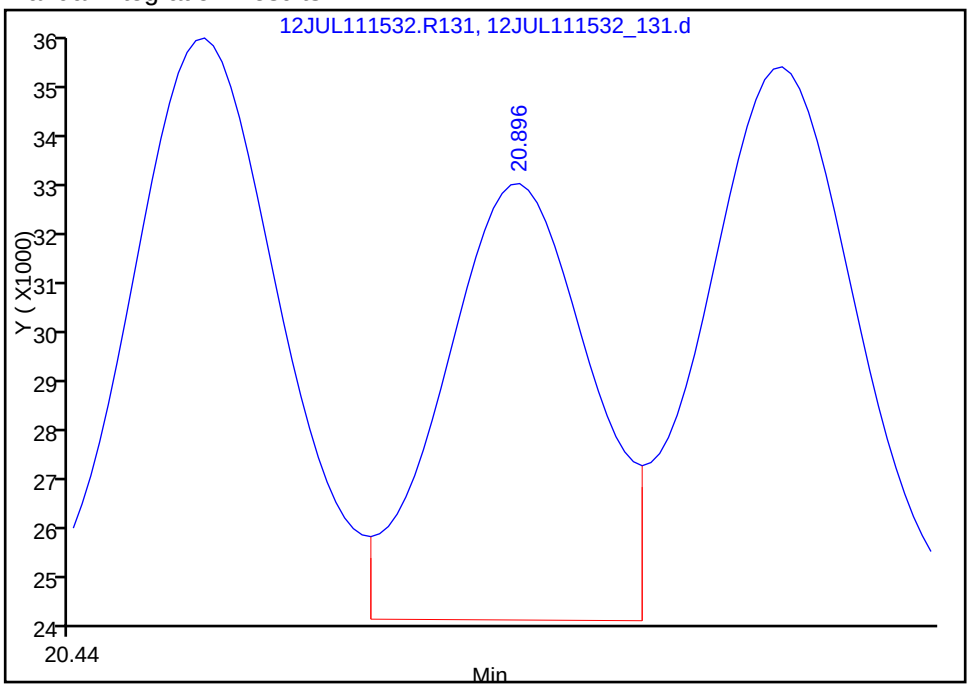
Processing Integration Results

RT: 20.90
Response: 84440
Amount: 198.0107



Manual Integration Results

RT: 20.90
Response: 86176
Amount: 202.0760



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:58 Chrom Revision: 1.2 30-Jun-2011 15:02:28

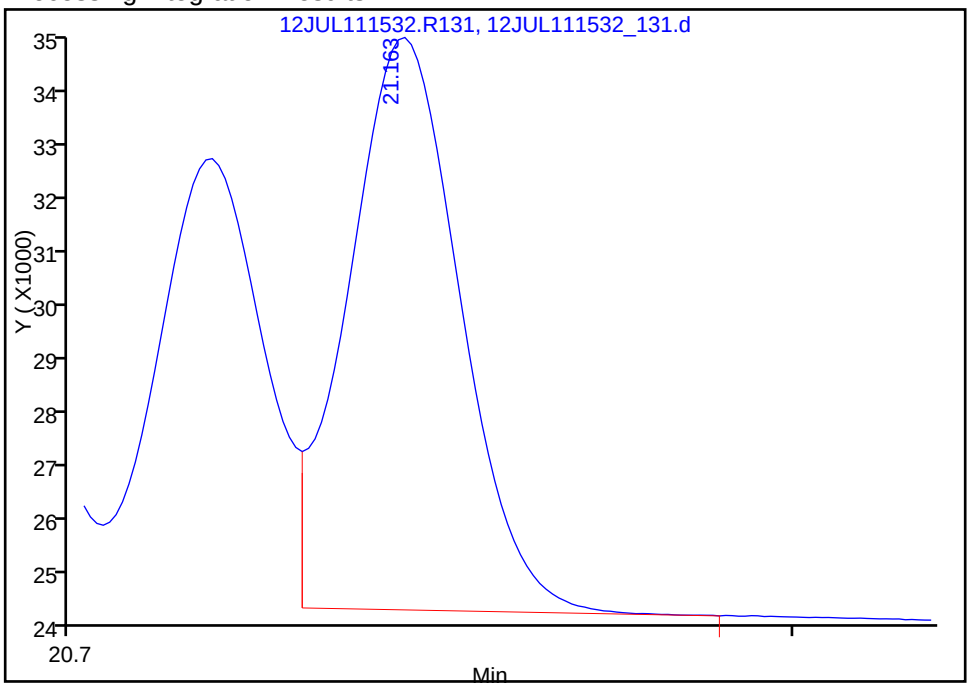
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_131.d		
Injection Date:	13-Jul-2011 19:17:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	13
Operator ID:	RJH	Injection Vol:	150.00 ul

19 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 21.16

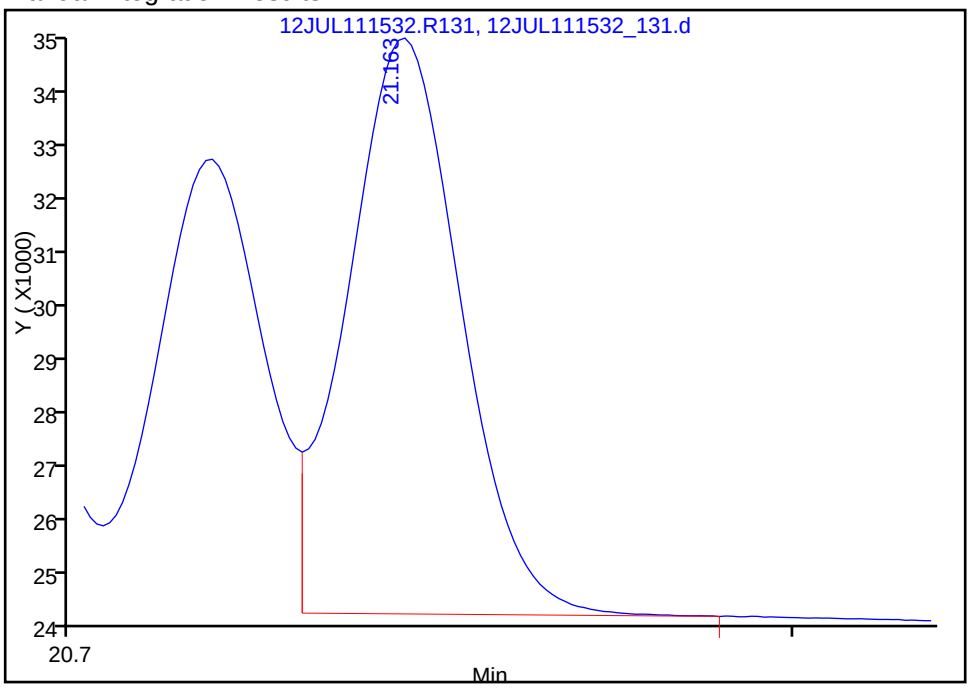
Processing Integration Results

RT: 21.16
Response: 114530
Amount: 185.4439



Manual Integration Results

RT: 21.16
Response: 115969
Amount: 187.7727



Reviewer: chirgwinb, 15-Jul-2011 14:13:31
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MSD Lab Sample ID: 200-5816-6 MSD

Matrix: Solid Lab File ID: 12JUL111530_141.d

Analysis Method: 8330B Date Collected: 06/28/2011 10:35

Extraction Method: 8330 Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) Date Analyzed: 07/13/2011 19:38

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 21370 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87	*M*	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Lims ID:	200-5816-A-6-F MSD	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 19:38:00	Dil. Factor:	1.0000
Sample Type:	MSD		
Sample ID:	200-0000844-014		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	14
Lims Batch ID:	21370	Lims Sample ID:	14
Detector:	A-12JUL111530.R141		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\8330_Biphenyl.m		
Last Update:	18-Jul-2011 12:06:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 15:17:56

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene	4.597	4.624	-0.027	38122	40.4	
6 2,4-diamino-6-nitrotoluene	4.597	4.624	-0.027	38122	40.4	
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX	5.469	5.460	0.009	136336	164.7	
16 MNX		5.873				1
22 RDX	6.527	6.518	0.009	103586	180.3	
4 2,4,6-Trinitrophenol	7.327	7.309	0.018	13881	21.4	
18 Nitroglycerin	9.550	9.515	0.035	33630	4313.5	M
17 Nitrobenzene	10.964	10.937	0.027	93847	207.7	M
$ 1 1,2-Dinitrobenzene	11.418	11.391	0.027	103958	173.6	M
11 4-Amino-2,6-dinitrotoluene	11.924	11.889	0.035	182328	161.8	M
10 2-Amino-4,6-dinitrotoluene	12.147	12.111	0.036	211078	172.4	M
3 1,3-Dinitrobenzene	13.836	13.810	0.026	231118	166.9	
19 o-Nitrotoluene	15.143	15.117	0.026	62646	197.7	M
21 PETN	15.366	15.375	-0.009	27339	3087.6	A
15 m-Nitrotoluene	16.424	16.388	0.036	88882	351.9	
20 p-Nitrotoluene	16.424	16.388	0.036	88882	351.9	
9 2,6-Dinitrotoluene	17.126	17.109	0.017	134420	183.1	
2 1,3,5-Trinitrobenzene	18.353	18.327	0.026	261445	182.8	
7 2,4-Dinitrotoluene	19.438	19.412	0.026	395336	380.9	
23 Tetryl	19.438	19.412	0.026	395336	380.9	
5 2,4,6-Trinitrotoluene	21.688	21.670	0.018	160200	195.1	

QC Flag Legend

Processing Flags
1 - Missing Peaks

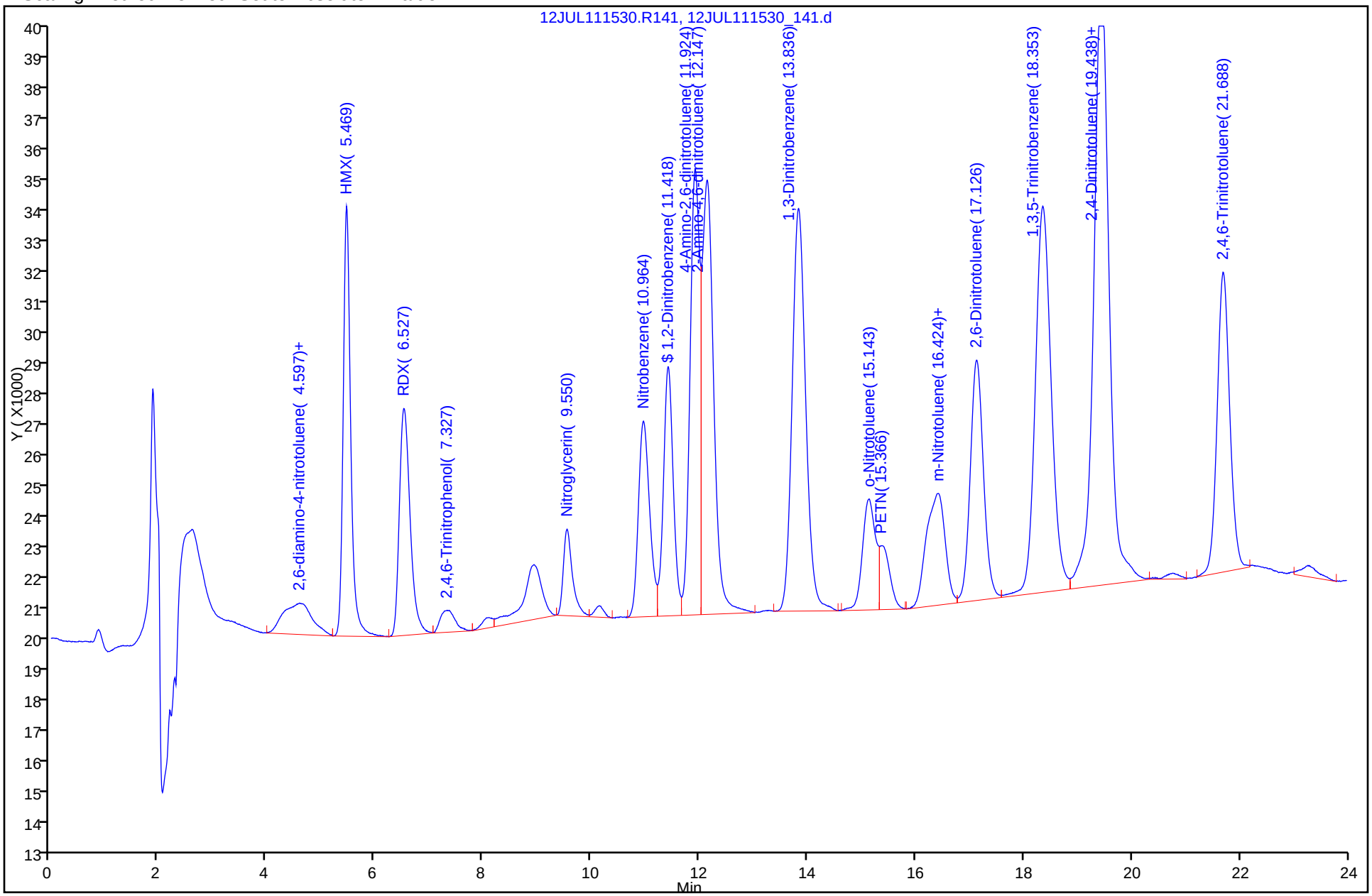
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 18-Jul-2011 12:06:21 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d

Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 12:06:21 Chrom Revision: 1.2 30-Jun-2011 15:02:28

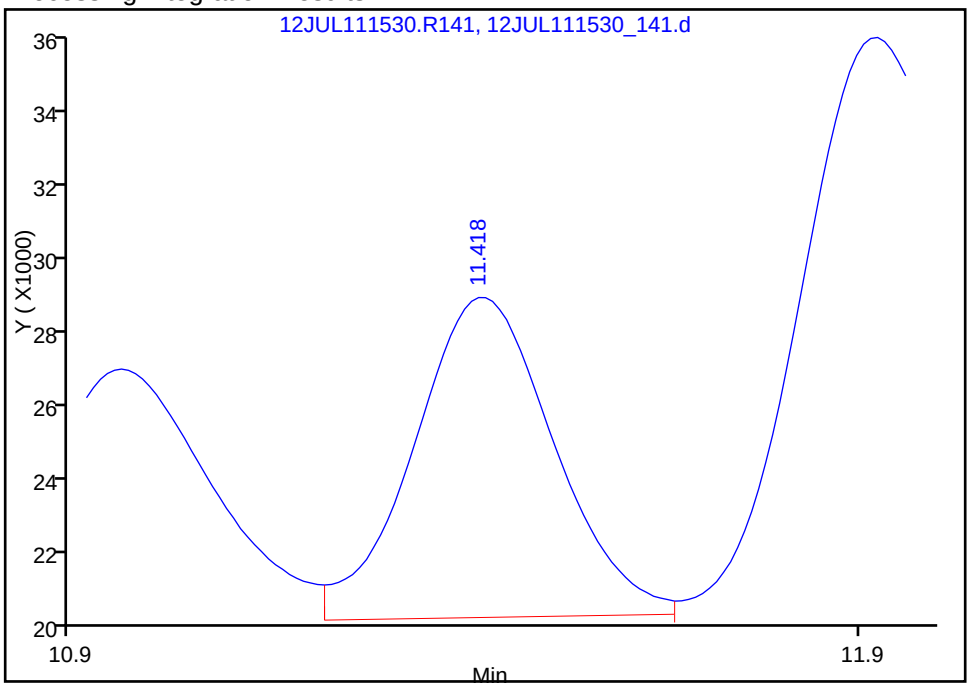
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.39

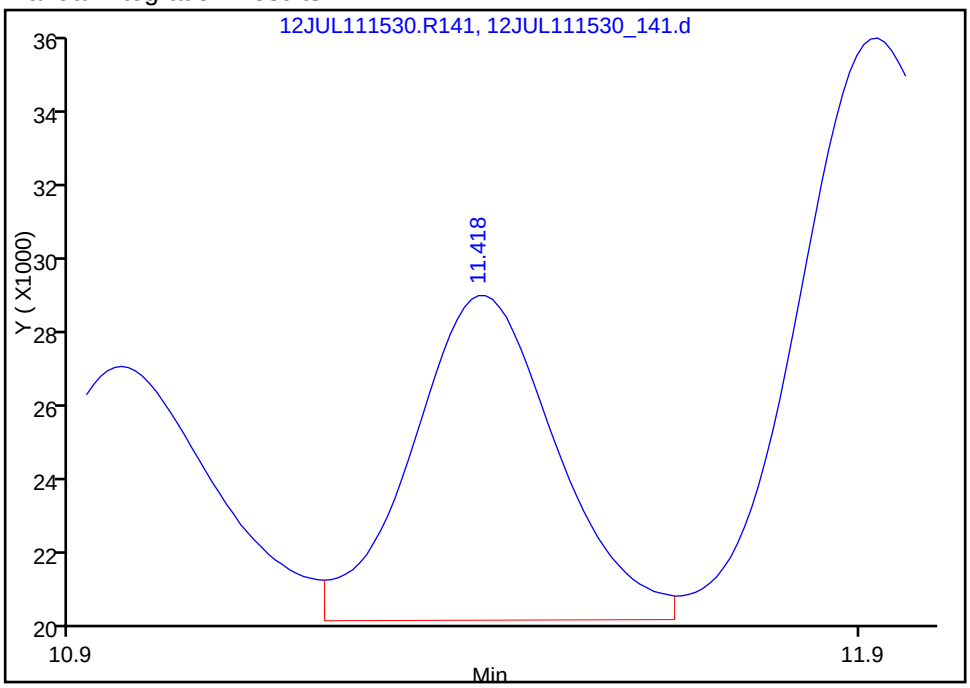
Processing Integration Results

RT: 11.42
Response: 98516
Amount: 164.4587



Manual Integration Results

RT: 11.42
Response: 103958
Amount: 173.6125



Reviewer: chirgwinb, 15-Jul-2011 15:17:56
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:21 Chrom Revision: 1.2 30-Jun-2011 15:02:28

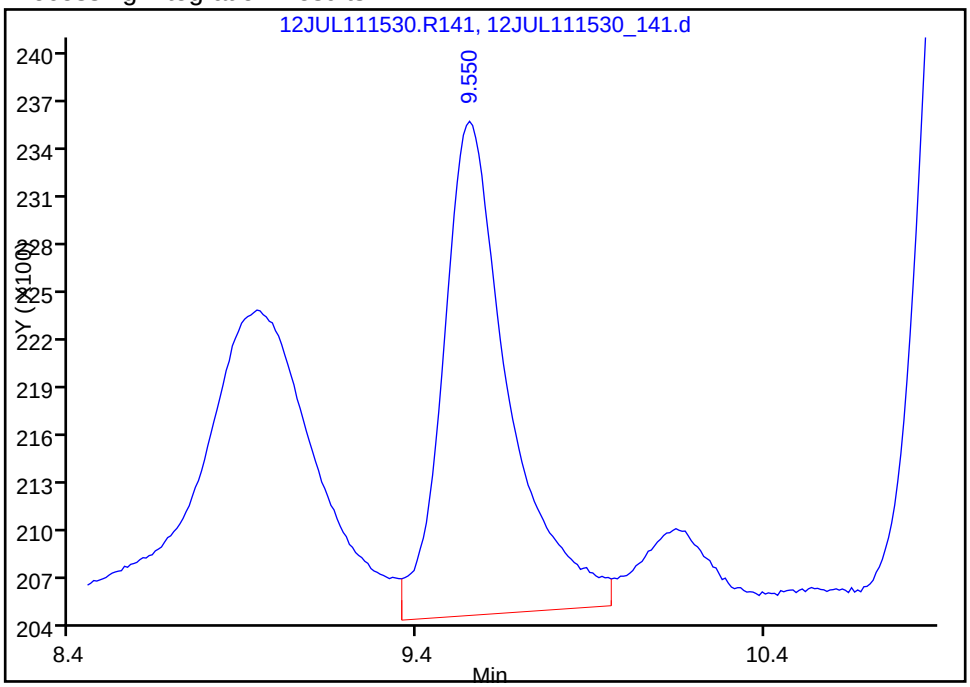
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

18 Nitroglycerin, Signal: 1, Type: quant, RT: 9.51

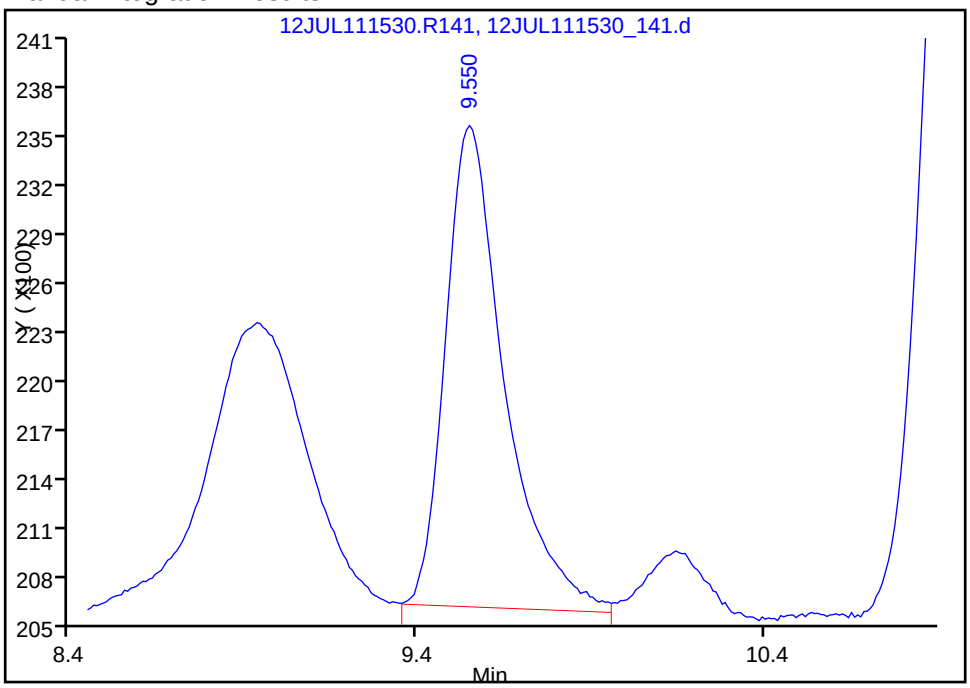
Processing Integration Results

RT: 9.55
Response: 40197
Amount: 5153.1642



Manual Integration Results

RT: 9.55
Response: 33630
Amount: 4313.5395



Reviewer: chirgwinb, 15-Jul-2011 15:17:56
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:21 Chrom Revision: 1.2 30-Jun-2011 15:02:28

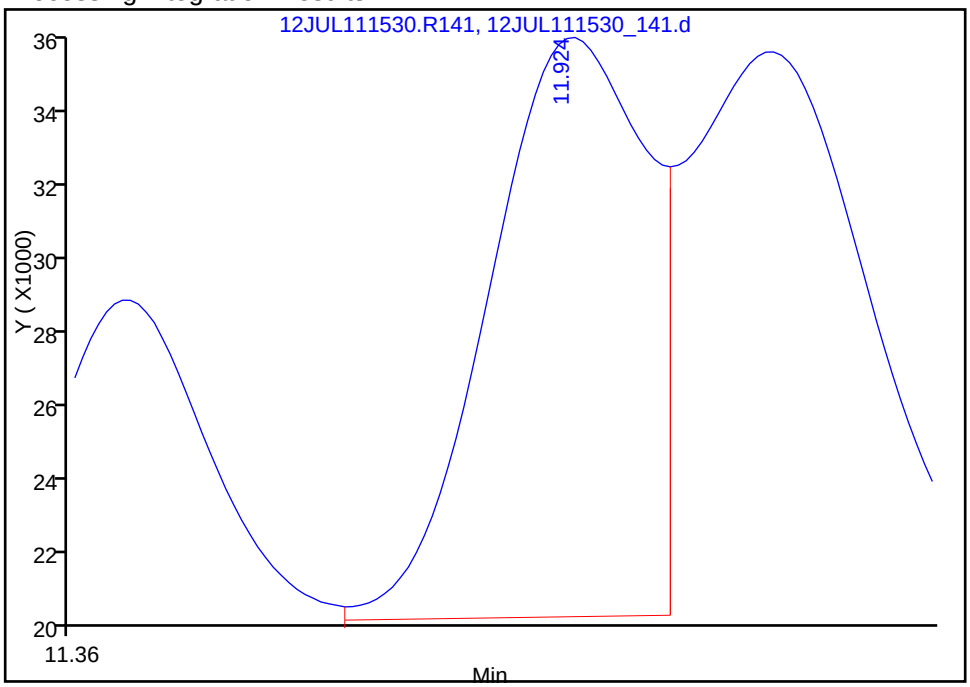
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.89

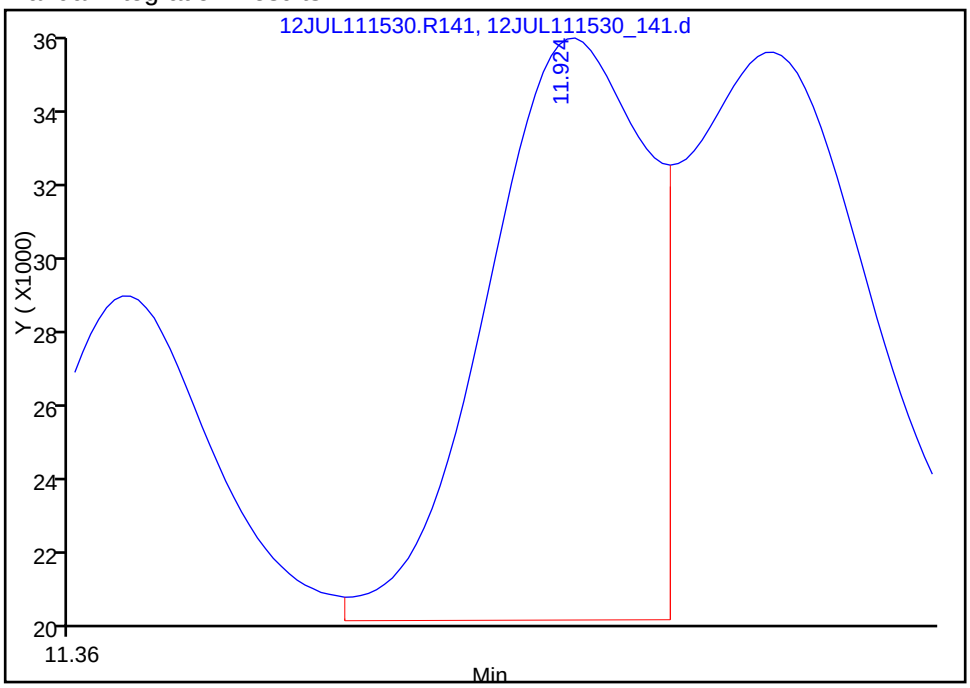
Processing Integration Results

RT: 11.92
Response: 175525
Amount: 155.7141



Manual Integration Results

RT: 11.92
Response: 182328
Amount: 161.7589



Reviewer: chirgwinb, 15-Jul-2011 15:17:56
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

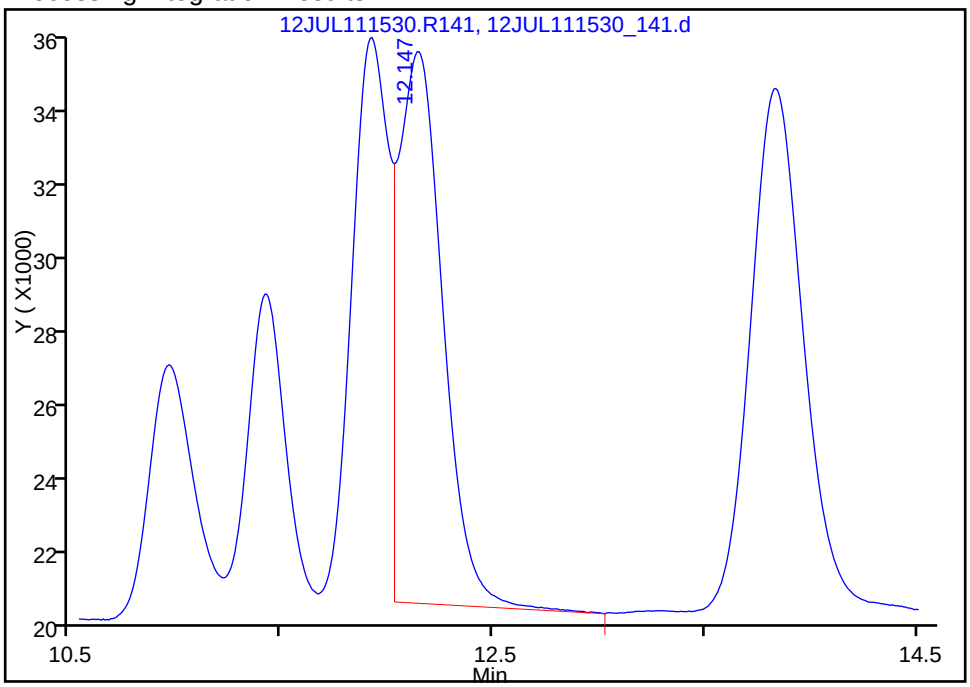
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

10 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 12.11

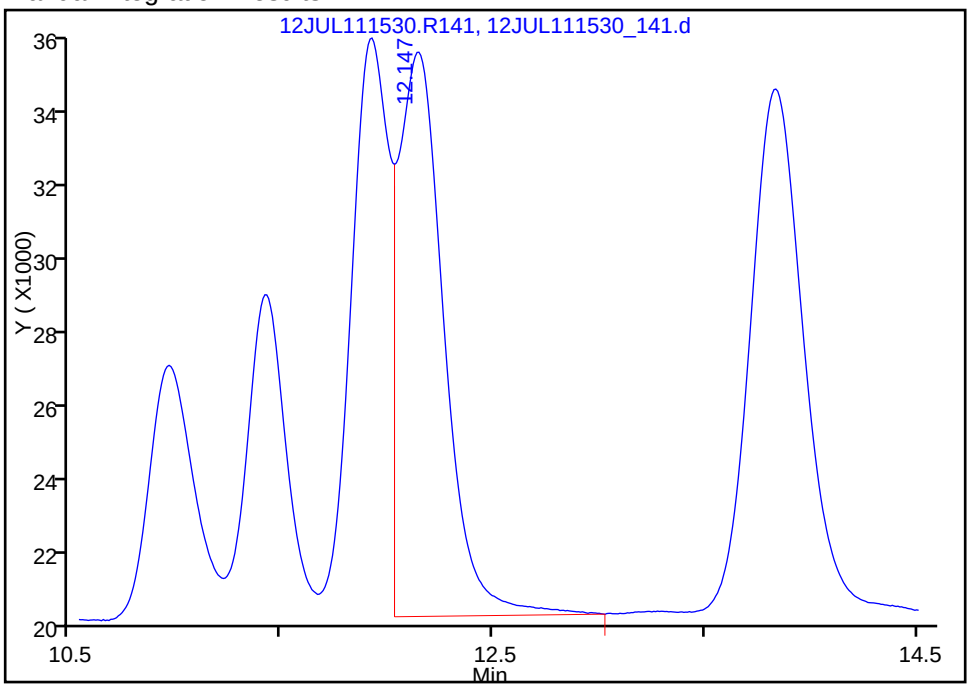
Processing Integration Results

RT: 12.15
Response: 200502
Amount: 163.7553



Manual Integration Results

RT: 12.15
Response: 211078
Amount: 172.4434



Reviewer: chirgwinb, 15-Jul-2011 15:17:56
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 12:06:21 Chrom Revision: 1.2 30-Jun-2011 15:02:28

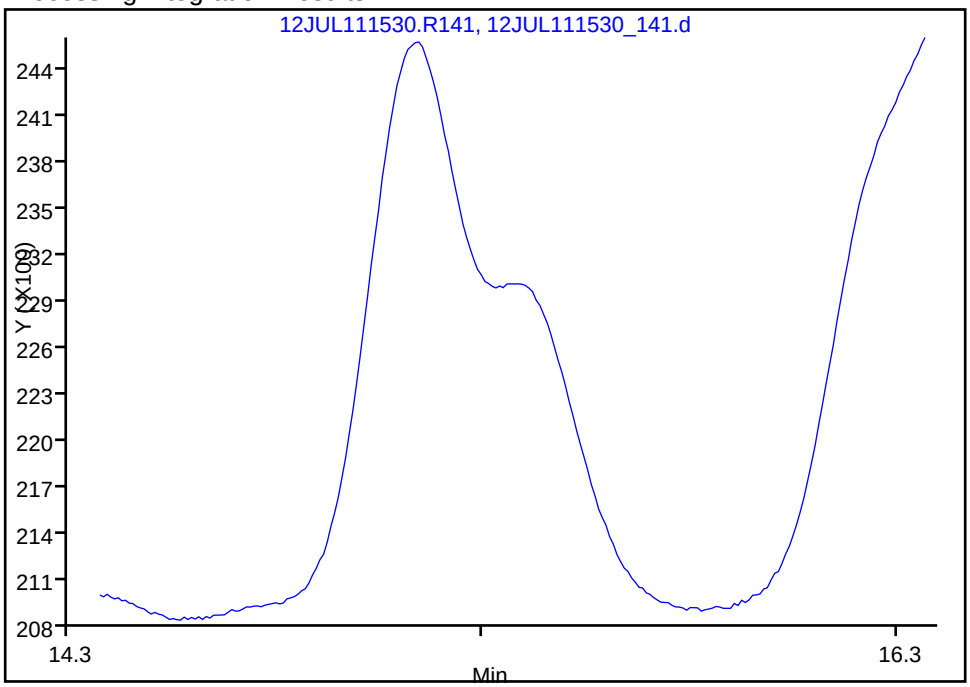
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110712-844.b\12JUL111530_141.d		
Injection Date:	13-Jul-2011 19:38:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1488
Lims Batch ID:	21370	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.37

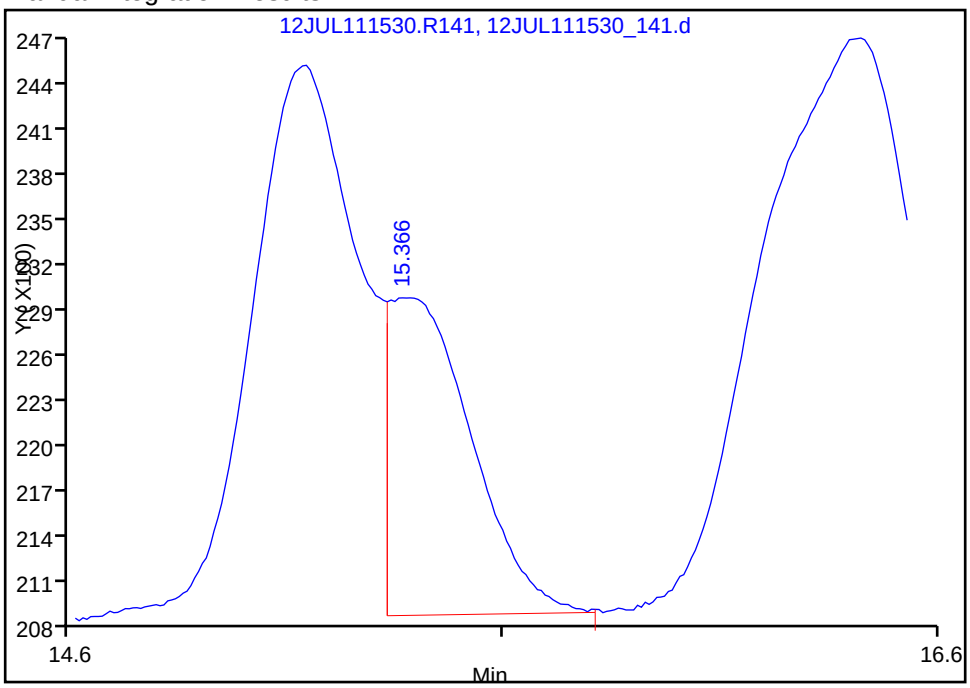
Not Detected
Expected RT: 15.37

Processing Integration Results



Manual Integration Results

RT: 15.37
Response: 27339
Amount: 3087.6363



Reviewer: chirgwinb, 15-Jul-2011 15:17:56
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5816-1

SDG No.: 5816

Client Sample ID: WPR02-SS16 MSD | Lab Sample ID: 200-5816-6 MSD

Matrix: Solid | Lab File ID: 12JUL111532_141.d

Analysis Method: 8330B | Date Collected: 06/28/2011 10:35

Extraction Method: 8330 | Date Extracted: 07/08/2011 15:56

Sample wt/vol: 10.53(g) | Date Analyzed: 07/13/2011 19:54

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 21368 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	1730	M	95	23	10
99-35-4	1,3,5-Trinitrobenzene	1850	M	95	23	8.5
99-65-0	1,3-Dinitrobenzene	1690		95	23	8.0
479-45-8	Tetryl	1700	J	95	28	15
55-63-0	Nitroglycerin	44800		1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	1830		95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	1580		95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	1670		95	23	6.6
606-20-2	2,6-Dinitrotoluene	1850		95	14	5.9
121-14-2	2,4-Dinitrotoluene	1740	J	95	28	15
99-08-1	3-Nitrotoluene	1850	J	95	28	25
78-11-5	PETN	39100		4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	40-140

Report Date: 18-Jul-2011 11:58:59 Chrom Revision: 1.2 30-Jun-2011 15:02:28

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_141.d		
Lims ID:	200-5816-A-6-F MSD	Client ID:	WPR02-SS16
Inject. Date:	13-Jul-2011 19:54:00	Dil. Factor:	1.0000
Sample Type:	MSD		
Sample ID:	200-0000843-014		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	14
Lims Batch ID:	21368	Lims Sample ID:	14
Detector:	A-12JUL111532.R141		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:58:45	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		
First Level Reviewer: chirgwinb		Date:	15-Jul-2011 14:15:45

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene	9.692	9.692	0.0	20487	29.7	
3 HMX	10.715	10.715	0.0	82185	187.5	M
4 2,4-diamino-6-nitrotoluene	11.133	11.115	0.018	4634	8.82	M
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
6 MNX	13.249	13.228	0.021	3765	9.14	
7 RDX	14.378	14.369	0.009	61607	181.7	M
8 2,4,6-Trinitrophenol	15.410	15.401	0.009	11643	29.1	
9 1,3,5-Trinitrobenzene	16.139	16.130	0.009	161528	194.5	M
$ 10 1,2-Dinitrobenzene	16.450	16.441	0.009	65497	183.7	M
11 1,3-Dinitrobenzene	17.375	17.375	0.0	143643	177.7	
12 Nitrobenzene	18.246	18.237	0.009	50276	183.7	
13 Tetryl	18.522	18.513	0.009	105971	178.7	
14 Nitroglycerin	19.269	19.260	0.009	20032	4718.8	
15 2,4,6-Trinitrotoluene	19.713	19.704	0.009	110577	192.2	
16 4-Amino-2,6-dinitrotoluene	20.202	20.193	0.009	116831	165.9	
17 2-Amino-4,6-dinitrotoluene	20.585	20.567	0.018	112931	176.0	
18 2,6-Dinitrotoluene	20.905	20.887	0.018	82948	194.5	
19 2,4-Dinitrotoluene	21.171	21.163	0.008	113017	183.0	
20 o-Nitrotoluene	22.674	22.656	0.018	35035	188.6	M
21 p-Nitrotoluene	23.403	23.394	0.009	21602	185.9	
22 m-Nitrotoluene	24.097	24.088	0.009	31089	195.3	
23 PETN	24.826	24.817	0.009	17001	4118.7	

QC Flag Legend

Processing Flags
1 - Missing Peaks

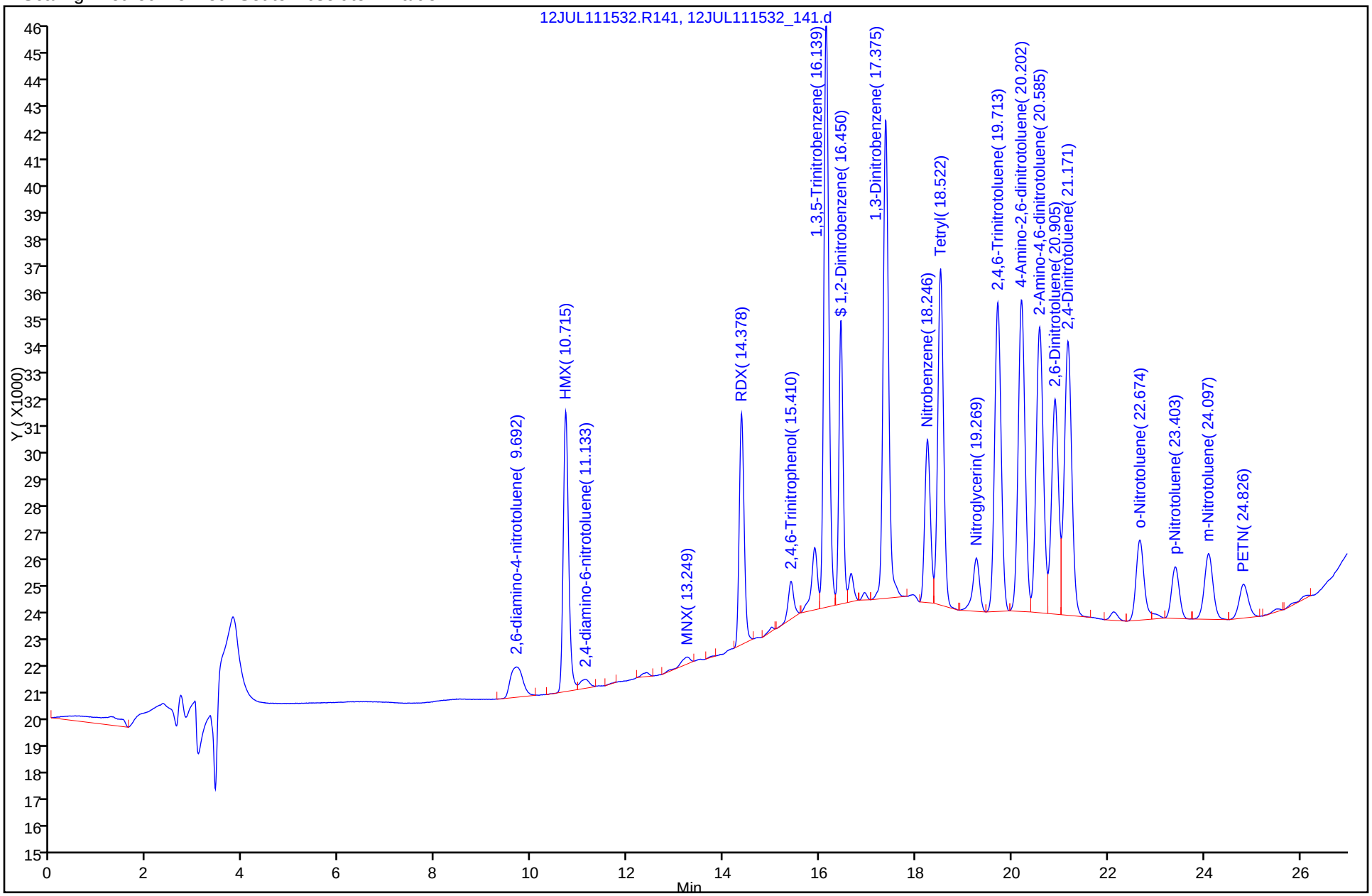
Review Flags
M - Manually Integrated

Report Date: 18-Jul-2011 11:58:59 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Data File: \\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_141.d

Injection Date:	13-Jul-2011 19:54:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 18-Jul-2011 11:58:59 Chrom Revision: 1.2 30-Jun-2011 15:02:28

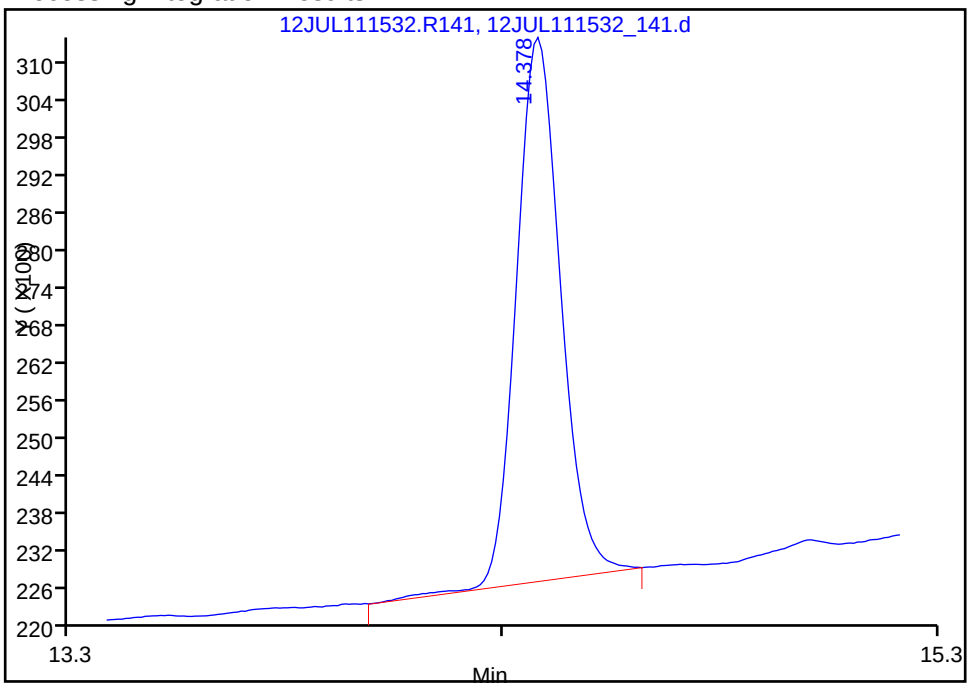
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_141.d		
Injection Date:	13-Jul-2011 19:54:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	150.00 ul

7 RDX, Signal: 1, Type: quant, RT: 14.37

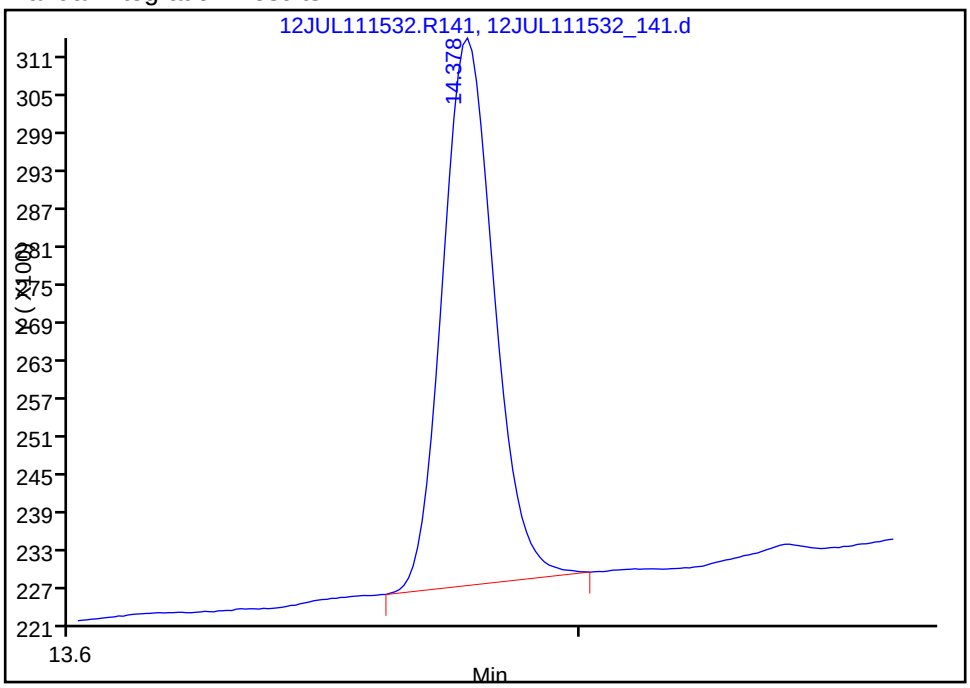
Processing Integration Results

RT: 14.38
Response: 62287
Amount: 183.6522



Manual Integration Results

RT: 14.38
Response: 61607
Amount: 181.6527



Reviewer: chirgwinb, 15-Jul-2011 14:15:45
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:59 Chrom Revision: 1.2 30-Jun-2011 15:02:28

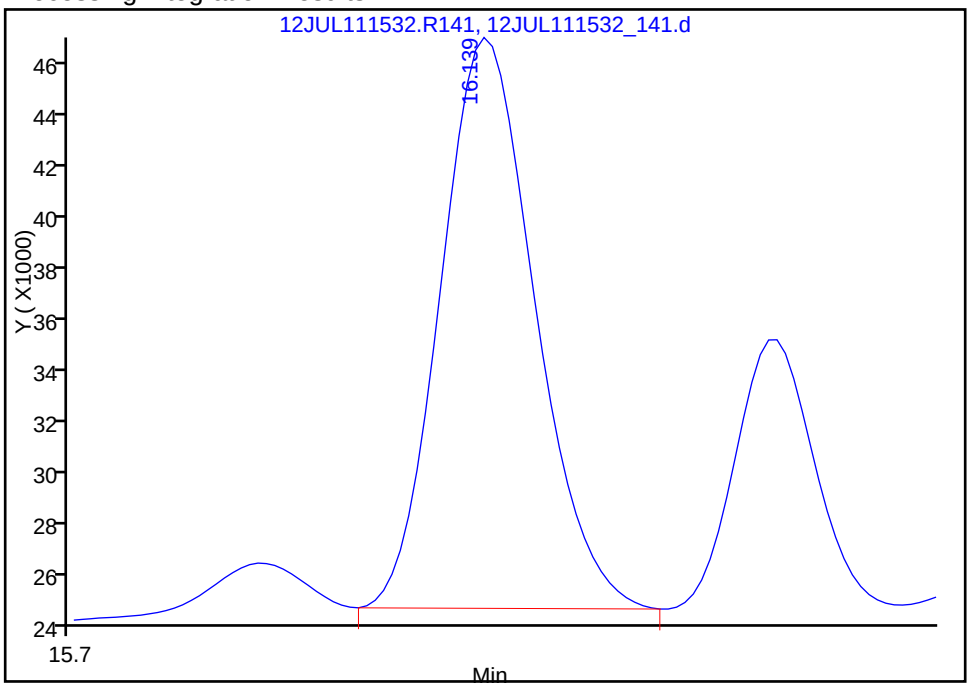
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_141.d		
Injection Date:	13-Jul-2011 19:54:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.13

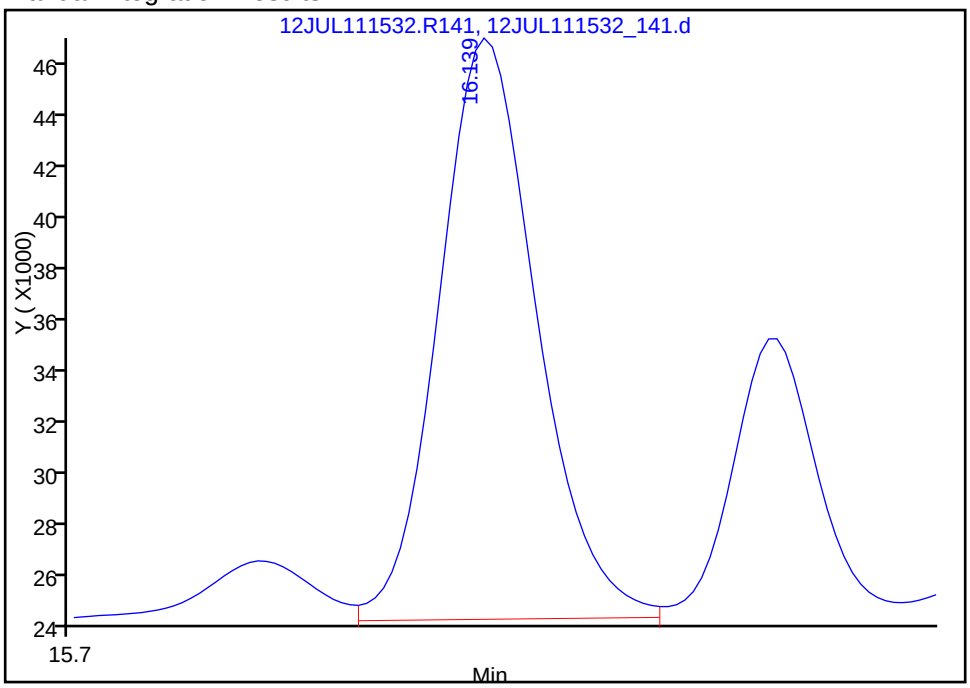
Processing Integration Results

RT: 16.14
Response: 151877
Amount: 182.8414



Manual Integration Results

RT: 16.14
Response: 161528
Amount: 194.4847



Reviewer: chirgwinb, 15-Jul-2011 14:15:45
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 18-Jul-2011 11:58:59 Chrom Revision: 1.2 30-Jun-2011 15:02:28

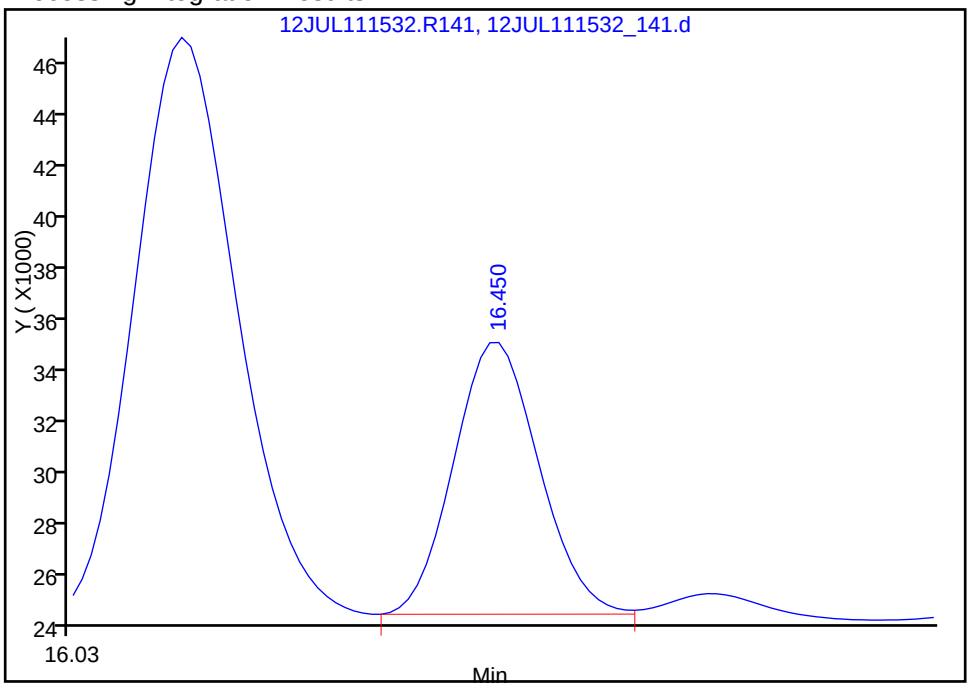
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_141.d		
Injection Date:	13-Jul-2011 19:54:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS16	Instrument ID:	CH1208
Lims Batch ID:	21368	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.44

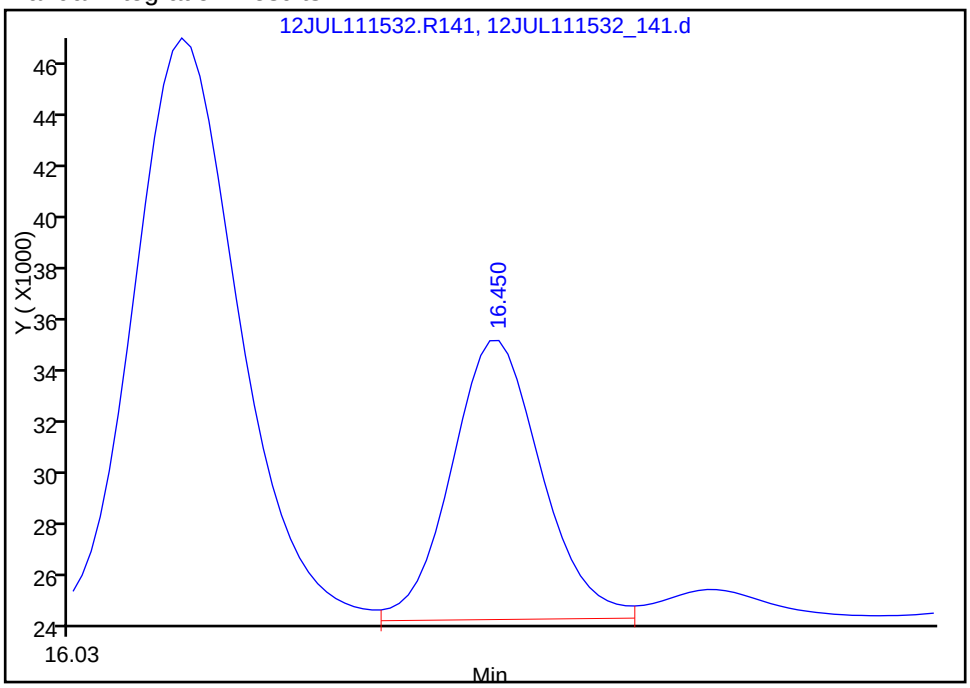
Processing Integration Results

RT: 16.45
Response: 60037
Amount: 168.2835



Manual Integration Results

RT: 16.45
Response: 65497
Amount: 183.6883



Reviewer: chirgwinb, 15-Jul-2011 14:15:45
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 012411_CAL Worklist Num: 366
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110124-366.b
Anaylysis Type: SemiVOA Creator:
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0000366-001	ICB		24-Jan-2011 15:48:00	24JAN111521_01	1	1.0		sv
# 2 IC 2	200-0000366-002	IC	2	24-Jan-2011 16:26:00	24JAN111521_02	2	1.0		sv
# 3 IC 3	200-0000366-003	IC	3	24-Jan-2011 17:03:00	24JAN111521_03	3	1.0		sv
# 4 IC 4	200-0000366-004	IC	4	24-Jan-2011 17:41:00	24JAN111521_04	4	1.0		sv
# 5 ICRTAV 5	200-0000366-005	ICRTAV	5	24-Jan-2011 18:18:00	24JAN111521_05	5	1.0		sv
# 6 IC 6	200-0000366-006	IC	6	24-Jan-2011 18:55:00	24JAN111521_06	6	1.0		sv
# 7 IC 7	200-0000366-007	IC	7	24-Jan-2011 19:33:00	24JAN111521_07	7	1.0		sv
# 8 IC 2 NX	200-0000366-008	IC	2	24-Jan-2011 20:10:00	24JAN111521_08	8	1.0		sv
# 9 IC 3 NX	200-0000366-009	IC	3	24-Jan-2011 20:48:00	24JAN111521_09	9	1.0		sv
#10 IC 4 NX	200-0000366-010	IC	4	24-Jan-2011 21:25:00	24JAN111521_10	10	1.0		sv
#11 IC 5 NX	200-0000366-011	IC	5	24-Jan-2011 22:03:00	24JAN111521_11	11	1.0		sv
#12 IC 6 NX	200-0000366-012	IC	6	24-Jan-2011 22:40:00	24JAN111521_12	12	1.0		sv
#13 IC 7 NX	200-0000366-013	IC	7	24-Jan-2011 23:18:00	24JAN111521_13	13	1.0		sv
#14 CCVL	200-0000366-014	CCVL		24-Jan-2011 23:55:00	24JAN111521_14	14	1.0		sv
#15 CCVL PETN	200-0000366-015	CCVL		25-Jan-2011 00:33:00	24JAN111521_15	15	1.0		sv
#16 ICV	200-0000366-016	ICV		25-Jan-2011 01:10:00	24JAN111521_16	16	1.0		sv
#17 CCVL NX	200-0000366-017	CCVL		25-Jan-2011 01:47:00	24JAN111521_17	17	1.0		sv
#18 ICV NX	200-0000366-018	ICV		25-Jan-2011 02:25:00	24JAN111521_18	17	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 071211_2 Worklist Num: 843
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110712-843.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 CCV	200-0000843-001	CCV		13-Jul-2011 11:48:00	12JUL111532_01	1	1.0		sv
# 2 MB 200-21109/12-A	200-0000843-002	MB		13-Jul-2011 12:25:00	12JUL111532_02	2	1.0		sv
# 3 LCS 200-21109/13-A	200-0000843-003	LCS		13-Jul-2011 13:03:00	12JUL111532_03	3	1.0		sv
# 4 200-5816-A-1-B	200-0000843-004	Client		13-Jul-2011 13:40:00	12JUL111532_04	4	1.0	WPR02-SS09	sv
# 5 200-5816-A-2-B	200-0000843-005	Client		13-Jul-2011 14:17:00	12JUL111532_05	5	1.0	WPR02-SS10	sv
# 6 200-5816-A-3-B	200-0000843-006	Client		13-Jul-2011 14:55:00	12JUL111532_06	6	1.0	WPR02-SS11	sv
# 7 200-5816-A-4-B	200-0000843-007	Client		13-Jul-2011 15:32:00	12JUL111532_07	7	1.0	WPR02-SS12	sv
# 8 200-5816-A-5-B	200-0000843-008	Client		13-Jul-2011 16:10:00	12JUL111532_08	8	1.0	WPR02-SS15	sv
# 9 200-5816-A-6-D	200-0000843-009	Client		13-Jul-2011 16:47:00	12JUL111532_09	9	1.0	WPR02-SS16	sv
#10 200-5816-A-7-B	200-0000843-010	Client		13-Jul-2011 17:25:00	12JUL111532_10	10	1.0	WPR02-SS17	sv
#11 200-5816-A-8-B	200-0000843-011	Client		13-Jul-2011 18:02:00	12JUL111532_11	11	1.0	WPR02-SS18	sv
#12 GB 200-20821/11-B	200-0000843-012	GB		13-Jul-2011 18:40:00	12JUL111532_12	12	1.0		sv
#13 200-5816-A-6-E MS	200-0000843-013	MS		13-Jul-2011 19:17:00	12JUL111532_13	13	1.0	WPR02-SS16	sv
#14 200-5816-A-6-F MSD	200-0000843-014	MSD		13-Jul-2011 19:54:00	12JUL111532_14	14	1.0	WPR02-SS16	sv
#15 CCV	200-0000843-015	CCV		13-Jul-2011 20:32:00	12JUL111532_15	15	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 012411_CAL Worklist Num: 363
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b
Anaylysis Type: SemiVOA Creator:
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0000363-001	ICB	255	24-Jan-2011 12:53:00	24JAN111214_01	1	1.0		sv
# 2 IC 2	200-0000363-002	IC	2	24-Jan-2011 13:27:00	24JAN111214_02	2	1.0		sv
# 3 IC 3	200-0000363-003	IC	3	24-Jan-2011 14:02:00	24JAN111214_03	3	1.0		sv
# 4 IC 4	200-0000363-004	IC	4	24-Jan-2011 14:36:00	24JAN111214_04	4	1.0		sv
# 5 ICRTAV 5	200-0000363-005	ICRTAV	5	24-Jan-2011 15:10:00	24JAN111214_05	5	1.0		sv
# 6 IC 6	200-0000363-006	IC	6	24-Jan-2011 15:44:00	24JAN111214_06	6	1.0		sv
# 7 IC 7	200-0000363-007	IC	7	24-Jan-2011 16:18:00	24JAN111214_07	7	1.0		sv
# 8 IC 2 NX	200-0000363-008	IC	2	24-Jan-2011 16:52:00	24JAN111214_08	8	1.0		sv
# 9 IC 3 NX	200-0000363-009	IC	3	24-Jan-2011 17:27:00	24JAN111214_09	9	1.0		sv
#10 IC 4 NX	200-0000363-010	IC	4	24-Jan-2011 18:01:00	24JAN111214_10	10	1.0		sv
#11 IC 5 NX	200-0000363-011	IC	5	24-Jan-2011 18:35:00	24JAN111214_11	11	1.0		sv
#12 IC 6 NX	200-0000363-012	IC	6	24-Jan-2011 19:09:00	24JAN111214_12	12	1.0		sv
#13 IC 7 NX	200-0000363-013	IC	7	24-Jan-2011 19:43:00	24JAN111214_13	13	1.0		sv
#14 CCVL	200-0000363-014	CCVL	255	24-Jan-2011 20:18:00	24JAN111214_14	14	1.0		sv
#15 CCVL PETN	200-0000363-015	CCVL	255	24-Jan-2011 20:52:00	24JAN111214_15	15	1.0		sv
#16 ICV	200-0000363-016	ICV	255	24-Jan-2011 21:26:00	24JAN111214_16	16	1.0		sv
#17 CCVL NX	200-0000363-017	CCVL	255	24-Jan-2011 22:00:00	24JAN111214_17	17	1.0		sv
#18 ICV NX	200-0000363-018	ICV	255	24-Jan-2011 22:34:00	24JAN111214_18	18	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 071211_3 Worklist Num: 844
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20110712-844.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 CCV	200-0000844-001	CCV		13-Jul-2011 12:14:00	12JUL111530_01	1	1.0		sv
# 2 MB 200-21109/12-A	200-0000844-002	MB		13-Jul-2011 12:48:00	12JUL111530_02	2	1.0		sv
# 3 LCS 200-21109/13-A	200-0000844-003	LCS		13-Jul-2011 13:22:00	12JUL111530_03	3	1.0		sv
# 4 200-5816-A-1-B	200-0000844-004	Client		13-Jul-2011 13:56:00	12JUL111530_04	4	1.0	WPR02-SS09	sv
# 5 200-5816-A-2-B	200-0000844-005	Client		13-Jul-2011 14:30:00	12JUL111530_05	5	1.0	WPR02-SS10	sv
# 6 200-5816-A-3-B	200-0000844-006	Client		13-Jul-2011 15:05:00	12JUL111530_06	6	1.0	WPR02-SS11	sv
# 7 200-5816-A-4-B	200-0000844-007	Client		13-Jul-2011 15:39:00	12JUL111530_07	7	1.0	WPR02-SS12	sv
# 8 200-5816-A-5-B	200-0000844-008	Client		13-Jul-2011 16:13:00	12JUL111530_08	8	1.0	WPR02-SS15	sv
# 9 200-5816-A-6-D	200-0000844-009	Client		13-Jul-2011 16:47:00	12JUL111530_09	9	1.0	WPR02-SS16	sv
#10 200-5816-A-7-B	200-0000844-010	Client		13-Jul-2011 17:21:00	12JUL111530_10	10	1.0	WPR02-SS17	sv
#11 200-5816-A-8-B	200-0000844-011	Client		13-Jul-2011 17:56:00	12JUL111530_11	11	1.0	WPR02-SS18	sv
#12 GB 200-20821/11-B	200-0000844-012	GB		13-Jul-2011 18:30:00	12JUL111530_12	12	1.0		sv
#13 200-5816-A-6-E MS	200-0000844-013	MS		13-Jul-2011 19:04:00	12JUL111530_13	13	1.0	WPR02-SS16	sv
#14 200-5816-A-6-F MSD	200-0000844-014	MSD		13-Jul-2011 19:38:00	12JUL111530_14	14	1.0	WPR02-SS16	sv
#15 CCV	200-0000844-015	CCV		13-Jul-2011 20:12:00	12JUL111530_15	15	1.0		sv

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 071211_2 Worklist Num: 843
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110712-843.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount	
# 4 200-5816-A-1-B 200-0000843-004	WPR02-SS09 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		0.8662 LDV	0.0000	1000	
15 2,4,6-Trinitrotolu	IC	0.7587	0.0000	1000	
16 4-Amino-2,6-dinitr		1.0162 LDV	0.0000	1000	NR
18 2,6-Dinitrotoluene		18.96 NC	0.0000	1000	ND
22 m-Nitrotoluene		6.3408 NC	0.0000	1000	ND
# 5 200-5816-A-2-B 200-0000843-005	WPR02-SS10 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		1.5647 LDV	0.0000	1000	LDV
15 2,4,6-Trinitrotolu	IC	0.9652 LDV	0.0000	1000	
16 4-Amino-2,6-dinitr		0.9738 LDV	0.0000	1000	
18 2,6-Dinitrotoluene		14.79 NC	0.0000	1000	ND
22 m-Nitrotoluene		6.0722 NC	0.0000	1000	ND
# 6 200-5816-A-3-B 200-0000843-006	WPR02-SS11 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		1.2595 NC	0.0000	1000	ND
13 Tetryl		0.3840 LDV	0.0000	1000	
15 2,4,6-Trinitrotolu	IC	0.9773	0.0000	1000	
16 4-Amino-2,6-dinitr		1.0587 LDV	0.0000	1000	LDV
18 2,6-Dinitrotoluene	IC	13.84	0.0000	1000	
22 m-Nitrotoluene		6.1873 NC	0.0000	1000	ND
# 7 200-5816-A-4-B 200-0000843-007	WPR02-SS12 LC_8330B_Limits				
9 1,3,5-Trinitrobenz	IC	2.5504	0.0000	1000	
11 1,3-Dinitrobenzene		6.6500	0.0000	1000	
13 Tetryl		11.32	0.0000	1000	
15 2,4,6-Trinitrotolu	IC	1.5394	0.0000	1000	
16 4-Amino-2,6-dinitr		0.9908 LDV	0.0000	1000	
17 2-Amino-4,6-dinitr		12.68	0.0000	1000	
18 2,6-Dinitrotoluene		14.99	0.0000	1000	
22 m-Nitrotoluene	IC	9.6853	0.0000	1000	
23 PETN		886 NC	0.0000	20000	LDV
# 8 200-5816-A-5-B 200-0000843-008	WPR02-SS15 LC_8330B_Limits				
7 RDX		2.4191 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		2.2210 NC	0.0000	1000	ND
11 1,3-Dinitrobenzene		8.3480	0.0000	1000	

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount	
13 Tetryl		2.1045	0.0000	1000	
14 Nitroglycerin		303	0.0000	20000	
17 2-Amino-4,6-dinitr		1.1203	0.0000	1000	
18 2,6-Dinitrotoluene		9.4568	0.0000	1000	
22 m-Nitrotoluene		6.9931 NC	0.0000	1000	ND
# 9 200-5816-A-6-D 200-0000843-009	WPR02-SS16 LC_8330B_Limits				
3 HMX		1.2484 NC	0.0000	1000	ND
6 MNX		7.6408 NC	0.0000	1000	ND
8 2,4,6-Trinitrophen		6.5062 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		9.5308	0.0000	1000	
11 1,3-Dinitrobenzene		1.7641	0.0000	1000	
12 Nitrobenzene		2.2049	0.0000	1000	
13 Tetryl		2.6729	0.0000	1000	
14 Nitroglycerin		905	0.0000	20000	
16 4-Amino-2,6-dinitr		1.6259 NC	0.0000	1000	LDL
17 2-Amino-4,6-dinitr		3.1334	0.0000	1000	
18 2,6-Dinitrotoluene		14.65	0.0000	1000	
21 p-Nitrotoluene		2.9283 NC	0.0000	1000	LDL
22 m-Nitrotoluene		5.1706 NC	0.0000	1000	LDL
23 PETN		281 NC	0.0000	20000	ND
#10 200-5816-A-7-B 200-0000843-010	WPR02-SS17 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		3.1753	0.0000	1000	
11 1,3-Dinitrobenzene		2.3288	0.0000	1000	
13 Tetryl		3.6597	0.0000	1000	
14 Nitroglycerin		812	0.0000	20000	
15 2,4,6-Trinitrotolu		0.9391	0.0000	1000	
16 4-Amino-2,6-dinitr		1.6471 NC	0.0000	1000	LDL
17 2-Amino-4,6-dinitr		3.7687	0.0000	1000	
18 2,6-Dinitrotoluene		11.71	0.0000	1000	
22 m-Nitrotoluene		4.2753 NC	0.0000	1000	ND
23 PETN		95.58	0.0000	20000	LDL
#11 200-5816-A-8-B 200-0000843-011	WPR02-SS18 LC_8330B_Limits				
7 RDX		3.5365	0.0000	1000	
9 1,3,5-Trinitrobenz		20.87	0.0000	1000	
11 1,3-Dinitrobenzene	2.522	5.0573	0.0000	1000	
13 Tetryl		5.2250	0.0000	1000	
15 2,4,6-Trinitrotolu		1.1820	0.0000	1000	
16 4-Amino-2,6-dinitr		14.26 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		31.03 NC	0.0000	1000	ND
18 2,6-Dinitrotoluene		22.38	0.0000	1000	
22 m-Nitrotoluene		8.7900 NC	0.0000	1000	ND

Amount Sum

Report Date: 18-Jul-2011 12:33:52 Chrom Revision: 1.2 30-Jun-2011 15:02:28

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\12JUL111532_121.d		
Lims ID:	GB 200-20821/11-B	Client ID:	
Inject. Date:	13-Jul-2011 18:40:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0000843-012		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	12
Lims Batch ID:	843	Lims Sample ID:	12
Detector:	A-12JUL111532.R121		
Method:	\\Btv-lims1\ChromData\CH1208\20110712-843.b\8330_C18.m		
Last Update:	18-Jul-2011 11:59:00	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0107		

First Level Reviewer: chirgwinb Date: 15-Jul-2011 14:10:56

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
1 2,6-diamino-4-nitrotoluene	9.781	9.692	0.089	285	1.30 CDL	1
3 HMX		10.715				1
4 2,4-diamino-6-nitrotoluene		11.115				1
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5	11.639	11.545	0.094	1700	3.39 NA	
6 MNX	13.275	13.228	0.047	1481	3.77 NA	
7 RDX		14.369				1
8 2,4,6-Trinitrophenol		15.401				1
9 1,3,5-Trinitrobenzene		16.130				
$ 10 1,2-Dinitrobenzene	16.450	16.441	0.009	65286	183.1	M
11 1,3-Dinitrobenzene		17.375				1
12 Nitrobenzene		18.237				1
13 Tetryl		18.513				1
14 Nitroglycerin		19.260				1
15 2,4,6-Trinitrotoluene		19.704				1
16 4-Amino-2,6-dinitrotoluene		20.193				1
17 2-Amino-4,6-dinitrotoluene		20.567				1
18 2,6-Dinitrotoluene	20.985	20.887	0.098	729	1.98 NC	A ND
19 2,4-Dinitrotoluene		21.163				1
20 o-Nitrotoluene		22.656				1
21 p-Nitrotoluene		23.394				1
22 m-Nitrotoluene	23.937	24.088	-0.151	1041	3.17 NC	A ND
23 PETN		24.817				1

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Start Date: 01/24/2011 15:48

Analysis Batch Number: 12556 End Date: 01/25/2011 02:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-12556/1		01/24/2011 15:48	1		C-18 4.6(mm)
IC 200-12556/2		01/24/2011 16:26	1	24JAN111521_021.d	C-18 4.6(mm)
IC 200-12556/3		01/24/2011 17:03	1	24JAN111521_031.d	C-18 4.6(mm)
IC 200-12556/4		01/24/2011 17:41	1	24JAN111521_041.d	C-18 4.6(mm)
ICRT 200-12556/5		01/24/2011 18:18	1	24JAN111521_051.d	C-18 4.6(mm)
IC 200-12556/6		01/24/2011 18:55	1	24JAN111521_061.d	C-18 4.6(mm)
IC 200-12556/7		01/24/2011 19:33	1	24JAN111521_071.d	C-18 4.6(mm)
IC 200-12556/8		01/24/2011 20:10	1		C-18 4.6(mm)
IC 200-12556/9		01/24/2011 20:48	1		C-18 4.6(mm)
IC 200-12556/10		01/24/2011 21:25	1		C-18 4.6(mm)
IC 200-12556/11		01/24/2011 22:03	1		C-18 4.6(mm)
IC 200-12556/12		01/24/2011 22:40	1		C-18 4.6(mm)
IC 200-12556/13		01/24/2011 23:18	1		C-18 4.6(mm)
CCVL 200-12556/14		01/24/2011 23:55	1		C-18 4.6(mm)
CCVL 200-12556/15		01/25/2011 00:33	1		C-18 4.6(mm)
ICV 200-12556/16		01/25/2011 01:10	1	24JAN111521_161.d	C-18 4.6(mm)
CCVL 200-12556/17		01/25/2011 01:47	1		C-18 4.6(mm)
ICV 200-12556/18		01/25/2011 02:25	1		C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1208 Start Date: 07/13/2011 11:48

Analysis Batch Number: 21368 End Date: 07/13/2011 20:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 200-21368/1		07/13/2011 11:48	1	12JUL111532_011.d	C-18 4.6(mm)
MB 200-21109/12-A		07/13/2011 12:25	1	12JUL111532_021.d	C-18 4.6(mm)
LCS 200-21109/13-A		07/13/2011 13:03	1	12JUL111532_031.d	C-18 4.6(mm)
200-5816-1	WPR02-SS09	07/13/2011 13:40	1	12JUL111532_041.d	C-18 4.6(mm)
200-5816-2	WPR02-SS10	07/13/2011 14:17	1	12JUL111532_051.d	C-18 4.6(mm)
200-5816-3	WPR02-SS11	07/13/2011 14:55	1	12JUL111532_061.d	C-18 4.6(mm)
200-5816-4	WPR02-SS12	07/13/2011 15:32	1	12JUL111532_071.d	C-18 4.6(mm)
200-5816-5	WPR02-SS15	07/13/2011 16:10	1	12JUL111532_081.d	C-18 4.6(mm)
200-5816-6	WPR02-SS16	07/13/2011 16:47	1	12JUL111532_091.d	C-18 4.6(mm)
200-5816-7	WPR02-SS17	07/13/2011 17:25	1	12JUL111532_101.d	C-18 4.6(mm)
200-5816-8	WPR02-SS18	07/13/2011 18:02	1	12JUL111532_111.d	C-18 4.6(mm)
GB 200-20821/11-B		07/13/2011 18:40	1	12JUL111532_121.d	C-18 4.6(mm)
200-5816-6 MS	WPR02-SS16 MS	07/13/2011 19:17	1	12JUL111532_131.d	C-18 4.6(mm)
200-5816-6 MSD	WPR02-SS16 MSD	07/13/2011 19:54	1	12JUL111532_141.d	C-18 4.6(mm)
CCV 200-21368/15		07/13/2011 20:32	1	12JUL111532_151.d	C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Start Date: 01/24/2011 12:53

Analysis Batch Number: 12535 End Date: 01/24/2011 22:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-12535/1		01/24/2011 12:53	1		Biphenyl 4.6(mm)
IC 200-12535/2		01/24/2011 13:27	1	24JAN111214_021.d	Biphenyl 4.6(mm)
IC 200-12535/3		01/24/2011 14:02	1	24JAN111214_031.d	Biphenyl 4.6(mm)
IC 200-12535/4		01/24/2011 14:36	1	24JAN111214_041.d	Biphenyl 4.6(mm)
ICRT 200-12535/5		01/24/2011 15:10	1	24JAN111214_051.d	Biphenyl 4.6(mm)
IC 200-12535/6		01/24/2011 15:44	1	24JAN111214_061.d	Biphenyl 4.6(mm)
IC 200-12535/7		01/24/2011 16:18	1	24JAN111214_071.d	Biphenyl 4.6(mm)
IC 200-12535/8		01/24/2011 16:52	1		Biphenyl 4.6(mm)
IC 200-12535/9		01/24/2011 17:27	1		Biphenyl 4.6(mm)
IC 200-12535/10		01/24/2011 18:01	1		Biphenyl 4.6(mm)
IC 200-12535/11		01/24/2011 18:35	1		Biphenyl 4.6(mm)
IC 200-12535/12		01/24/2011 19:09	1		Biphenyl 4.6(mm)
IC 200-12535/13		01/24/2011 19:43	1		Biphenyl 4.6(mm)
CCVL 200-12535/14		01/24/2011 20:18	1		Biphenyl 4.6(mm)
CCVL 200-12535/15		01/24/2011 20:52	1		Biphenyl 4.6(mm)
ICV 200-12535/16		01/24/2011 21:26	1	24JAN111214_161.d	Biphenyl 4.6(mm)
CCVL 200-12535/17		01/24/2011 22:00	1		Biphenyl 4.6(mm)
ICV 200-12535/18		01/24/2011 22:34	1		Biphenyl 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Instrument ID: CH1488 Start Date: 07/13/2011 12:14

Analysis Batch Number: 21370 End Date: 07/13/2011 20:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 200-21370/1		07/13/2011 12:14	1	12JUL111530_011.d	Biphenyl 4.6(mm)
MB 200-21109/12-A		07/13/2011 12:48	1	12JUL111530_021.d	Biphenyl 4.6(mm)
LCS 200-21109/13-A		07/13/2011 13:22	1	12JUL111530_031.d	Biphenyl 4.6(mm)
200-5816-1	WPR02-SS09	07/13/2011 13:56	1	12JUL111530_041.d	Biphenyl 4.6(mm)
200-5816-2	WPR02-SS10	07/13/2011 14:30	1	12JUL111530_051.d	Biphenyl 4.6(mm)
200-5816-3	WPR02-SS11	07/13/2011 15:05	1	12JUL111530_061.d	Biphenyl 4.6(mm)
200-5816-4	WPR02-SS12	07/13/2011 15:39	1	12JUL111530_071.d	Biphenyl 4.6(mm)
200-5816-5	WPR02-SS15	07/13/2011 16:13	1	12JUL111530_081.d	Biphenyl 4.6(mm)
200-5816-6	WPR02-SS16	07/13/2011 16:47	1	12JUL111530_091.d	Biphenyl 4.6(mm)
200-5816-7	WPR02-SS17	07/13/2011 17:21	1	12JUL111530_101.d	Biphenyl 4.6(mm)
200-5816-8	WPR02-SS18	07/13/2011 17:56	1	12JUL111530_111.d	Biphenyl 4.6(mm)
GB 200-20821/11-B		07/13/2011 18:30	1	12JUL111530_121.d	Biphenyl 4.6(mm)
200-5816-6 MS	WPR02-SS16 MS	07/13/2011 19:04	1	12JUL111530_131.d	Biphenyl 4.6(mm)
200-5816-6 MSD	WPR02-SS16 MSD	07/13/2011 19:38	1	12JUL111530_141.d	Biphenyl 4.6(mm)
CCV 200-21370/15		07/13/2011 20:12	1	12JUL111530_151.d	Biphenyl 4.6(mm)

8330B Puck Mill Grind Sample Preparation

JOB #
200-5816

Analyst
SAF

Date	Time	Temp (oC)
7/1/2011	13:40	22.0
7/5/2011	9:00	23.0

SAMPLE #	TRAY#1+F (g)	TRAY#2+F (g)	TRAY#1WET (g)	TRAY#2WET (g)	TRAY#1DRY REP A (g)	TRAY#1DRY REP B (g)	TRAY#2DRY REP A (g)	TRAY#2DRY REP B (g)	Mass >2mm (g)	Mass <2mm (g)	Total Dry Sample Mass (g)	>2mm
200-5816-1	1356		2727		2412	2414			27	1031	1058	2.6%
200-5816-2	1351		2715		2404	2405			17	1037	1054	1.6%
200-5816-3	1353		2633		2340	2340			27	960	987	2.7%
200-5816-4	1356		2544		2260	2260			89	815	904	9.8%
200-5816-5	1360		3325		2940	2940			219	1361	1580	13.9%
200-5816-6	1359		2813		2420	2424			83	982	1065	7.8%
200-5816-7	1358		2877		2460	2461			87	1016	1103	7.9%
200-5816-8	1356		2504		2207	2207			101	750	851	11.9%

SAMPLE #	Mass<2mm (g)	MASS/CAP	#GRINDS	GRIND SIZE (g)	GRIND DATE	BOWL ID	GRIND BLANK ID
200-5816-1	1031	1.68	2	516	7/7/2011	5	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-2	1037	1.69	2	519	7/7/2011	6	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-3	960	1.57	2	480	7/7/2011	5	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-4	815	1.33	2	408	7/7/2011	6	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-5	1361	2.22	3	454	7/7/2011	9	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-6	982	1.60	2	491	7/7/2011	1	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-7	1016	1.66	2	508	7/7/2011	9	GB 200-20821/11-A AFTER SAMPLE 4
200-5816-8	750	1.23	2	375	7/7/2011	1	GB 200-20821/11-A AFTER SAMPLE 4
							GB BOWL 9 (7/7/2011)

FRACTION	BG/AG
Met	NA
Hg	NA
SVOA	NA
8330	AG
6850	NA
TOC	NA
Nitrate	NA

BG = Before Grind
AG = After Grind
NA = Not Applicable

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-5816-1

SDG No.: 5816

Batch Number: 21109 Batch Start Date: 07/08/11 15:56 Batch Analyst: Callahan, Christopher G

Batch Method: 8330 Batch End Date: 07/10/11 11:37

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00018	EX8330MTXSPi 00011	LCSUPPSPi 00040	
200-5816-A-1-A	WPR02-SS09	8330, 8330B	T	10.51 g	100 mL	100 uL			
200-5816-A-2-A	WPR02-SS10	8330, 8330B	T	10.53 g	100 mL	100 uL			
200-5816-A-3-A	WPR02-SS11	8330, 8330B	T	10.53 g	100 mL	100 uL			
200-5816-A-4-A	WPR02-SS12	8330, 8330B	T	10.52 g	100 mL	100 uL			
200-5816-A-5-A	WPR02-SS15	8330, 8330B	T	10.53 g	100 mL	100 uL			
200-5816-A-6-A	WPR02-SS16	8330, 8330B	T	10.54 g	100 mL	100 uL			
200-5816-A-6-B MS	WPR02-SS16	8330, 8330B	T	10.55 g	100 mL	100 uL	500 uL	500 uL	
200-5816-A-6-C MSD	WPR02-SS16	8330, 8330B	T	10.53 g	100 mL	100 uL	500 uL	500 uL	
200-5816-A-7-A	WPR02-SS17	8330, 8330B	T	10.55 g	100 mL	100 uL			
200-5816-A-8-A	WPR02-SS18	8330, 8330B	T	10.54 g	100 mL	100 uL			
GB 200-20821/11-A		8330, 8330B		10.52 g	100 mL	100 uL			
MB 200-21109/12		8330, 8330B		10.52 g	100 mL	100 uL			
LCS 200-21109/13		8330, 8330B		10.62 g	100 mL	100 uL	500 uL	500 uL	

Batch Notes	
Batch Comment	ACN lot# 156141 spiked witnessed by MLT

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

182

200

FedEx Express US Airbill

FedEx Tracking Number 8707 1492 5447

Form ID No. 0215

RECIPIENT: PEEL HERE

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From This portion can be removed for Recipient's records.

Date 6/Dec/11 FedEx Tracking Number 870714925447

Sender's Name [illegible] Phone [illegible]

Company [illegible]

Address [illegible]

Dept./Floor/Suite/Room

City [illegible] State [illegible] ZIP [illegible]

2 Your Internal Billing Reference [illegible]

3 To

Recipient's Name [illegible] Phone [illegible]

Company

HOLD Weekday — Print FedEx location address below. NOT available for FedEx First Overnight.

HOLD Saturday — Print FedEx location address below. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Print FedEx location address here if HOLD option is selected.

City State ZIP

8707 1492 5447

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages Total Weight lbs. Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

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TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica

Client Information	Sampler: Steve Ahlborn/Rebecca Pisha	Lab PM:	Carrier Tracking No(s):	COC No: 1 of 1
Client Contact: Mary Franquemont	Phone: 303.763.7188	E-Mail:		Page: 1 of 1
Company: TLI Solutions, Inc.				Job #:
Address: 560 Golden Ridge Road, Ste 130	Due Date Requested: 11 JULY 2011			Preservation Codes:
City: Golden	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:
State, Zip: CO, 80227				
Phone: 303.763.7188	PO #: 0075133			
Email: mfranquemont@tlisolutions.com	WO #: 038816-551-0001-0302			
Project Name: West Point RI	Project #: TLI 3030.0003.0001			
Site: West Point, NY	SSOW#:			

Analysis Requested

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8330 B (see attached)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WPR02-SS09	6/27/11	1045	C	S	N	Y			See attached
WPR02-SS10	6/27/11	1112							
WPR02-SS11	6/27/11	1135							
WPR02-SS12	6/27/11	1320							
WPR02-SS15	6/28/11	0855							
WPR02-SS16	6/28/11	1035				X			
WPR02-SS17	6/28/11	1053							
WPR02-SS18	6/28/11	1135							

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Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☒ Archive For 18 Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements: Incremental Samples (see attached analyte list)

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	30 June 1805	TLI		7/1/11 1020	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1016444 and 1016445	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-5816-1
SDG Number: 5816

Login Number: 5816
List Number: 1
Creator: Keeton, Jamie

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	106445 & 106444
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.0ºC
Cooler Temperature is recorded.	True	IR Gun ID:96, CRF=0.0ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 200-5916-1

SDG Number: 5916

Job Description: West Point MAMMS

For:
Weston Solutions, Inc.
1400 Weston Way
PO BOX 2653
West Chester, PA 19380

Attention: John Gerhard

Approved for release.
James W Madison
Project Manager I
07/27/11 2:02 PM

James W Madison
Project Manager I
jim.madison@testamericainc.com
07/27/2011

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.
TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

Table of Contents

CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: West Point MAMMS

Report Number: 200-5916-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 07/08/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

Sample WPR07-SS20 was cancelled after receipt at the client's request.

EXPLOSIVES

Sample WPR02-SS19 were air dried, processed through a sieve and then ground in a puck mill. Incremental Subsamples were then removed from each sample to provide aliquots that were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 07/18/2011 and analyzed on 07/21/2011.

No difficulties were encountered during the explosives analysis.

All quality control parameters were within the acceptance limits.

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1208 Analysis Batch Number: 22012

Lab Sample ID: 200-5916-2 Client Sample ID: WPR02-SS19

Date Analyzed: 07/21/11 18:09 Lab File ID: 21JUL111433_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.41	Baseline Event	chirgwinb	07/25/11 16:11
1,3-Dinitrobenzene	17.21	Baseline Event	chirgwinb	07/25/11 16:11
Nitroglycerin	19.06	Baseline Event	chirgwinb	07/25/11 16:11
2,4,6-Trinitrotoluene	19.62	Baseline Event	chirgwinb	07/25/11 16:11
4-Amino-2,6-dinitrotoluene	19.99	Baseline Event	chirgwinb	07/25/11 16:11
2-Amino-4,6-dinitrotoluene	20.34	Baseline Event	chirgwinb	07/25/11 16:11
2,4-Dinitrotoluene	21.17	Baseline Event	chirgwinb	07/25/11 16:11
3-Nitrotoluene	24.01	Baseline Event	chirgwinb	07/25/11 16:11

Lab Sample ID: GB 200-21411/3-B Client Sample ID:

Date Analyzed: 07/21/11 18:46 Lab File ID: 21JUL111433_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Amino-2,6-dinitrotoluene	20.21	Peak not found by the data system	chirgwinb	07/25/11 16:13
2,6-Dinitrotoluene	20.87	Peak not found by the data system	chirgwinb	07/25/11 16:13
3-Nitrotoluene	23.99	Peak not found by the data system	chirgwinb	07/25/11 16:13

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1488 Analysis Batch Number: 12535

Lab Sample ID: IC 200-12535/4 Client Sample ID:

Date Analyzed: 01/24/11 14:36 Lab File ID: 24JAN111214_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.59	Baseline Event	hammondr	01/25/11 11:48
2,6-diamino-4-nitrotoluene	4.59	Baseline Event	hammondr	01/25/11 11:48
HMX	5.50	Baseline Event	hammondr	01/25/11 11:48

Lab Sample ID: ICRT 200-12535/5 Client Sample ID:

Date Analyzed: 01/24/11 15:10 Lab File ID: 24JAN111214_051.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.19	Baseline Event	hammondr	01/25/11 11:46
PETN	15.46	Baseline Event	hammondr	01/25/11 11:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1488 Analysis Batch Number: 22013

Lab Sample ID: CCVRT 200-22013/2 Client Sample ID:

Date Analyzed: 07/21/11 17:07 Lab File ID: 21JUL111438_021.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	15.41	Baseline Event	chirgwinb	07/22/11 08:59

Lab Sample ID: LCS 200-21732/4-A Client Sample ID:

Date Analyzed: 07/21/11 18:16 Lab File ID: 21JUL111438_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	15.34	Baseline Event	chirgwinb	07/22/11 09:00

Lab Sample ID: 200-5916-2 Client Sample ID: WPR02-SS19

Date Analyzed: 07/21/11 18:50 Lab File ID: 21JUL111438_051.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.44	Baseline Event	chirgwinb	07/26/11 11:06
4-Amino-2,6-dinitrotoluene	11.77	Baseline Event	chirgwinb	07/26/11 11:06
PETN	15.16	Baseline Event	chirgwinb	07/26/11 11:06
3-Nitrotoluene	16.20	Baseline Event	chirgwinb	07/26/11 11:06
2,6-Dinitrotoluene	17.32	Baseline Event	chirgwinb	07/26/11 11:06
1,3,5-Trinitrobenzene	18.59	Baseline Event	chirgwinb	07/26/11 11:06
2,4-Dinitrotoluene	19.39	Baseline Event	chirgwinb	07/26/11 11:06
2,4,6-Trinitrotoluene	21.88	Baseline Event	chirgwinb	07/26/11 11:06

Lab Sample ID: CCV 200-22013/14 Client Sample ID:

Date Analyzed: 07/21/11 23:58 Lab File ID: 21JUL111438_141.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	15.34	Baseline Event	chirgwinb	07/22/11 09:03

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-5916-2	WPR02-SS19	Solid	07/05/2011 0918	07/08/2011 1010

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nitroaromatics and Nitramines (HPLC)	TAL BUR	SW846 8330B	
Soil Extraction Procedure	TAL BUR		SW846 8330
Grinding and Incremental Sampling	TAL BUR		SW846 8330B/Grind&MIS

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Method	Analyst	Analyst ID
SW846 8330B	Chirgwin, Bradley W	BWC

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Client Sample ID: **WPR02-SS19**

Lab Sample ID: 200-5916-2
Client Matrix: Solid

Date Sampled: 07/05/2011 0918
Date Received: 07/08/2011 1010

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-22012	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-21732	Initial Weight/Volume:	10.55 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/21/2011 1809			Injection Volume:	150 uL
Prep Date:	07/18/2011 1252			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		23	U	10	95
1,3,5-Trinitrobenzene		54	M J	8.4	95
1,3-Dinitrobenzene		310	M J	8.0	95
Nitroglycerin		1400	U M	580	1900
2,4,6-Trinitrotoluene		20	M J	6.3	95
4-Amino-2,6-dinitrotoluene		100	M	9.5	95
2-Amino-4,6-dinitrotoluene		23	U M	6.6	95
2,6-Dinitrotoluene		400	J	5.9	95
2,4-Dinitrotoluene		28	U M	15	95
3-Nitrotoluene		810	M J	25	95
PETN		7000	M J	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	73	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Client Sample ID: **WPR02-SS19**

Lab Sample ID: 200-5916-2
Client Matrix: Solid

Date Sampled: 07/05/2011 0918
Date Received: 07/08/2011 1010

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-22013	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-21732	Initial Weight/Volume:	10.55 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/21/2011 1850			Injection Volume:	450 uL
Prep Date:	07/18/2011 1252			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		22	M J	8.4	95
1,3-Dinitrobenzene		100	J	8.0	95
2,4,6-Trinitrotoluene		130	M J	6.3	95
4-Amino-2,6-dinitrotoluene		120	M	9.5	95
2,6-Dinitrotoluene		200	M J	5.9	95
3-Nitrotoluene		420	M J	25	95
PETN		2900	M J	810	4700

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	68	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Surrogate Recovery Report

8330B Nitroaromatics and Nitramines (HPLC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-5916-2	WPR02-SS19		73M
200-5916-2	WPR02-SS19	68M	
MB 200-21732/3-A			91
MB 200-21732/3-A		96	
GB 200-21411/3-B			90
GB 200-21411/3-B		95	
LCS 200-21732/4-A			92
LCS 200-21732/4-A		87	

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Method Blank - Batch: 200-21732

Method: 8330B
Preparation: 8330

Lab Sample ID:	MB 200-21732/3-A	Analysis Batch:	200-22012	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21732	Lab File ID:	21JUL111433_031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.50 g
Analysis Date:	07/21/2011 1654	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/18/2011 1252			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
RDX	23	U	10	95
1,3,5-Trinitrobenzene	23	U	8.5	95
1,3-Dinitrobenzene	23	U	8.0	95
Nitroglycerin	1400	U	580	1900
2,4,6-Trinitrotoluene	14	U	6.3	95
4-Amino-2,6-dinitrotoluene	23	U	9.5	95
2-Amino-4,6-dinitrotoluene	23	U	6.7	95
2,6-Dinitrotoluene	14	U	5.9	95
2,4-Dinitrotoluene	29	U	15	95
3-Nitrotoluene	29	U	25	95
PETN	1700	U	810	4800

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	91	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	96	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Grinding Blank - Batch: 200-21732

Method: 8330B
Preparation: 8330

Lab Sample ID:	GB 200-21411/3-B	Analysis Batch:	200-22012	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21732	Lab File ID:	21JUL111433_061.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.52 g
Analysis Date:	07/21/2011 1846	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/18/2011 1252			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
RDX	23	U	10	95
1,3,5-Trinitrobenzene	23	U	8.5	95
1,3-Dinitrobenzene	23	U	8.0	95
Nitroglycerin	1400	U	580	1900
2,4,6-Trinitrotoluene	14	U	6.3	95
4-Amino-2,6-dinitrotoluene	23	U M	9.5	95
2-Amino-4,6-dinitrotoluene	23	U	6.7	95
2,6-Dinitrotoluene	14	U M	5.9	95
2,4-Dinitrotoluene	29	U	15	95
3-Nitrotoluene	29	U M	25	95
PETN	1700	U	810	4800

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	90	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	95	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Lab Control Sample - Batch: 200-21732

Method: 8330B
Preparation: 8330

Lab Sample ID:	LCS 200-21732/4-A	Analysis Batch:	200-22012	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-21732	Lab File ID:	21JUL111433_041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.52 g
Analysis Date:	07/21/2011 1731	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/18/2011 1252			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
RDX	1900	1870	98	70 - 135	
1,3,5-Trinitrobenzene	1900	1860	98	75 - 125	
1,3-Dinitrobenzene	1900	1750	92	80 - 125	
Nitroglycerin	38000	37000	97	60 - 150	
2,4,6-Trinitrotoluene	1900	1880	99	55 - 140	
4-Amino-2,6-dinitrotoluene	1900	1850	97	80 - 125	
2-Amino-4,6-dinitrotoluene	1900	1850	97	80 - 125	
2,6-Dinitrotoluene	1900	1840	97	80 - 120	
2,4-Dinitrotoluene	1900	1840	97	80 - 125	J
3-Nitrotoluene	1900	1900	100	75 - 120	J
PETN	38000	38000	100	45 - 145	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	92	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	87	40 - 140

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

Lab Section	Qualifier	Description
HPLC/IC		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
Sdg Number: 5916

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-21732					
GB 200-21411/3-B	Grinding Blank	T	Solid	8330	
LCS 200-21732/4-A	Lab Control Sample	T	Solid	8330	
MB 200-21732/3-A	Method Blank	T	Solid	8330	
200-5916-2	WPR02-SS19	T	Solid	8330	
Analysis Batch:200-22012					
GB 200-21411/3-B	Grinding Blank	T	Solid	8330B	200-21732
LCS 200-21732/4-A	Lab Control Sample	T	Solid	8330B	200-21732
MB 200-21732/3-A	Method Blank	T	Solid	8330B	200-21732
200-5916-2	WPR02-SS19	T	Solid	8330B	200-21732
Analysis Batch:200-22013					
GB 200-21411/3-B	Grinding Blank	T	Solid	8330B	200-21732
LCS 200-21732/4-A	Lab Control Sample	T	Solid	8330B	200-21732
MB 200-21732/3-A	Method Blank	T	Solid	8330B	200-21732
200-5916-2	WPR02-SS19	T	Solid	8330B	200-21732

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
SDG: 5916

Laboratory Chronicle

Lab ID: 200-5916-2 **Client ID:** WPR02-SS19

Sample Date/Time: 07/05/2011 09:18 Received Date/Time: 07/08/2011 10:10

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-5916-A-2-B		200-22012	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	200-5916-A-2-B		200-22012	200-21732	07/21/2011 18:09	1	TAL BUR	BWC
P:8330	200-5916-A-2-B		200-22013	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	200-5916-A-2-B		200-22013	200-21732	07/21/2011 18:50	1	TAL BUR	BWC

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	MB 200-21732/3-A		200-22012	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	MB 200-21732/3-A		200-22012	200-21732	07/21/2011 16:54	1	TAL BUR	BWC
P:8330	MB 200-21732/3-A		200-22013	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	MB 200-21732/3-A		200-22013	200-21732	07/21/2011 17:41	1	TAL BUR	BWC

Lab ID: GB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	GB 200-21411/3-B		200-22012	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	GB 200-21411/3-B		200-22012	200-21732	07/21/2011 18:46	1	TAL BUR	BWC
P:8330	GB 200-21411/3-B		200-22013	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	GB 200-21411/3-B		200-22013	200-21732	07/21/2011 19:24	1	TAL BUR	BWC

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	LCS 200-21732/4-A		200-22012	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	LCS 200-21732/4-A		200-22012	200-21732	07/21/2011 17:31	1	TAL BUR	BWC
P:8330	LCS 200-21732/4-A		200-22013	200-21732	07/18/2011 12:52	1	TAL BUR	CGC
A:8330B	LCS 200-21732/4-A		200-22013	200-21732	07/21/2011 18:16	1	TAL BUR	BWC

Lab References:
TAL BUR = TestAmerica Burlington

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm) GC Column (2): Biphenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB2 #	12DNB1 #
WPR02-SS19	200-5916-2		73 M
WPR02-SS19	200-5916-2	68 M	
	MB 200-21732/3-A		91
	MB 200-21732/3-A	96	
	GB 200-21411/3-B		90
	GB 200-21411/3-B	95	
	LCS 200-21732/4-A		92
	LCS 200-21732/4-A	87	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-140

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Matrix: Solid Level: Low Lab File ID: 21JUL111433_041.d

Lab ID: LCS 200-21732/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
RDX	1900	1870	98	70-135	
1,3,5-Trinitrobenzene	1900	1860	98	75-125	
1,3-Dinitrobenzene	1900	1750	92	80-125	
Nitroglycerin	38000	37000	97	60-150	
2,4,6-Trinitrotoluene	1900	1880	99	55-140	
4-Amino-2,6-dinitrotoluene	1900	1850	97	80-125	
2-Amino-4,6-dinitrotoluene	1900	1850	97	80-125	
2,6-Dinitrotoluene	1900	1840	97	80-120	
2,4-Dinitrotoluene	1900	1840	97	80-125	J
3-Nitrotoluene	1900	1900	100	75-120	J
PETN	38000	38000	100	45-145	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: MB 200-21732/3-A

Matrix: Solid Date Extracted: 07/18/2011 12:52

Lab File ID:(1) 21JUL111433_031.d Lab File ID:(2) 21JUL111438_031.d

Date Analyzed:(1) 07/21/2011 16:54 Date Analyzed:(2) 07/21/2011 17:41

Instrument ID:(1) CH1208 Instrument ID:(2) CH1488

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) Biphenyl ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-21732/4-A	07/21/2011 17:31	07/21/2011 18:16
WPR02-SS19	200-5916-2	07/21/2011 18:09	07/21/2011 18:50
	GB 200-21411/3-B	07/21/2011 18:46	07/21/2011 19:24

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Sample No.: CCVRT 200-22012/2 Date Analyzed: 07/21/2011 16:16

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 21JUL111433_021.d Heated Purge: (Y/N) N

Calibration ID: 4446

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB		
				RT #		
CONTINUING CALIBRATION SURROGATE				16.41		
UPPER LIMIT				16.51		
LOWER LIMIT				16.31		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-22012/2		07/21/2011 16:16	21JUL111433_021.d	16.41		
MB 200-21732/3-A		07/21/2011 16:54	21JUL111433_031.d	16.41		
LCS 200-21732/4-A		07/21/2011 17:31	21JUL111433_041.d	16.41		
200-5916-2	WPR02-SS19	07/21/2011 18:09	21JUL111433_051.d	16.41		
GB 200-21411/3-B		07/21/2011 18:46	21JUL111433_061.d	16.41		
CCV 200-22012/14		07/21/2011 23:46	21JUL111433_141.d	16.41		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Sample No.: CCVRT 200-22013/2 Date Analyzed: 07/21/2011 17:07

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm)

Lab File ID (Standard): 21JUL111438_021.d Heated Purge: (Y/N) N

Calibration ID: 4454

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB		
				RT #		
CONTINUING CALIBRATION SURROGATE				11.43		
UPPER LIMIT				11.53		
LOWER LIMIT				11.33		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-22013/2		07/21/2011 17:07	21JUL111438_021.d	11.43		
MB 200-21732/3-A		07/21/2011 17:41	21JUL111438_031.d	11.42		
LCS 200-21732/4-A		07/21/2011 18:16	21JUL111438_041.d	11.44		
200-5916-2	WPR02-SS19	07/21/2011 18:50	21JUL111438_051.d	11.44		
GB 200-21411/3-B		07/21/2011 19:24	21JUL111438_061.d	11.44		
CCV 200-22013/14		07/21/2011 23:58	21JUL111438_141.d	11.43		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: WPR02-SS19 Lab Sample ID: 200-5916-2

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/21/2011 18:09 Date Analyzed (2): 07/21/2011 18:50

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.08	15.99	16.19	54		84.1
	2		18.59	18.27	18.47	22		
1,3-Dinitrobenzene	1		17.21	17.23	17.43	310		101.2
	2		13.77	13.75	13.95	100		
2,4,6-Trinitrotoluene	1		19.62	19.53	19.73	20		145.0
	2		21.88	21.62	21.82	130		
4-Amino-2,6-dinitrotoluene	1		19.99	20.02	20.22	100		20.2
	2		11.77	11.84	12.04	120		
2,6-Dinitrotoluene	1		20.79	20.72	20.92	400		69.0
	2		17.32	17.05	17.25	200		
3-Nitrotoluene	1		24.01	23.90	24.10	810		62.8
	2		16.20	16.32	16.52	420		
PETN	1		24.62	24.61	24.81	7000		81.7
	2		15.16	15.23	15.43	2900		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: Lab Sample ID: LCS 200-21732/4-A

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/21/2011 17:31 Date Analyzed (2): 07/21/2011 18:16

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.34	14.24	14.44	1870		4.0
	2		6.54	6.44	6.64	1790		
1,3,5-Trinitrobenzene	1		16.10	15.99	16.19	1860		7.8
	2		18.38	18.27	18.47	1720		
1,3-Dinitrobenzene	1		17.33	17.23	17.43	1750		7.4
	2		13.85	13.75	13.95	1620		
Nitroglycerin	1		19.21	19.10	19.30	37000		4.6
	2		9.56	9.45	9.65	38700		
2,4,6-Trinitrotoluene	1		19.65	19.53	19.73	1880		6.0
	2		21.72	21.62	21.82	1770		
4-Amino-2,6-dinitrotoluene	1		20.14	20.02	20.22	1850		3.2
	2		11.94	11.84	12.04	1790		
2-Amino-4,6-dinitrotoluene	1		20.51	20.40	20.60	1850		11.9
	2		12.16	12.06	12.26	1640		
2,6-Dinitrotoluene	1		20.83	20.72	20.92	1840		9.4
	2		17.15	17.05	17.25	1680		
2,4-Dinitrotoluene	1		21.10	20.98	21.18	1840		58.5
	2		19.47	19.36	19.56	3360		
3-Nitrotoluene	1		24.02	23.90	24.10	1900		56.0
	2		16.43	16.32	16.52	3380		
PETN	1		24.74	24.61	24.81	38000		18.5
	2		15.34	15.23	15.43	31500		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: WPR02-SS19 | Lab Sample ID: 200-5916-2

Matrix: Solid | Lab File ID: 21JUL111433_051.d

Analysis Method: 8330B | Date Collected: 07/05/2011 09:18

Extraction Method: 8330 | Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.55(g) | Date Analyzed: 07/21/2011 18:09

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 22012 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	54	M J	95	23	8.4
99-65-0	1,3-Dinitrobenzene	310	M J	95	23	8.0
55-63-0	Nitroglycerin	1400	U M	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	20	M J	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	100	M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U M	95	23	6.6
606-20-2	2,6-Dinitrotoluene	400	J	95	14	5.9
121-14-2	2,4-Dinitrotoluene	28	U M	95	28	15
99-08-1	3-Nitrotoluene	810	M J	95	28	25
78-11-5	PETN	7000	M J	4700	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	73	M	40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Lims ID:	200-5916-A-2-B	Client ID:	WPR02-SS19
Inject. Date:	21-Jul-2011 18:09:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000856-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	22012	Lims Sample ID:	5
Detector:	A-21JUL111433.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m		
Last Update:	26-Jul-2011 12:32:12	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: chirgwinb Date: 25-Jul-2011 16:11:42

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
7 RDX		14.343				
9 1,3,5-Trinitrobenzene	16.076	16.094	-0.018	5016	5.66	M
$ 10 1,2-Dinitrobenzene	16.405	16.405	0.0	51904	145.3	M
11 1,3-Dinitrobenzene	17.206	17.330	-0.124	26447	32.6	A
14 Nitroglycerin	19.055	19.197	-0.142	960	217.6	A
15 2,4,6-Trinitrotoluene	19.624	19.633	-0.009	1014	2.12	A
16 4-Amino-2,6-dinitrotoluene	19.989	20.122	-0.133	7100	10.7	A
17 2-Amino-4,6-dinitrotoluene	20.344	20.496	-0.152	3971	6.75	A
18 2,6-Dinitrotoluene	20.789	20.816	-0.027	17944	42.3	
19 2,4-Dinitrotoluene	21.171	21.083	0.088	329	0.6263	A
22 m-Nitrotoluene	24.008	23.999	0.009	13864	85.2	M
23 PETN	24.621	24.710	-0.089	2892	739.2	M

QC Flag Legend

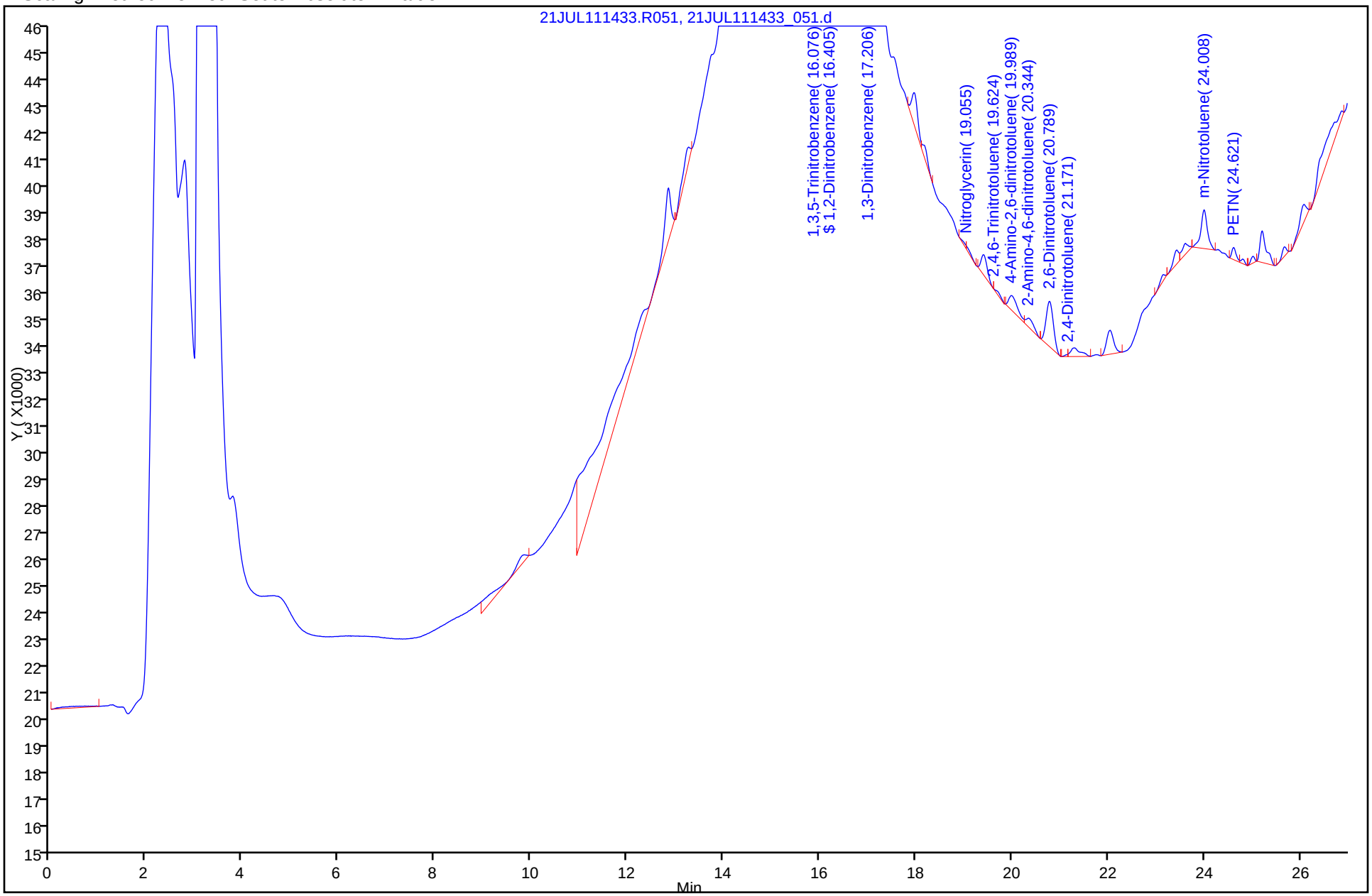
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

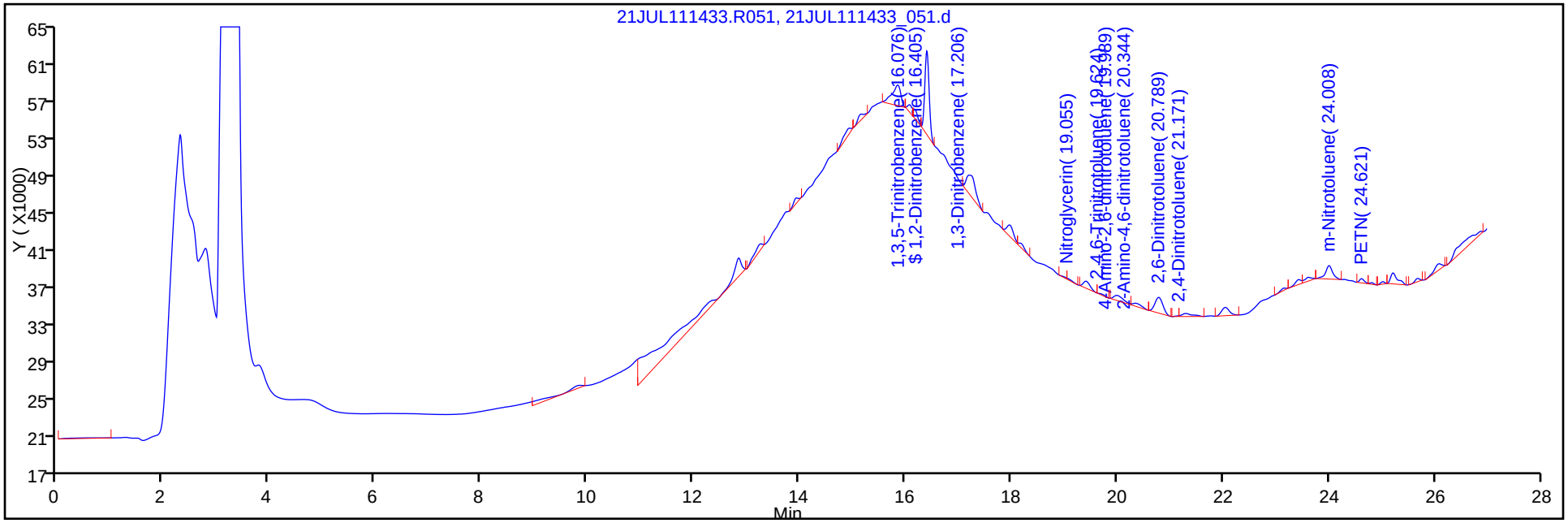
Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d

Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d
Inj Date: 21-Jul-2011 18:09:00
Client ID: WPR02-SS19
User Set Y Scaling: Alternate user entered



Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

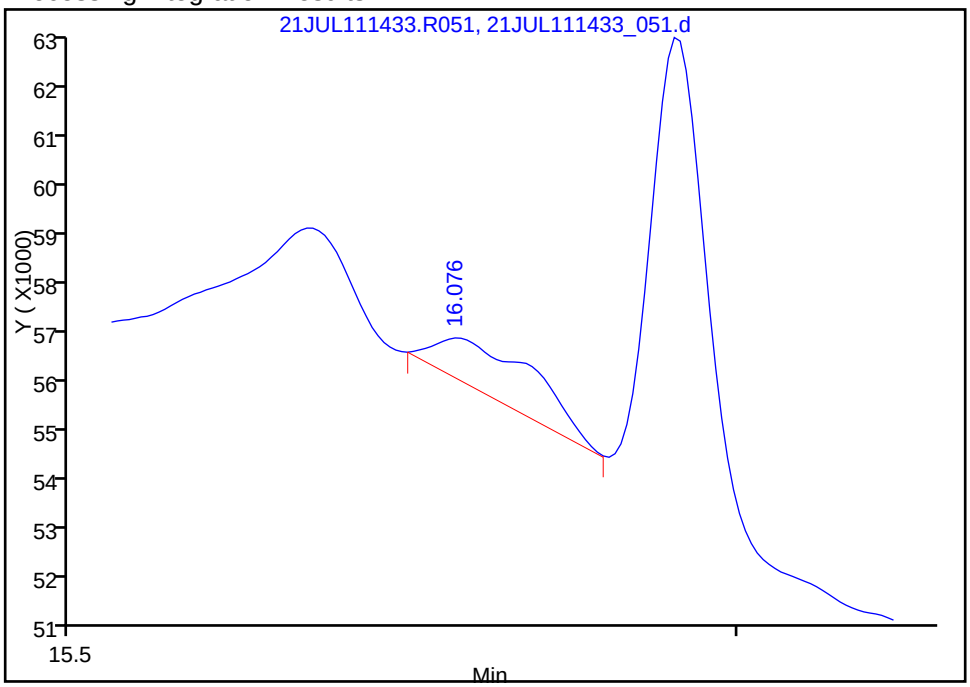
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

9 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 16.09

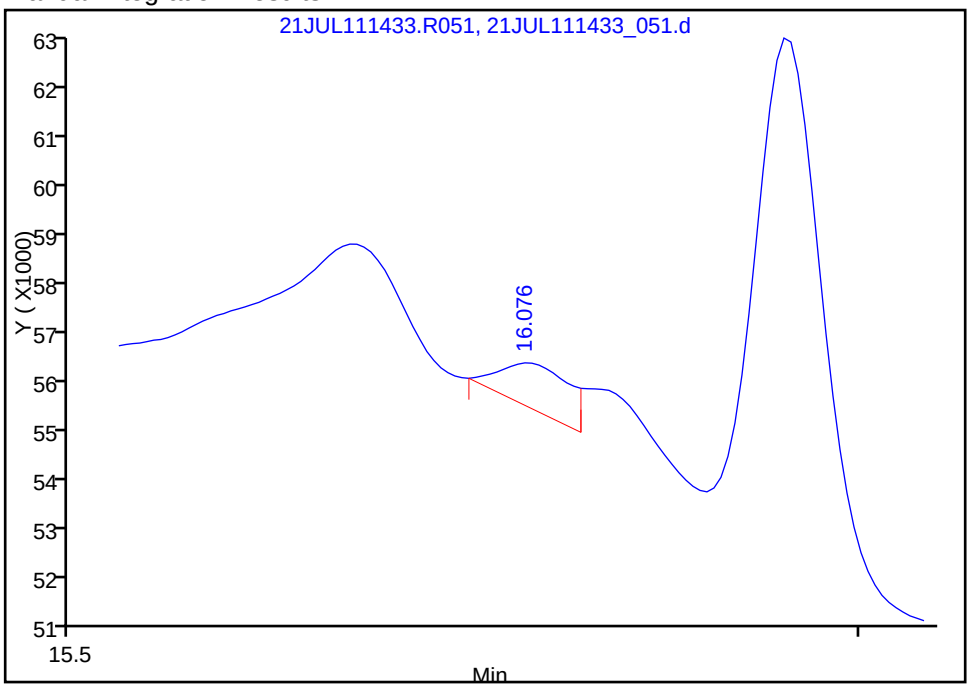
Processing Integration Results

RT: 16.08
Response: 10711
Amount: 12.533642



Manual Integration Results

RT: 16.08
Response: 5016
Amount: 5.662991



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

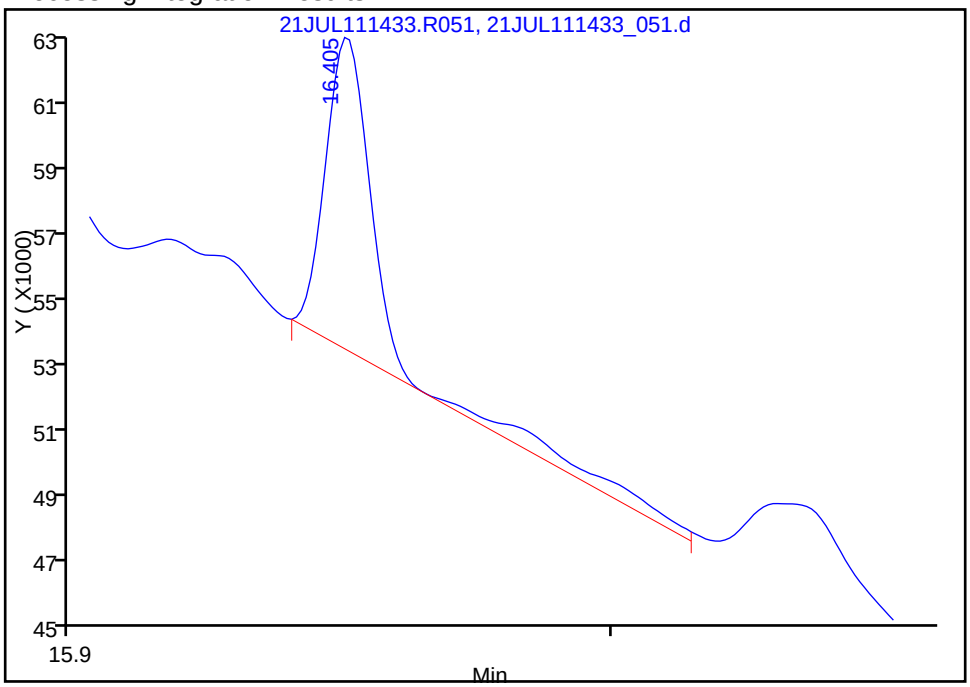
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

$ 10 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 16.41

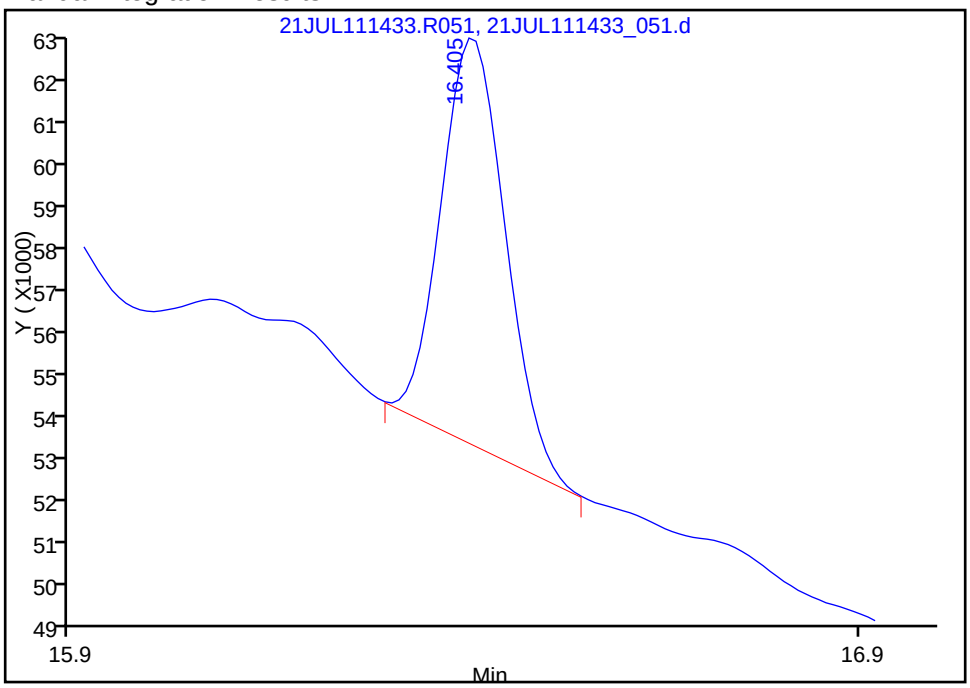
Processing Integration Results

RT: 16.41
Response: 60915
Amount: 170.7607



Manual Integration Results

RT: 16.41
Response: 51904
Amount: 145.3372



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Manually Integrated
Audit Reason: Baseline Event

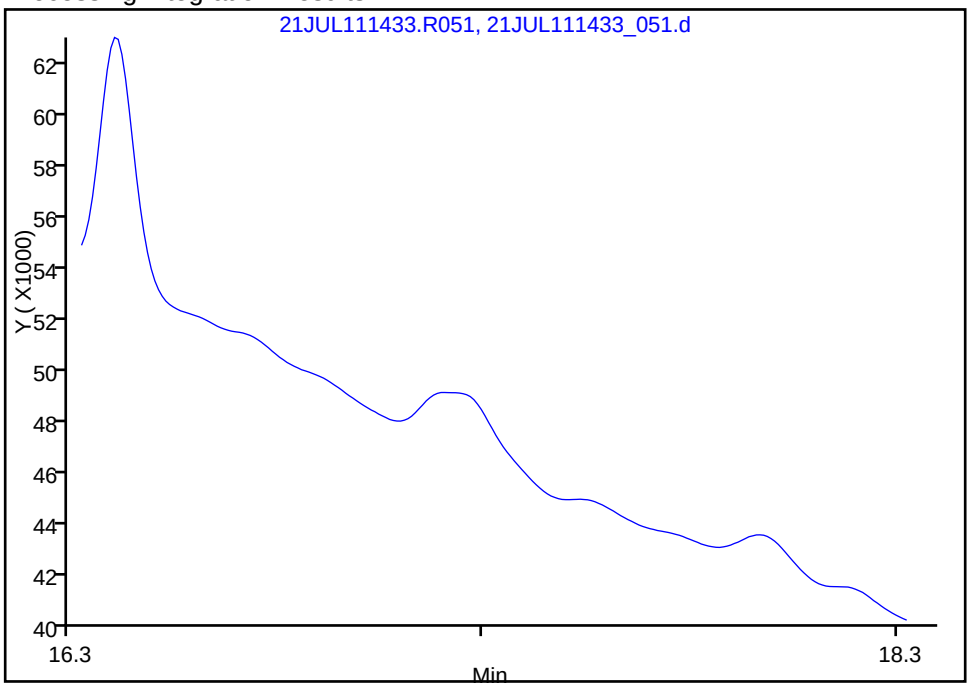
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

11 1,3-Dinitrobenzene, Signal: 1, Type: quant, RT: 17.33

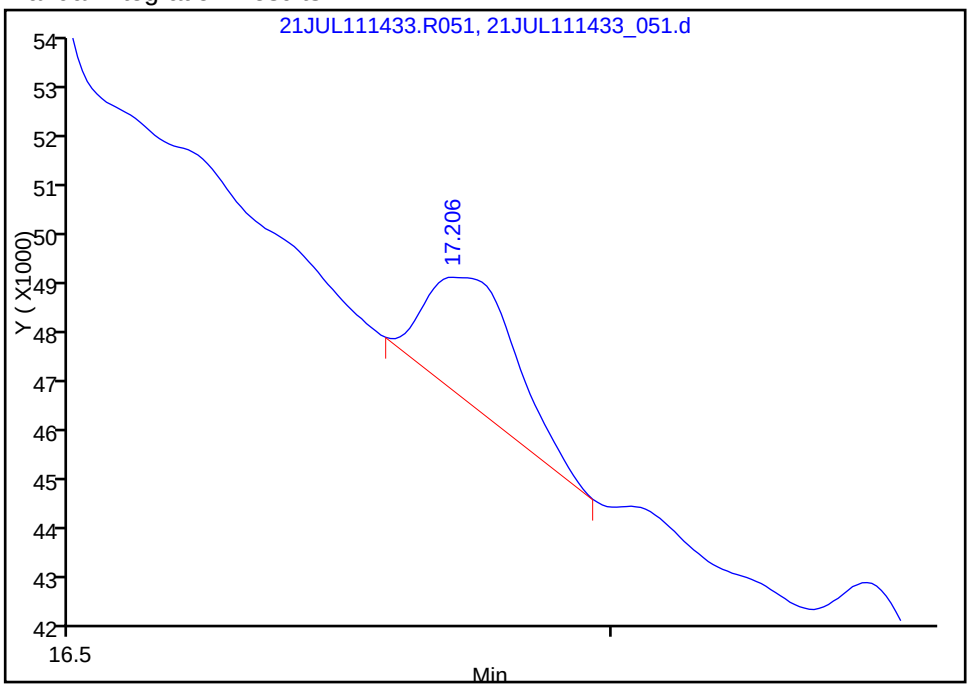
Not Detected
Expected RT: 17.33

Processing Integration Results



Manual Integration Results

RT: 17.21
Response: 26447
Amount: 32.596680



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

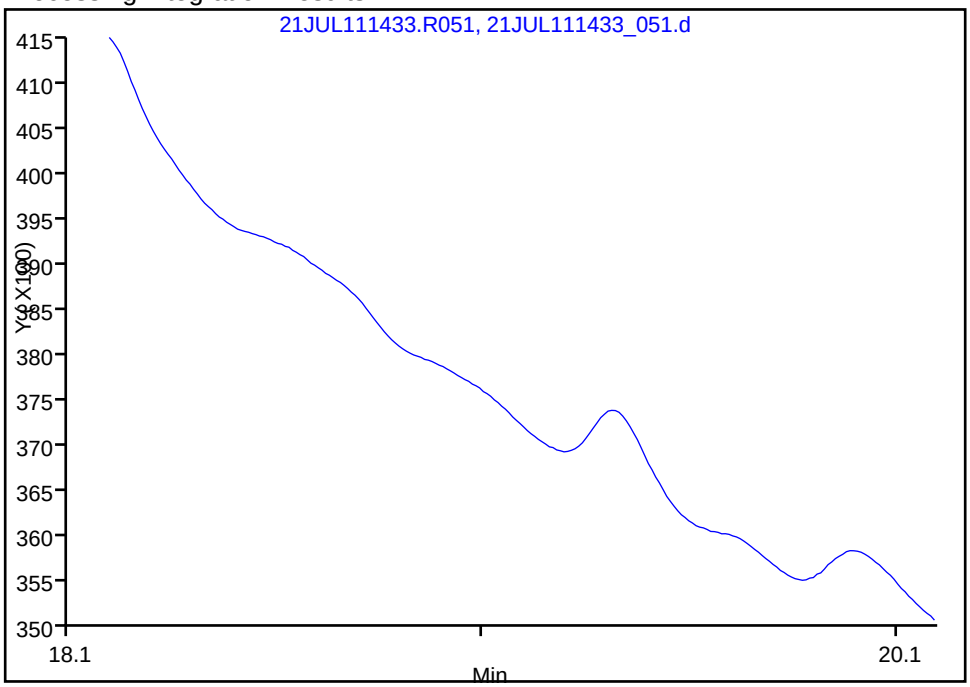
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

14 Nitroglycerin, Signal: 1, Type: quant, RT: 19.20

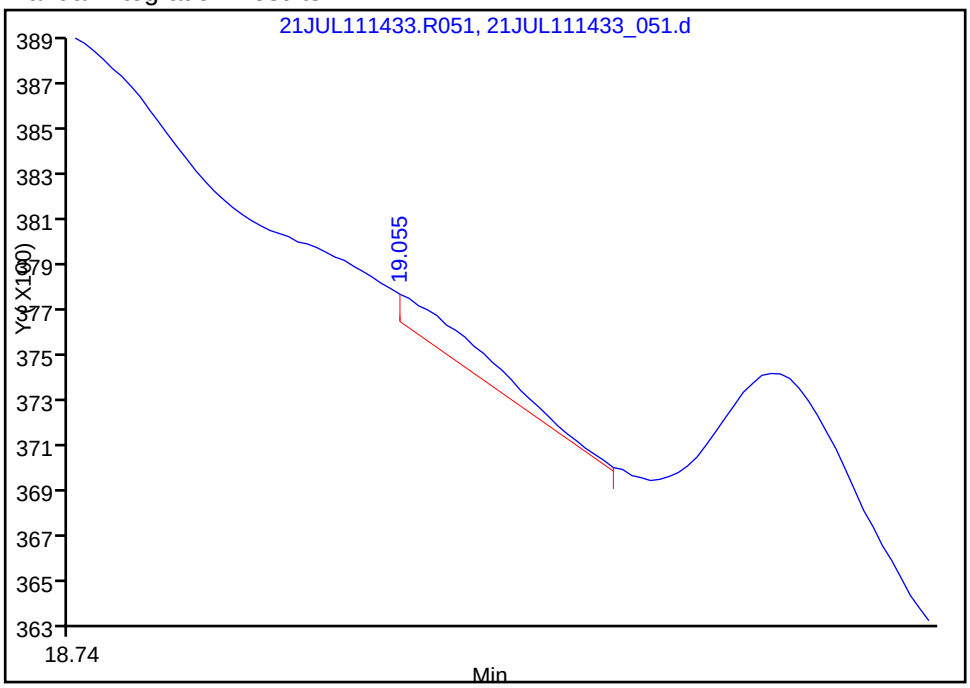
Not Detected
Expected RT: 19.20

Processing Integration Results



Manual Integration Results

RT: 19.06
Response: 960
Amount: 217.5577



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

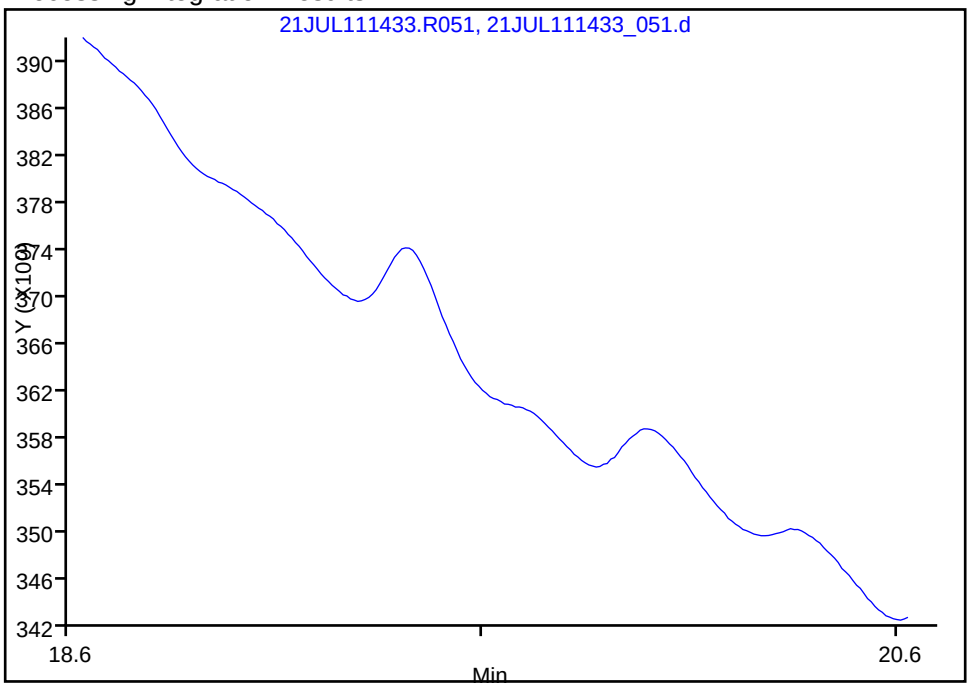
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

15 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 19.63

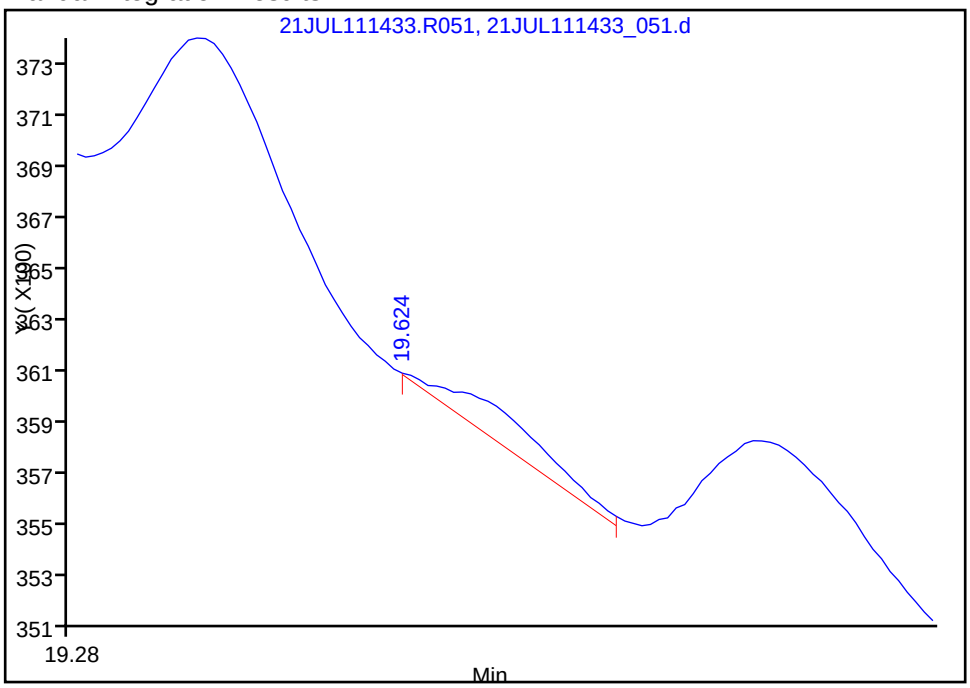
Not Detected
Expected RT: 19.63

Processing Integration Results



Manual Integration Results

RT: 19.62
Response: 1014
Amount: 2.117076



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

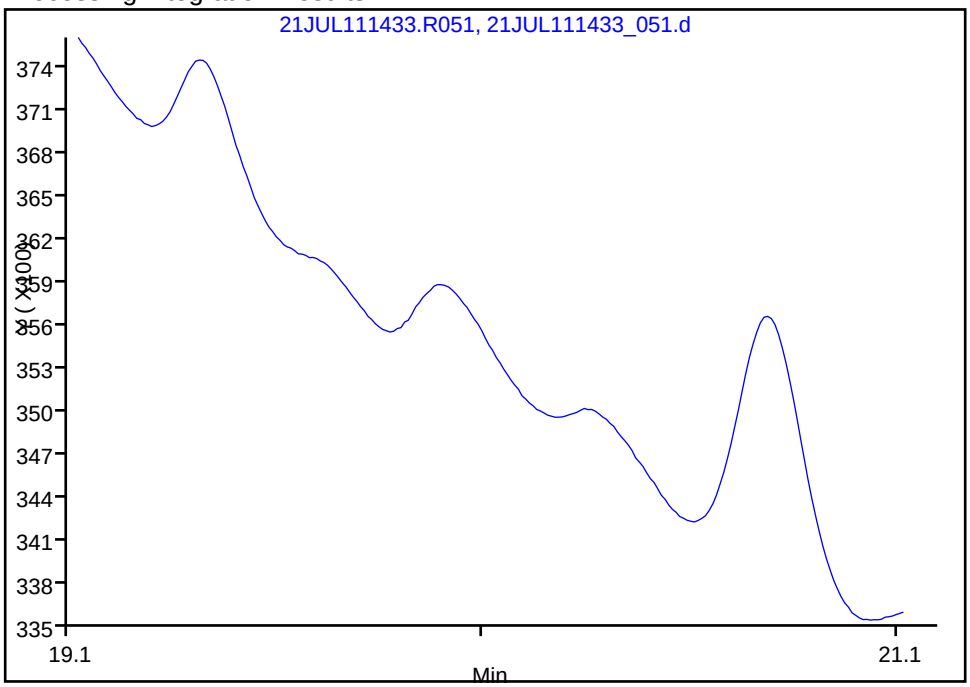
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.12

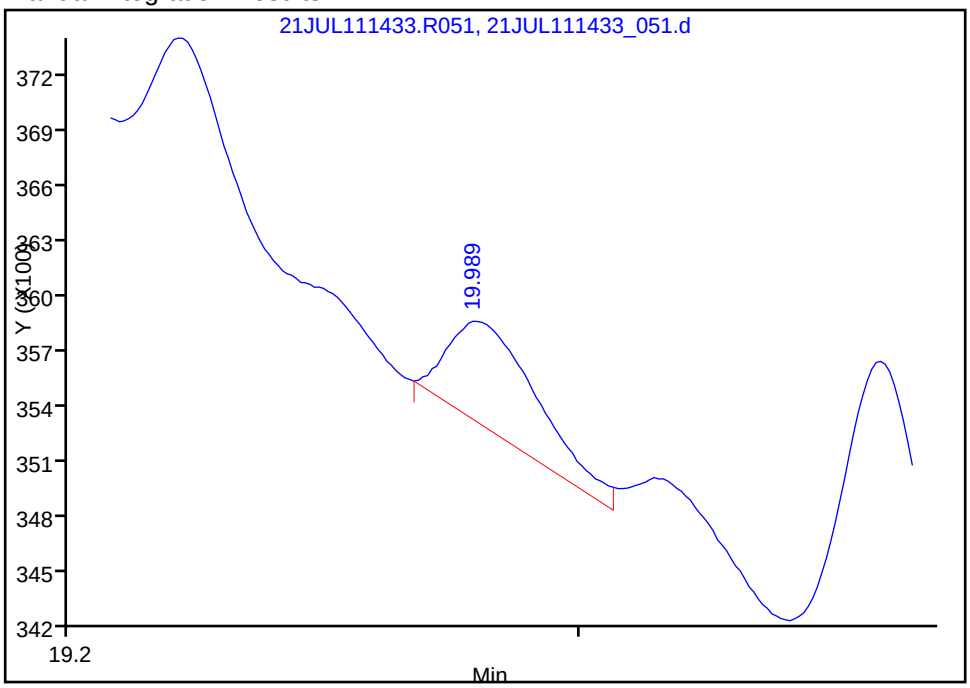
Not Detected
Expected RT: 20.12

Processing Integration Results



Manual Integration Results

RT: 19.99
Response: 7100
Amount: 10.660455



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

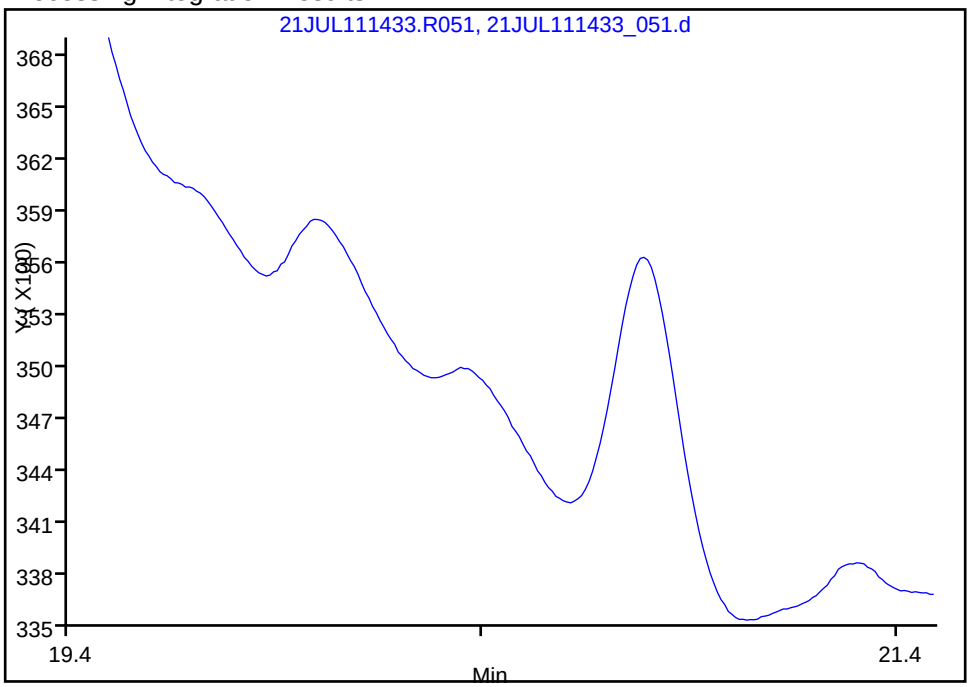
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

17 2-Amino-4,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.50

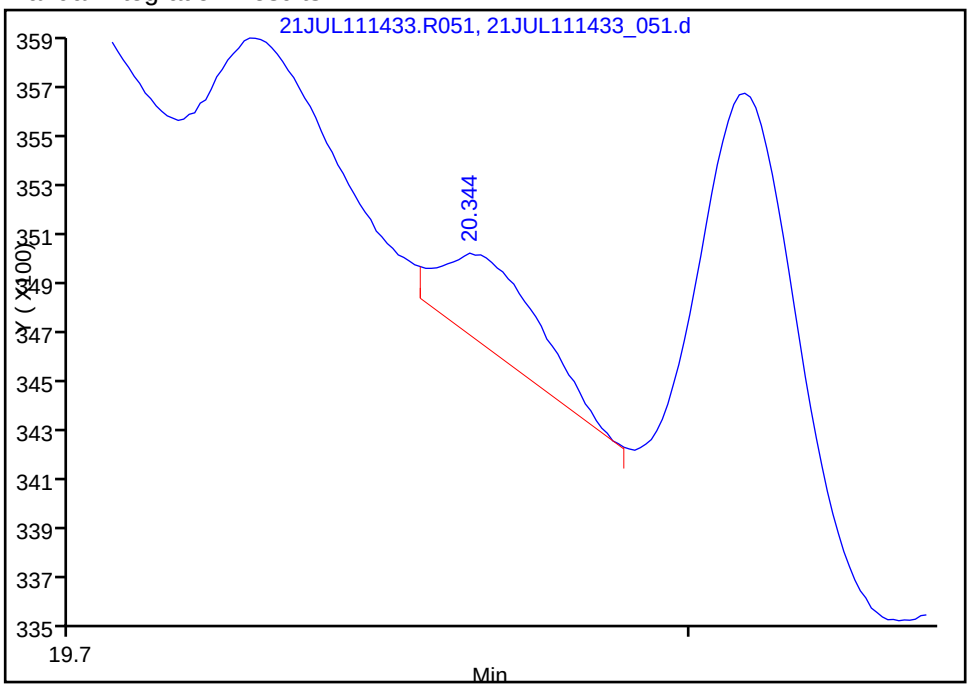
Not Detected
Expected RT: 20.50

Processing Integration Results



Manual Integration Results

RT: 20.34
Response: 3971
Amount: 6.747801



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

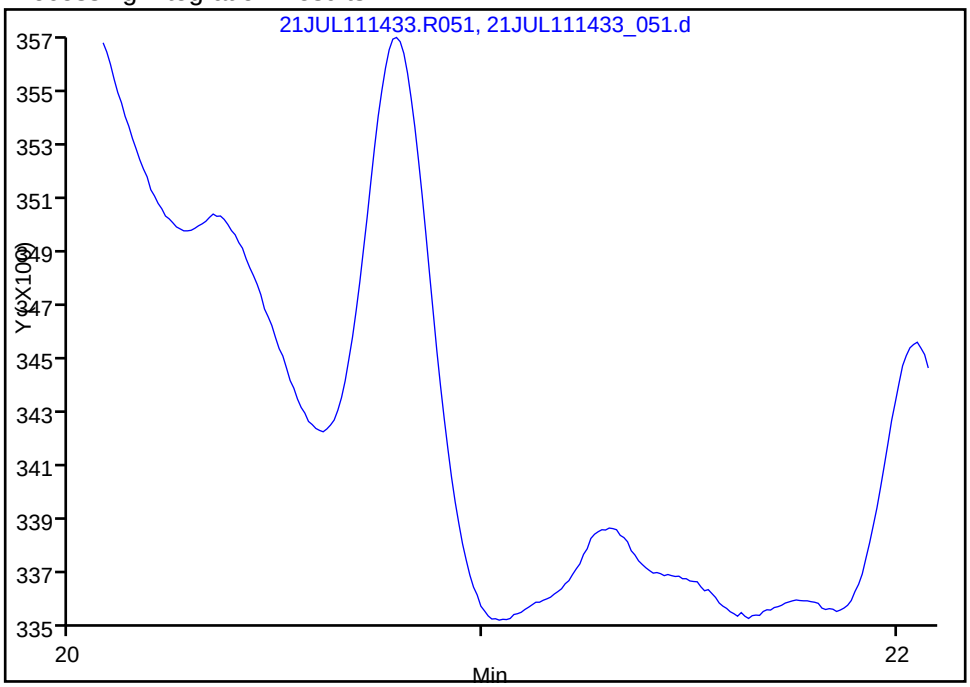
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

19 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 21.08

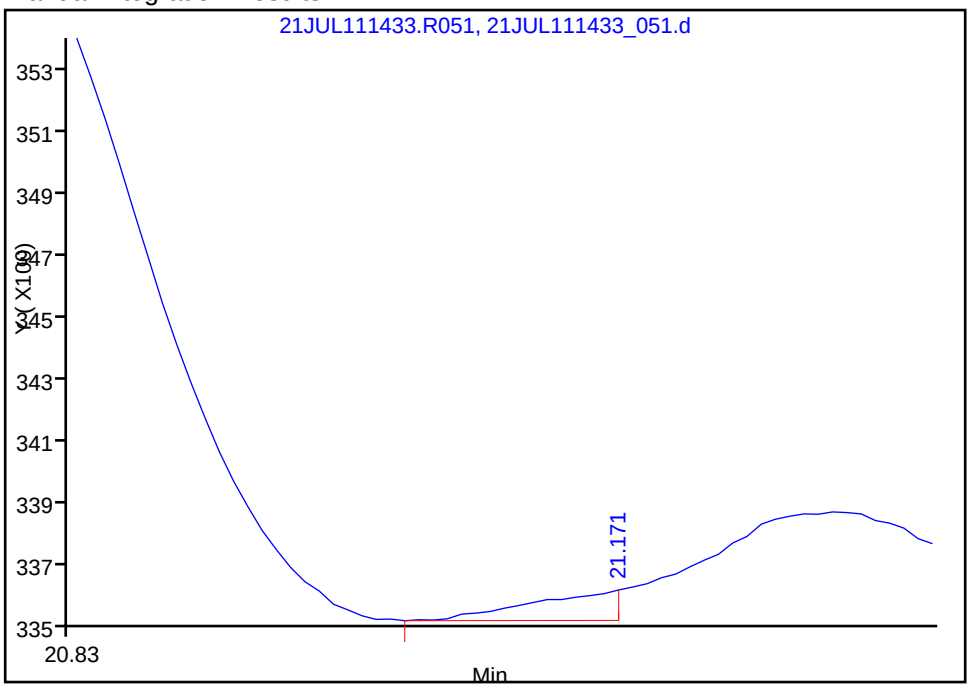
Not Detected
Expected RT: 21.08

Processing Integration Results



Manual Integration Results

RT: 21.17
Response: 329
Amount: 0.626284



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

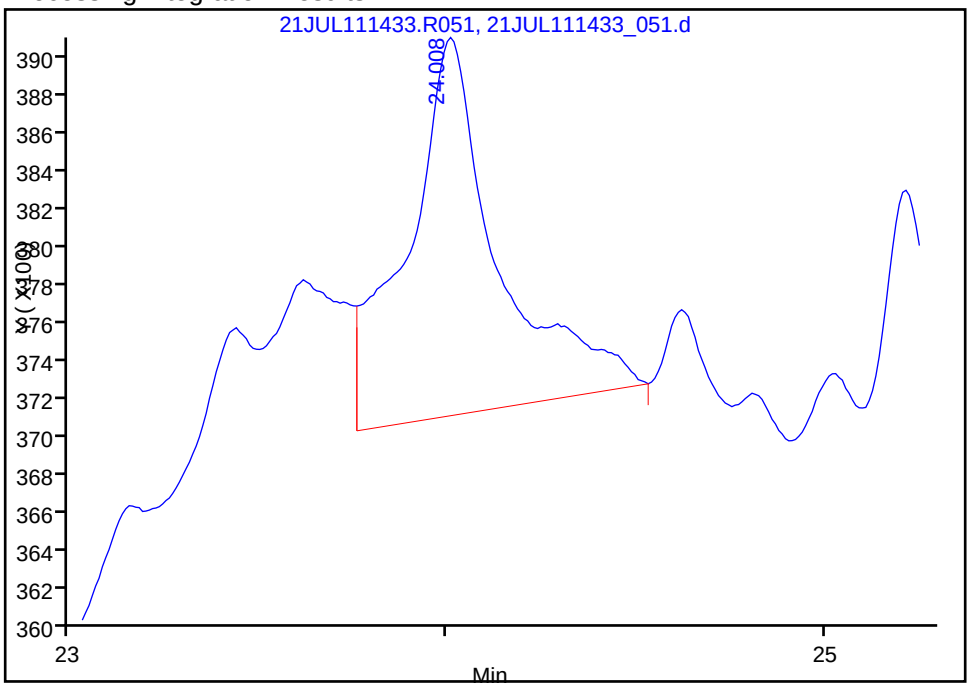
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.00

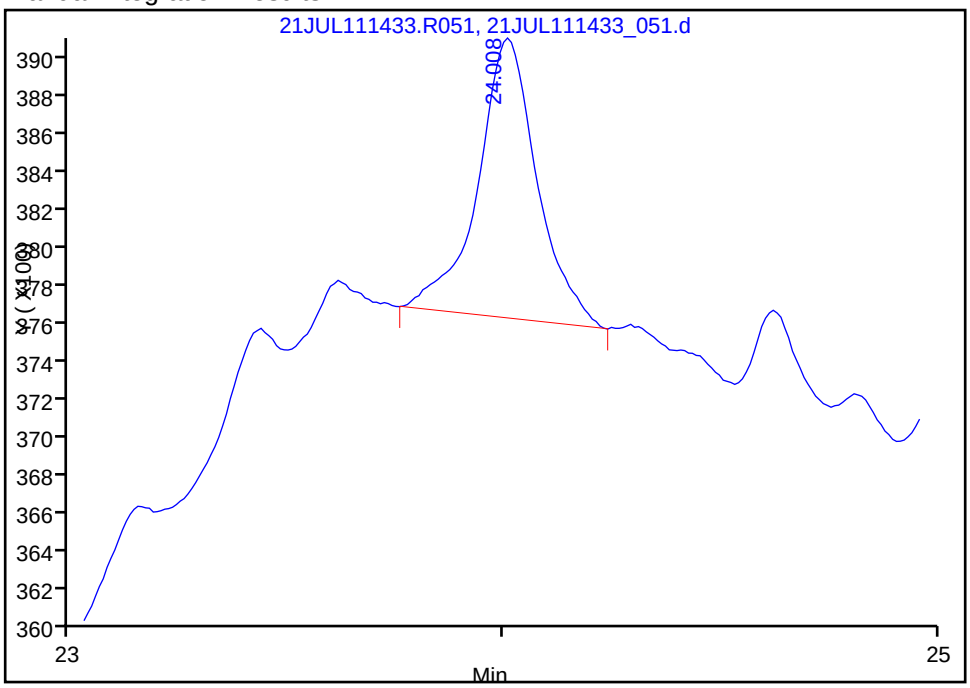
Processing Integration Results

RT: 24.01
Response: 32918
Amount: 207.0173



Manual Integration Results

RT: 24.01
Response: 13864
Amount: 85.169998



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Manually Integrated
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

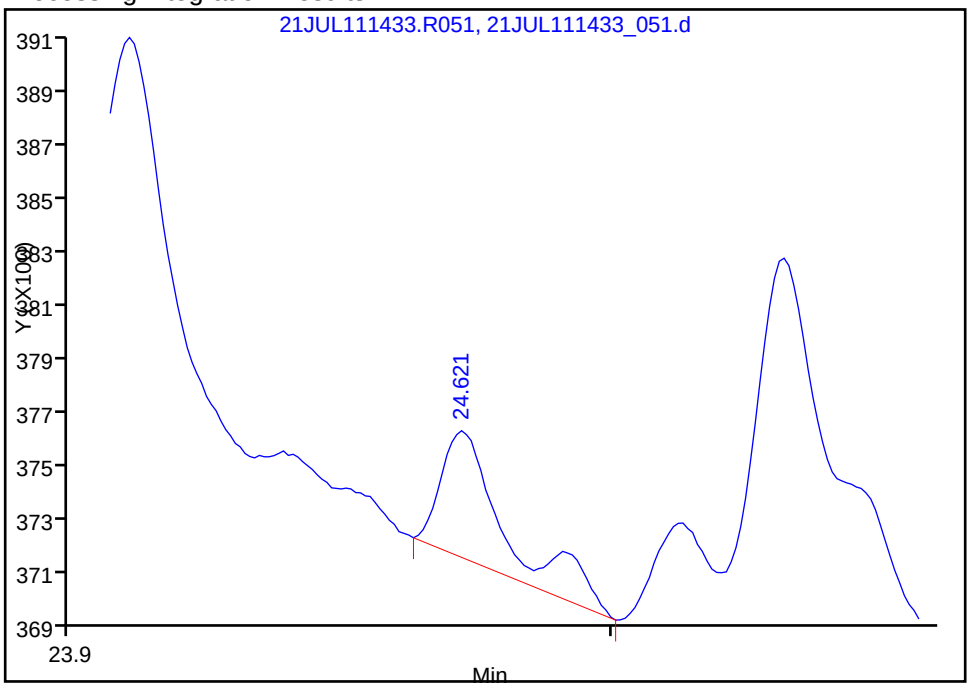
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_051.d		
Injection Date:	21-Jul-2011 18:09:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

23 PETN, Signal: 1, Type: quant, RT: 24.71

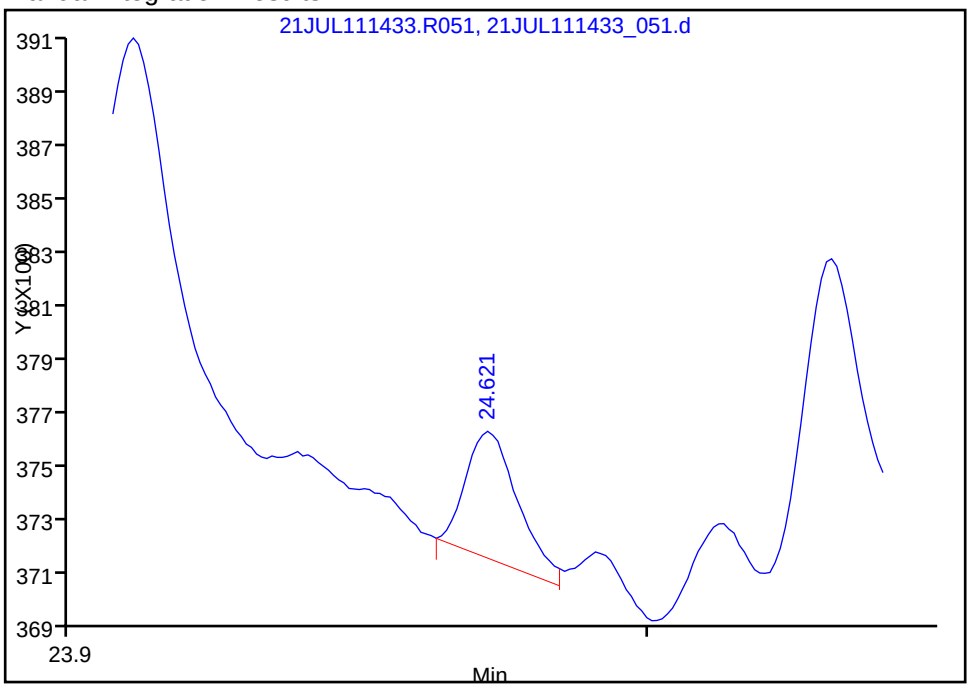
Processing Integration Results

RT: 24.62
Response: 3809
Amount: 958.8404



Manual Integration Results

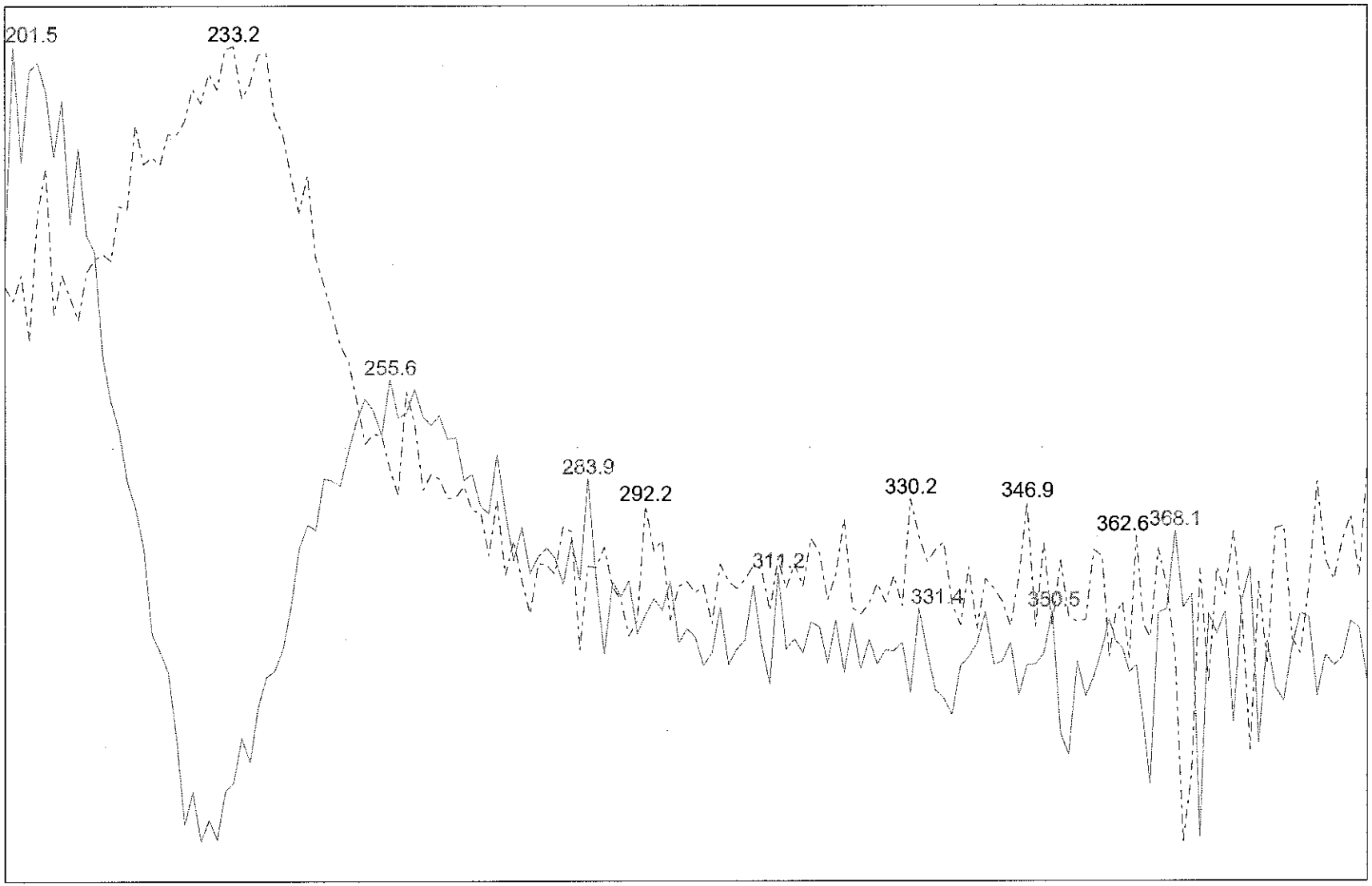
RT: 24.62
Response: 2892
Amount: 739.1934



Reviewer: chirgwinb, 25-Jul-2011 16:11:42
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

PDA Addendum for 4-amino-2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington



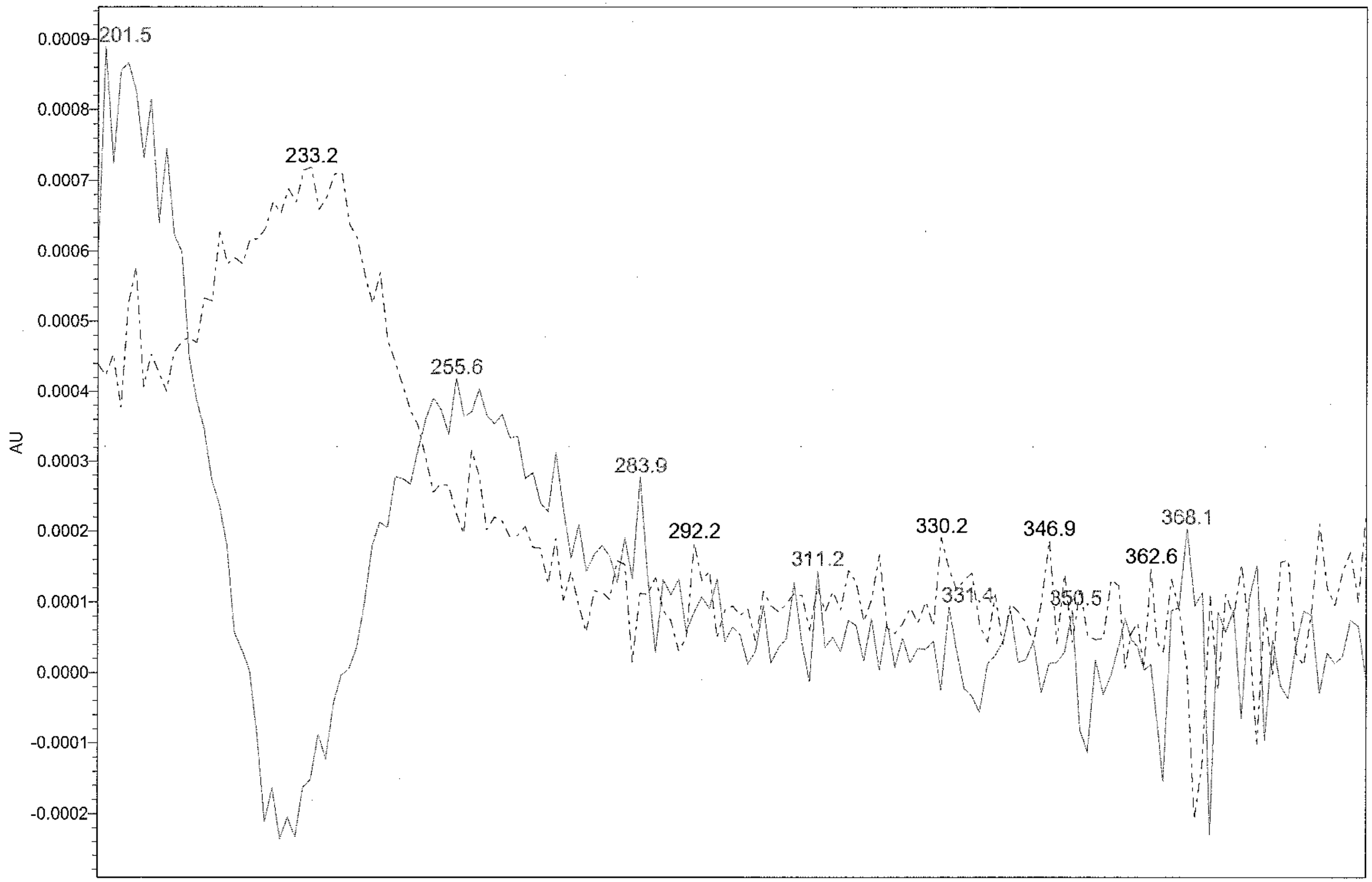
Retention Time: 20.267 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 20.267 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 4-Amino-2,6-dinitrotoluene; 10ppb

WPR02-5519

PDA Addendum for 4-amino-2,6-dinitrotoluene

Spectrum Review Report-TestAmerica Burlington

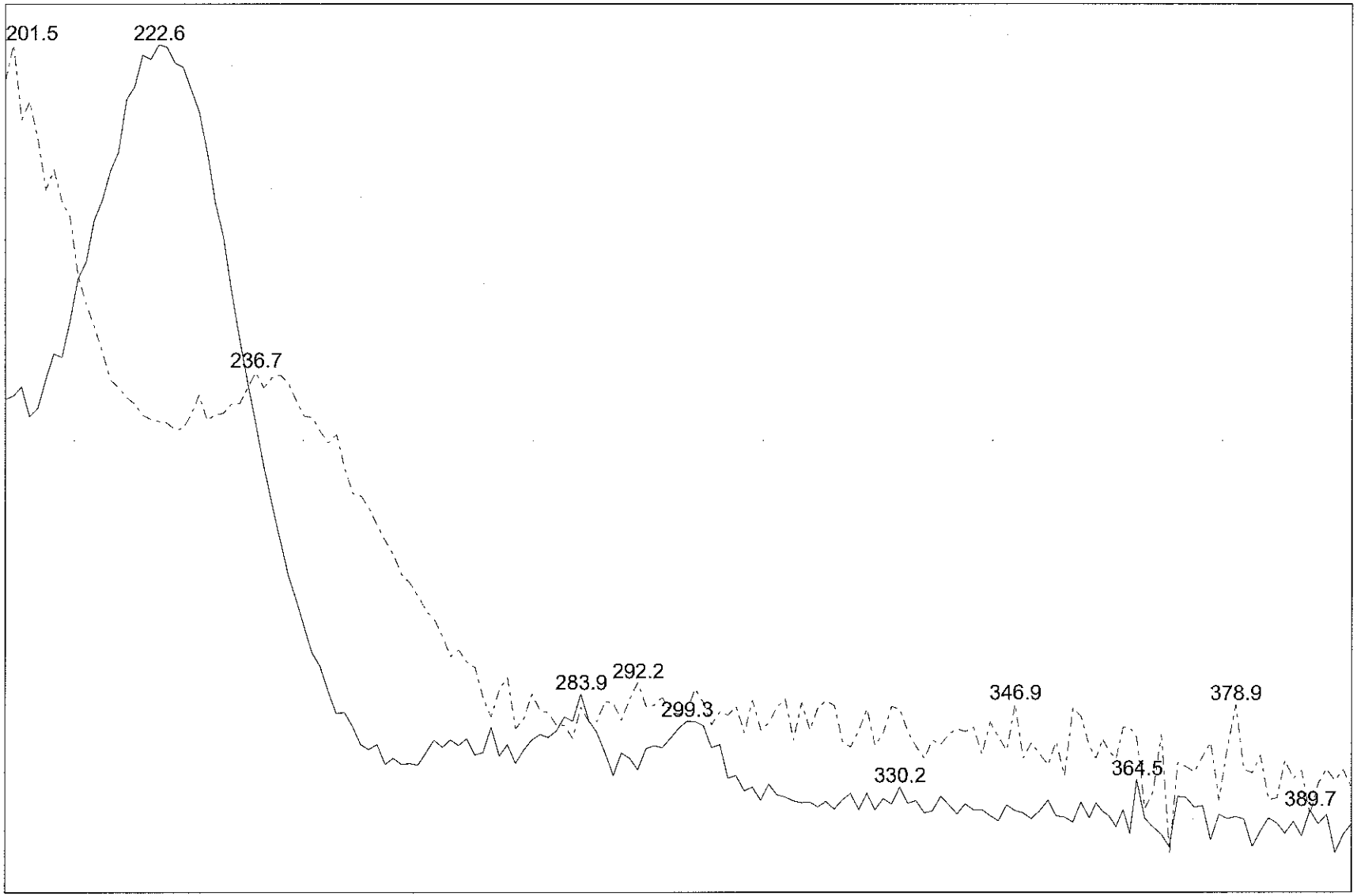


Retention Time: 20.267 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 20.267 LIMS Name: MMRSTD2 Description: Calibration of 01/24/11 Analyte Name: 4-Amino-2,6-dinitrotoluene; 10ppb

WPRφ2-SS19

Spectrum Review Report-TestAmerica Burlington

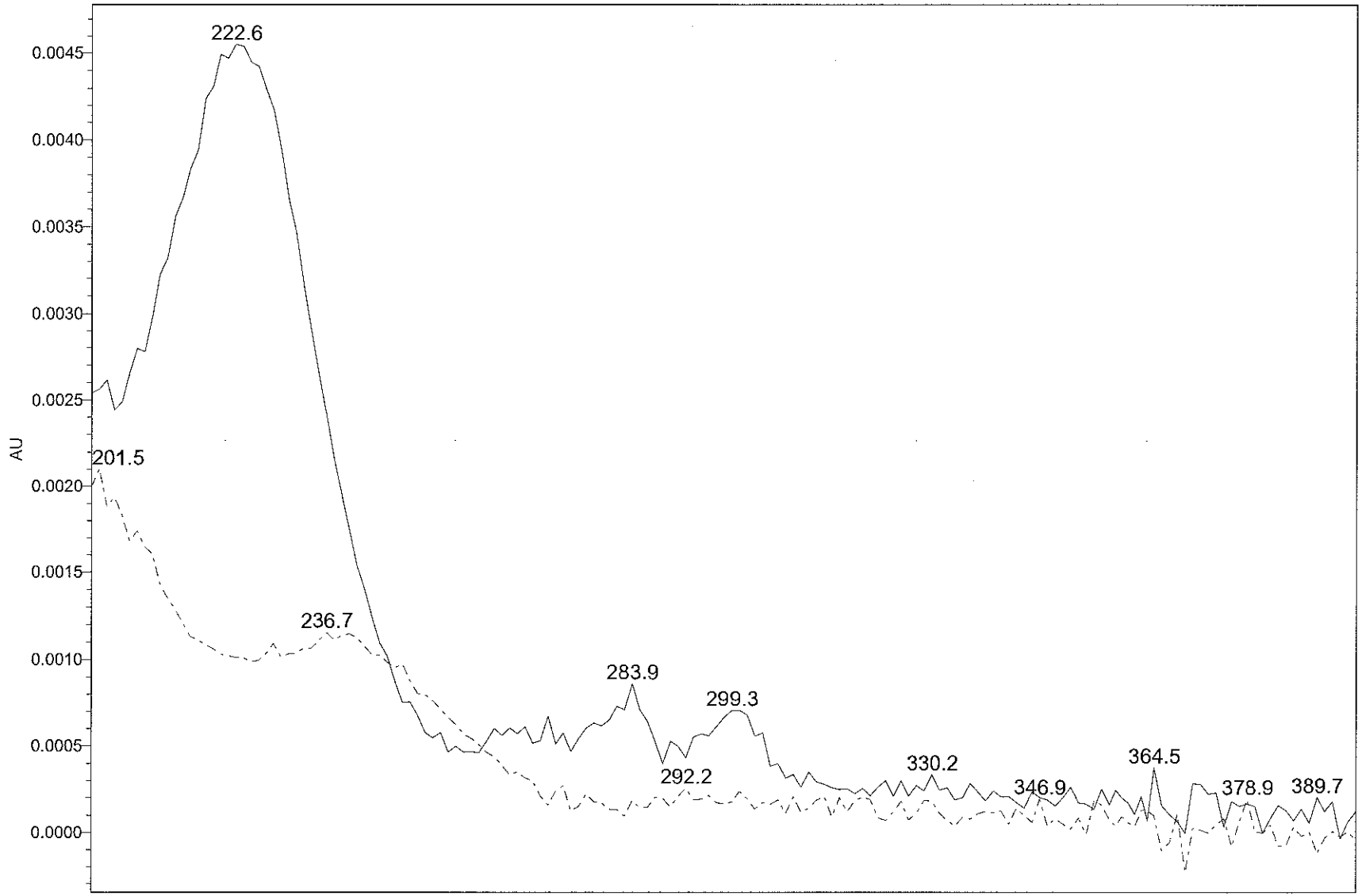


Retention Time: 20.933 LIMS Name: 200-5916-A-2-B Description: Analyte Name:
Retention Time: 20.967 LIMS Name: MMRSTD4 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 50ppb

WPR02-5519

PDA Addendum for 2,6-dintrotoluene

Spectrum Review Report-TestAmerica Burlington



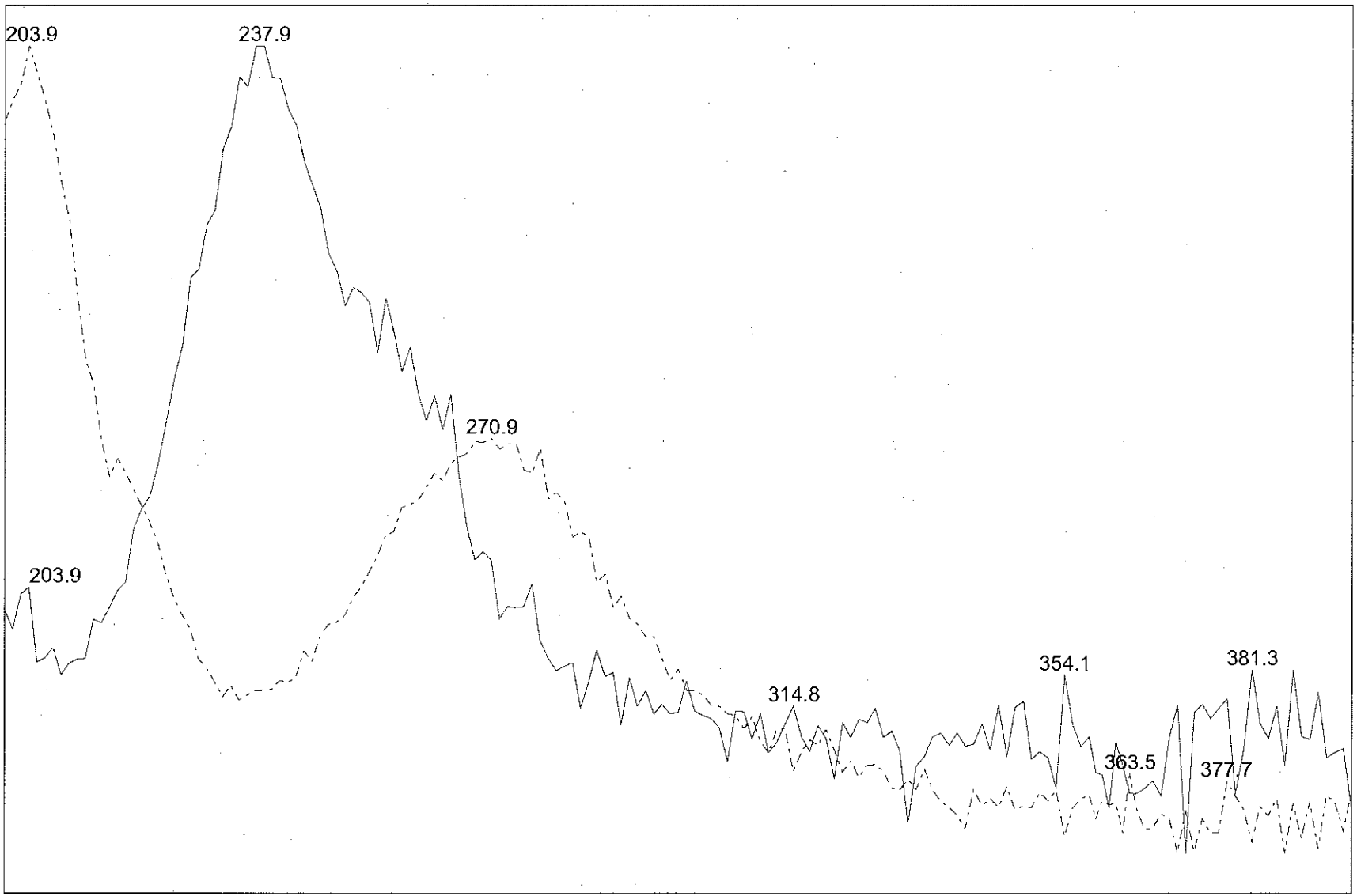
Retention Time: 20.933 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 20.967 LIMS Name: MMRSTD4 Description: Calibration of 01/24/11 Analyte Name: 2,6-Dinitrotoluene; 50ppb

WPR62-5519

PDA Addendum for 2,6-dintrotoluene

Spectrum Review Report-TestAmerica Burlington



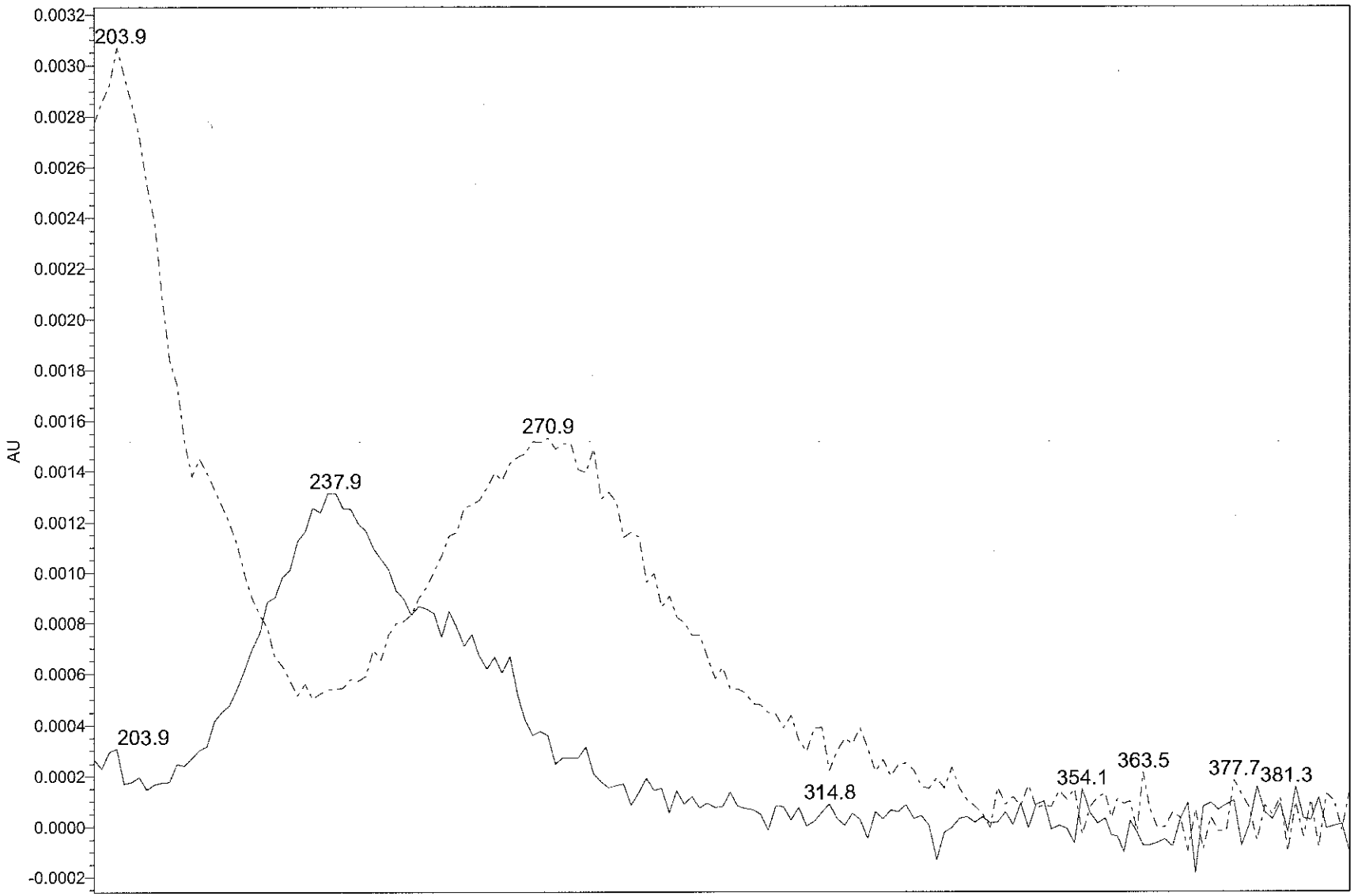
Retention Time: 24.033 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 24.167 LIMS Name: MMRSTD4 Description: Calibration of 01/24/11 Analyte Name: m-Nitrotoluene; 50ppb

WP2Φ2-5519

PDA Addendum for 3-nitrotoluene

Spectrum Review Report-TestAmerica Burlington



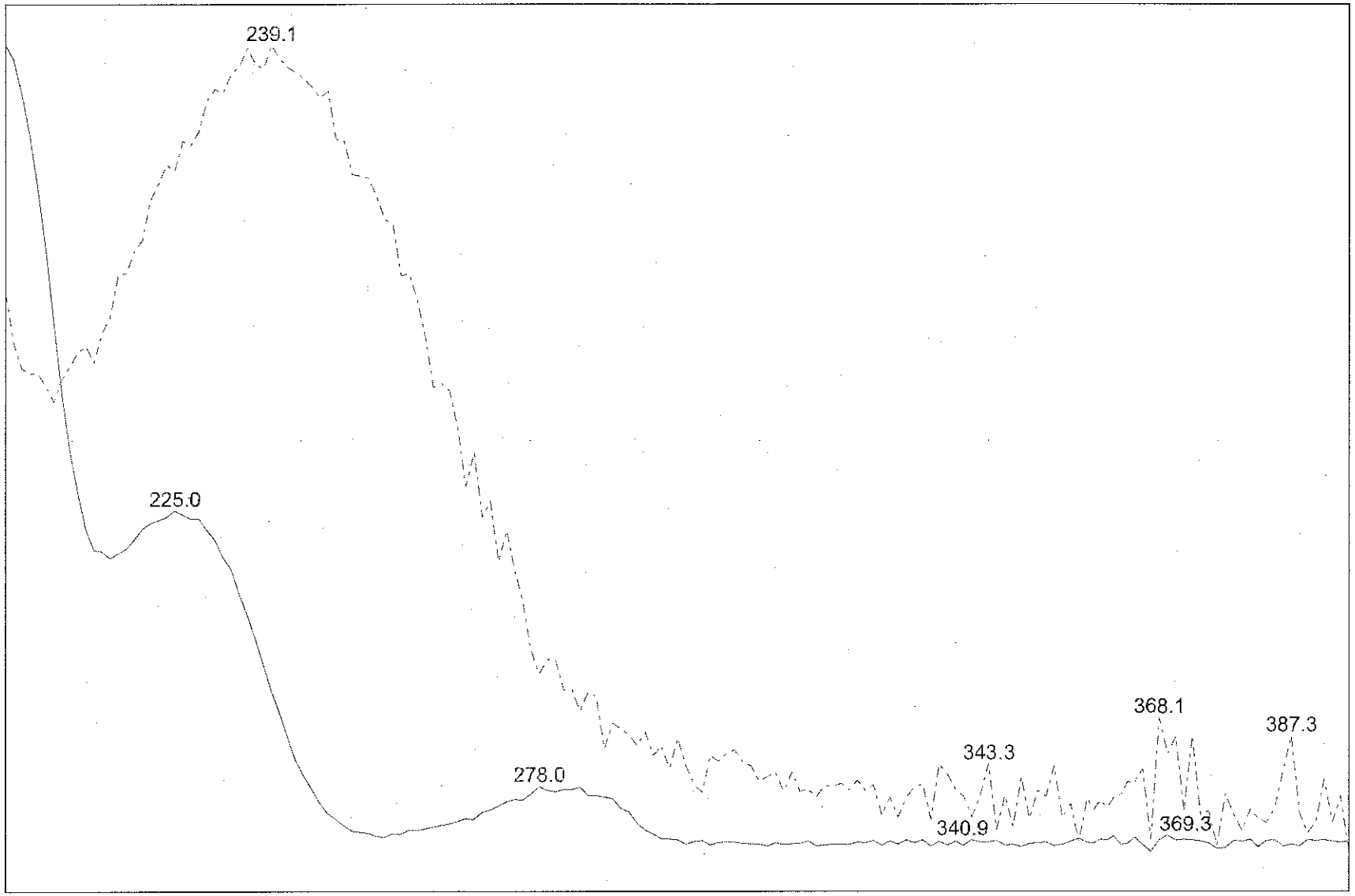
Retention Time: 24.033 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 24.167 LIMS Name: MMRSTD4 Description: Calibration of 01/24/11 Analyte Name: m-Nitrotoluene; 50ppb

UPR02-5519

PDA Addendum for 3-nitrotoluene

Spectrum Review Report-TestAmerica Burlington



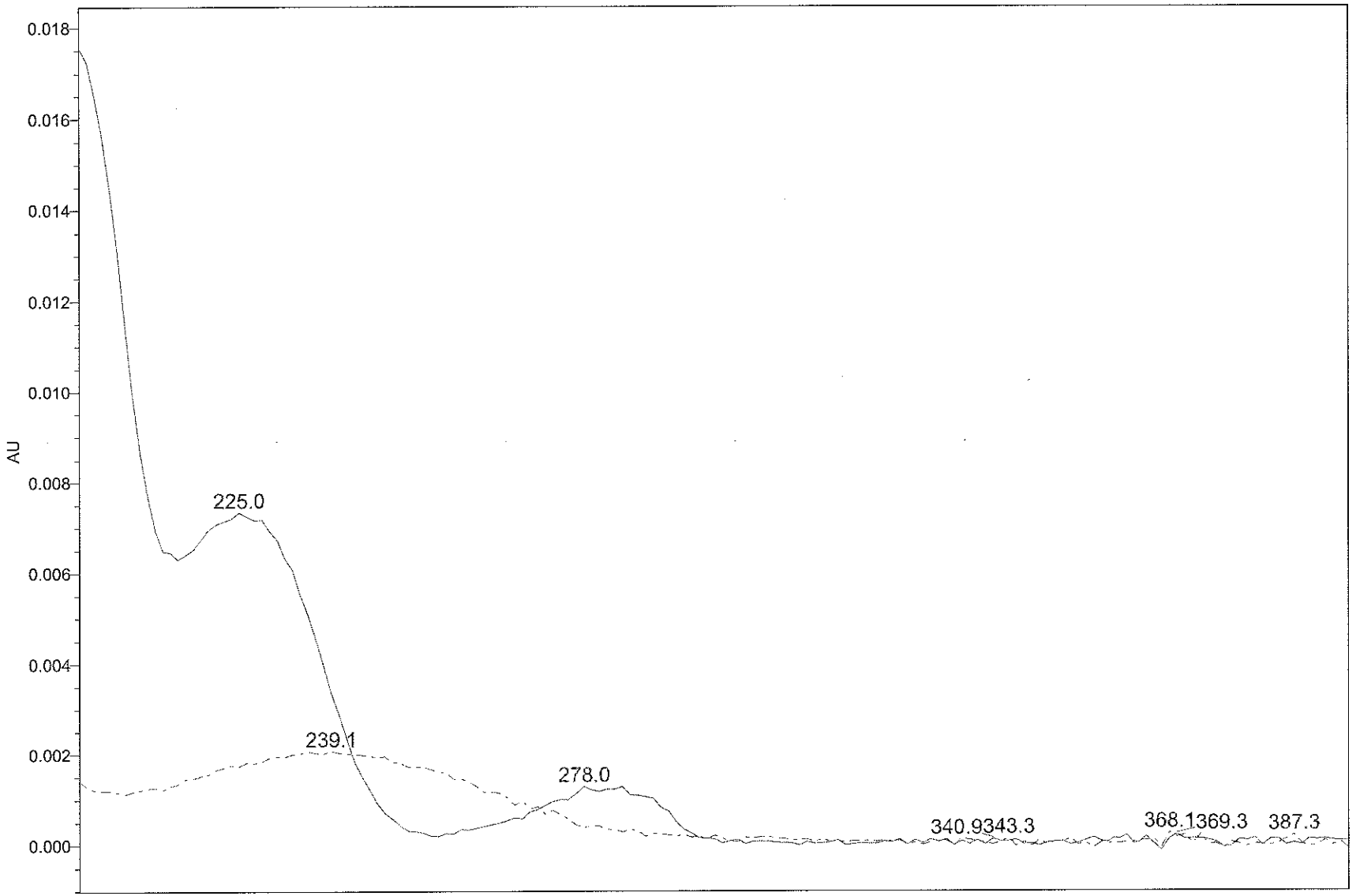
Retention Time: 17.333 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 17.467 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 1,3-Dinitrobenzene; 25ppb

WPR042-5519

PDA Addendum for 1,3-dinitrobenzene

Spectrum Review Report-TestAmerica Burlington



Retention Time: 17.333 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

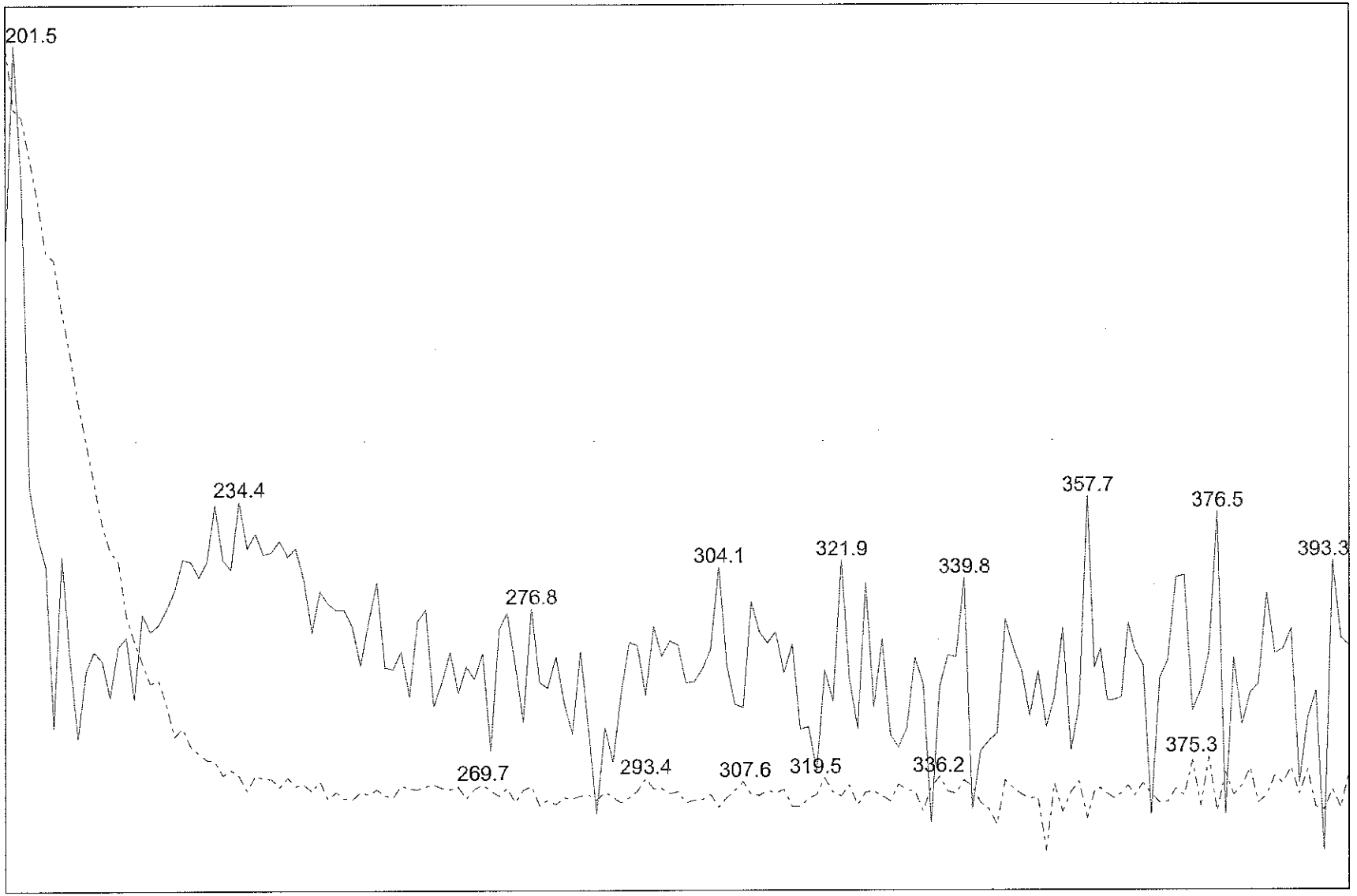
Retention Time: 17.467 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: 1,3-Dinitrobenzene; 25ppb

WA RQZ-5519

PDA Addendum for 1,3-dinitrobenzene

Spectrum Review Report-TestAmerica Burlington

PDA Addendum for PETN



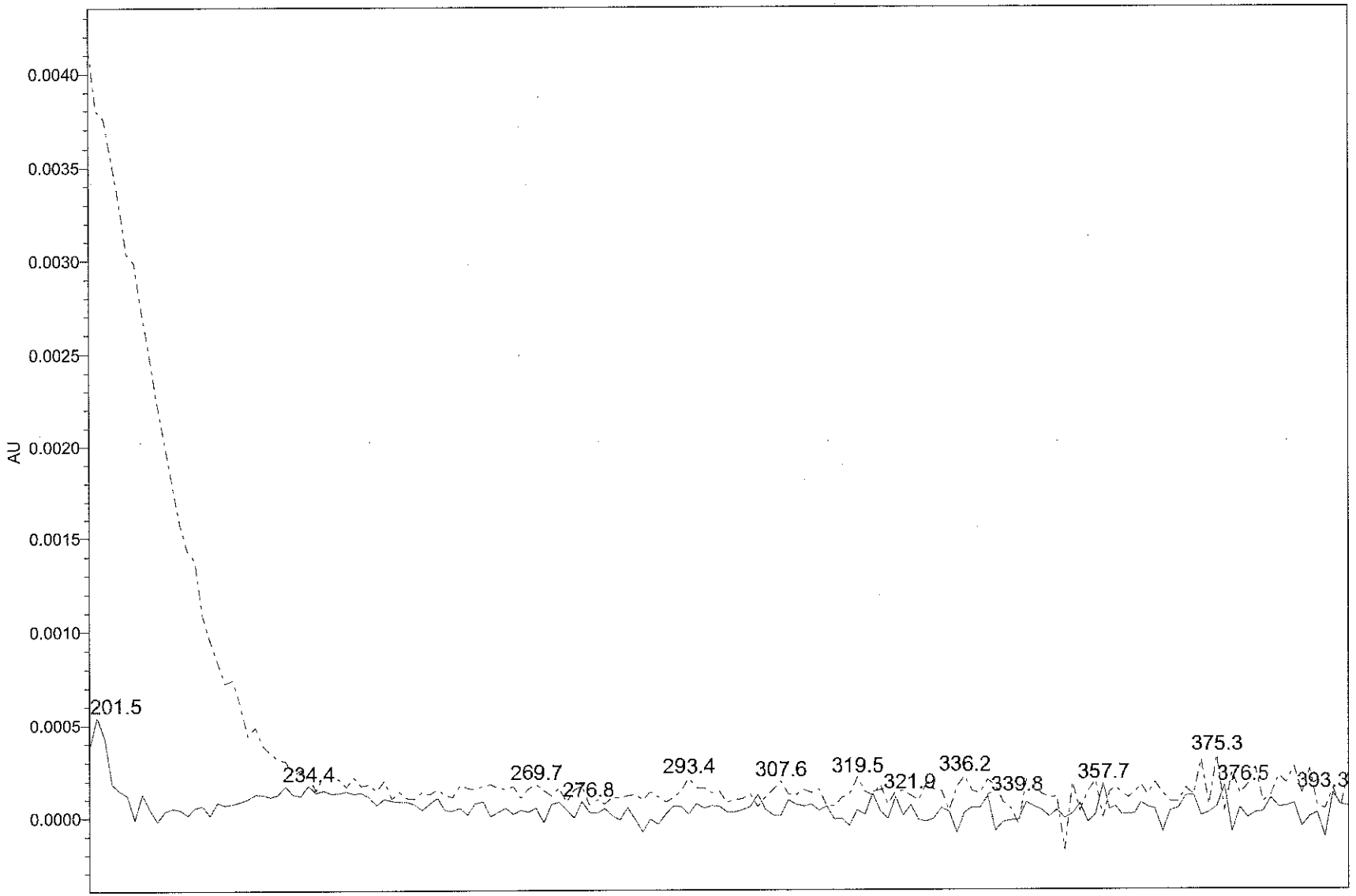
Retention Time: 24.617 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 24.884 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: PETN; 500ppb

WAR02-5519

Spectrum Review Report-TestAmerica Burlington

PDA Addendum for PETN



Retention Time: 24.617 LIMS Name: 200-5916-A-2-B Description: Analyte Name:

Retention Time: 24.884 LIMS Name: MMRSTD3 Description: Calibration of 01/24/11 Analyte Name: PETN; 500ppb

WPR02-5519

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: WPR02-SS19 | Lab Sample ID: 200-5916-2

Matrix: Solid | Lab File ID: 21JUL111438_051.d

Analysis Method: 8330B | Date Collected: 07/05/2011 09:18

Extraction Method: 8330 | Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.55(g) | Date Analyzed: 07/21/2011 18:50

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 22013 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*22*	*M J*	*95*	23	*8.4*
99-65-0	*1,3-Dinitrobenzene*	*100*	*J*	*95*	23	*8.0*
118-96-7	*2,4,6-Trinitrotoluene*	*130*	*M J*	*95*	14	*6.3*
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*120*	*M*	*95*	23	*9.5*
606-20-2	*2,6-Dinitrotoluene*	*200*	*M J*	*95*	14	*5.9*
99-08-1	*3-Nitrotoluene*	*420*	*M J*	*95*	28	*25*
78-11-5	*PETN*	*2900*	*M J*	*4700*	1700	*810*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	68	*M*	40-140

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Lims ID:	200-5916-A-2-B	Client ID:	WPR02-SS19
Inject. Date:	21-Jul-2011 18:50:00	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	200-0000857-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	5
Lims Batch ID:	22013	Lims Sample ID:	5
Detector:	A-21JUL111438.R051		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m		
Last Update:	26-Jul-2011 14:12:04	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: chirgwinb Date: 26-Jul-2011 11:06:55

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	22 RDX		6.536				
	18 Nitroglycerin		9.550				
$	1 1,2-Dinitrobenzene	11.435	11.426	0.009	81796	136.3	M
	11 4-Amino-2,6-dinitrotoluene	11.773	11.942	-0.169	14989	13.1	A
	10 2-Amino-4,6-dinitrotoluene		12.156				1
	3 1,3-Dinitrobenzene	13.774	13.845	-0.071	14019	10.7	
	21 PETN	15.161	15.330	-0.169	4196	310.3	A
	15 m-Nitrotoluene	16.202	16.424	-0.222	11226	44.5	A
	9 2,6-Dinitrotoluene	17.322	17.153	0.169	14700	20.6	A
	2 1,3,5-Trinitrobenzene	18.585	18.371	0.214	3279	2.31	A
	7 2,4-Dinitrotoluene	19.394	19.456	-0.062	38950	37.7	A
	5 2,4,6-Trinitrotoluene	21.875	21.715	0.160	11347	13.3	A

QC Flag Legend

Processing Flags
1 - Missing Peaks

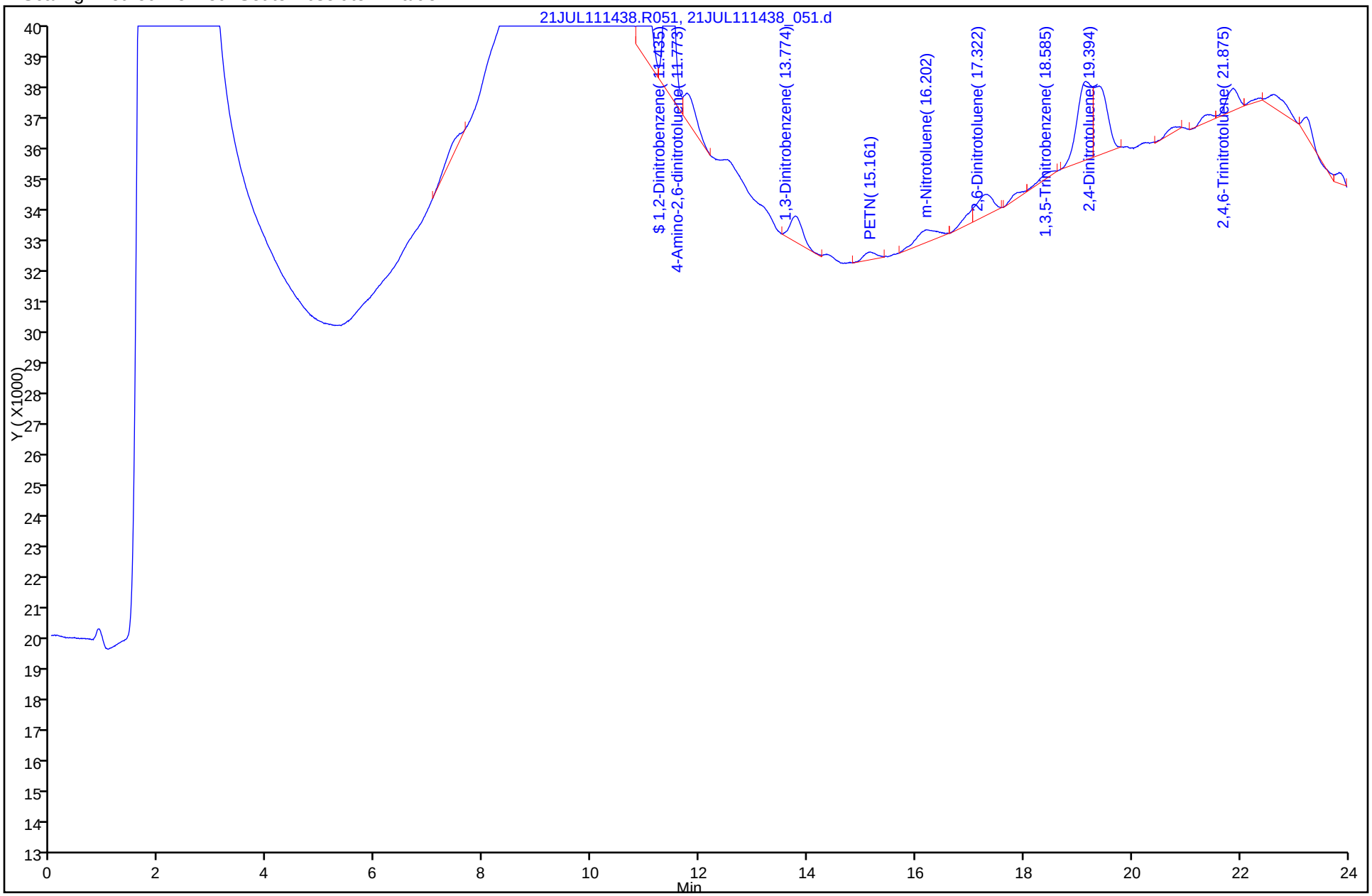
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

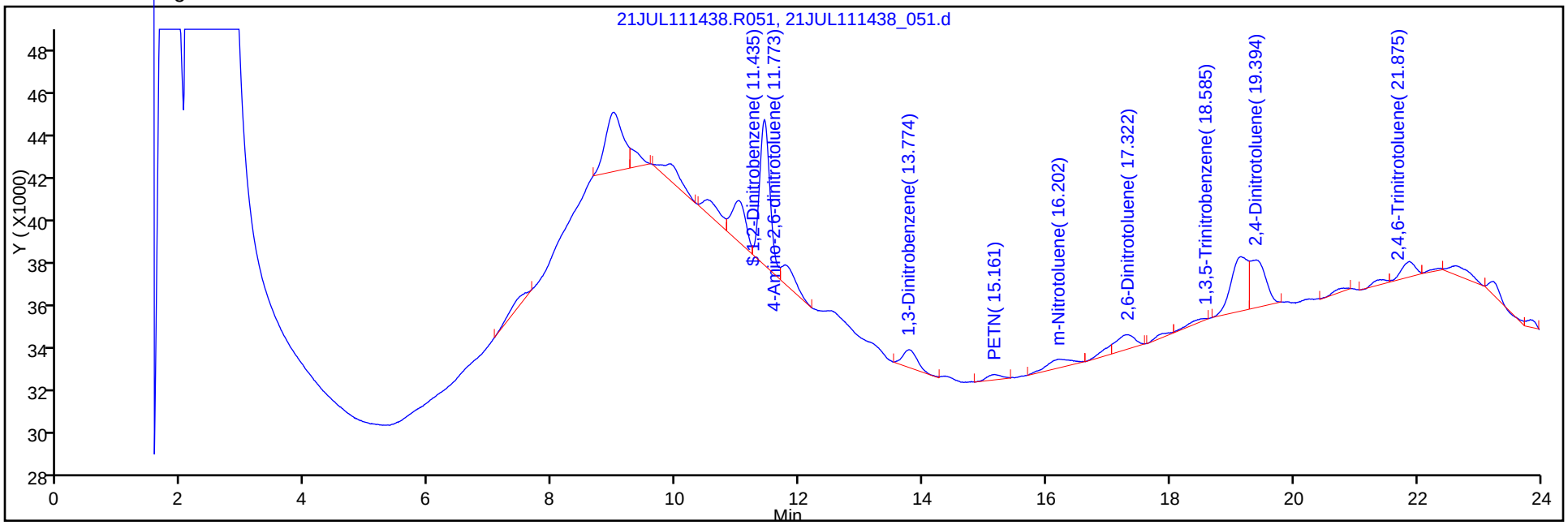
Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d

Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d
Inj Date: 21-Jul-2011 18:50:00
Client ID: WPR02-SS19
User Set Y Scaling: Alternate user entered



Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

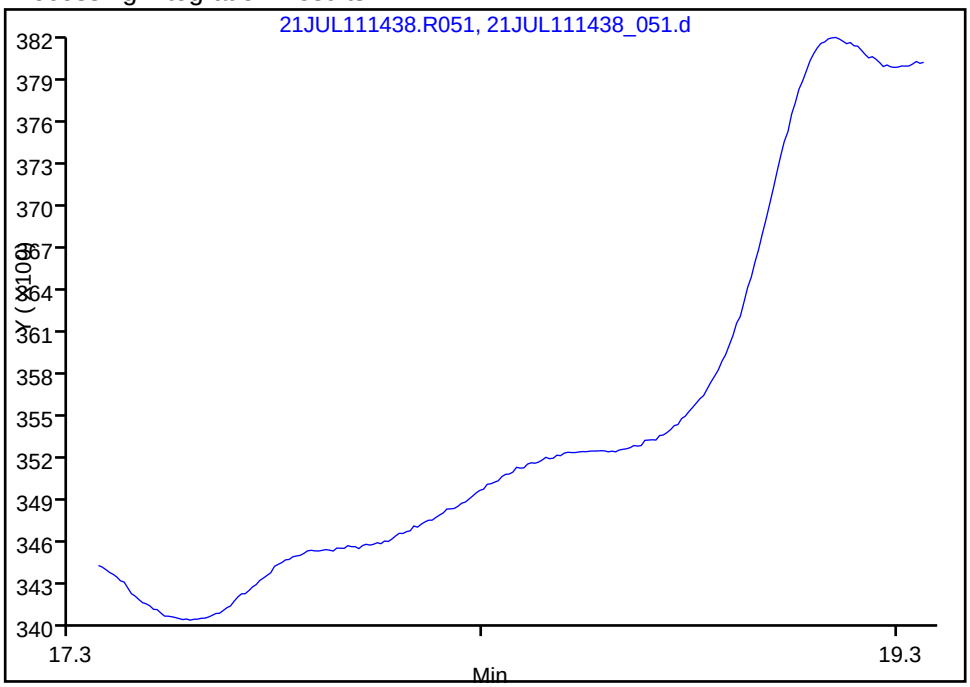
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

2 1,3,5-Trinitrobenzene, Signal: 1, Type: quant, RT: 18.37

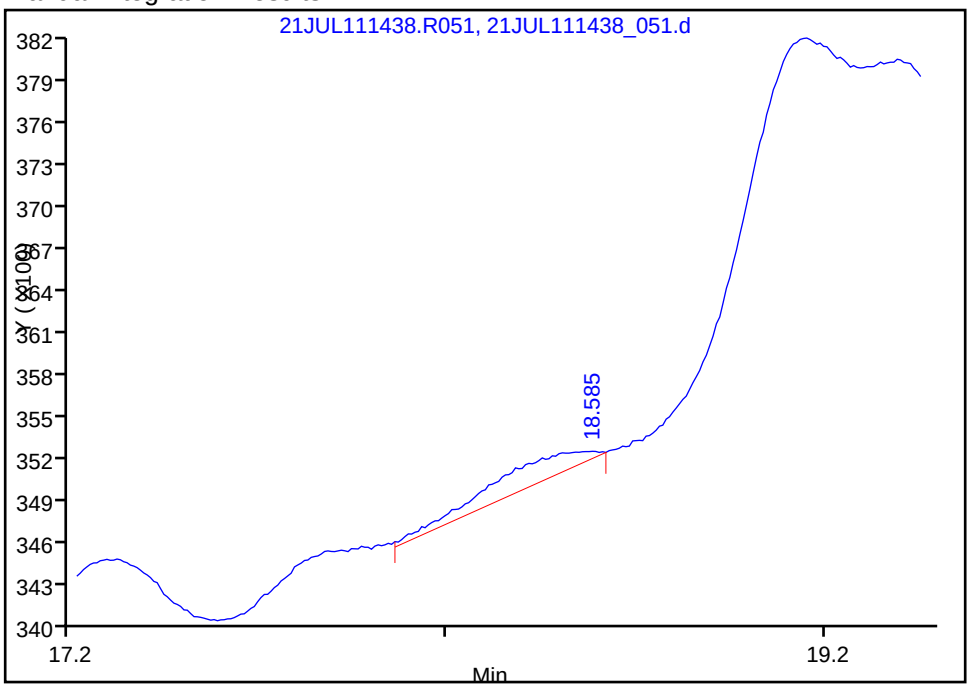
Not Detected
Expected RT: 18.37

Processing Integration Results



Manual Integration Results

RT: 18.58
Response: 3279
Amount: 2.309865



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

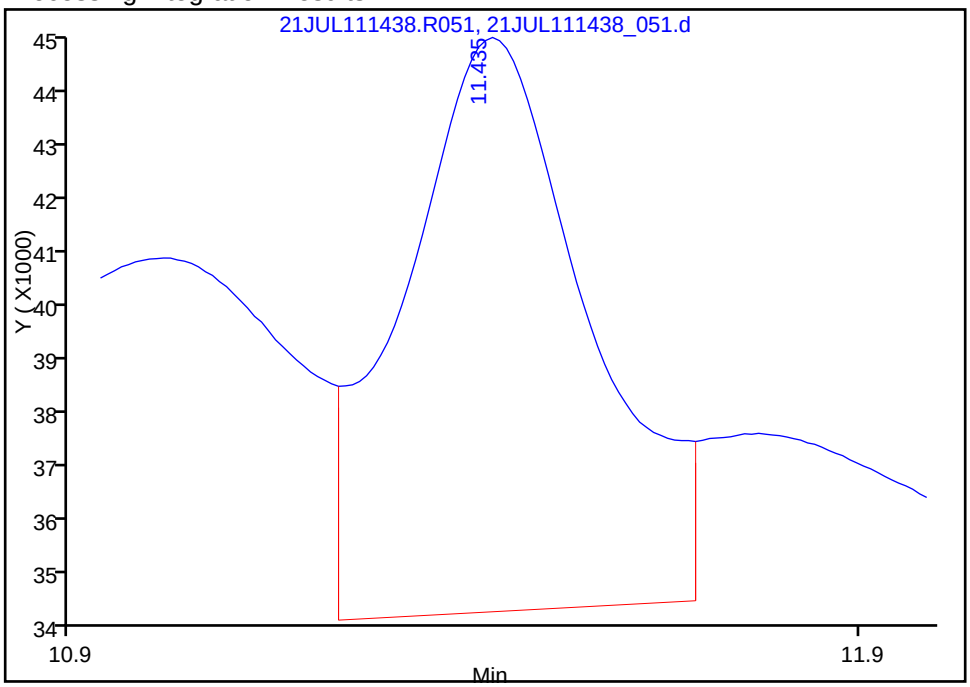
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

$ 1 1,2-Dinitrobenzene, Signal: 1, Type: quant, RT: 11.43

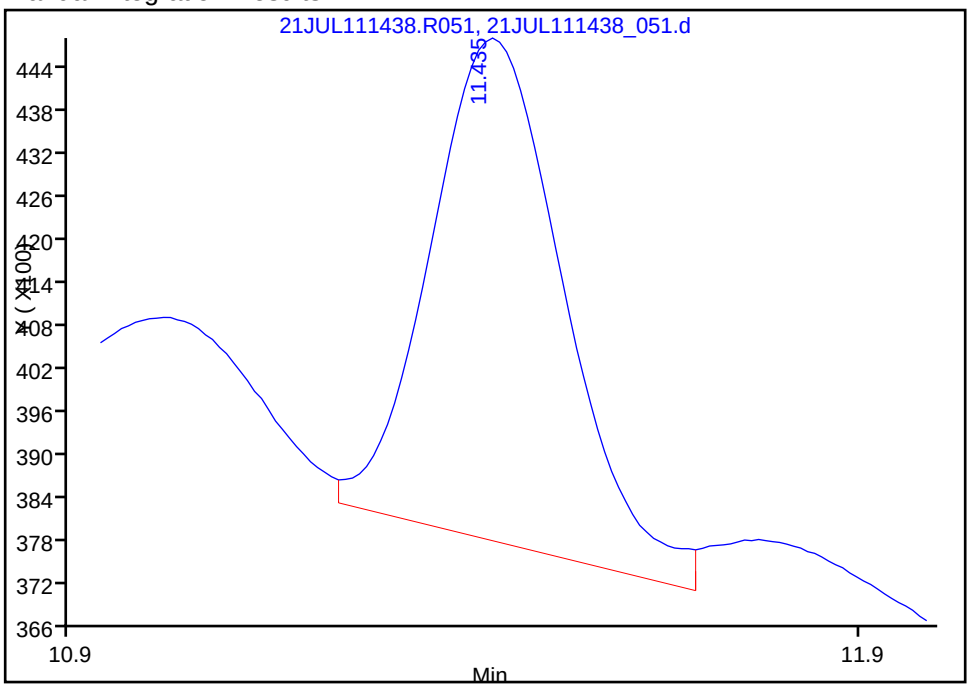
Processing Integration Results

RT: 11.44
Response: 163072
Amount: 273.0457



Manual Integration Results

RT: 11.44
Response: 81796
Amount: 136.3347



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

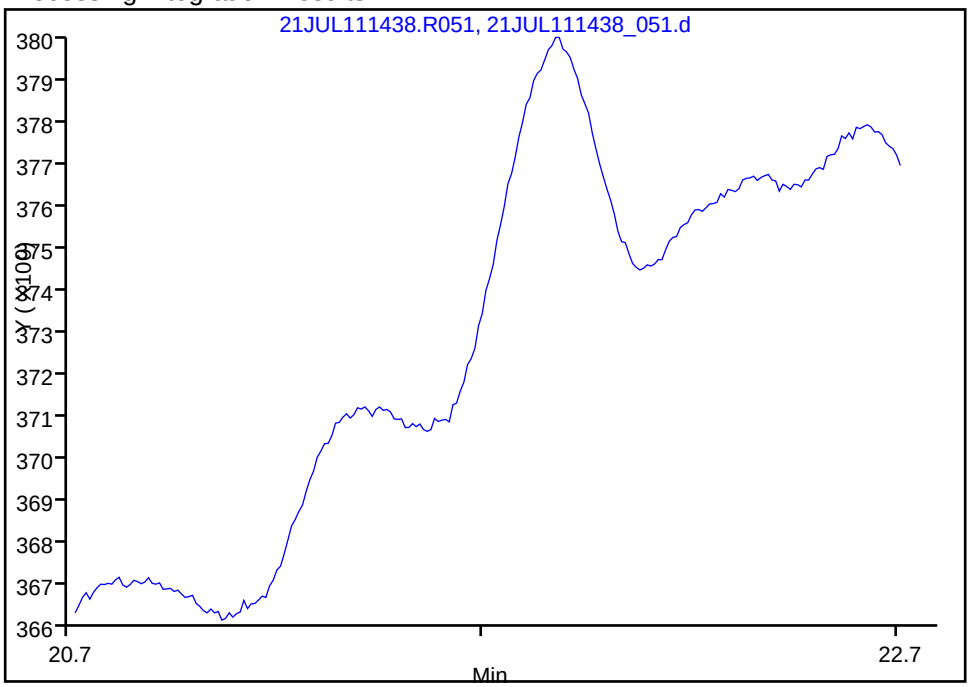
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

5 2,4,6-Trinitrotoluene, Signal: 1, Type: quant, RT: 21.71

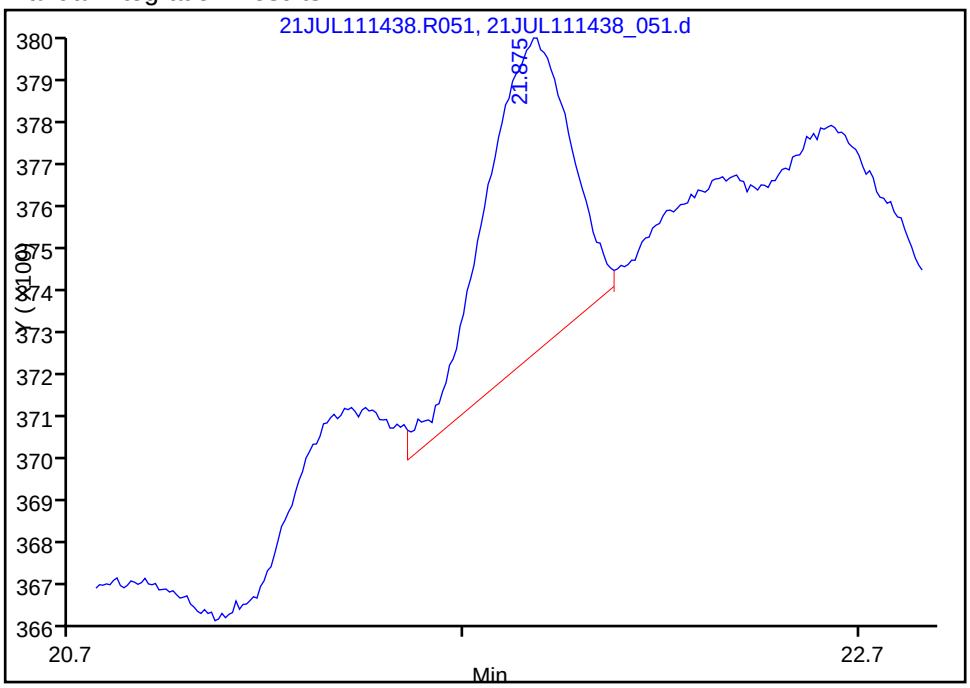
Not Detected
Expected RT: 21.71

Processing Integration Results



Manual Integration Results

RT: 21.87
Response: 11347
Amount: 13.320721



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

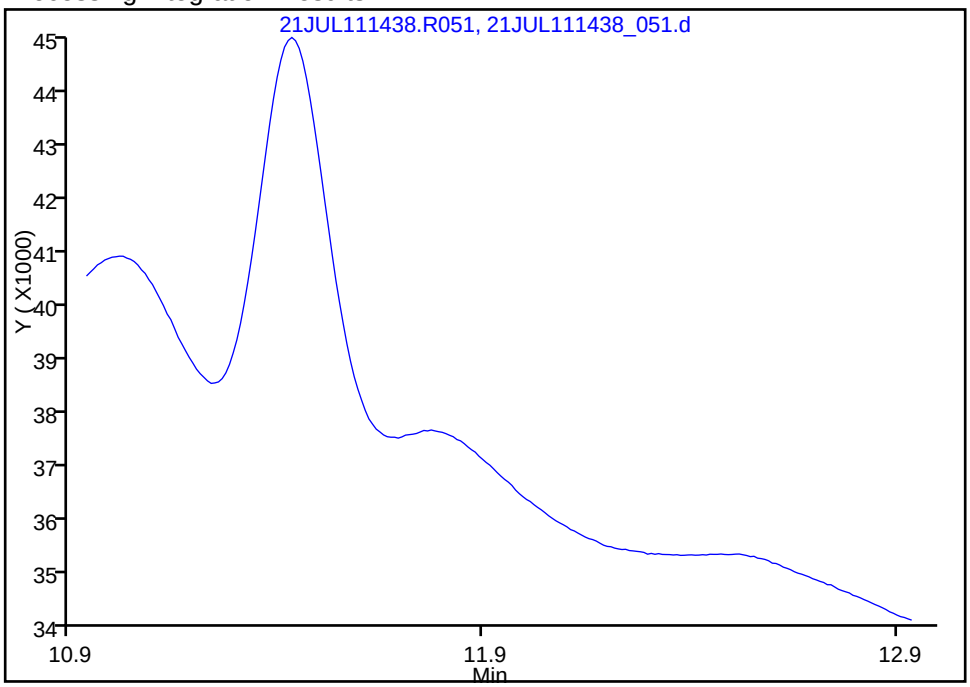
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

11 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 11.94

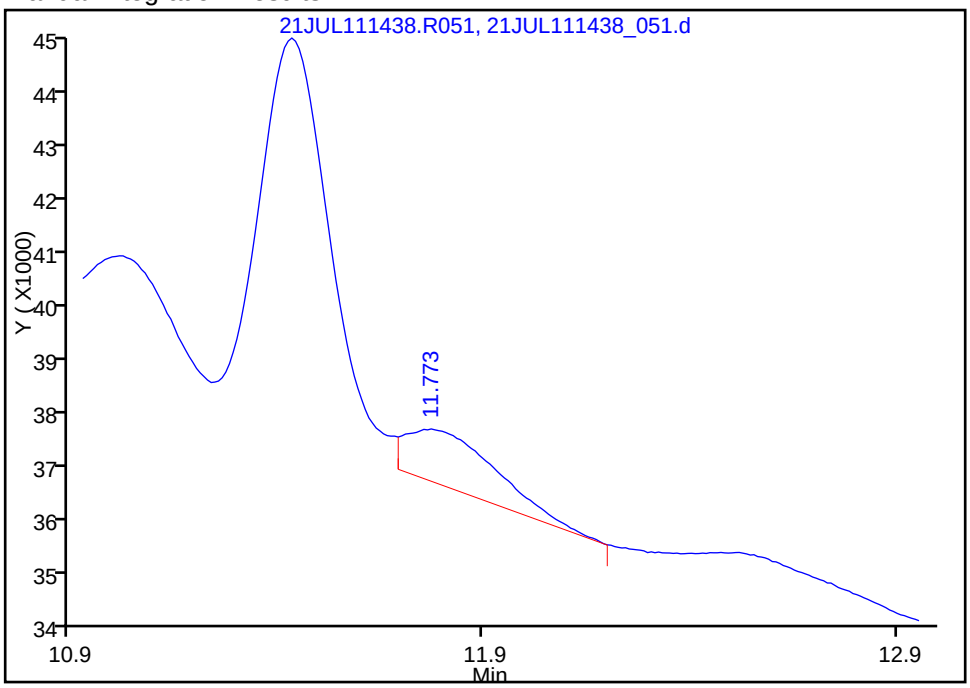
Processing Integration Results

Not Detected
Expected RT: 11.94



Manual Integration Results

RT: 11.77
Response: 14989
Amount: 13.070084



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

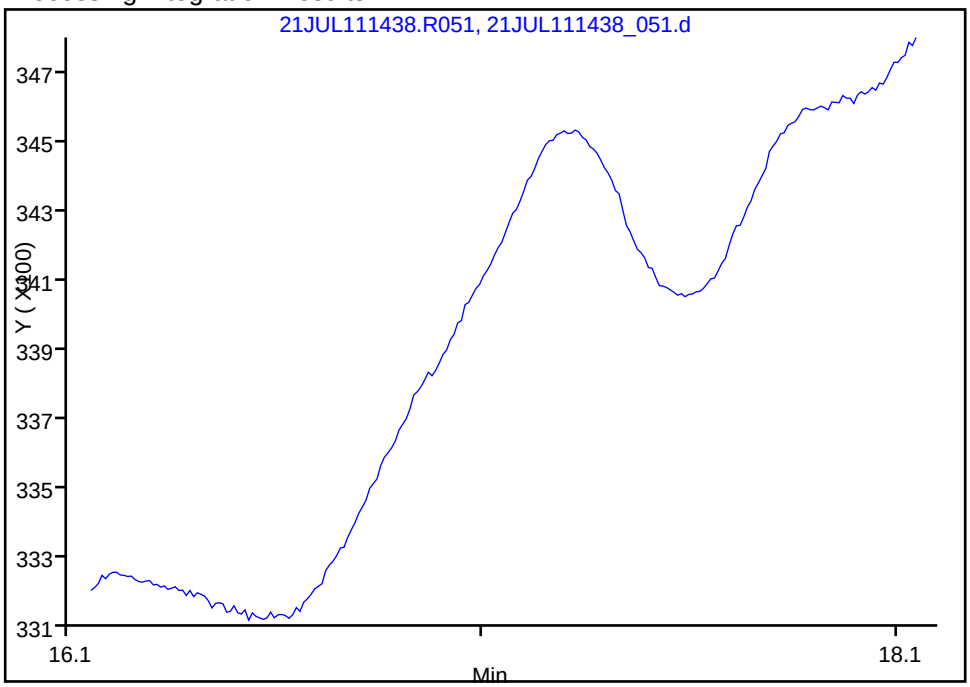
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

9 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 17.15

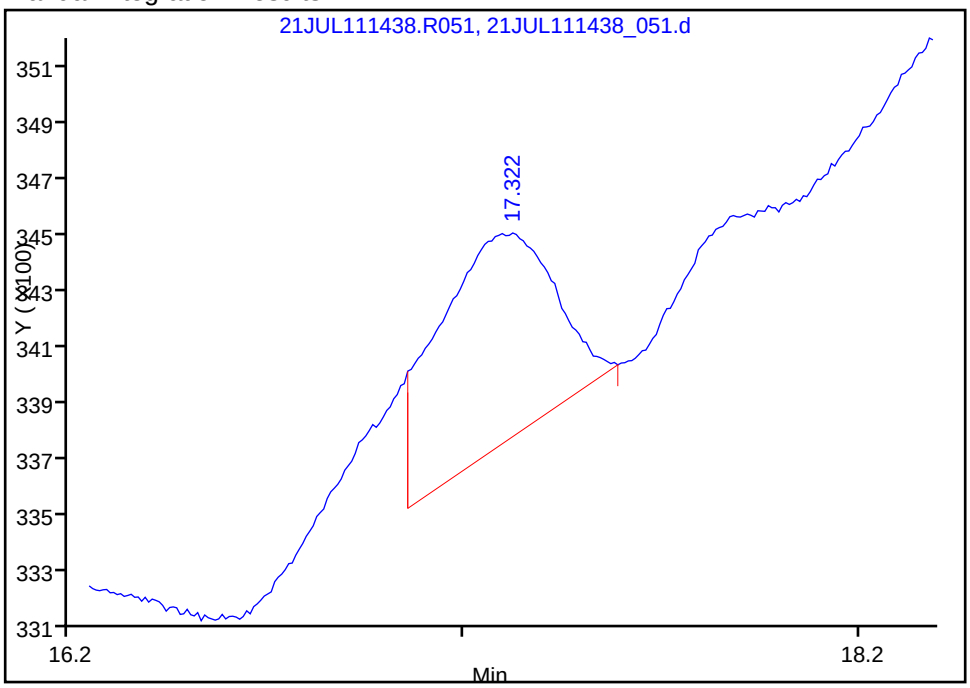
Not Detected
Expected RT: 17.15

Processing Integration Results



Manual Integration Results

RT: 17.32
Response: 14700
Amount: 20.558279



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

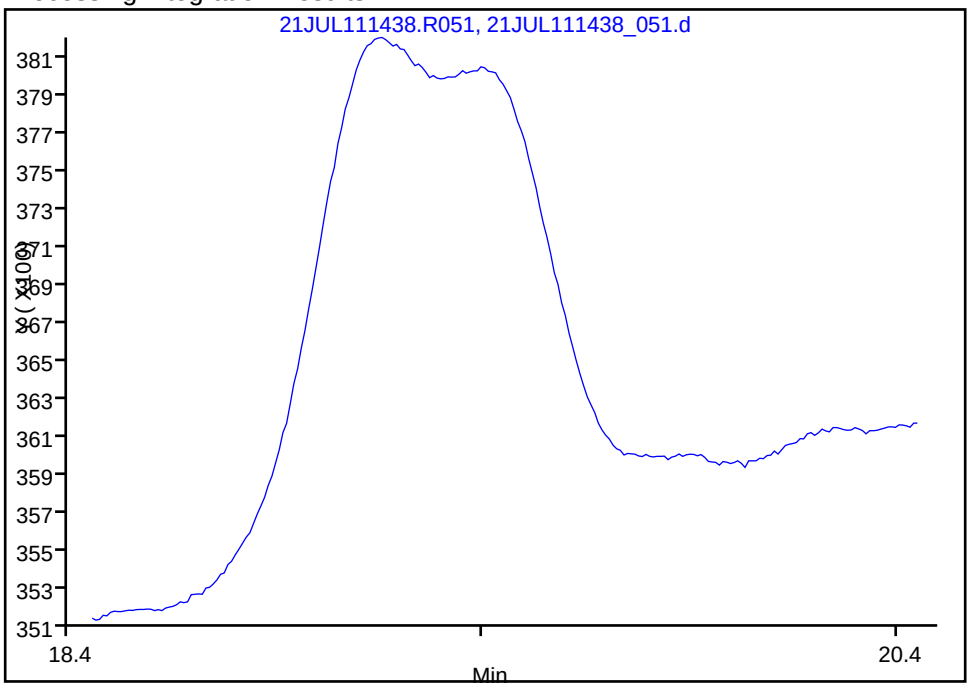
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

7 2,4-Dinitrotoluene, Signal: 1, Type: quant, RT: 19.46

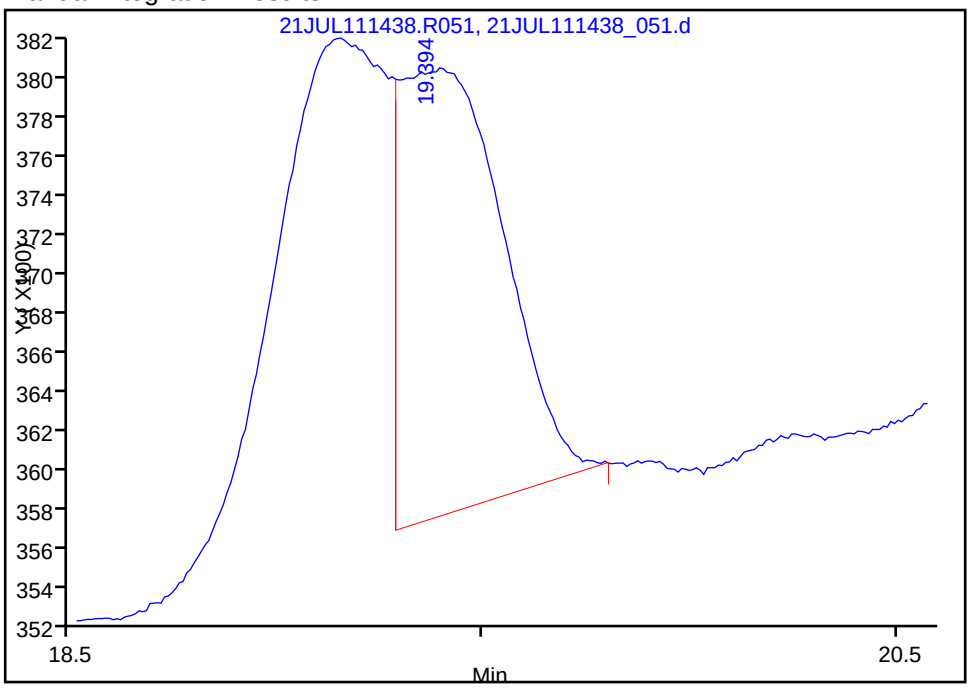
Not Detected
Expected RT: 19.46

Processing Integration Results



Manual Integration Results

RT: 19.39
Response: 38950
Amount: 37.708143



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

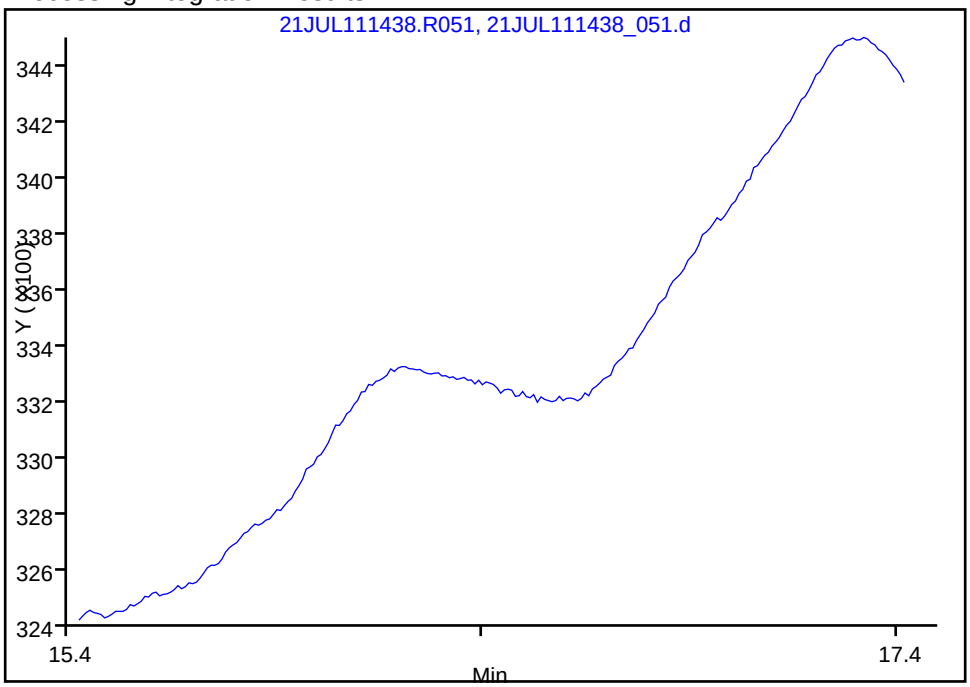
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

15 m-Nitrotoluene, Signal: 1, Type: quant, RT: 16.42

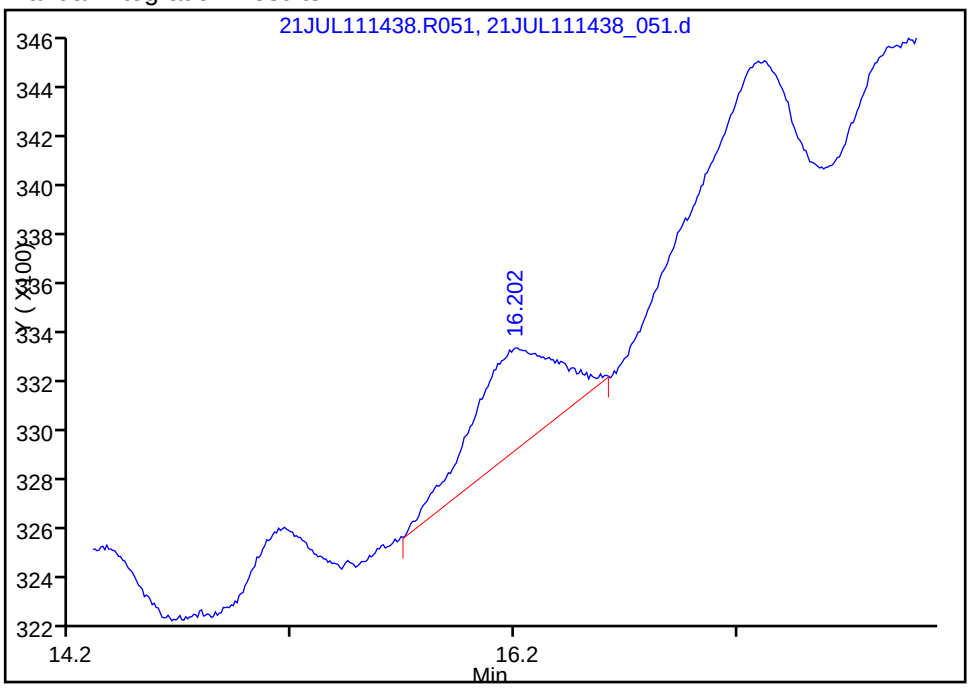
Not Detected
Expected RT: 16.42

Processing Integration Results



Manual Integration Results

RT: 16.20
Response: 11226
Amount: 44.472931



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

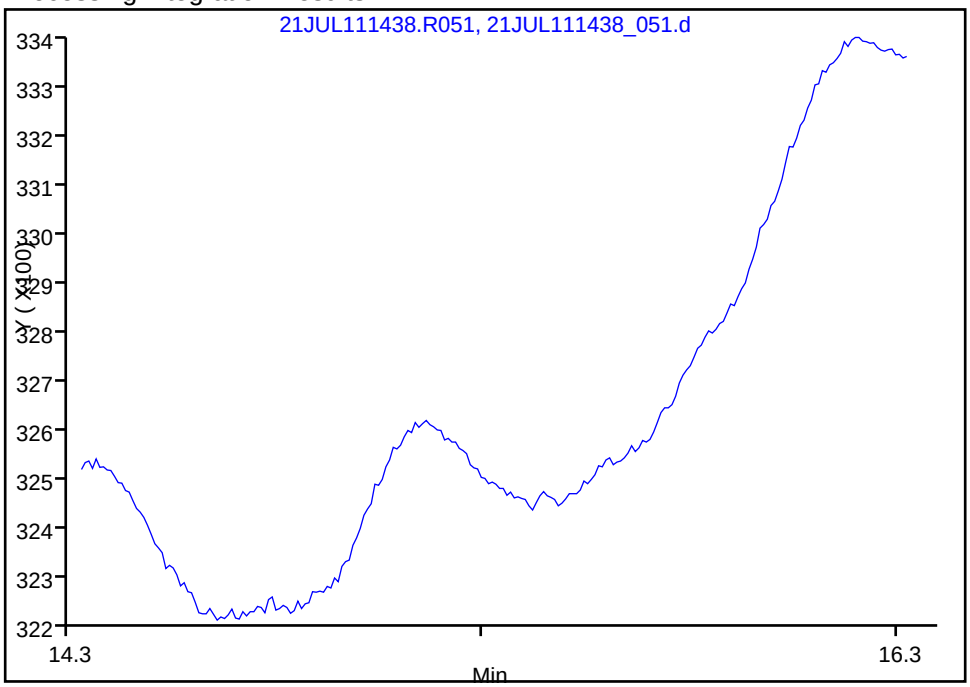
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_051.d		
Injection Date:	21-Jul-2011 18:50:00	Limit Group:	LC_8330B_Limits
Client ID:	WPR02-SS19	Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.33

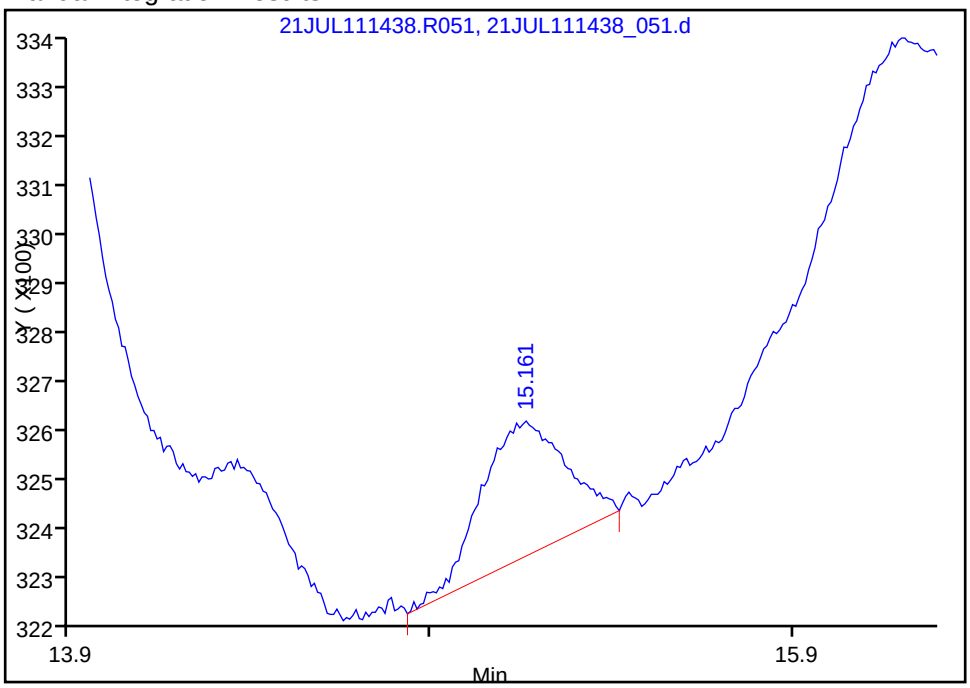
Not Detected
Expected RT: 15.33

Processing Integration Results



Manual Integration Results

RT: 15.16
Response: 4196
Amount: 310.2634



Reviewer: chirgwinb, 26-Jul-2011 11:06:55
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12556

SDG No.: 5916

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.683	9.665	9.683	9.683	9.674	9.674					9.577 - 9.777	9.677
HMX	10.697	10.697	10.697	10.697	10.697	10.697					10.597 - 10.797	10.697
2,4-diamino-6-nitrotoluene	11.115	11.106	11.106	11.106	11.106	11.106					11.007 - 11.207	11.108
RDX	14.369	14.360	14.369	14.360	14.360	14.360					14.263 - 14.463	14.363
Picric acid	15.392	15.392	15.392	15.374	15.374	15.356					15.280 - 15.480	15.380
1,3,5-Trinitrobenzene	16.130	16.130	16.130	16.121	16.121	16.121					16.025 - 16.225	16.126
1,3-Dinitrobenzene	17.366	17.366	17.366	17.357	17.357	17.348					17.260 - 17.460	17.360
Nitrobenzene	18.228	18.228	18.237	18.228	18.228	18.219					18.128 - 18.328	18.228
Tetryl	18.495	18.504	18.504	18.495	18.495	18.486					18.396 - 18.596	18.497
Nitroglycerin	19.233	19.242	19.251	19.242	19.242	19.224					19.139 - 19.339	19.239
2,4,6-Trinitrotoluene	19.686	19.686	19.695	19.678	19.686	19.669					19.584 - 19.784	19.683
4-Amino-2,6-dinitrotoluene	20.176	20.176	20.184	20.167	20.167	20.158					20.071 - 20.271	20.171
2-Amino-4,6-dinitrotoluene	20.540	20.549	20.558	20.540	20.549	20.531					20.445 - 20.645	20.545
2,6-Dinitrotoluene	20.878	20.869	20.878	20.869	20.869	20.851					20.769 - 20.969	20.869
2,4-Dinitrotoluene	21.136	21.136	21.145	21.136	21.136	21.118					21.034 - 21.234	21.135
2-Nitrotoluene	22.621	22.621	22.630	22.630	22.630	22.612					22.524 - 22.724	22.624
4-Nitrotoluene	23.350	23.368	23.368	23.368	23.368	23.350					23.262 - 23.462	23.362
3-Nitrotoluene	24.061	24.043	24.070	24.070	24.070	24.052					23.961 - 24.161	24.061
PETN		24.799	24.773	24.799	24.799	24.773					24.689 - 24.889	24.789
1,2-Dinitrobenzene	16.441	16.432	16.432	16.432	16.432	16.423					16.332 - 16.532	16.432

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12556

SDG No.: 5916

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	655.70 710.42	687.96 712.70	691.62	709.05	Lin1	-642.08311	712.552660							1.0000		0.9900
HMX	417.70 437.91	442.00 440.24	434.18	435.03	Lin1	-171.41763	439.309527							1.0000		0.9900
2,4-diamino-6-nitrotoluene	539.30 597.53	583.76 601.92	580.16	587.12	Lin1	-656.88864	600.023715							1.0000		0.9900
RDX	328.90 340.17	329.20 339.92	335.02	338.77	Lin1	-169.68963	340.081310							1.0000		0.9900
Picric acid	396.30 406.45	397.08 410.88	398.00	404.58	Lin1	-246.83049	409.124920							1.0000		0.9900
1,3,5-Trinitrobenzene	847.50 830.25	853.12 828.72	838.10	829.74	Lin1	322.015348	828.887904							1.0000		0.9900
1,3-Dinitrobenzene	830.20 807.78	803.20 807.15	806.26	811.40	Lin1	127.633527	807.424761							1.0000		0.9900
Nitrobenzene	272.90 273.17	276.64 273.89	276.76	272.83	Lin1	27.7708049	273.585084							1.0000		0.9900
Tetryl	584.30 593.87	605.12 592.27	593.52	592.79	Lin1	28.3660755	592.849750							1.0000		0.9900
Nitroglycerin	4.2850 4.2183	4.5240 4.2555	4.2540	4.2063	Lin1	38.2025352	4.23702478							1.0000		0.9900
2,4,6-Trinitrotoluene	566.60 575.98	568.24 577.17	563.52	572.40	Lin1	-206.34300	576.428604							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	671.80 706.66	691.00 707.48	692.02	699.43	Lin1	-436.42508	706.951569							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	615.00 643.37	623.48 644.24	636.74	637.31	Lin1	-373.28638	643.807685							1.0000		0.9900
2,6-Dinitrotoluene	424.40 422.29	419.80 429.62	421.50	424.88	Lin1	-117.39450	427.034379							1.0000		0.9900
2,4-Dinitrotoluene	627.30 623.49	606.84 616.79	613.44	609.87	Lin1	-57.988290	617.912005							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12556

SDG No.: 5916

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	218.50 185.26	200.84 184.25	183.74	185.77	Lin1	322.489768	184.030286							1.0000		0.9900
4-Nitrotoluene	113.10 116.33	120.88 116.04	116.38	115.87	Lin1	10.9506025	116.126216							1.0000		0.9900
3-Nitrotoluene	203.40 157.04	183.92 156.94	169.38	159.21	Lin1	545.449523	156.376080							1.0000		0.9900
PETN	 4.1227	3.6100 4.1880	4.2430	4.0510	Lin1	-194.04310	4.17487931							1.0000		0.9900
1,2-Dinitrobenzene	386.50 356.79	382.60 354.76	359.36	352.34	Lin1	391.224250	354.436221							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12556

SDG No.: 5916

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12556/2	24JAN111521_021.d
Level 2	IC 200-12556/3	24JAN111521_031.d
Level 3	IC 200-12556/4	24JAN111521_041.d
Level 4	ICRT 200-12556/5	24JAN111521_051.d
Level 5	IC 200-12556/6	24JAN111521_061.d
Level 6	IC 200-12556/7	24JAN111521_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6557 712698	17199	34581	141810	355209	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4177 440242	11050	21709	87005	218956	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5393 601919	14594	29008	117424	298763	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3289 339916	8230	16751	67754	170087	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	3963 410877	9927	19900	80915	203225	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	8475 828716	21328	41905	165948	415125	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8302 807154	20080	40313	162279	403891	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	2729 273885	6916	13838	54565	136583	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5843 592267	15128	29676	118557	296936	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	857 85110	2262	4254	16825	42183	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5666 577169	14206	28176	114479	287991	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6718 707480	17275	34601	139886	353330	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	6150 644235	15587	31837	127461	321687	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4244 429617	10495	21075	84975	211146	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	6273 616790	15171	30672	121974	311745	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	2185 184251	5021	9187	37153	92632	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12556

SDG No.: 5916

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 16:26 Calibration End Date: 01/24/2011 19:33 Calibration ID: 4446

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1131 116040	3022	5819	23173	58166	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	2034 156940	4598	8469	31842	78521	10.0 1000	25.0	50.0	200	500
PETN	Lin1	 83759	1805	4243	16204	41227	 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3865 354757	9565	17968	70468	178393	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_021.d		
Lims ID:	IC 2	Client ID:	
Inject. Date:	24-Jan-2011 16:26:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	200-0000366-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	2
Lims Batch ID:	12556	Lims Sample ID:	2
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R021		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:34:49

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	6557	10.1	
	3 HMX	10.697	10.697	0.0	4177	9.90	
	4 2,4-diamino-6-nitrotoluene	11.115	11.107	0.008	5393	10.1	
	7 RDX	14.369	14.363	0.006	3289	10.2	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	3963	10.3	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	8475	9.84	
$	10 1,2-Dinitrobenzene	16.441	16.432	0.009	3865	9.80	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	8302	10.1	
	12 Nitrobenzene	18.228	18.228	0.0	2729	9.87	
	13 Tetryl	18.495	18.496	-0.001	5843	9.81	
	14 Nitroglycerin	19.233	19.239	-0.006	857	193.2	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	5666	10.2	
	16 4-Amino-2,6-dinitrotoluene	20.176	20.171	0.005	6718	10.1	
	17 2-Amino-4,6-dinitrotoluene	20.540	20.545	-0.005	6150	10.1	
	18 2,6-Dinitrotoluene	20.878	20.869	0.009	4244	10.2	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	6273	10.2	
	20 o-Nitrotoluene	22.621	22.624	-0.003	2185	10.1	
	21 p-Nitrotoluene	23.350	23.362	-0.012	1131	9.65	
	22 m-Nitrotoluene	24.061	24.061	0.0	2034	9.52	
	23 PETN		24.789				1

QC Flag Legend

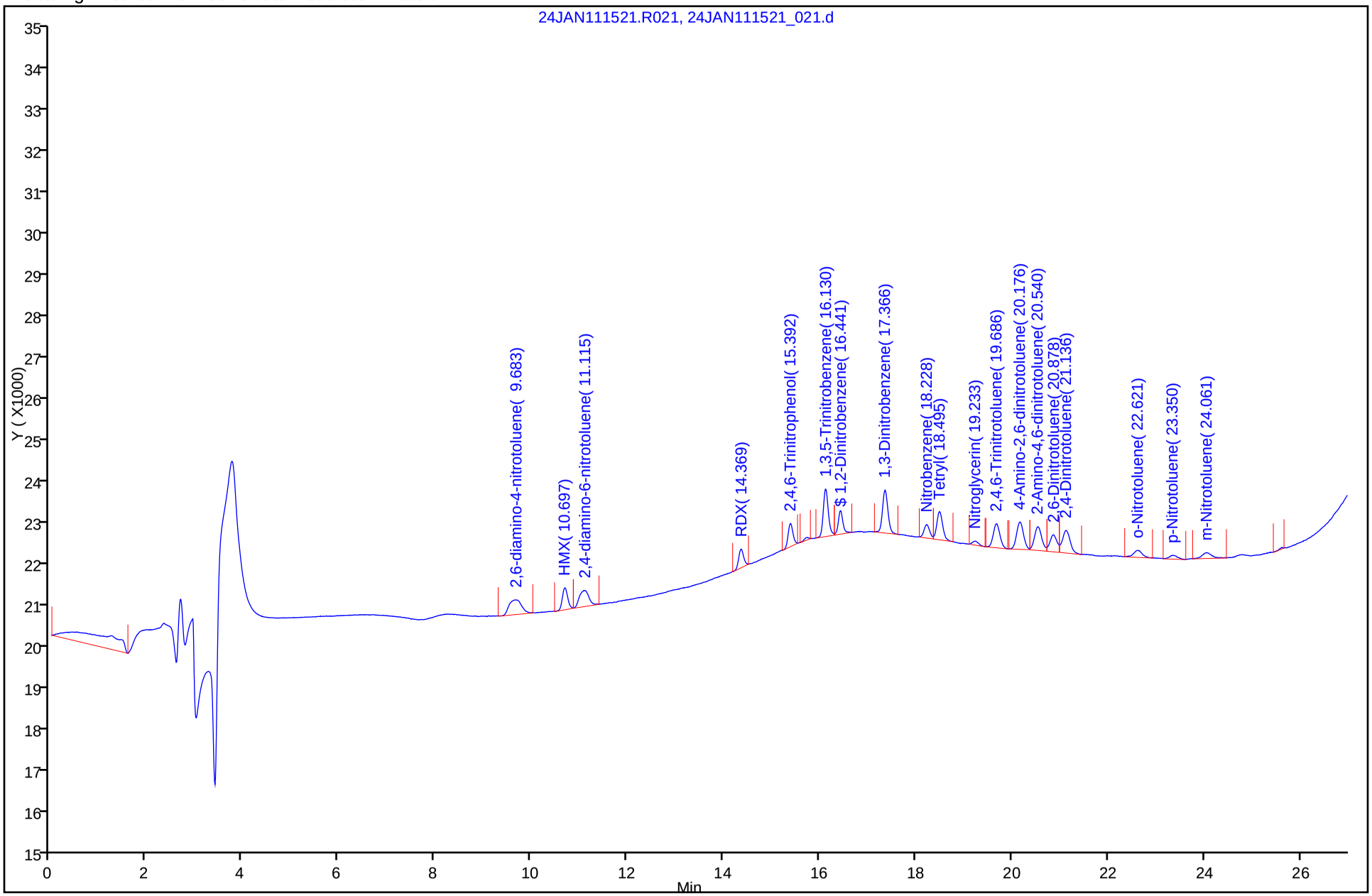
Processing Flags
1 - Missing Peaks

Report Date: 25-Jan-2011 09:28:42 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_021.d

Injection Date:	24-Jan-2011 16:26:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



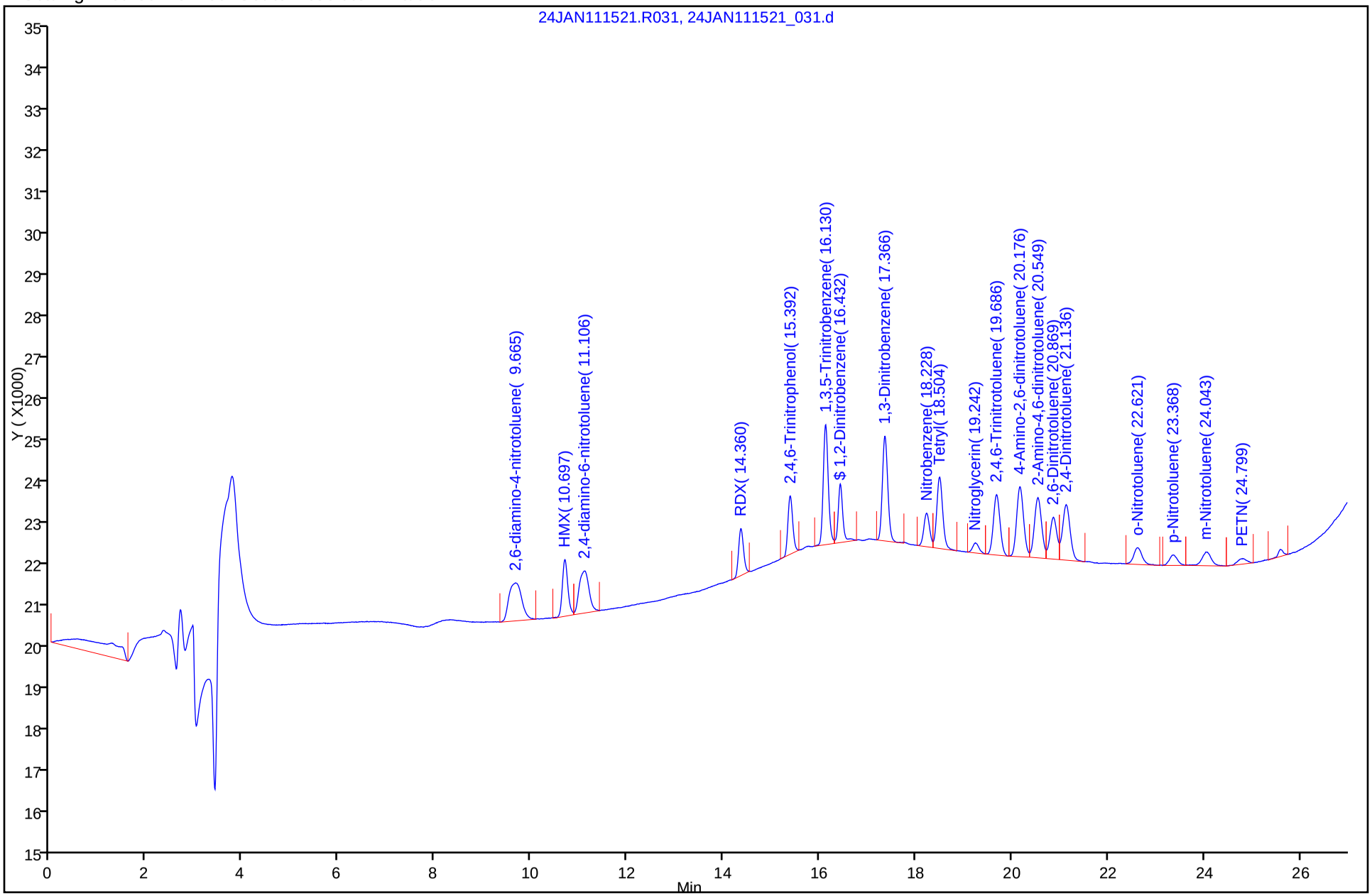
TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_031.d		
Lims ID:	IC 3	Client ID:	
Inject. Date:	24-Jan-2011 17:03:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	200-0000366-003		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	3
Lims Batch ID:	12556	Lims Sample ID:	3
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R031		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:37:04

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.665	9.677	-0.012	17199	25.0	
	3 HMX	10.697	10.697	0.0	11050	25.5	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	14594	25.4	
	7 RDX	14.360	14.363	-0.003	8230	24.7	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	9927	24.9	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	21328	25.3	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	9565	25.9	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	20080	24.7	
	12 Nitrobenzene	18.228	18.228	0.0	6916	25.2	
	13 Tetryl	18.504	18.496	0.008	15128	25.5	
	14 Nitroglycerin	19.242	19.239	0.003	2262	524.8	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	14206	25.0	
	16 4-Amino-2,6-dinitrotoluene	20.176	20.171	0.005	17275	25.1	
	17 2-Amino-4,6-dinitrotoluene	20.549	20.545	0.004	15587	24.8	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	10495	24.9	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	15171	24.6	
	20 o-Nitrotoluene	22.621	22.624	-0.003	5021	25.5	
	21 p-Nitrotoluene	23.368	23.362	0.006	3022	25.9	
	22 m-Nitrotoluene	24.043	24.061	-0.018	4598	25.9	
	23 PETN	24.799	24.789	0.010	1805	478.8	

Report Date: 25-Jan-2011 09:28:43 Chrom Revision: 1.2 17-Jan-2011 07:58:36
Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_031.d
Injection Date: 24-Jan-2011 17:03:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1208
Lims Batch ID: 12556 Lims Sample ID: 3
Operator ID: RJH Injection Vol: 150.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_041.d		
Lims ID:	IC 4	Client ID:	
Inject. Date:	24-Jan-2011 17:41:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	4
Sample ID:	200-0000366-004		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	4
Lims Batch ID:	12556	Lims Sample ID:	4
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R041		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:37:54

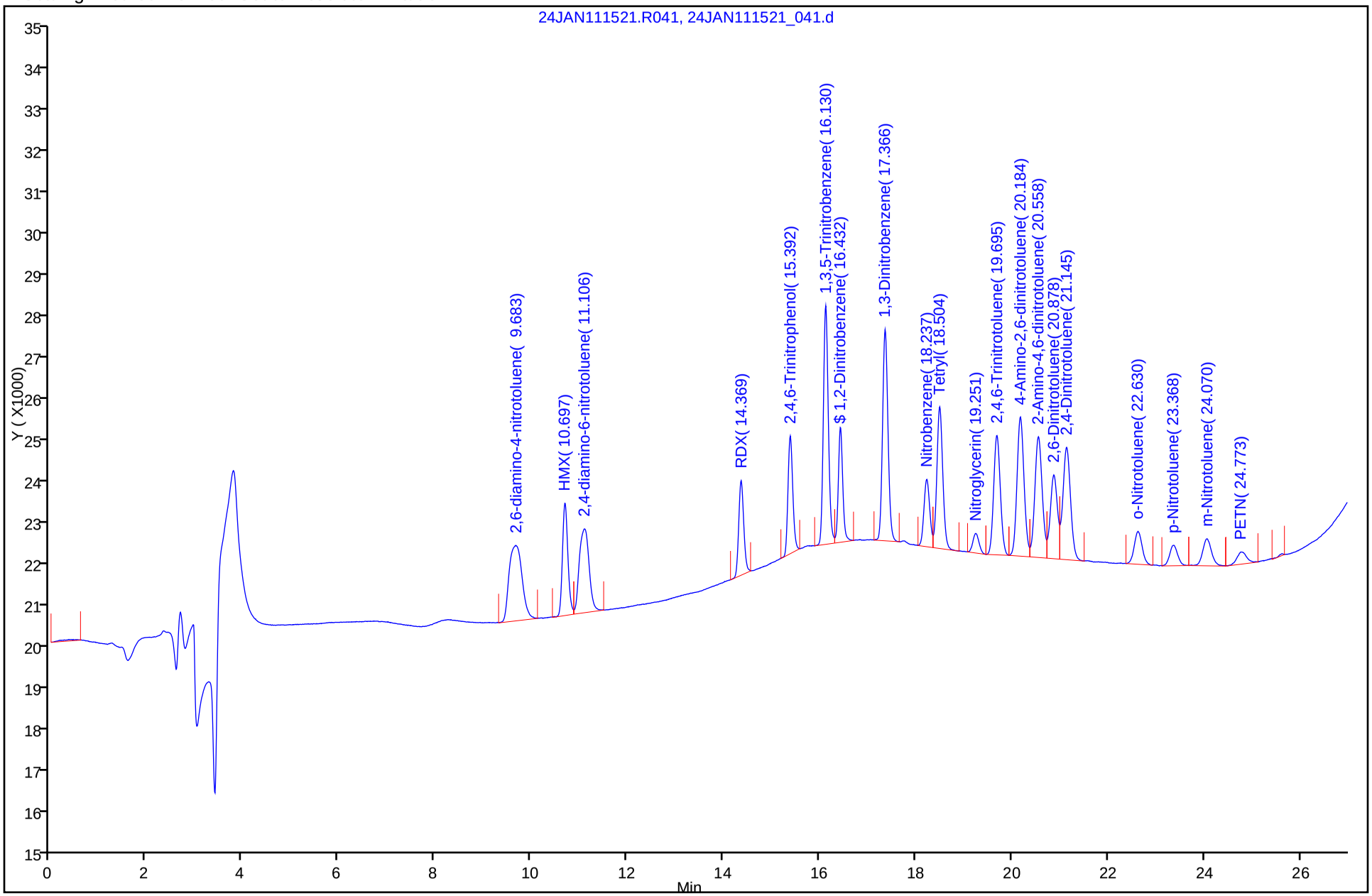
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	34581	49.4	
	3 HMX	10.697	10.697	0.0	21709	49.8	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	29008	49.4	
	7 RDX	14.369	14.363	0.006	16751	49.8	
	8 2,4,6-Trinitrophenol	15.392	15.380	0.012	19900	49.2	
	9 1,3,5-Trinitrobenzene	16.130	16.125	0.005	41905	50.2	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	17968	49.6	
	11 1,3-Dinitrobenzene	17.366	17.360	0.006	40313	49.8	
	12 Nitrobenzene	18.237	18.228	0.009	13838	50.5	
	13 Tetryl	18.504	18.496	0.008	29676	50.0	
	14 Nitroglycerin	19.251	19.239	0.012	4254	995.0	
	15 2,4,6-Trinitrotoluene	19.695	19.684	0.011	28176	49.2	
	16 4-Amino-2,6-dinitrotoluene	20.184	20.171	0.013	34601	49.6	
	17 2-Amino-4,6-dinitrotoluene	20.558	20.545	0.013	31837	50.0	
	18 2,6-Dinitrotoluene	20.878	20.869	0.009	21075	49.6	
	19 2,4-Dinitrotoluene	21.145	21.134	0.011	30672	49.7	
	20 o-Nitrotoluene	22.630	22.624	0.006	9187	48.2	
	21 p-Nitrotoluene	23.368	23.362	0.006	5819	50.0	
	22 m-Nitrotoluene	24.070	24.061	0.009	8469	50.7	
	23 PETN	24.773	24.789	-0.016	4243	1062.8	

Report Date: 25-Jan-2011 09:28:44 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_041.d

Injection Date:	24-Jan-2011 17:41:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_051.d		
Lims ID:	ICRTAV 5	Client ID:	
Inject. Date:	24-Jan-2011 18:18:00	Dil. Factor:	1.0000
Sample Type:	ICRTAV	Calib Level:	5
Sample ID:	200-0000366-005		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	12556	Lims Sample ID:	5
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:28:53	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: robinsonw		Date:	25-Jan-2011 08:42:50

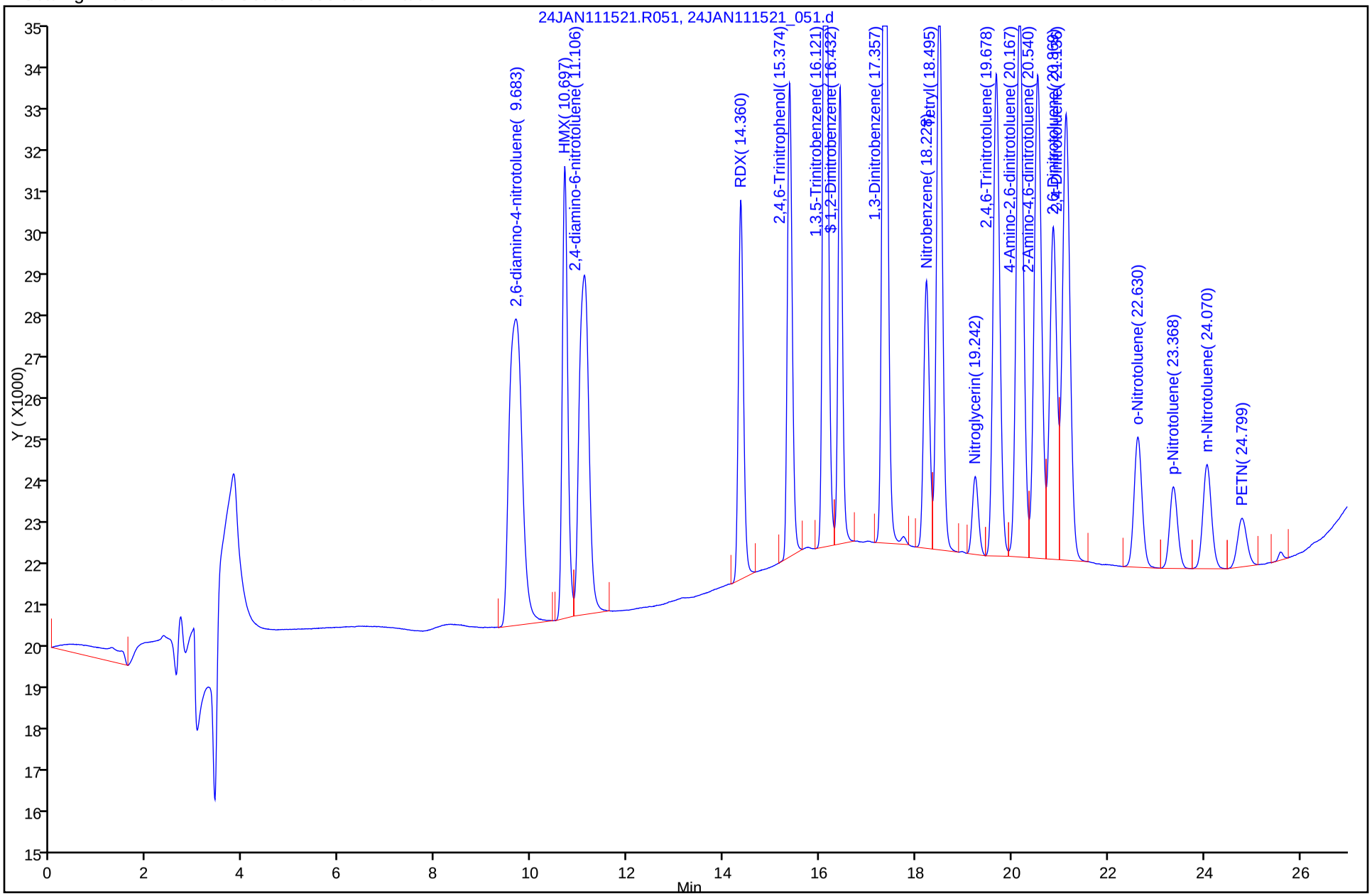
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.683	9.677	0.006	141810	199.9	
	3 HMX	10.697	10.697	0.0	87005	198.4	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	117424	196.8	
	7 RDX	14.360	14.363	-0.003	67754	199.7	
	8 2,4,6-Trinitrophenol	15.374	15.380	-0.006	80915	198.4	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	165948	199.8	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	70468	197.7	
	11 1,3-Dinitrobenzene	17.357	17.360	-0.003	162279	200.8	
	12 Nitrobenzene	18.228	18.228	0.0	54565	199.3	
	13 Tetryl	18.495	18.496	-0.001	118557	199.9	
	14 Nitroglycerin	19.242	19.239	0.003	16825	3961.9	
	15 2,4,6-Trinitrotoluene	19.678	19.684	-0.006	114479	199.0	
	16 4-Amino-2,6-dinitrotoluene	20.167	20.171	-0.004	139886	198.5	
	17 2-Amino-4,6-dinitrotoluene	20.540	20.545	-0.005	127461	198.6	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	84975	199.3	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	121974	197.5	
	20 o-Nitrotoluene	22.630	22.624	0.006	37153	200.1	
	21 p-Nitrotoluene	23.368	23.362	0.006	23173	199.5	
	22 m-Nitrotoluene	24.070	24.061	0.009	31842	200.1	
	23 PETN	24.799	24.789	0.010	16204	3927.8	

Report Date: 25-Jan-2011 09:42:37 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_051.d

Injection Date:	24-Jan-2011 18:18:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	5
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_061.d		
Lims ID:	IC 6	Client ID:	
Inject. Date:	24-Jan-2011 18:55:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	200-0000366-006		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	6
Lims Batch ID:	12556	Lims Sample ID:	6
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R061		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:48:18

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	355209	499.4	
	3 HMX	10.697	10.697	0.0	218956	498.8	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	298763	499.0	
	7 RDX	14.360	14.363	-0.003	170087	500.6	
	8 2,4,6-Trinitrophenol	15.374	15.380	-0.006	203225	497.3	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	415125	500.4	
$	10 1,2-Dinitrobenzene	16.432	16.432	0.0	178393	502.2	
	11 1,3-Dinitrobenzene	17.357	17.360	-0.003	403891	500.1	
	12 Nitrobenzene	18.228	18.228	0.0	136583	499.1	
	13 Tetryl	18.495	18.496	-0.001	296936	500.8	
	14 Nitroglycerin	19.242	19.239	0.003	42183	9946.8	
	15 2,4,6-Trinitrotoluene	19.686	19.684	0.002	287991	500.0	
	16 4-Amino-2,6-dinitrotoluene	20.167	20.171	-0.004	353330	500.4	
	17 2-Amino-4,6-dinitrotoluene	20.549	20.545	0.004	321687	500.2	
	18 2,6-Dinitrotoluene	20.869	20.869	0.0	211146	494.7	
	19 2,4-Dinitrotoluene	21.136	21.134	0.002	311745	504.6	
	20 o-Nitrotoluene	22.630	22.624	0.006	92632	501.6	
	21 p-Nitrotoluene	23.368	23.362	0.006	58166	500.8	
	22 m-Nitrotoluene	24.070	24.061	0.009	78521	498.6	
	23 PETN	24.799	24.789	0.010	41227	9921.5	

Report Date: 25-Jan-2011 09:28:45 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_061.d

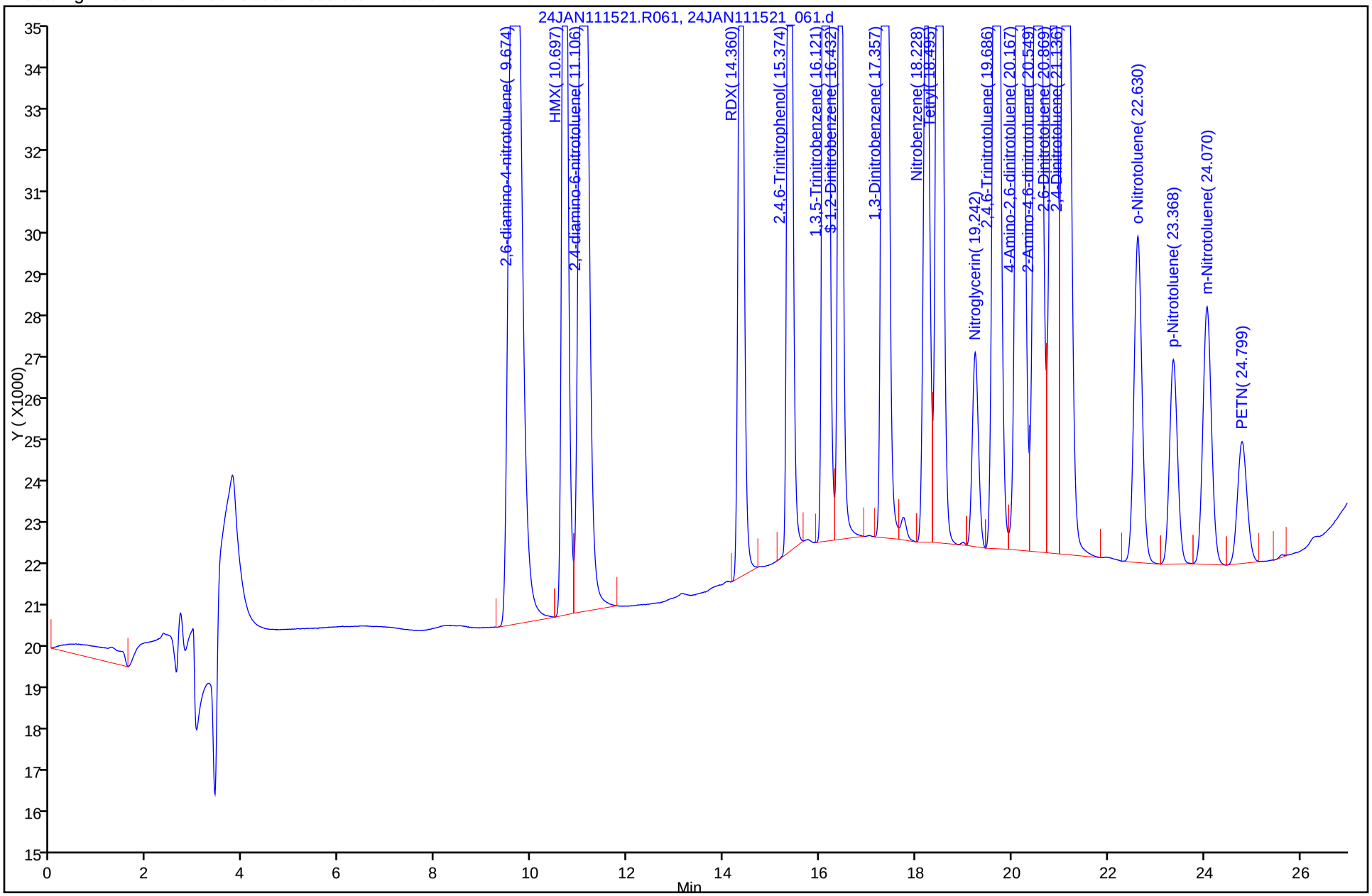
Injection Date: 24-Jan-2011 18:55:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 12556 Lims Sample ID: 6

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 09:28:46 Chrom Revision: 1.2 17-Jan-2011 07:58:36

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_071.d		
Lims ID:	IC 7	Client ID:	
Inject. Date:	24-Jan-2011 19:33:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	200-0000366-007		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	7
Lims Batch ID:	12556	Lims Sample ID:	7
Sublist:	chrom-8330_C18*sub1		
Detector:	A-24JAN111521.R071		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:27:54	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: robinsonw Date: 25-Jan-2011 08:49:03

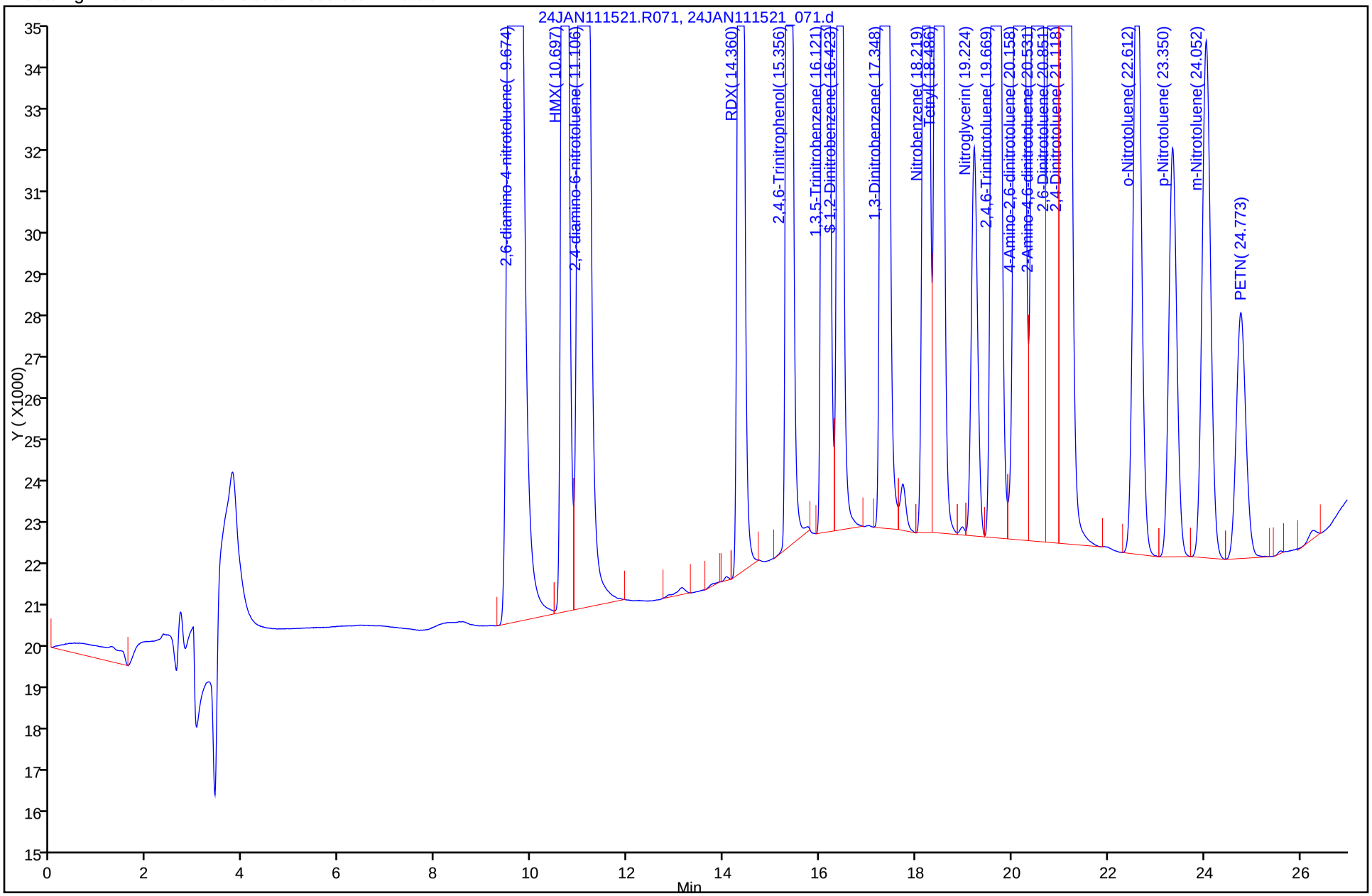
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	712698	1001.1	
	3 HMX	10.697	10.697	0.0	440242	1002.5	
	4 2,4-diamino-6-nitrotoluene	11.106	11.107	-0.001	601919	1004.3	
	7 RDX	14.360	14.363	-0.003	339916	1000.0	
	8 2,4,6-Trinitrophenol	15.356	15.380	-0.024	410877	1004.9	
	9 1,3,5-Trinitrobenzene	16.121	16.125	-0.004	828716	999.4	
$	10 1,2-Dinitrobenzene	16.423	16.432	-0.009	354757	999.8	
	11 1,3-Dinitrobenzene	17.348	17.360	-0.012	807154	999.5	
	12 Nitrobenzene	18.219	18.228	-0.009	273885	1001.0	
	13 Tetryl	18.486	18.496	-0.010	592267	999.0	
	14 Nitroglycerin	19.224	19.239	-0.015	85110	20078	
	15 2,4,6-Trinitrotoluene	19.669	19.684	-0.015	577169	1001.6	
	16 4-Amino-2,6-dinitrotoluene	20.158	20.171	-0.013	707480	1001.4	
	17 2-Amino-4,6-dinitrotoluene	20.531	20.545	-0.014	644235	1001.2	
	18 2,6-Dinitrotoluene	20.851	20.869	-0.018	429617	1006.3	
	19 2,4-Dinitrotoluene	21.118	21.134	-0.016	616790	998.3	
	20 o-Nitrotoluene	22.612	22.624	-0.012	184251	999.4	
	21 p-Nitrotoluene	23.350	23.362	-0.012	116040	999.2	
	22 m-Nitrotoluene	24.052	24.061	-0.009	156940	1000.1	
	23 PETN	24.773	24.789	-0.016	83759	20109	

Report Date: 25-Jan-2011 09:28:46 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_071.d

Injection Date:	24-Jan-2011 19:33:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	12556	Lims Sample ID:	7
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12535

SDG No.: 5916

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,4-diamino-6-nitrotoluene	4.588	4.579	4.588	4.588	4.597	4.597					4.488 - 4.688	4.590
2,6-diamino-4-nitrotoluene	4.588	4.579	4.588	4.588	4.597	4.597					4.488 - 4.688	4.590
HMX	5.486	5.495	5.495	5.495	5.495	5.495					5.395 - 5.595	5.494
RDX	6.545	6.527	6.518	6.527	6.536	6.536					6.431 - 6.631	6.532
Picric acid	7.336	7.309	7.283	7.292	7.292	7.283					7.099 - 7.499	7.299
Nitroglycerin	9.515	9.532	9.524	9.532	9.532	9.541					9.429 - 9.629	9.529
Nitrobenzene	10.937	10.955	10.946	10.964	10.964	10.973					10.857 - 11.057	10.957
4-Amino-2,6-dinitrotoluene	11.916	11.907	11.916	11.916	11.924	11.933					11.818 - 12.018	11.919
2-Amino-4,6-dinitrotoluene	12.129	12.129	12.138	12.138	12.147	12.156					12.039 - 12.239	12.140
1,3-Dinitrobenzene	13.872	13.863	13.872	13.881	13.881	13.890					13.776 - 13.976	13.877
2-Nitrotoluene	15.143	15.170	15.188	15.188	15.188	15.197					15.088 - 15.288	15.179
PETN		15.481	15.472	15.464	15.472	15.472					15.368 - 15.568	15.472
3-Nitrotoluene	16.468	16.459	16.459	16.459	16.468	16.477					16.365 - 16.565	16.465
4-Nitrotoluene	16.468	16.459	16.459	16.459	16.468	16.477					16.365 - 16.565	16.465
2,6-Dinitrotoluene	17.197	17.197	17.197	17.197	17.197	17.206					17.099 - 17.299	17.199
1,3,5-Trinitrobenzene	18.478	18.451	18.460	18.442	18.425	18.407					18.344 - 18.544	18.444
2,4-Dinitrotoluene	19.518	19.509	19.518	19.518	19.518	19.518					19.417 - 19.617	19.517
Tetryl	19.518	19.509	19.518	19.518	19.518	19.518					19.417 - 19.617	19.517
2,4,6-Trinitrotoluene	21.786	21.759	21.777	21.768	21.768	21.768					21.671 - 21.871	21.771
1,2-Dinitrobenzene	11.426	11.409	11.426	11.426	11.426	11.435					11.325 - 11.525	11.425

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12535

SDG No.: 5916

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,4-diamino-6-nitrotoluene	901.75 1096.3	899.64 1090.4	988.97	1071.4	Lin1	-6110.6104	1093.62680							1.0000		0.9900
2,6-diamino-4-nitrotoluene	901.75 1096.3	899.64 1090.4	988.97	1071.4	Lin1	-6110.6104	1093.62680							1.0000		0.9900
HMX	733.90 847.94	698.72 835.44	762.12	823.67	Lin1	-2007.1412	839.831287							1.0000		0.9900
RDX	548.30 581.95	558.96 573.50	556.26	577.22	Lin1	-382.54343	576.741883							1.0000		0.9900
Picric acid	595.50 713.62	677.84 704.27	643.36	700.95	Lin1	-1267.9206	708.091610							1.0000		0.9900
Nitroglycerin	6.5650 7.9725	7.9800 7.7246	8.0230	7.7583	Lin1	-107.70958	7.82135175							1.0000		0.9900
Nitrobenzene	569.70 454.89	438.80 447.21	450.36	453.97	Lin1	745.910925	448.270327							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	1150.8 1138.1	1142.5 1121.0	1126.5	1120.7	Lin1	279.518702	1125.43131							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	1365.6 1233.6	1234.4 1208.7	1210.3	1246.6	Lin1	1163.10664	1217.29768							1.0000		0.9900
1,3-Dinitrobenzene	1340.3 1394.0	1329.2 1384.9	1357.3	1395.3	Lin1	-811.25239	1389.54707							1.0000		0.9900
2-Nitrotoluene	249.50 316.00	311.00 320.41	304.72	317.59	Lin1	-596.12221	319.895089							1.0000		0.9900
PETN	 8.5131	10.152 8.3567	11.316	8.8020	Lin1	1610.67006	8.33269436							0.9980		0.9900
3-Nitrotoluene	252.85 252.88	260.34 253.40	247.16	248.37	Lin1	-9.0495680	252.626694							1.0000		0.9900
4-Nitrotoluene	252.85 252.88	260.34 253.40	247.16	248.37	Lin1	-9.0495680	252.626694							1.0000		0.9900
2,6-Dinitrotoluene	683.90 739.14	726.76 735.47	732.06	727.90	Lin1	-443.90069	736.632719							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12535

SDG No.: 5916

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
1,3,5-Trinitrobenzene	1424.6 1439.0	1439.5 1427.5	1424.9	1422.0	Lin1	-24.796783	1430.29848							1.0000		0.9900
2,4-Dinitrotoluene	1049.8 1045.8	1018.8 1035.4	1027.3	1035.8	Lin1	-204.10323	1038.34611							1.0000		0.9900
Tetryl	1049.8 1045.8	1018.8 1035.4	1027.3	1035.8	Lin1	-204.10323	1038.34611							1.0000		0.9900
2,4,6-Trinitrotoluene	839.50 826.63	859.16 816.42	828.18	817.57	Lin1	437.384266	818.995907							1.0000		0.9900
1,2-Dinitrobenzene	714.30 601.71	584.96 594.14	603.16	593.74	Lin1	743.701683	594.509686							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12535

SDG No.: 5916

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-12535/2	24JAN111214_021.d
Level 2	IC 200-12535/3	24JAN111214_031.d
Level 3	IC 200-12535/4	24JAN111214_041.d
Level 4	ICRT 200-12535/5	24JAN111214_051.d
Level 5	IC 200-12535/6	24JAN111214_061.d
Level 6	IC 200-12535/7	24JAN111214_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-diamino-6-nitrotoluene	Lin1	18035 2180774	44982	98897	428551	1096345	20.0 2000	50.0	100	400	1000
2,6-diamino-4-nitrotoluene	Lin1	18035 2180774	44982	98897	428551	1096345	20.0 2000	50.0	100	400	1000
HMX	Lin1	7339 835440	17468	38106	164734	423969	10.0 1000	25.0	50.0	200	500
RDX	Lin1	5483 573503	13974	27813	115443	290973	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	5955 704265	16946	32168	140190	356812	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	1313 154492	3990	8023	31033	79725	200 20000	500	1000	4000	10000
Nitrobenzene	Lin1	5697 447213	10970	22518	90794	227446	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	11508 1121006	28563	56323	224139	569033	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	13656 1208685	30859	60514	249327	616814	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	13403 1384917	33229	67867	279053	697005	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	2495 320412	7775	15236	63518	158000	10.0 1000	25.0	50.0	200	500
PETN	Lin1	 167133	5076	11316	35208	85131	 20000	500	1000	4000	10000
3-Nitrotoluene	Lin1	5057 506807	13017	24716	99347	252879	20.0 2000	50.0	100	400	1000
4-Nitrotoluene	Lin1	5057 506807	13017	24716	99347	252879	20.0 2000	50.0	100	400	1000
2,6-Dinitrotoluene	Lin1	6839 735466	18169	36603	145579	369570	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	14246 1427535	35988	71247	284398	719520	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-5916-1 Analy Batch No.: 12535

SDG No.: 5916

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2011 13:27 Calibration End Date: 01/24/2011 16:18 Calibration ID: 4454

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-Dinitrotoluene	Lin1	20996 2070853	50939	102728	414327	1045828	20.0 2000	50.0	100	400	1000
Tetryl	Lin1	20996 2070853	50939	102728	414327	1045828	20.0 2000	50.0	100	400	1000
2,4,6-Trinitrotoluene	Lin1	8395 816421	21479	41409	163513	413315	10.0 1000	25.0	50.0	200	500
1,2-Dinitrobenzene	Lin1	7143 594135	14624	30158	118747	300855	10.0 1000	25.0	50.0	200	500

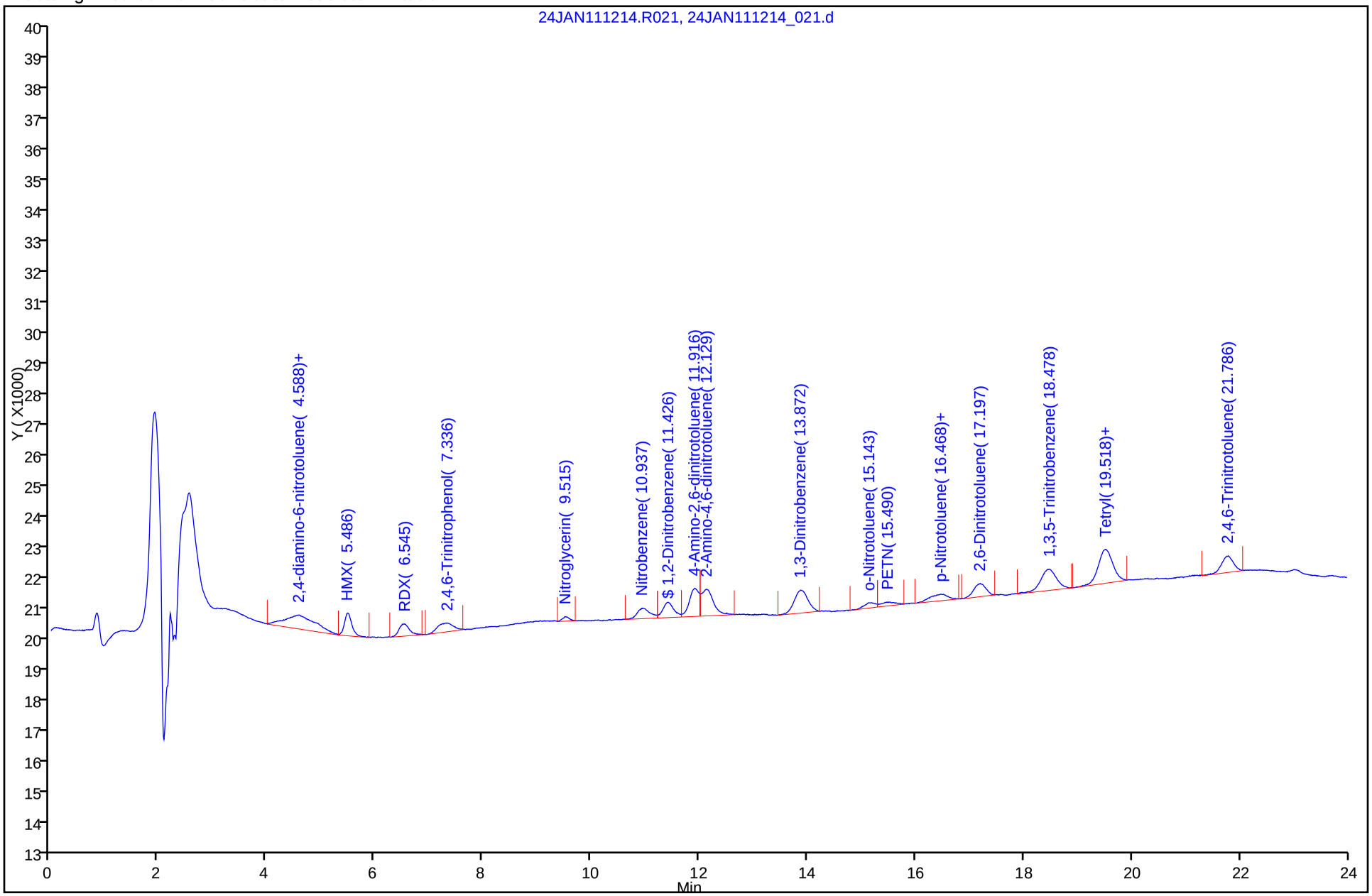
Curve Type Legend:
Lin1 = Linear 1/conc

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_021.d		
Lims ID:	IC 2	Client ID:	
Inject. Date:	24-Jan-2011 13:27:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	2
Sample ID:	200-0000363-002		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	2
Lims Batch ID:	12535	Lims Sample ID:	2
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R021		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:35:19

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	18035	22.1	
	6 2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	18035	22.1	
	14 HMX	5.486	5.495	-0.009	7339	11.1	
	22 RDX	6.545	6.531	0.014	5483	10.2	
	4 2,4,6-Trinitrophenol	7.336	7.299	0.037	5955	10.2	
	18 Nitroglycerin	9.515	9.529	-0.014	1313	181.6	
	17 Nitrobenzene	10.937	10.957	-0.020	5697	11.0	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	7143	10.8	
	11 4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	11508	9.98	
	10 2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	13656	10.3	
	3 1,3-Dinitrobenzene	13.872	13.876	-0.004	13403	10.2	
	19 o-Nitrotoluene	15.143	15.188	-0.045	2495	9.66	
	21 PETN	15.490	15.468	0.022	2385	92.9	
	15 m-Nitrotoluene	16.468	16.465	0.003	5057	20.1	
	20 p-Nitrotoluene	16.468	16.465	0.003	5057	20.1	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	6839	9.89	
	2 1,3,5-Trinitrobenzene	18.478	18.444	0.034	14246	9.98	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	20996	20.4	
	23 Tetryl	19.518	19.517	0.001	20996	20.4	
	5 2,4,6-Trinitrotoluene	21.786	21.771	0.015	8395	9.72	

Report Date: 25-Jan-2011 13:05:55 Chrom Revision: 1.2 17-Jan-2011 07:58:36
Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_021.d
Injection Date: 24-Jan-2011 13:27:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 12535 Lims Sample ID: 2
Operator ID: WBR Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value

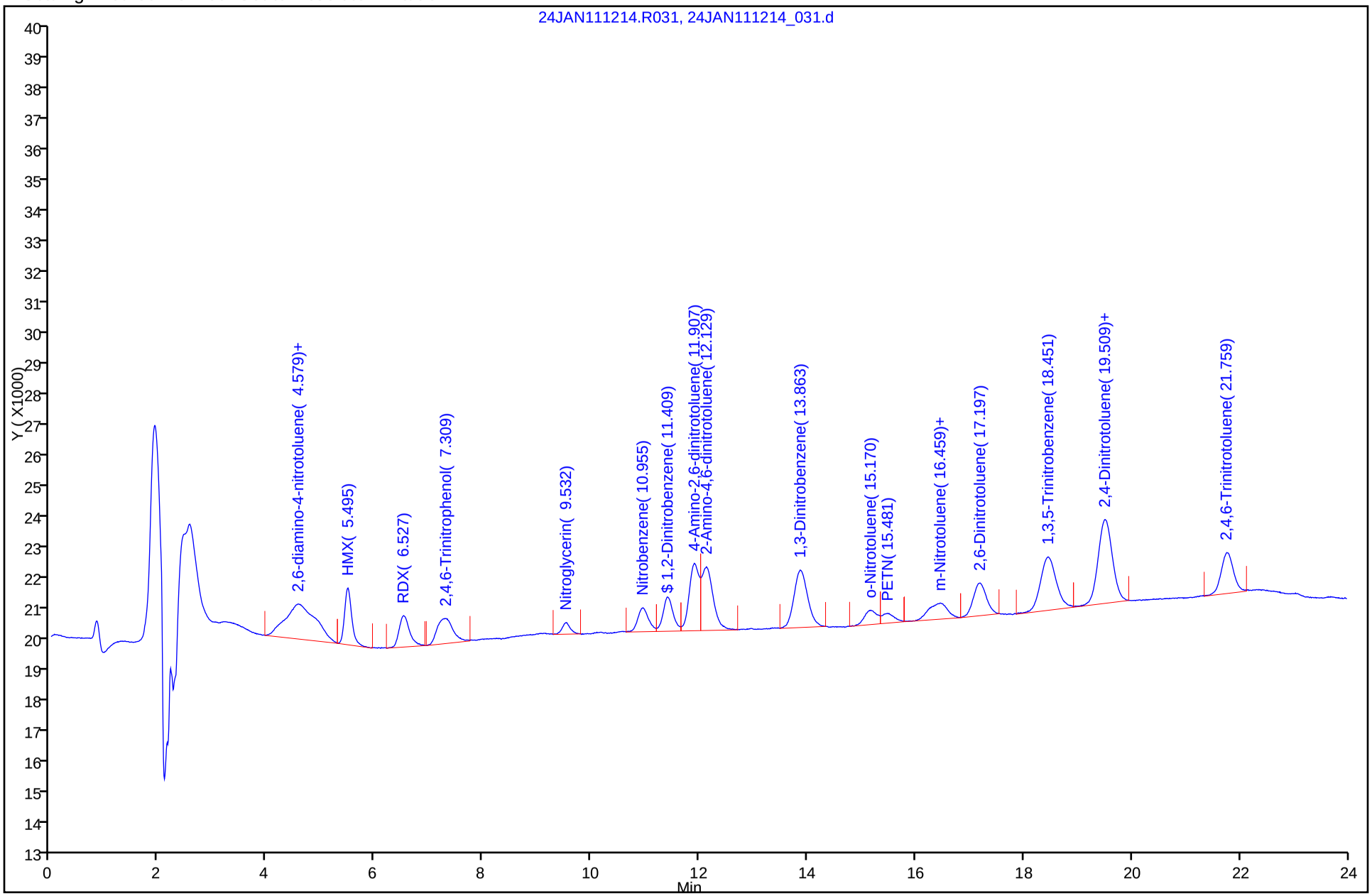


TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_031.d		
Lims ID:	IC 3	Client ID:	
Inject. Date:	24-Jan-2011 14:02:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	3
Sample ID:	200-0000363-003		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	3
Lims Batch ID:	12535	Lims Sample ID:	3
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R031		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:33:37

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.579	4.588	-0.009	44982	46.7	
	6 2,4-diamino-6-nitrotoluene	4.579	4.588	-0.009	44982	46.7	
	14 HMX	5.495	5.495	0.0	17468	23.2	
	22 RDX	6.527	6.531	-0.004	13974	24.9	
	4 2,4,6-Trinitrophenol	7.309	7.299	0.010	16946	25.7	
	18 Nitroglycerin	9.532	9.529	0.003	3990	523.9	
	17 Nitrobenzene	10.955	10.957	-0.002	10970	22.8	
$	1 1,2-Dinitrobenzene	11.409	11.425	-0.016	14624	23.3	
	11 4-Amino-2,6-dinitrotoluene	11.907	11.918	-0.011	28563	25.1	
	10 2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	30859	24.4	
	3 1,3-Dinitrobenzene	13.863	13.876	-0.013	33229	24.5	
	19 o-Nitrotoluene	15.170	15.188	-0.018	7775	26.2	
	21 PETN	15.481	15.468	0.013	5076	415.9	
	15 m-Nitrotoluene	16.459	16.465	-0.006	13017	51.6	
	20 p-Nitrotoluene	16.459	16.465	-0.006	13017	51.6	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	18169	25.3	
	2 1,3,5-Trinitrobenzene	18.451	18.444	0.007	35988	25.2	
	7 2,4-Dinitrotoluene	19.509	19.517	-0.008	50939	49.3	
	23 Tetryl	19.509	19.517	-0.008	50939	49.3	
	5 2,4,6-Trinitrotoluene	21.759	21.771	-0.012	21479	25.7	

Report Date: 25-Jan-2011 13:05:56 Chrom Revision: 1.2 17-Jan-2011 07:58:36
Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_031.d
Injection Date: 24-Jan-2011 14:02:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 12535 Lims Sample ID: 3
Operator ID: WBR Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Lims ID:	IC 4	Client ID:	
Inject. Date:	24-Jan-2011 14:36:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	4
Sample ID:	200-0000363-004		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	4
Lims Batch ID:	12535	Lims Sample ID:	4
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R041		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:20:05

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	98897	96.0	M
	6 2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	98897	96.0	M
	14 HMX	5.495	5.495	0.0	38106	47.8	M
	22 RDX	6.518	6.531	-0.013	27813	48.9	
	4 2,4,6-Trinitrophenol	7.283	7.299	-0.016	32168	47.2	
	18 Nitroglycerin	9.524	9.529	-0.005	8023	1039.6	
	17 Nitrobenzene	10.946	10.957	-0.011	22518	48.6	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	30158	49.5	
	11 4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	56323	49.8	
	10 2-Amino-4,6-dinitrotoluene	12.138	12.139	-0.001	60514	48.8	
	3 1,3-Dinitrobenzene	13.872	13.876	-0.004	67867	49.4	
	19 o-Nitrotoluene	15.188	15.188	0.0	15236	49.5	
	21 PETN	15.472	15.468	0.004	11316	1164.7	
	15 m-Nitrotoluene	16.459	16.465	-0.006	24716	97.9	
	20 p-Nitrotoluene	16.459	16.465	-0.006	24716	97.9	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	36603	50.3	
	2 1,3,5-Trinitrobenzene	18.460	18.444	0.016	71247	49.8	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	102728	99.1	
	23 Tetryl	19.518	19.517	0.001	102728	99.1	
	5 2,4,6-Trinitrotoluene	21.777	21.771	0.006	41409	50.0	

QC Flag Legend

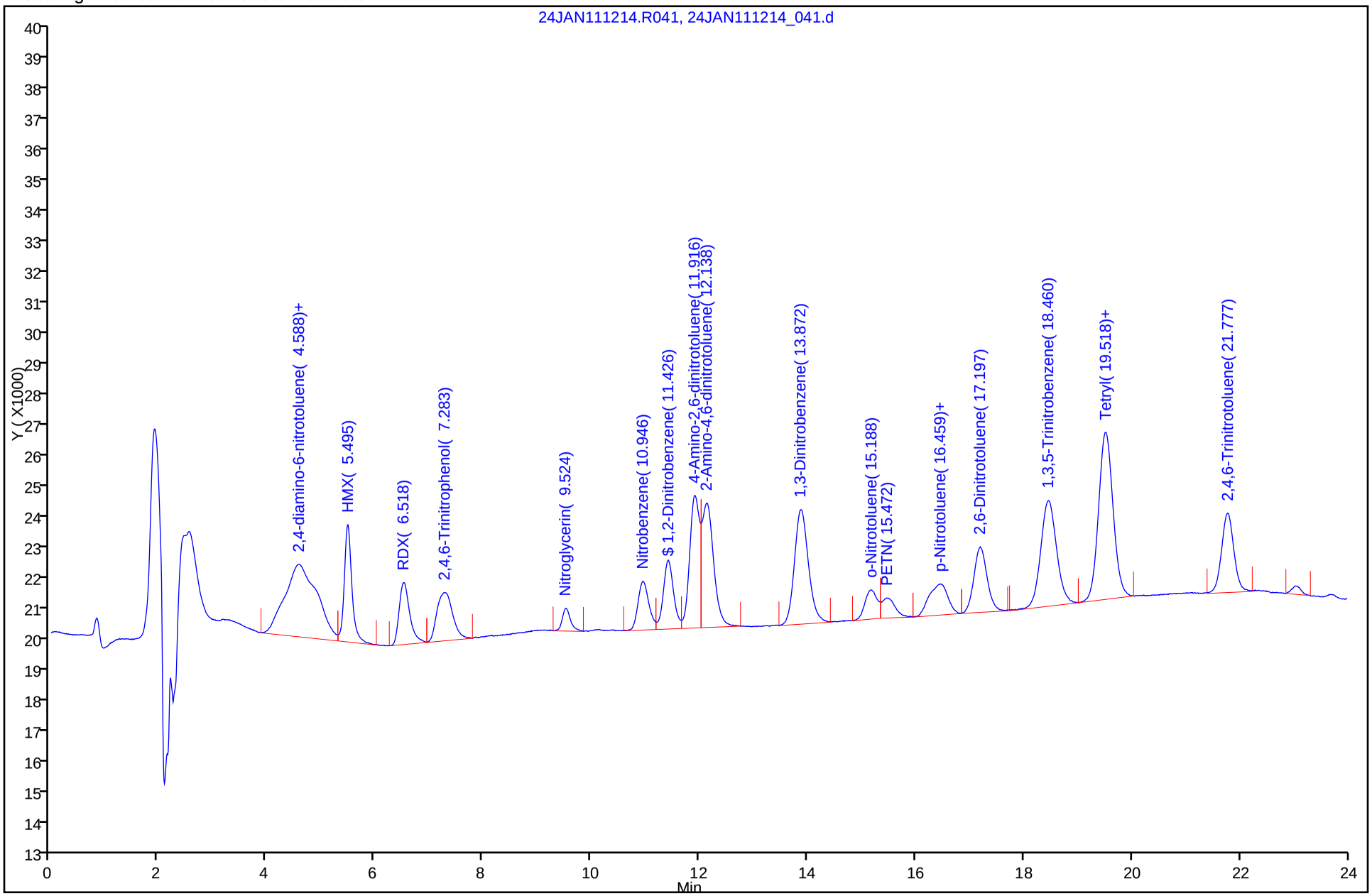
Review Flags
M - Manually Integrated

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d

Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



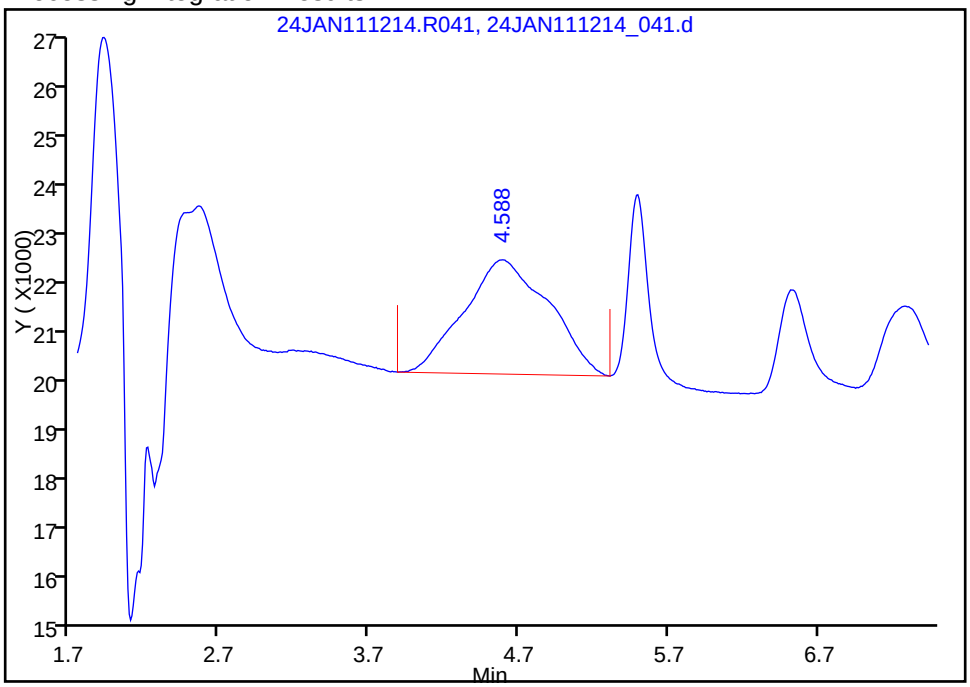
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

6 2,4-diamino-6-nitrotoluene, Signal: 1, Type: quant, RT: 4.59

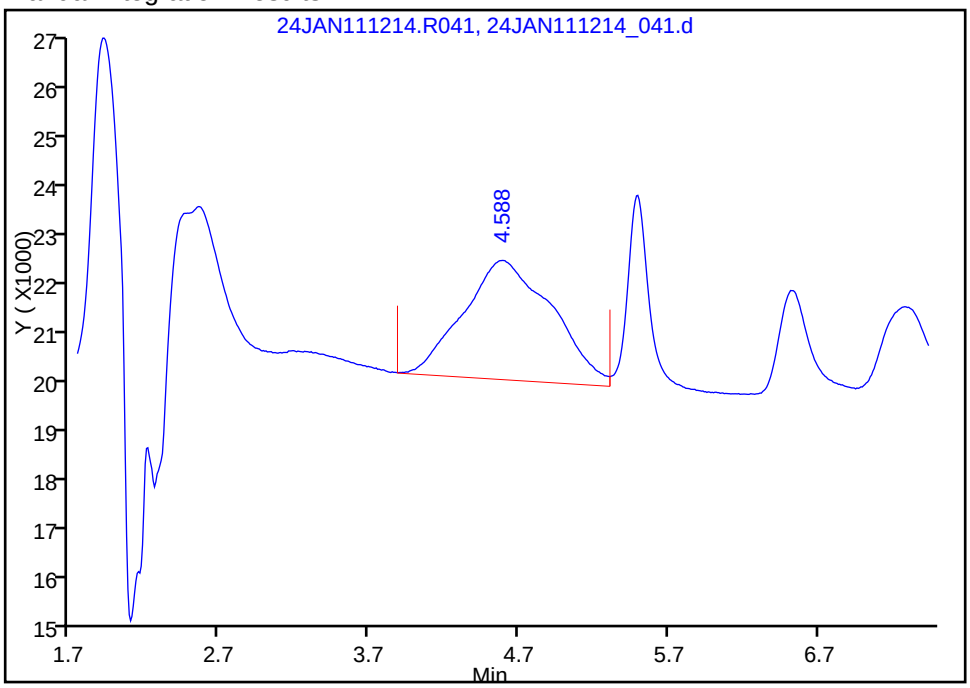
Processing Integration Results

RT: 4.59
Response: 90318
Amount: 89.119729



Manual Integration Results

RT: 4.59
Response: 98897
Amount: 96.017774



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

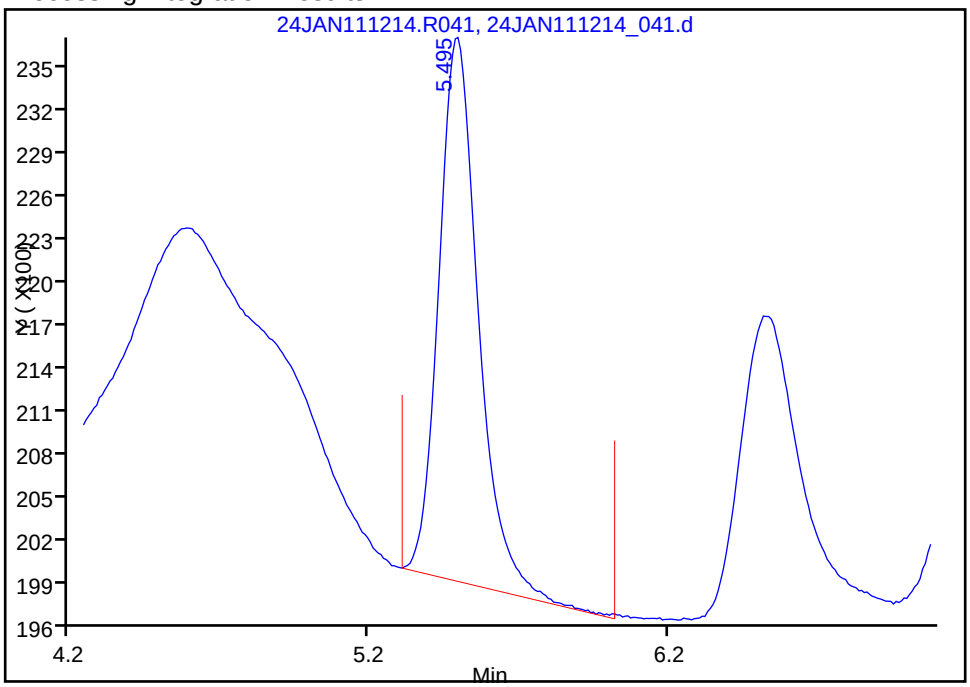
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

14 HMX, Signal: 1, Type: quant, RT: 5.50

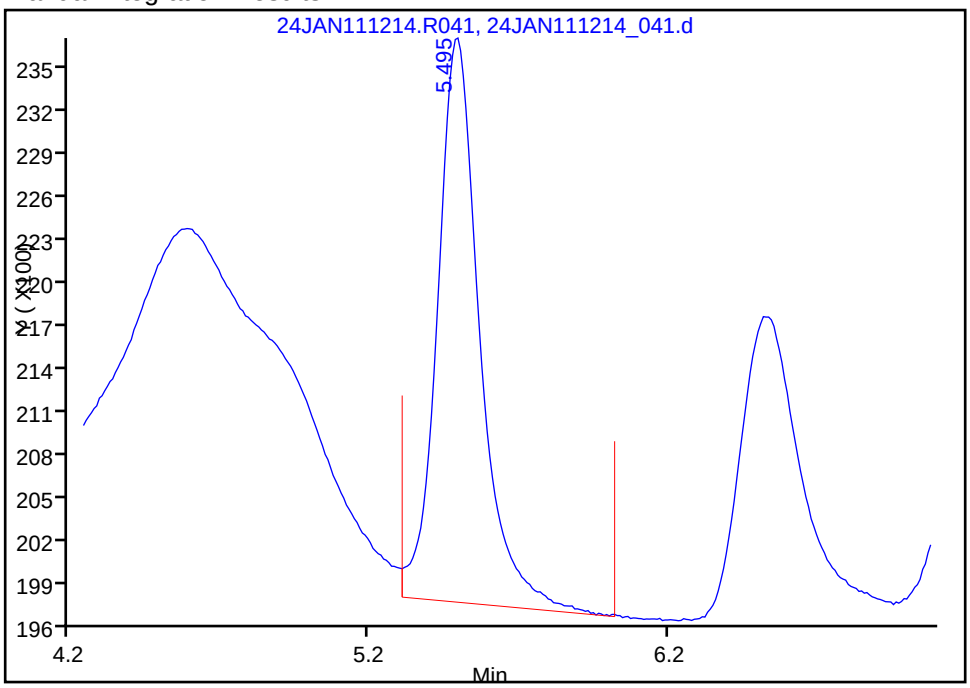
Processing Integration Results

RT: 5.50
Response: 34371
Amount: 43.852037



Manual Integration Results

RT: 5.50
Response: 38106
Amount: 47.763333



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:57 Chrom Revision: 1.2 17-Jan-2011 07:58:36

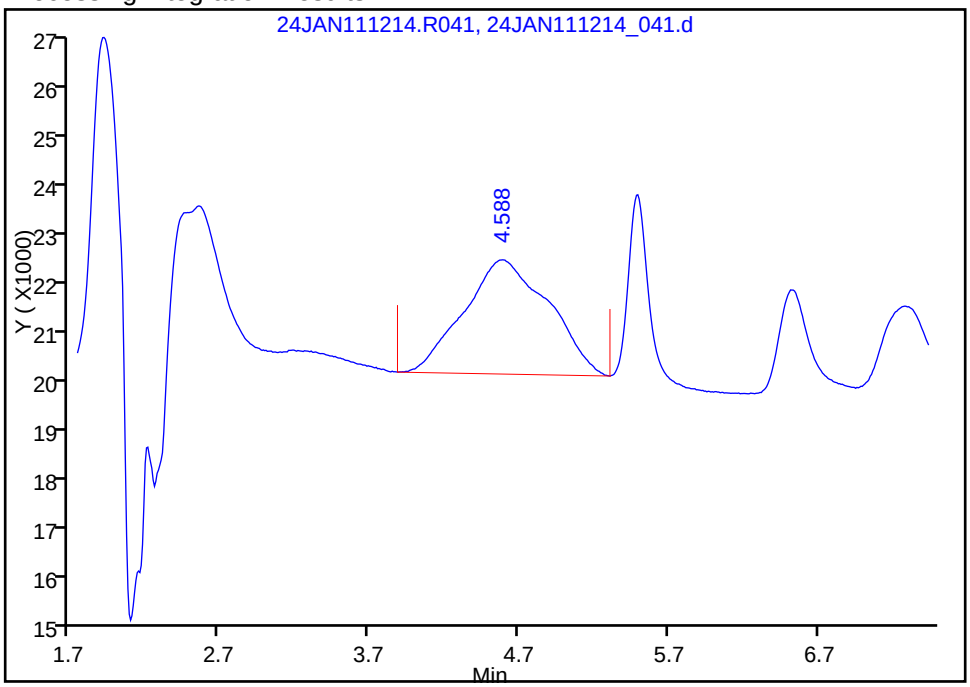
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_041.d		
Injection Date:	24-Jan-2011 14:36:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	4
Operator ID:	WBR	Injection Vol:	450.00 ul

8 2,6-diamino-4-nitrotoluene, Signal: 1, Type: quant, RT: 4.59

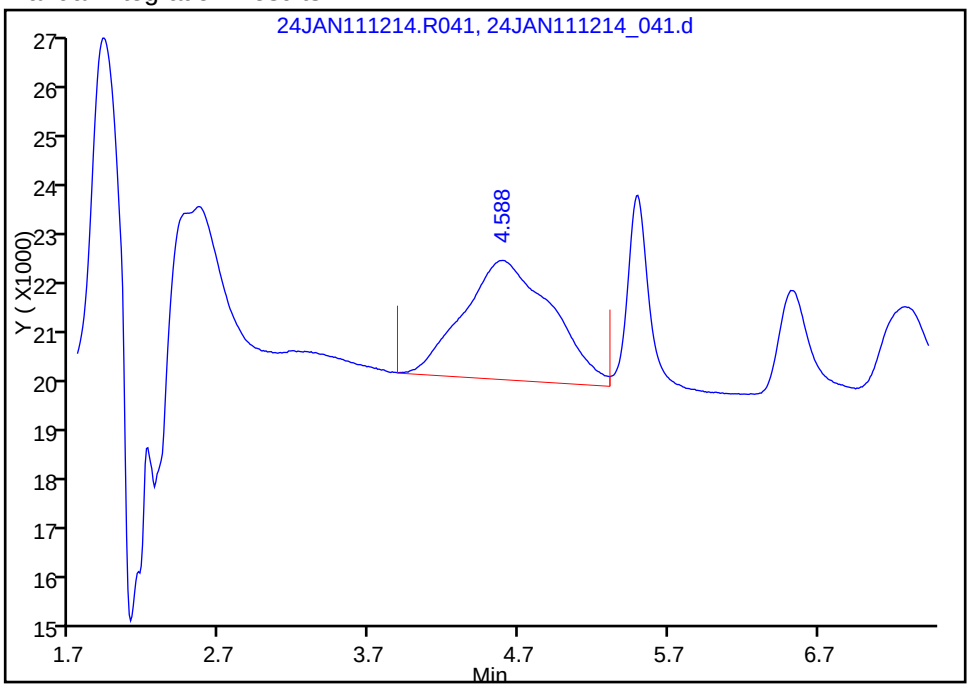
Processing Integration Results

RT: 4.59
Response: 90318
Amount: 89.119729



Manual Integration Results

RT: 4.59
Response: 98897
Amount: 96.017774



Reviewer: hammondr, 25-Jan-2011 11:48:47
Audit Action: Assigned New Baseline
Audit Reason: Baseline Event

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Lims ID:	ICRTAV 5	Client ID:	
Inject. Date:	24-Jan-2011 15:10:00	Dil. Factor:	1.0000
Sample Type:	ICRTAV	Calib Level:	5
Sample ID:	200-0000363-005		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	5
Lims Batch ID:	12535	Lims Sample ID:	5
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R051		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: hammondr Date: 25-Jan-2011 11:26:21

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8	2,6-diamino-4-nitrotoluene	4.588	4.588	0.0	428551	397.4	
6	2,4-diamino-6-nitrotoluene	4.588	4.588	0.0	428551	397.4	
14	HMX	5.495	5.495	0.0	164734	198.5	
22	RDX	6.527	6.531	-0.004	115443	200.8	
4	2,4,6-Trinitrophenol	7.292	7.299	-0.007	140190	199.8	
18	Nitroglycerin	9.532	9.529	0.003	31033	3981.5	
17	Nitrobenzene	10.964	10.957	0.007	90794	200.9	
$ 1	1,2-Dinitrobenzene	11.426	11.425	0.001	118747	198.5	
11	4-Amino-2,6-dinitrotoluene	11.916	11.918	-0.002	224139	198.9	
10	2-Amino-4,6-dinitrotoluene	12.138	12.139	-0.001	249327	203.9	
3	1,3-Dinitrobenzene	13.881	13.876	0.005	279053	201.4	
19	o-Nitrotoluene	15.188	15.188	0.0	63518	200.4	M
21	PETN	15.464	15.468	-0.004	35208	4032.0	A
15	m-Nitrotoluene	16.459	16.465	-0.006	99347	393.3	
20	p-Nitrotoluene	16.459	16.465	-0.006	99347	393.3	
9	2,6-Dinitrotoluene	17.197	17.199	-0.002	145579	198.2	
2	1,3,5-Trinitrobenzene	18.442	18.444	-0.002	284398	198.9	
7	2,4-Dinitrotoluene	19.518	19.517	0.001	414327	399.2	
23	Tetryl	19.518	19.517	0.001	414327	399.2	
5	2,4,6-Trinitrotoluene	21.768	21.771	-0.003	163513	199.1	

QC Flag Legend

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d

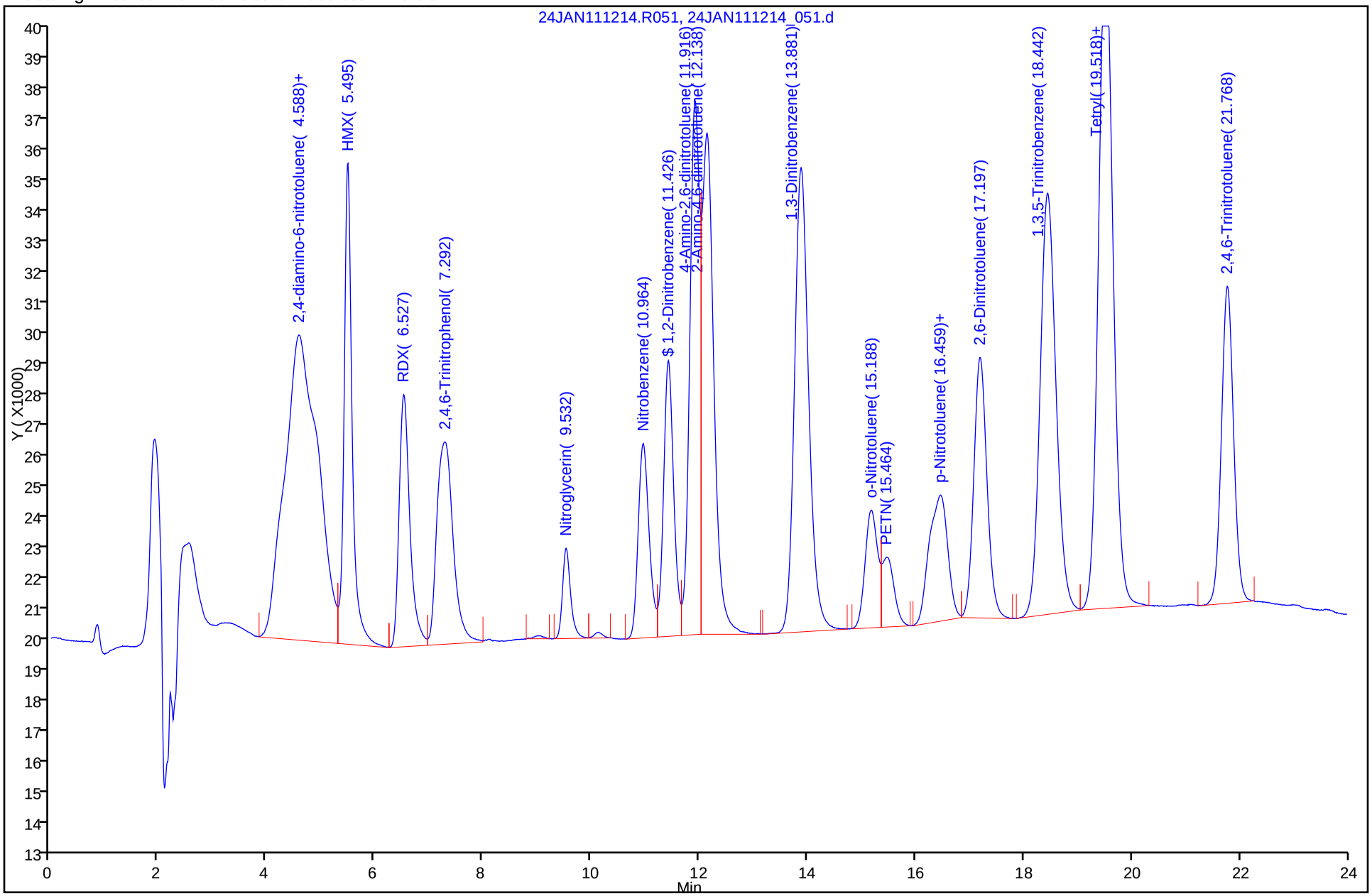
Injection Date: 24-Jan-2011 15:10:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1488

Lims Batch ID: 12535 Lims Sample ID: 5

Operator ID: WBR Injection Vol: 450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

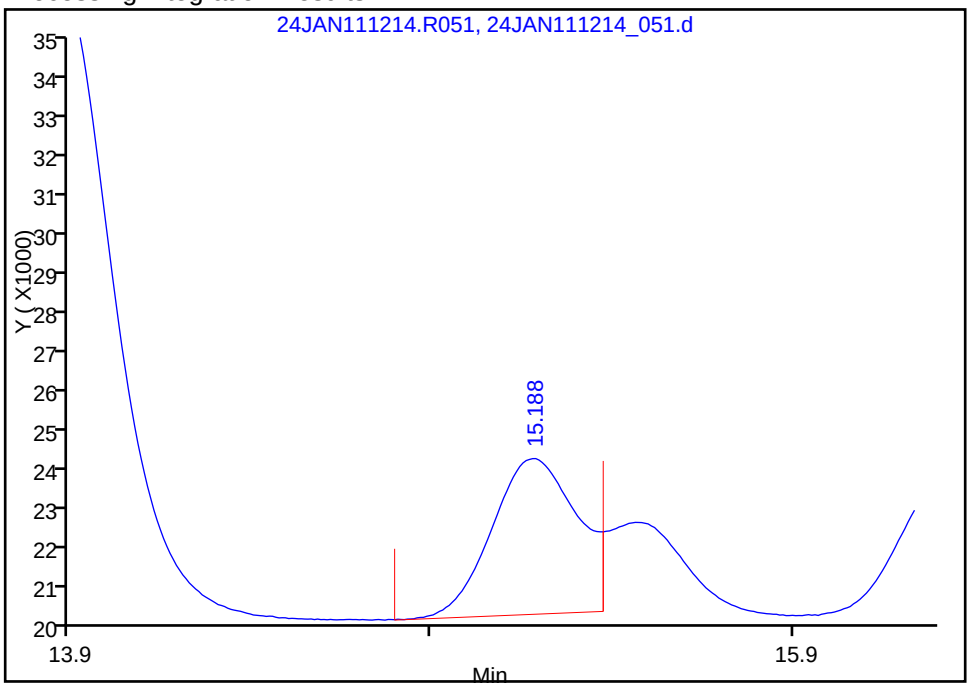
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Injection Date:	24-Jan-2011 15:10:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	5
Operator ID:	WBR	Injection Vol:	450.00 ul

19 o-Nitrotoluene, Signal: 1, Type: quant, RT: 15.19

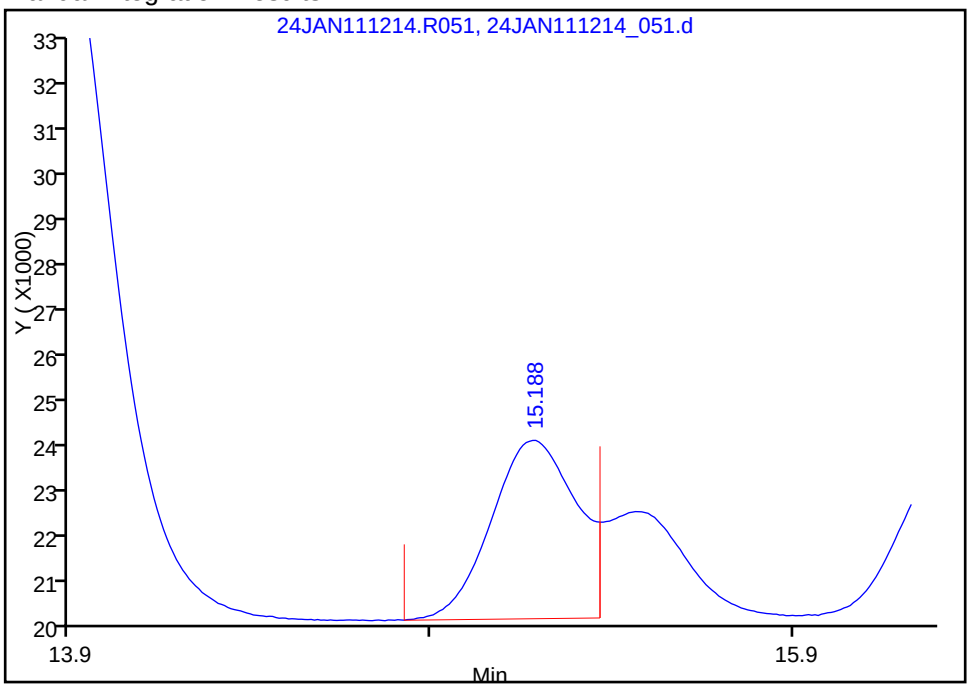
Processing Integration Results

RT: 15.19
Response: 62146
Amount: 196.6220



Manual Integration Results

RT: 15.19
Response: 63518
Amount: 200.4223



Reviewer: hammondr, 25-Jan-2011 11:46:24
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 25-Jan-2011 13:05:58 Chrom Revision: 1.2 17-Jan-2011 07:58:36

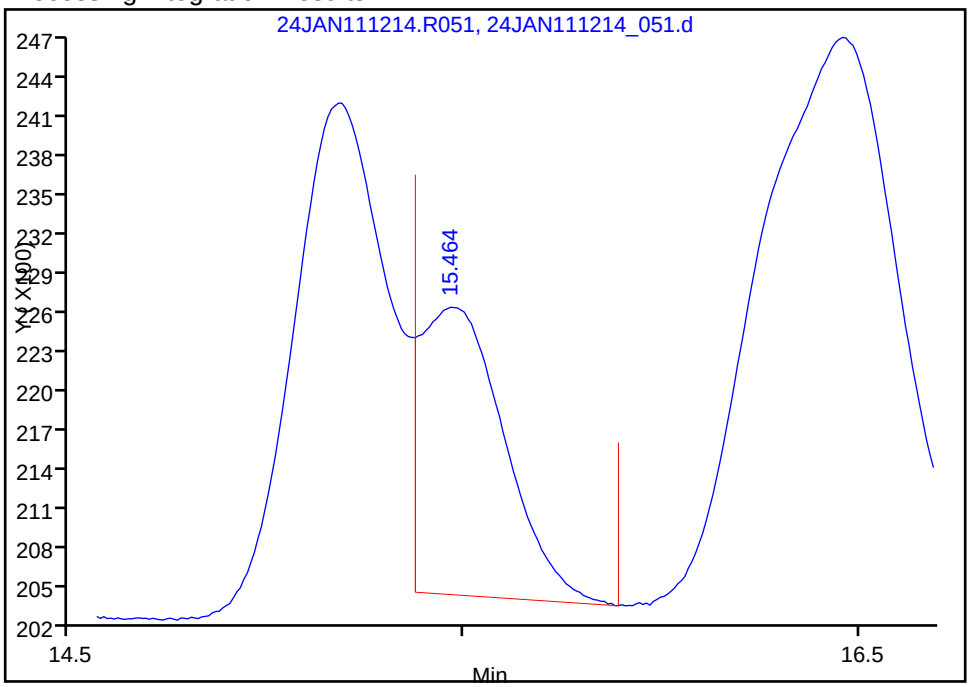
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_051.d		
Injection Date:	24-Jan-2011 15:10:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	5
Operator ID:	WBR	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.47

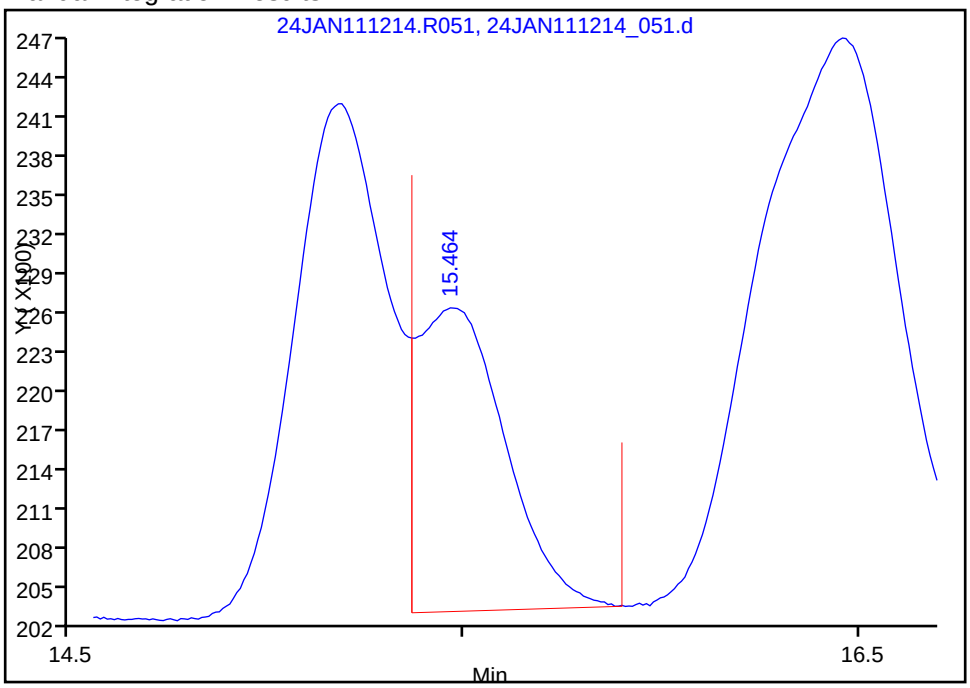
Processing Integration Results

RT: 15.46
Response: 31778
Amount: 3670.9728



Manual Integration Results

RT: 15.46
Response: 35208
Amount: 4031.9888



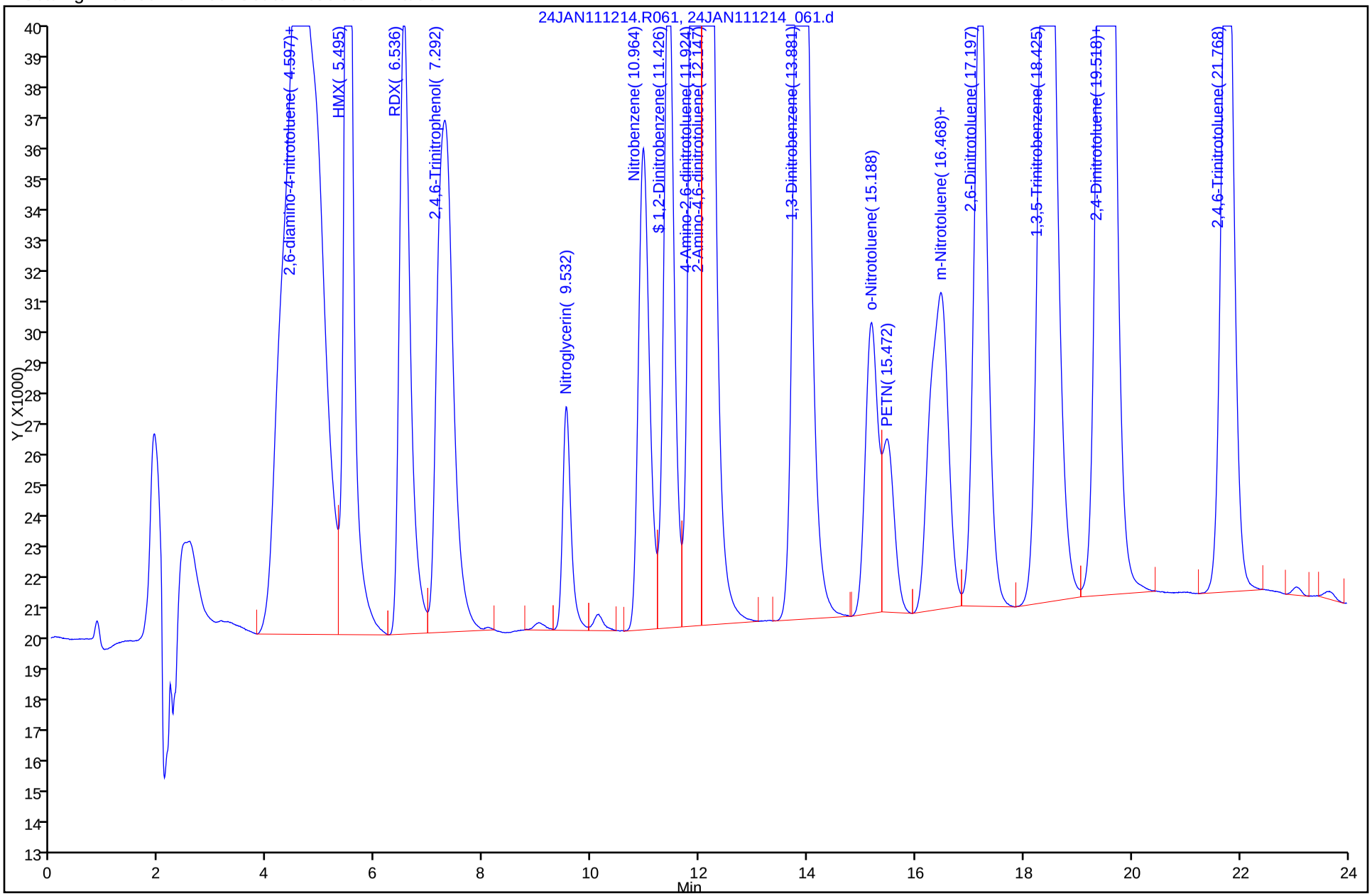
Reviewer: hammondr, 25-Jan-2011 11:46:24
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_061.d		
Lims ID:	IC 6	Client ID:	
Inject. Date:	24-Jan-2011 15:44:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	6
Sample ID:	200-0000363-006		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	6
Lims Batch ID:	12535	Lims Sample ID:	6
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R061		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:32:43

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.597	4.588	0.009	1096345	1008.1	
	6 2,4-diamino-6-nitrotoluene	4.597	4.588	0.009	1096345	1008.1	
	14 HMX	5.495	5.495	0.0	423969	507.2	
	22 RDX	6.536	6.531	0.005	290973	505.2	
	4 2,4,6-Trinitrophenol	7.292	7.299	-0.007	356812	505.7	
	18 Nitroglycerin	9.532	9.529	0.003	79725	10207	
	17 Nitrobenzene	10.964	10.957	0.007	227446	505.7	
$	1 1,2-Dinitrobenzene	11.426	11.425	0.001	300855	504.8	
	11 4-Amino-2,6-dinitrotoluene	11.924	11.918	0.006	569033	505.4	
	10 2-Amino-4,6-dinitrotoluene	12.147	12.139	0.008	616814	505.8	
	3 1,3-Dinitrobenzene	13.881	13.876	0.005	697005	502.2	
	19 o-Nitrotoluene	15.188	15.188	0.0	158000	495.8	
	21 PETN	15.472	15.468	0.004	85131	10023	
	15 m-Nitrotoluene	16.468	16.465	0.003	252879	1001.0	
	20 p-Nitrotoluene	16.468	16.465	0.003	252879	1001.0	
	9 2,6-Dinitrotoluene	17.197	17.199	-0.002	369570	502.3	
	2 1,3,5-Trinitrobenzene	18.425	18.444	-0.019	719520	503.1	
	7 2,4-Dinitrotoluene	19.518	19.517	0.001	1045828	1007.4	
	23 Tetryl	19.518	19.517	0.001	1045828	1007.4	
	5 2,4,6-Trinitrotoluene	21.768	21.771	-0.003	413315	504.1	

Report Date: 25-Jan-2011 13:05:59 Chrom Revision: 1.2 17-Jan-2011 07:58:36
Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_061.d
Injection Date: 24-Jan-2011 15:44:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 12535 Lims Sample ID: 6
Operator ID: WBR Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_071.d		
Lims ID:	IC 7	Client ID:	
Inject. Date:	24-Jan-2011 16:18:00	Dil. Factor:	1.0000
Sample Type:	IC	Calib Level:	7
Sample ID:	200-0000363-007		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	7
Lims Batch ID:	12535	Lims Sample ID:	7
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-24JAN111214.R071		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:05:54	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: hammondr		Date:	25-Jan-2011 11:32:36

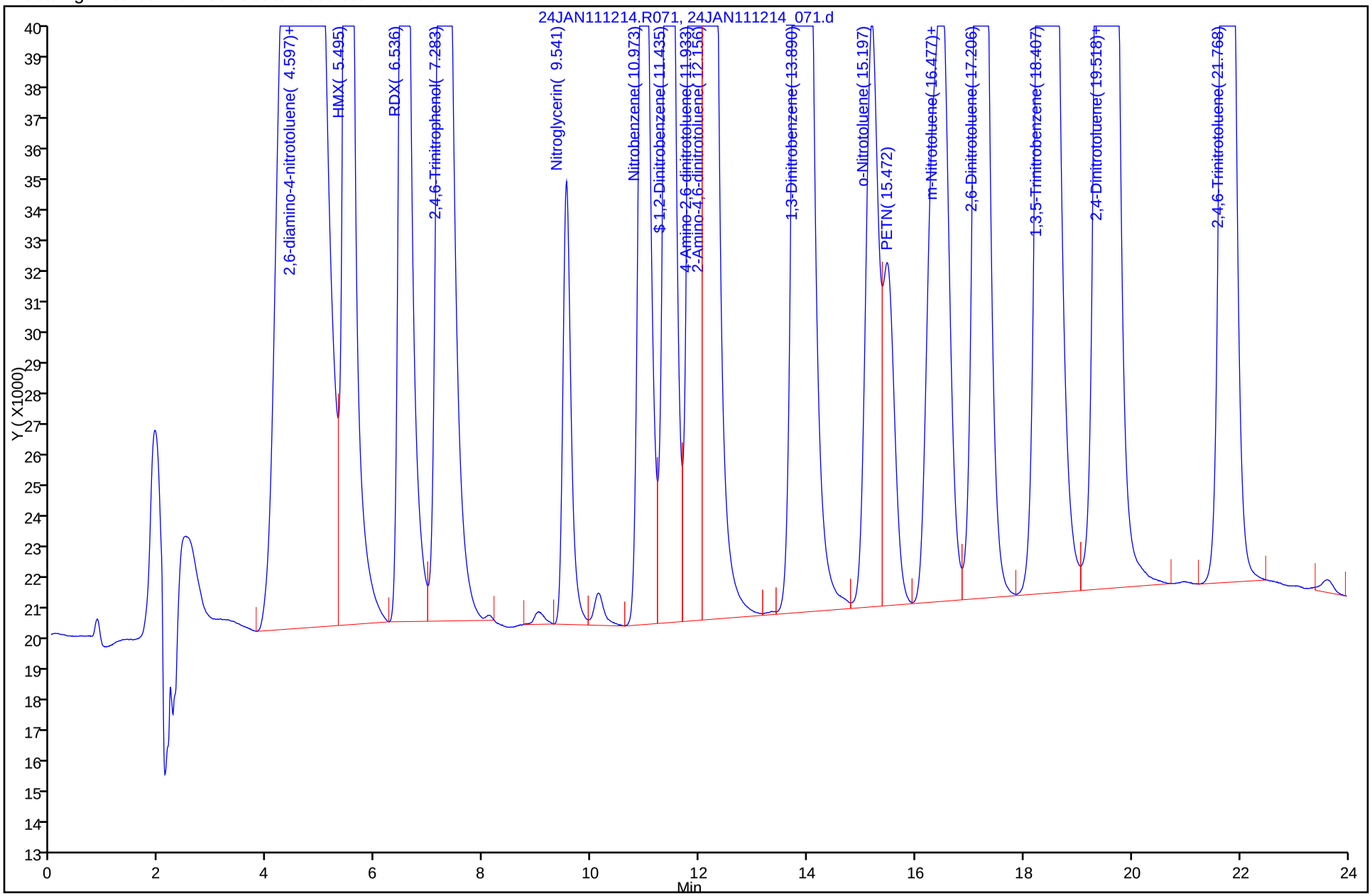
Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8 2,6-diamino-4-nitrotoluene	4.597	4.588	0.009	2180774	1999.7	
6 2,4-diamino-6-nitrotoluene	4.597	4.588	0.009	2180774	1999.7	
14 HMX	5.495	5.495	0.0	835440	997.2	
22 RDX	6.536	6.531	0.005	573503	995.0	
4 2,4,6-Trinitrophenol	7.283	7.299	-0.016	704265	996.4	
18 Nitroglycerin	9.541	9.529	0.012	154492	19766	
17 Nitrobenzene	10.973	10.957	0.016	447213	996.0	
$ 1 1,2-Dinitrobenzene	11.435	11.425	0.010	594135	998.1	
11 4-Amino-2,6-dinitrotoluene	11.933	11.918	0.015	1121006	995.8	
10 2-Amino-4,6-dinitrotoluene	12.156	12.139	0.017	1208685	992.0	
3 1,3-Dinitrobenzene	13.890	13.876	0.014	1384917	997.3	
19 o-Nitrotoluene	15.197	15.188	0.009	320412	1003.5	
21 PETN	15.472	15.468	0.004	167133	19864	
15 m-Nitrotoluene	16.477	16.465	0.012	506807	2006.2	
20 p-Nitrotoluene	16.477	16.465	0.012	506807	2006.2	
9 2,6-Dinitrotoluene	17.206	17.199	0.007	735466	999.0	
2 1,3,5-Trinitrobenzene	18.407	18.444	-0.037	1427535	998.1	
7 2,4-Dinitrotoluene	19.518	19.517	0.001	2070853	1994.6	
23 Tetryl	19.518	19.517	0.001	2070853	1994.6	
5 2,4,6-Trinitrotoluene	21.768	21.771	-0.003	816421	996.3	

Report Date: 25-Jan-2011 13:06:00 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_071.d

Injection Date:	24-Jan-2011 16:18:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	7
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: ICV 200-12556/16 Calibration Date: 01/25/2011 01:10

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 24JAN111521_161.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		666.1		188	200	-6.1	30.0
HMX	Lin1		432.3		197	200	-1.4	30.0
2,4-diamino-6-nitrotoluene	Lin1		611.0		205	200	2.4	30.0
RDX	Lin1		362.7		214	200	6.9	30.0
Picric acid	Lin1		395.8		194	200	-3.0	30.0
1,3,5-Trinitrobenzene	Lin1		858.5		207	200	3.4	30.0
1,3-Dinitrobenzene	Lin1		828.3		205	200	2.5	30.0
Nitrobenzene	Lin1		269.1		197	200	-1.7	30.0
Tetryl	Lin1		579.9		196	200	-2.2	30.0
Nitroglycerin	Lin1		4.210		3970	4000	-0.9	30.0
2,4,6-Trinitrotoluene	Lin1		638.5		222	200	10.9	30.0
4-Amino-2,6-dinitrotoluene	Lin1		756.1		215	200	7.3	30.0
2-Amino-4,6-dinitrotoluene	Lin1		673.4		210	200	4.9	30.0
2,6-Dinitrotoluene	Lin1		431.2		202	200	1.1	30.0
2,4-Dinitrotoluene	Lin1		654.4		212	200	5.9	30.0
2-Nitrotoluene	Lin1		182.5		197	200	-1.7	30.0
4-Nitrotoluene	Lin1		116.6		201	200	0.4	30.0
3-Nitrotoluene	Lin1		158.3		199	200	-0.5	30.0
PETN	Lin1		4.219		4090	4000	2.2	30.0
1,2-Dinitrobenzene	Lin1		358.4		201	200	0.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: ICV 200-12556/16 Calibration Date: 01/25/2011 01:10

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 24JAN111521_161.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.58	9.78
HMX	10.69	10.60	10.80
2,4-diamino-6-nitrotoluene	11.10	11.01	11.21
RDX	14.35	14.26	14.46
Picric acid	15.37	15.28	15.48
1,3,5-Trinitrobenzene	16.11	16.03	16.23
1,3-Dinitrobenzene	17.35	17.26	17.46
Nitrobenzene	18.21	18.13	18.33
Tetryl	18.48	18.40	18.60
Nitroglycerin	19.22	19.14	19.34
2,4,6-Trinitrotoluene	19.66	19.58	19.78
4-Amino-2,6-dinitrotoluene	20.14	20.07	20.27
2-Amino-4,6-dinitrotoluene	20.51	20.45	20.65
2,6-Dinitrotoluene	20.83	20.77	20.97
2,4-Dinitrotoluene	21.10	21.03	21.23
2-Nitrotoluene	22.59	22.52	22.72
4-Nitrotoluene	23.33	23.26	23.46
3-Nitrotoluene	24.04	23.96	24.16
PETN	24.77	24.69	24.89
1,2-Dinitrobenzene	16.41	16.33	16.53

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_161.d		
Lims ID:	ICV	Client ID:	
Inject. Date:	25-Jan-2011 01:10:00	Dil. Factor:	1.0000
Sample Type:	ICV		
Sample ID:	200-0000366-016		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	16
Lims Batch ID:	12556	Lims Sample ID:	16
Sublist:			
Detector:	A-24JAN111521.R161		
Method:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\8330_C18.m		
Last Update:	25-Jan-2011 09:28:52	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: robinsonw		Date:	25-Jan-2011 09:19:30

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.674	9.677	-0.003	133223	187.9	
	3 HMX	10.688	10.697	-0.009	86455	197.2	
	4 2,4-diamino-6-nitrotoluene	11.097	11.107	-0.010	122191	204.7	
	7 RDX	14.351	14.363	-0.012	72533	213.8	
	8 2,4,6-Trinitrophenol	15.365	15.380	-0.015	79156	194.1	
	9 1,3,5-Trinitrobenzene	16.112	16.125	-0.013	171706	206.8	
$	10 1,2-Dinitrobenzene	16.414	16.432	-0.018	71680	201.1	
	11 1,3-Dinitrobenzene	17.348	17.360	-0.012	165667	205.0	
	12 Nitrobenzene	18.210	18.228	-0.018	53825	196.6	
	13 Tetryl	18.477	18.496	-0.019	115979	195.6	
	14 Nitroglycerin	19.224	19.239	-0.015	16840	3965.5	
	15 2,4,6-Trinitrotoluene	19.660	19.684	-0.024	127694	221.9	
	16 4-Amino-2,6-dinitrotoluene	20.140	20.171	-0.031	151216	214.5	
	17 2-Amino-4,6-dinitrotoluene	20.513	20.545	-0.032	134674	209.8	
	18 2,6-Dinitrotoluene	20.834	20.869	-0.035	86247	202.2	
	19 2,4-Dinitrotoluene	21.100	21.134	-0.034	130871	211.9	
	20 o-Nitrotoluene	22.594	22.624	-0.030	36503	196.6	
	21 p-Nitrotoluene	23.332	23.362	-0.030	23323	200.7	
	22 m-Nitrotoluene	24.035	24.061	-0.026	31651	198.9	
	23 PETN	24.773	24.789	-0.016	16877	4089.0	

Report Date: 25-Jan-2011 09:28:53 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_161.d

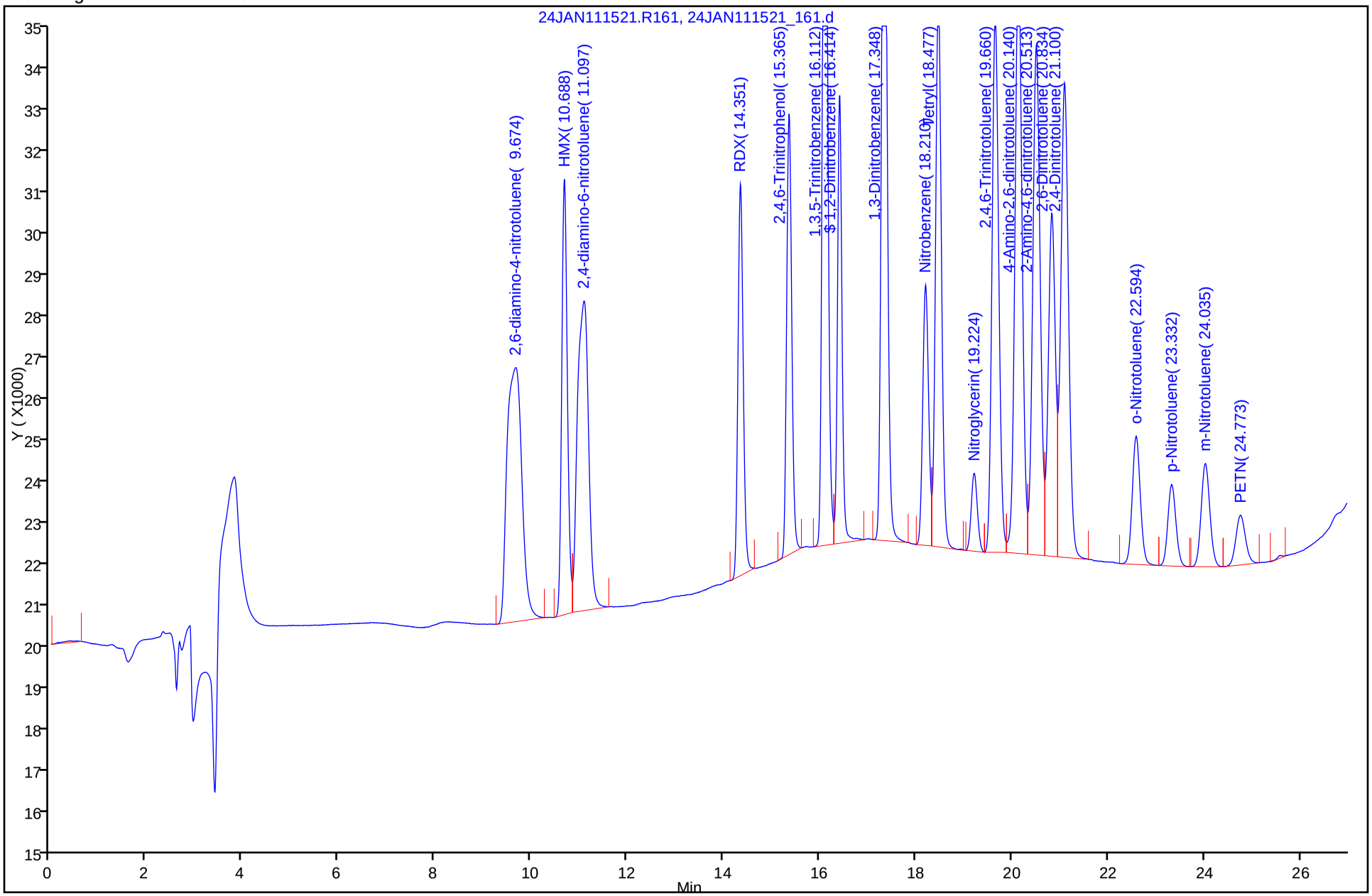
Injection Date: 25-Jan-2011 01:10:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 12556 Lims Sample ID: 16

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCVRT 200-22012/2 Calibration Date: 07/21/2011 16:16

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 21JUL111433_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		689.8		195	200	-2.8	20.0
HMX	Lin1		443.0		202	200	1.0	20.0
2,4-diamino-6-nitrotoluene	Lin1		584.2		196	200	-2.1	20.0
RDX	Lin1		345.1		203	200	1.7	20.0
Picric acid	Lin1		400.4		196	200	-1.8	20.0
1,3,5-Trinitrobenzene	Lin1		849.4		205	200	2.3	20.0
1,3-Dinitrobenzene	Lin1		766.5		190	200	-5.2	20.0
Nitrobenzene	Lin1		275.5		201	200	0.7	20.0
Tetryl	Lin1		612.8		207	200	3.4	20.0
Nitroglycerin	Lin1		4.127		3890	4000	-2.8	20.0
2,4,6-Trinitrotoluene	Lin1		594.3		207	200	3.3	20.0
4-Amino-2,6-dinitrotoluene	Lin1		704.9		200	200	0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		648.1		202	200	1.0	20.0
2,6-Dinitrotoluene	Lin1		430.4		202	200	0.9	20.0
2,4-Dinitrotoluene	Lin1		618.5		200	200	0.2	20.0
2-Nitrotoluene	Lin1		193.1		208	200	4.1	20.0
4-Nitrotoluene	Lin1		119.4		206	200	2.8	20.0
3-Nitrotoluene	Lin1		164.6		207	200	3.5	20.0
PETN	Lin1		4.206		4080	4000	1.9	20.0
1,2-Dinitrobenzene	Lin1		344.5		193	200	-3.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCVRT 200-22012/2 Calibration Date: 07/21/2011 16:16

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 21JUL111433_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.56	9.76
HMX	10.68	10.58	10.78
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.34	14.24	14.44
Picric acid	15.37	15.27	15.47
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.19	18.09	18.29
Tetryl	18.46	18.36	18.56
Nitroglycerin	19.20	19.10	19.30
2,4,6-Trinitrotoluene	19.63	19.53	19.73
4-Amino-2,6-dinitrotoluene	20.12	20.02	20.22
2-Amino-4,6-dinitrotoluene	20.50	20.40	20.60
2,6-Dinitrotoluene	20.82	20.72	20.92
2,4-Dinitrotoluene	21.08	20.98	21.18
2-Nitrotoluene	22.57	22.47	22.67
4-Nitrotoluene	23.31	23.21	23.41
3-Nitrotoluene	24.00	23.90	24.10
PETN	24.71	24.61	24.81
1,2-Dinitrobenzene	16.41	16.31	16.51

Report Date: 26-Jul-2011 12:32:12 Chrom Revision: 1.2 13-Jul-2011 10:43:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_021.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	21-Jul-2011 16:16:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000856-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	2
Lims Batch ID:	22012	Lims Sample ID:	2
Sublist:	chrom-8330_C18*sub1		
Detector:	A-21JUL111433.R021		
Method:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m		
Last Update:	26-Jul-2011 12:32:12	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: chirgwinb		Date:	22-Jul-2011 08:46:32

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene	9.657	9.657	0.0	137957	194.5	
	3 HMX	10.679	10.679	0.0	88601	202.1	
	4 2,4-diamino-6-nitrotoluene	11.079	11.079	0.0	116842	195.8	
	7 RDX	14.343	14.343	0.0	69017	203.4	
	8 2,4,6-Trinitrophenol	15.374	15.374	0.0	80087	196.4	
	9 1,3,5-Trinitrobenzene	16.094	16.094	0.0	169873	204.6	
$	10 1,2-Dinitrobenzene	16.405	16.405	0.0	68898	193.3	
	11 1,3-Dinitrobenzene	17.330	17.330	0.0	153309	189.7	
	12 Nitrobenzene	18.193	18.193	0.0	55094	201.3	
	13 Tetryl	18.459	18.459	0.0	122550	206.7	
	14 Nitroglycerin	19.197	19.197	0.0	16506	3886.6	
	15 2,4,6-Trinitrotoluene	19.633	19.633	0.0	118863	206.6	
	16 4-Amino-2,6-dinitrotoluene	20.122	20.122	0.0	140977	200.0	
	17 2-Amino-4,6-dinitrotoluene	20.496	20.496	0.0	129614	201.9	
	18 2,6-Dinitrotoluene	20.816	20.816	0.0	86071	201.8	
	19 2,4-Dinitrotoluene	21.083	21.083	0.0	123701	200.3	
	20 o-Nitrotoluene	22.567	22.567	0.0	38626	208.1	
	21 p-Nitrotoluene	23.305	23.305	0.0	23889	205.6	
	22 m-Nitrotoluene	23.999	23.999	0.0	32917	207.0	
	23 PETN	24.710	24.710	0.0	16824	4076.3	

Report Date: 26-Jul-2011 12:32:12 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_021.d

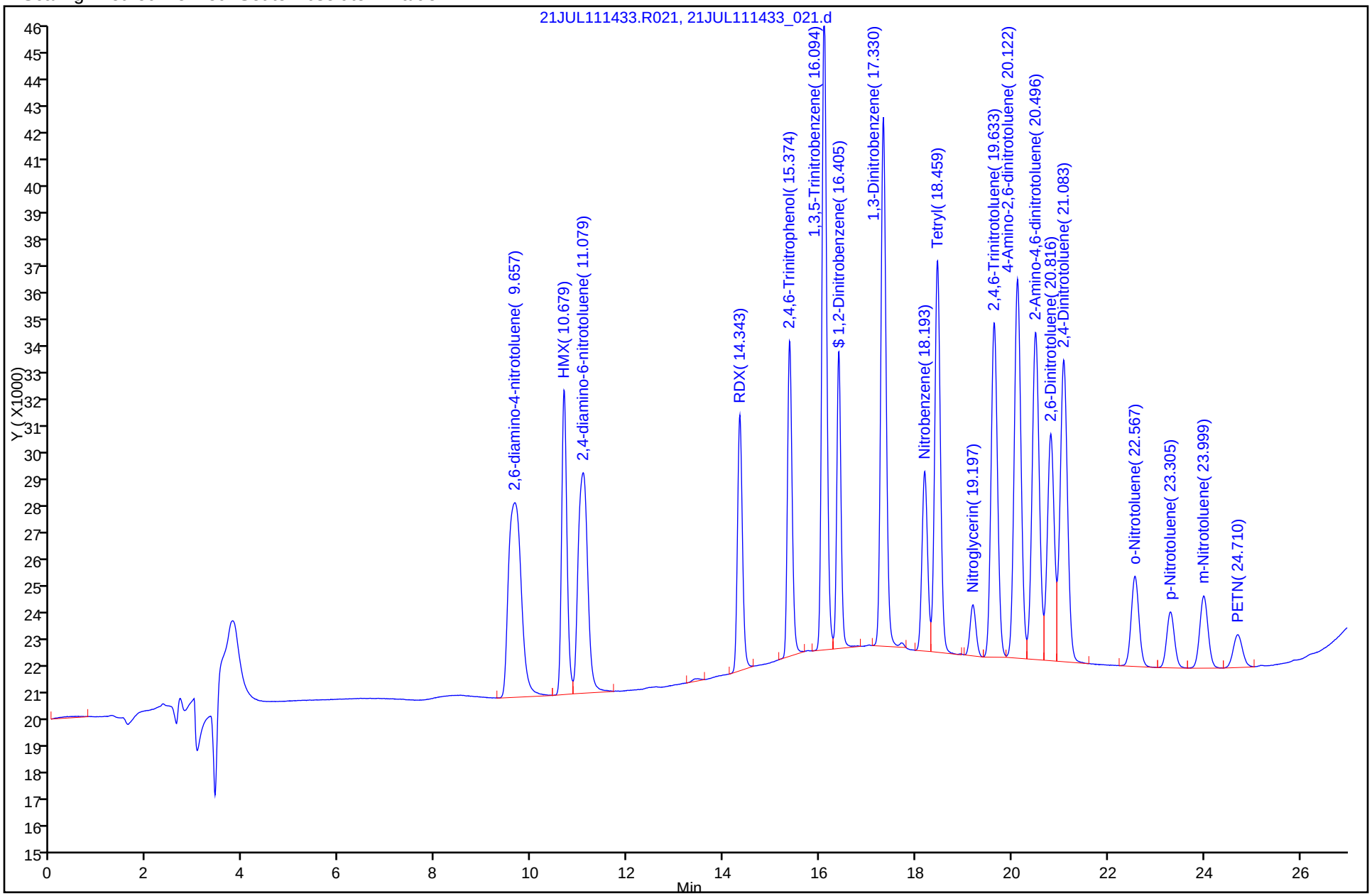
Injection Date: 21-Jul-2011 16:16:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 22012 Lims Sample ID: 2

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCV 200-22012/14 Calibration Date: 07/21/2011 23:46

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 21JUL111433_141.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		684.6		193	200	-3.5	20.0
HMX	Lin1		441.5		201	200	0.7	20.0
2,4-diamino-6-nitrotoluene	Lin1		585.9		196	200	-1.8	20.0
RDX	Lin1		344.3		203	200	1.5	20.0
Picric acid	Lin1		400.3		196	200	-1.9	20.0
1,3,5-Trinitrobenzene	Lin1		849.2		205	200	2.3	20.0
1,3-Dinitrobenzene	Lin1		769.2		190	200	-4.8	20.0
Nitrobenzene	Lin1		273.2		200	200	-0.2	20.0
Tetryl	Lin1		611.6		206	200	3.2	20.0
Nitroglycerin	Lin1		4.095		3860	4000	-3.6	20.0
2,4,6-Trinitrotoluene	Lin1		594.5		207	200	3.3	20.0
4-Amino-2,6-dinitrotoluene	Lin1		704.6		200	200	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		648.0		202	200	1.0	20.0
2,6-Dinitrotoluene	Lin1		433.4		203	200	1.7	20.0
2,4-Dinitrotoluene	Lin1		615.5		199	200	-0.3	20.0
2-Nitrotoluene	Lin1		192.0		207	200	3.5	20.0
4-Nitrotoluene	Lin1		118.9		205	200	2.4	20.0
3-Nitrotoluene	Lin1		163.6		206	200	2.9	20.0
PETN	Lin1		4.153		4030	4000	0.6	20.0
1,2-Dinitrobenzene	Lin1		340.4		191	200	-4.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCV 200-22012/14 Calibration Date: 07/21/2011 23:46

Instrument ID: CH1208 Calib Start Date: 01/24/2011 16:26

GC Column: C-18 ID: 4.60(mm) Calib End Date: 01/24/2011 19:33

Lab File ID: 21JUL111433_141.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.69	10.58	10.78
2,4-diamino-6-nitrotoluene	11.09	10.98	11.18
RDX	14.34	14.24	14.44
Picric acid	15.38	15.27	15.47
1,3,5-Trinitrobenzene	16.10	15.99	16.19
1,3-Dinitrobenzene	17.34	17.23	17.43
Nitrobenzene	18.19	18.09	18.29
Tetryl	18.47	18.36	18.56
Nitroglycerin	19.20	19.10	19.30
2,4,6-Trinitrotoluene	19.65	19.53	19.73
4-Amino-2,6-dinitrotoluene	20.14	20.02	20.22
2-Amino-4,6-dinitrotoluene	20.52	20.40	20.60
2,6-Dinitrotoluene	20.83	20.72	20.92
2,4-Dinitrotoluene	21.10	20.98	21.18
2-Nitrotoluene	22.58	22.47	22.67
4-Nitrotoluene	23.32	23.21	23.41
3-Nitrotoluene	24.02	23.90	24.10
PETN	24.72	24.61	24.81
1,2-Dinitrobenzene	16.41	16.31	16.51

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_141.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	21-Jul-2011 23:46:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000856-014		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	14
Lims Batch ID:	22012	Lims Sample ID:	14
Sublist:	chrom-8330_C18*sub1		
Detector:	A-21JUL111433.R141		
Method:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m		
Last Update:	26-Jul-2011 12:32:17	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

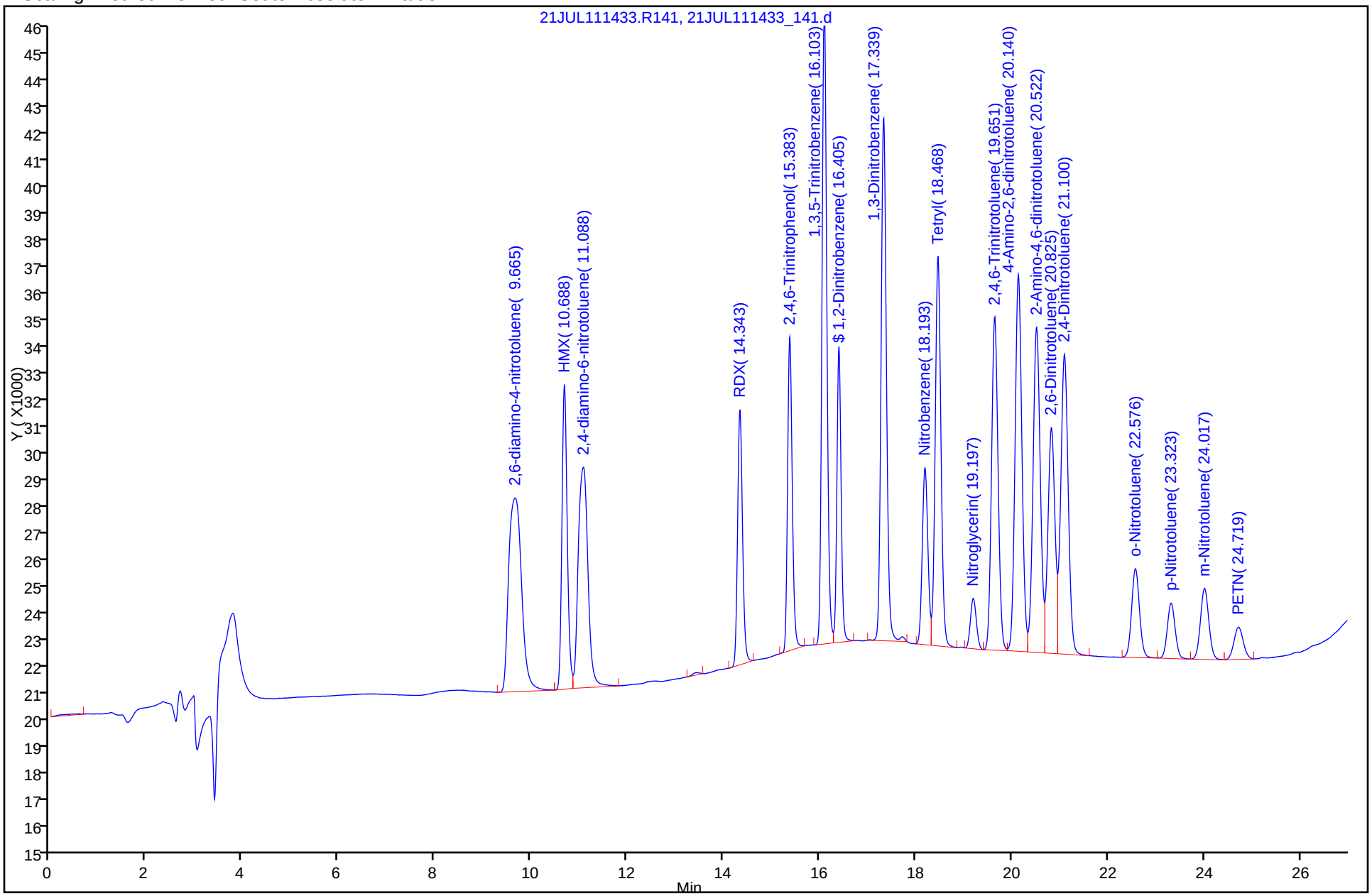
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene	9.665	9.657	0.008	136925	193.1	
3	HMX	10.688	10.679	0.009	88293	201.4	
4	2,4-diamino-6-nitrotoluene	11.088	11.079	0.009	117183	196.4	
7	RDX	14.343	14.343	0.0	68866	203.0	
8	2,4,6-Trinitrophenol	15.383	15.374	0.009	80062	196.3	
9	1,3,5-Trinitrobenzene	16.103	16.094	0.009	169849	204.5	
$ 10	1,2-Dinitrobenzene	16.405	16.405	0.0	68079	191.0	
11	1,3-Dinitrobenzene	17.339	17.330	0.009	153837	190.4	
12	Nitrobenzene	18.193	18.193	0.0	54645	199.6	
13	Tetryl	18.468	18.459	0.009	122313	206.3	
14	Nitroglycerin	19.197	19.197	0.0	16379	3856.7	
15	2,4,6-Trinitrotoluene	19.651	19.633	0.018	118894	206.6	
16	4-Amino-2,6-dinitrotoluene	20.140	20.122	0.018	140910	199.9	
17	2-Amino-4,6-dinitrotoluene	20.522	20.496	0.026	129606	201.9	
18	2,6-Dinitrotoluene	20.825	20.816	0.009	86678	203.3	
19	2,4-Dinitrotoluene	21.100	21.083	0.017	123100	199.3	
20	o-Nitrotoluene	22.576	22.567	0.009	38392	206.9	
21	p-Nitrotoluene	23.323	23.305	0.018	23782	204.7	
22	m-Nitrotoluene	24.017	23.999	0.018	32717	205.7	
23	PETN	24.719	24.710	0.009	16610	4025.0	

Report Date: 26-Jul-2011 12:32:17 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_141.d

Injection Date:	21-Jul-2011 23:46:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: ICV 200-12535/16 Calibration Date: 01/24/2011 21:26

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 24JAN111214_161.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1053		391	400	-2.4	30.0
2,6-diamino-4-nitrotoluene	Lin1		1053		391	400	-2.4	30.0
HMX	Lin1		839.6		202	200	1.2	30.0
RDX	Lin1		618.9		215	200	7.6	30.0
Picric acid	Lin1		710.5		202	200	1.2	30.0
Nitroglycerin	Lin1		7.858		4030	4000	0.8	30.0
Nitrobenzene	Lin1		456.8		202	200	1.1	30.0
4-Amino-2,6-dinitrotoluene	Lin1		1208		214	200	7.2	30.0
2-Amino-4,6-dinitrotoluene	Lin1		1311		214	200	7.2	30.0
1,3-Dinitrobenzene	Lin1		1444		208	200	4.2	30.0
2-Nitrotoluene	Lin1		316.0		199	200	-0.3	30.0
PETN	Lin1		8.419		3850	4000	-3.8	30.0
3-Nitrotoluene	Lin1		252.4		400	400	-0.0	30.0
4-Nitrotoluene	Lin1		252.4		400	400	-0.0	30.0
2,6-Dinitrotoluene	Lin1		761.0		207	200	3.6	30.0
1,3,5-Trinitrobenzene	Lin1		1502		210	200	5.1	30.0
2,4-Dinitrotoluene	Lin1		1084		418	400	4.4	30.0
Tetryl	Lin1		1084		418	400	4.4	30.0
2,4,6-Trinitrotoluene	Lin1		929.5		226	200	13.2	30.0
1,2-Dinitrobenzene	Lin1		598.7		200	200	0.0	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: ICV 200-12535/16 Calibration Date: 01/24/2011 21:26

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 24JAN111214_161.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.56	4.49	4.69
2,6-diamino-4-nitrotoluene	4.56	4.49	4.69
HMX	5.47	5.40	5.60
RDX	6.50	6.43	6.63
Picric acid	7.30	7.10	7.50
Nitroglycerin	9.54	9.43	9.63
Nitrobenzene	10.96	10.86	11.06
4-Amino-2,6-dinitrotoluene	11.93	11.82	12.02
2-Amino-4,6-dinitrotoluene	12.13	12.04	12.24
1,3-Dinitrobenzene	13.88	13.78	13.98
2-Nitrotoluene	15.18	15.09	15.29
PETN	15.47	15.37	15.57
3-Nitrotoluene	16.45	16.37	16.57
4-Nitrotoluene	16.45	16.37	16.57
2,6-Dinitrotoluene	17.20	17.10	17.30
1,3,5-Trinitrobenzene	18.45	18.34	18.54
2,4-Dinitrotoluene	19.53	19.42	19.62
Tetryl	19.53	19.42	19.62
2,4,6-Trinitrotoluene	21.79	21.67	21.87
1,2-Dinitrobenzene	11.44	11.33	11.53

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_161.d		
Lims ID:	ICV	Client ID:	
Inject. Date:	24-Jan-2011 21:26:00	Dil. Factor:	1.0000
Sample Type:	ICV		
Sample ID:	200-0000363-016		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	16
Lims Batch ID:	12535	Lims Sample ID:	16
Sublist:			
Detector:	A-24JAN111214.R161		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\8330_Biphenyl.m		
Last Update:	25-Jan-2011 13:06:06	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer:	robinsonw	Date:	25-Jan-2011 13:03:36

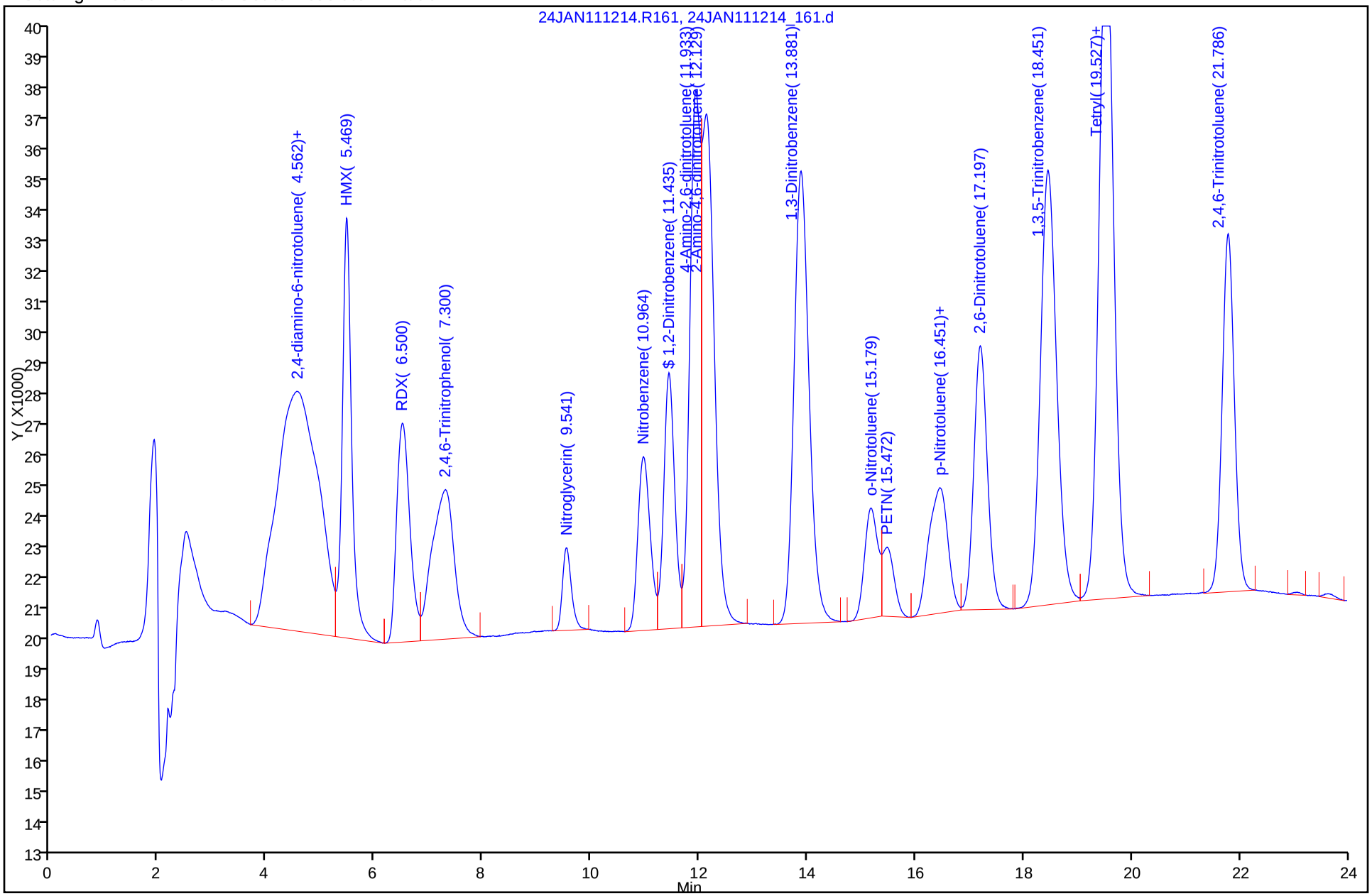
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8	2,6-diamino-4-nitrotoluene	4.562	4.588	-0.026	421053	390.6	
6	2,4-diamino-6-nitrotoluene	4.562	4.588	-0.026	421053	390.6	
14	HMX	5.469	5.495	-0.026	167920	202.3	
22	RDX	6.500	6.531	-0.031	123787	215.3	
4	2,4,6-Trinitrophenol	7.300	7.299	0.001	142092	202.5	
18	Nitroglycerin	9.541	9.529	0.012	31433	4032.6	
17	Nitrobenzene	10.964	10.957	0.007	91367	202.2	
$ 1	1,2-Dinitrobenzene	11.435	11.425	0.010	119748	200.2	
11	4-Amino-2,6-dinitrotoluene	11.933	11.918	0.015	241667	214.5	
10	2-Amino-4,6-dinitrotoluene	12.129	12.139	-0.010	262157	214.4	
3	1,3-Dinitrobenzene	13.881	13.876	0.005	288717	208.4	
19	o-Nitrotoluene	15.179	15.188	-0.009	63197	199.4	
21	PETN	15.472	15.468	0.004	33676	3848.1	
15	m-Nitrotoluene	16.451	16.465	-0.014	100979	399.8	
20	p-Nitrotoluene	16.451	16.465	-0.014	100979	399.8	
9	2,6-Dinitrotoluene	17.197	17.199	-0.002	152194	207.2	
2	1,3,5-Trinitrobenzene	18.451	18.444	0.007	300490	210.1	
7	2,4-Dinitrotoluene	19.527	19.517	0.010	433581	417.8	
23	Tetryl	19.527	19.517	0.010	433581	417.8	
5	2,4,6-Trinitrotoluene	21.786	21.771	0.015	185908	226.5	

Report Date: 25-Jan-2011 13:06:07 Chrom Revision: 1.2 17-Jan-2011 07:58:36

Data File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_161.d

Injection Date:	24-Jan-2011 21:26:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	12535	Lims Sample ID:	16
Operator ID:	WBR	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCVRT 200-22013/2 Calibration Date: 07/21/2011 17:07

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 21JUL111438_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1080		401	400	0.2	20.0
2,6-diamino-4-nitrotoluene	Lin1		1080		401	400	0.2	20.0
HMX	Lin1		853.1		206	200	2.8	20.0
RDX	Lin1		617.8		215	200	7.5	20.0
Picric acid	Lin1		717.2		204	200	2.2	20.0
Nitroglycerin	Lin1		7.959		4080	4000	2.1	20.0
Nitrobenzene	Lin1		469.2		208	200	3.9	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1171		208	200	4.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1245		204	200	1.8	20.0
1,3-Dinitrobenzene	Lin1		1346		194	200	-2.9	20.0
2-Nitrotoluene	Lin1		350.0		221	200	10.4	20.0
PETN	Lin1		8.117		3700	4000	-7.4	20.0
3-Nitrotoluene	Lin1		259.9		412	400	2.9	20.0
4-Nitrotoluene	Lin1		259.9		412	400	2.9	20.0
2,6-Dinitrotoluene	Lin1		764.6		208	200	4.1	20.0
1,3,5-Trinitrobenzene	Lin1		1522		213	200	6.4	20.0
2,4-Dinitrotoluene	Lin1		1104		426	400	6.4	20.0
Tetryl	Lin1		1104		426	400	6.4	20.0
2,4,6-Trinitrotoluene	Lin1		896.5		218	200	9.2	20.0
1,2-Dinitrobenzene	Lin1		589.7		197	200	-1.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCVRT 200-22013/2 Calibration Date: 07/21/2011 17:07

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 21JUL111438_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.65	4.55	4.75
2,6-diamino-4-nitrotoluene	4.65	4.55	4.75
HMX	5.48	5.38	5.58
RDX	6.54	6.44	6.64
Picric acid	7.35	7.15	7.55
Nitroglycerin	9.55	9.45	9.65
Nitrobenzene	10.96	10.86	11.06
4-Amino-2,6-dinitrotoluene	11.94	11.84	12.04
2-Amino-4,6-dinitrotoluene	12.16	12.06	12.26
1,3-Dinitrobenzene	13.85	13.75	13.95
2-Nitrotoluene	15.14	15.04	15.24
PETN	15.41	15.23	15.43
3-Nitrotoluene	16.42	16.32	16.52
4-Nitrotoluene	16.42	16.32	16.52
2,6-Dinitrotoluene	17.15	17.05	17.25
1,3,5-Trinitrobenzene	18.37	18.27	18.47
2,4-Dinitrotoluene	19.46	19.36	19.56
Tetryl	19.46	19.36	19.56
2,4,6-Trinitrotoluene	21.72	21.62	21.82
1,2-Dinitrobenzene	11.43	11.33	11.53

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_021.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	21-Jul-2011 17:07:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000857-002		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	2
Lims Batch ID:	22013	Lims Sample ID:	2
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-21JUL111438.R021		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m		
Last Update:	26-Jul-2011 14:12:04	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: chirgwinb		Date:	22-Jul-2011 08:58:51

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8 2,6-diamino-4-nitrotoluene	4.651	4.651	0.0	432181	400.8	
6 2,4-diamino-6-nitrotoluene	4.651	4.651	0.0	432181	400.8	
14 HMX	5.478	5.478	0.0	170612	205.5	
22 RDX	6.536	6.536	0.0	123553	214.9	
4 2,4,6-Trinitrophenol	7.354	7.354	0.0	143437	204.4	
18 Nitroglycerin	9.550	9.550	0.0	31834	4083.9	
17 Nitrobenzene	10.964	10.964	0.0	93845	207.7	
$ 1 1,2-Dinitrobenzene	11.426	11.426	0.0	117930	197.1	
11 4-Amino-2,6-dinitrotoluene	11.942	11.942	0.0	234287	207.9	
10 2-Amino-4,6-dinitrotoluene	12.156	12.156	0.0	248995	203.6	
3 1,3-Dinitrobenzene	13.845	13.845	0.0	269237	194.3	
19 o-Nitrotoluene	15.143	15.143	0.0	69996	220.7	M
21 PETN	15.410	15.330	0.080	32469	3703.3	A
15 m-Nitrotoluene	16.424	16.424	0.0	103973	411.6	
20 p-Nitrotoluene	16.424	16.424	0.0	103973	411.6	
9 2,6-Dinitrotoluene	17.153	17.153	0.0	152917	208.2	
2 1,3,5-Trinitrobenzene	18.371	18.371	0.0	304328	212.8	
7 2,4-Dinitrotoluene	19.456	19.456	0.0	441638	425.5	
23 Tetryl	19.456	19.456	0.0	441638	425.5	
5 2,4,6-Trinitrotoluene	21.715	21.715	0.0	179292	218.4	

QC Flag Legend

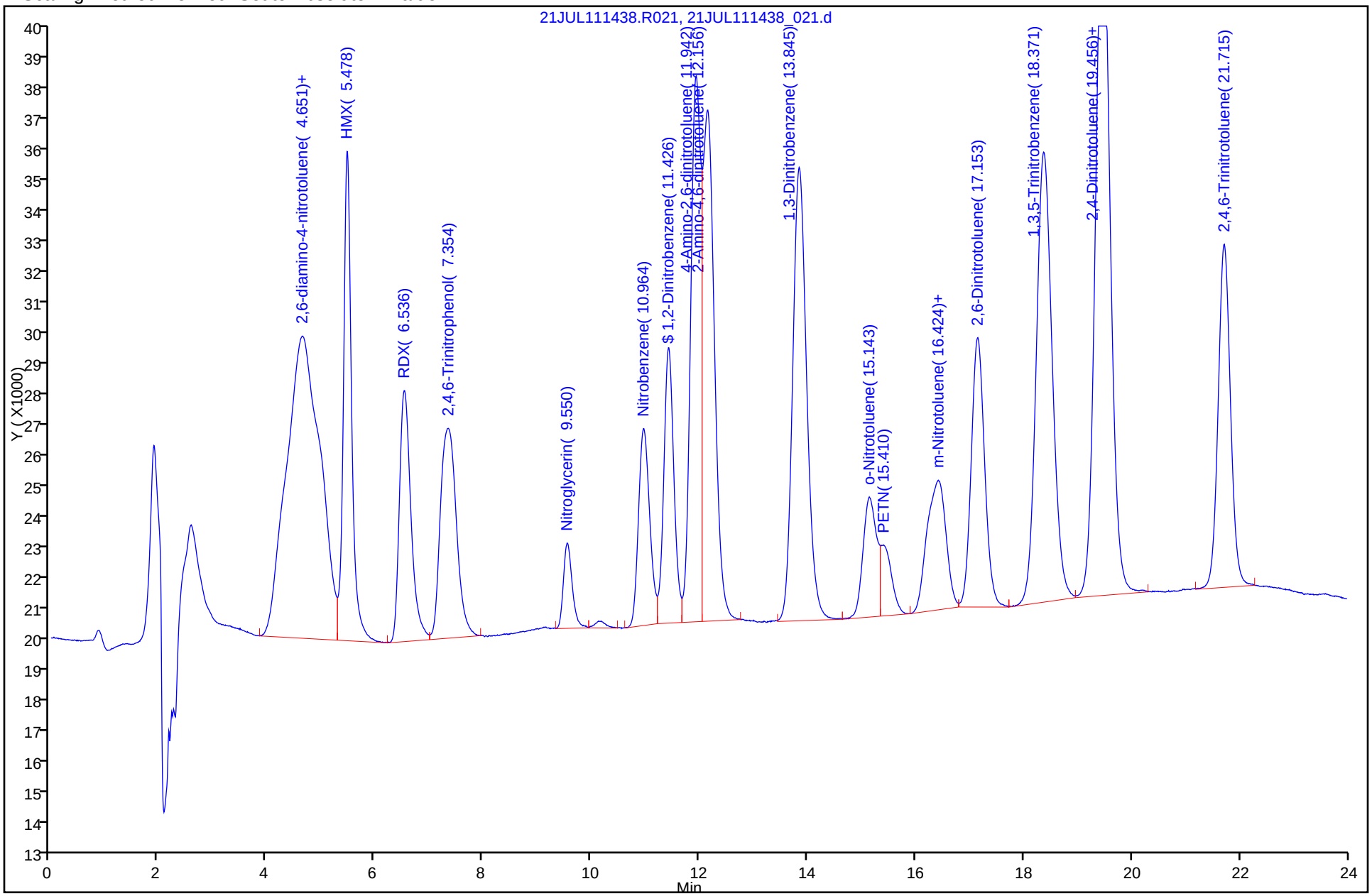
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 14:12:04 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_021.d

Injection Date:	21-Jul-2011 17:07:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Jul-2011 14:12:04 Chrom Revision: 1.2 13-Jul-2011 10:43:06

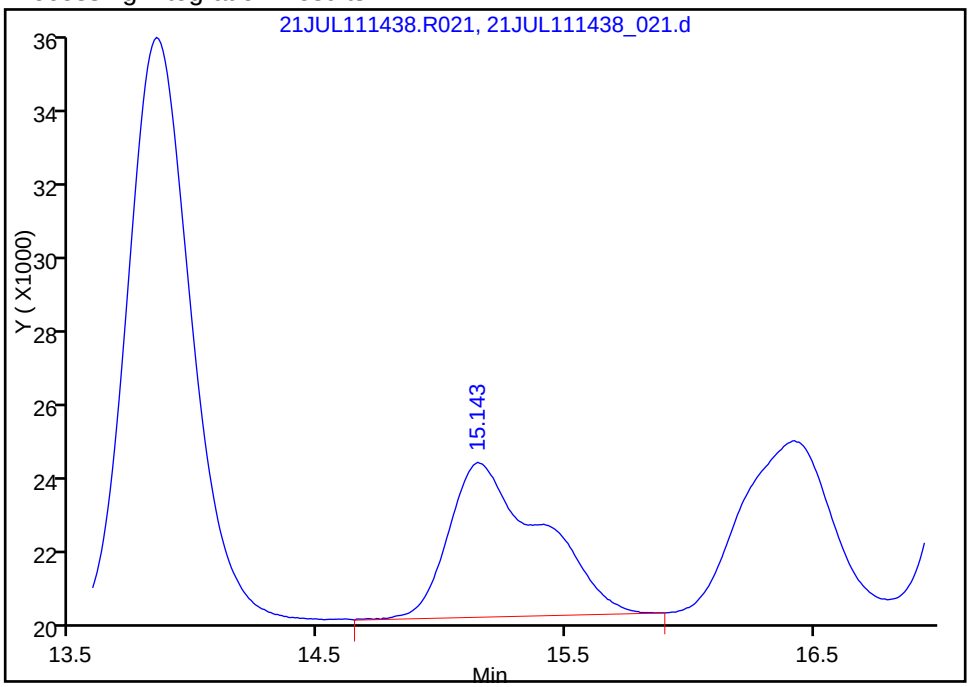
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_021.d		
Injection Date:	21-Jul-2011 17:07:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	450.00 ul

19 o-Nitrotoluene, Signal: 1, Type: quant, RT: 15.14

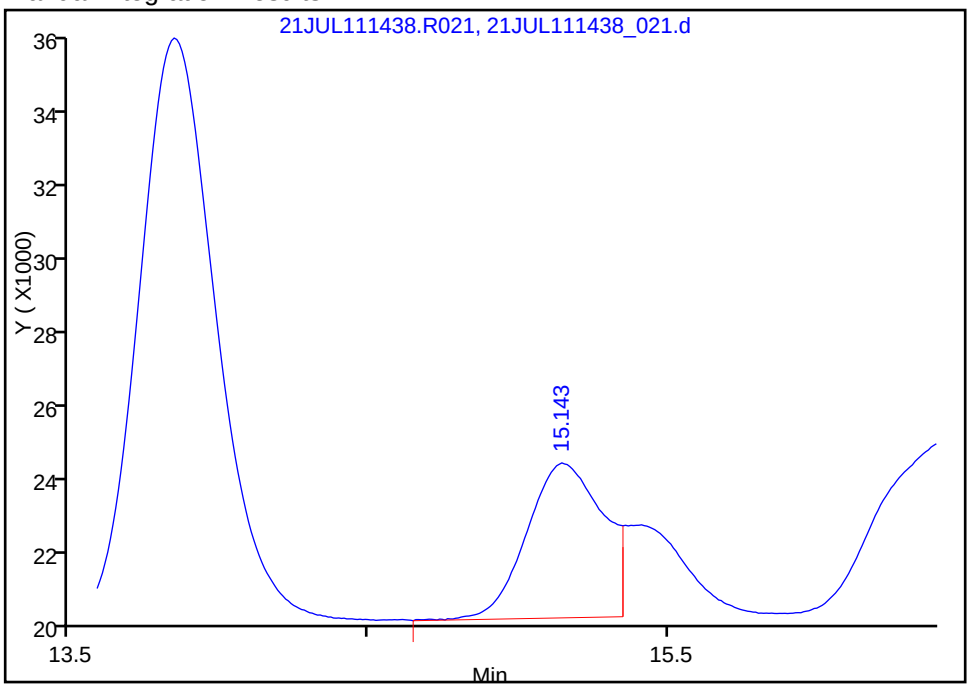
Processing Integration Results

RT: 15.14
Response: 102446
Amount: 322.1122



Manual Integration Results

RT: 15.14
Response: 69996
Amount: 220.6727



Reviewer: chirgwinb, 22-Jul-2011 08:59:26
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:04 Chrom Revision: 1.2 13-Jul-2011 10:43:06

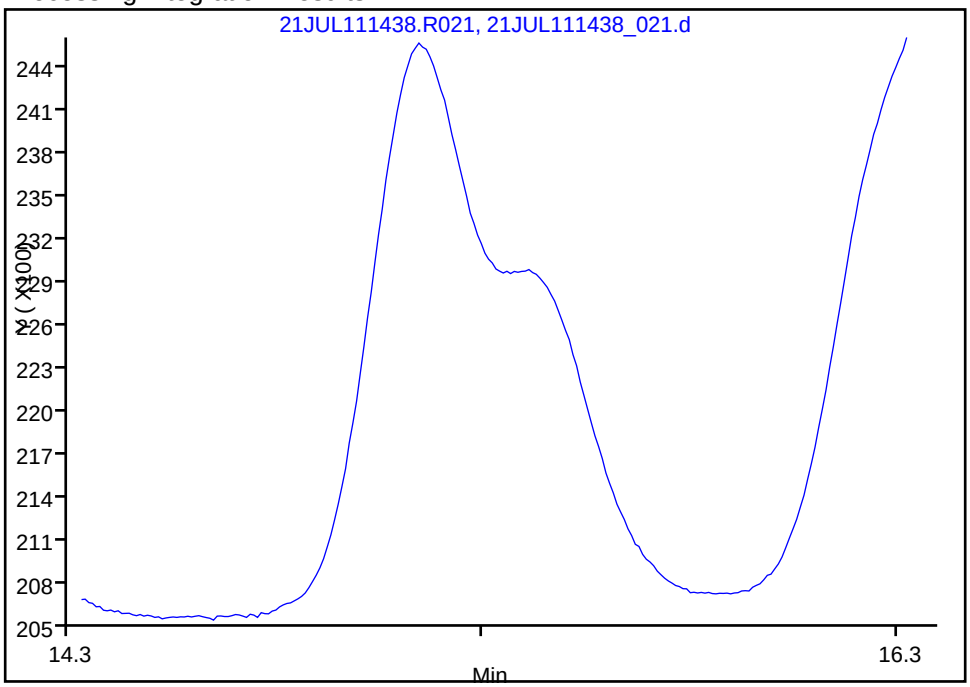
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_021.d		
Injection Date:	21-Jul-2011 17:07:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	2
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.33

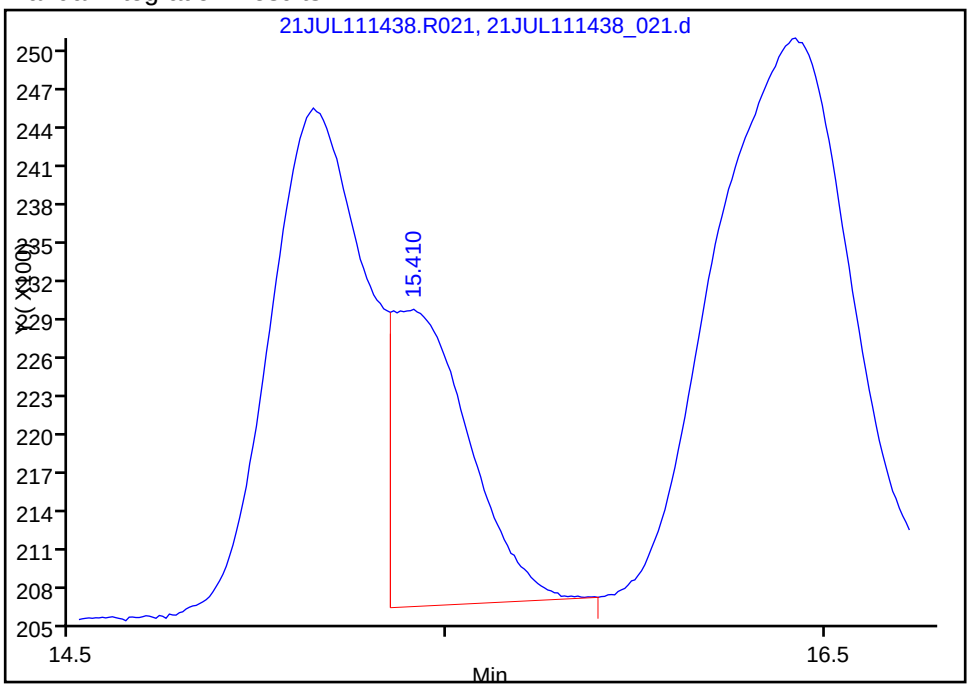
Not Detected
Expected RT: 15.33

Processing Integration Results



Manual Integration Results

RT: 15.41
Response: 32469
Amount: 3703.2835



Reviewer: chirgwinb, 22-Jul-2011 08:59:26
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCV 200-22013/14 Calibration Date: 07/21/2011 23:58

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 21JUL111438_141.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1077		399	400	-0.2	20.0
2,6-diamino-4-nitrotoluene	Lin1		1077		399	400	-0.2	20.0
HMX	Lin1		841.9		203	200	1.5	20.0
RDX	Lin1		613.3		213	200	6.7	20.0
Picric acid	Lin1		712.8		203	200	1.5	20.0
Nitroglycerin	Lin1		8.018		4110	4000	2.9	20.0
Nitrobenzene	Lin1		467.1		207	200	3.4	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1194		212	200	6.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1221		200	200	-0.2	20.0
1,3-Dinitrobenzene	Lin1		1346		194	200	-2.9	20.0
2-Nitrotoluene	Lin1		340.2		215	200	7.3	20.0
PETN	Lin1		8.021		3660	4000	-8.6	20.0
3-Nitrotoluene	Lin1		255.4		405	400	1.1	20.0
4-Nitrotoluene	Lin1		255.4		405	400	1.1	20.0
2,6-Dinitrotoluene	Lin1		760.7		207	200	3.5	20.0
1,3,5-Trinitrobenzene	Lin1		1515		212	200	6.0	20.0
2,4-Dinitrotoluene	Lin1		1097		423	400	5.7	20.0
Tetryl	Lin1		1097		423	400	5.7	20.0
2,4,6-Trinitrotoluene	Lin1		922.3		225	200	12.4	20.0
1,2-Dinitrobenzene	Lin1		598.9		200	200	0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Lab Sample ID: CCV 200-22013/14 Calibration Date: 07/21/2011 23:58

Instrument ID: CH1488 Calib Start Date: 01/24/2011 13:27

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 01/24/2011 16:18

Lab File ID: 21JUL111438_141.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.64	4.55	4.75
2,6-diamino-4-nitrotoluene	4.64	4.55	4.75
HMX	5.45	5.38	5.58
RDX	6.53	6.44	6.64
Picric acid	7.32	7.15	7.55
Nitroglycerin	9.55	9.45	9.65
Nitrobenzene	10.97	10.86	11.06
4-Amino-2,6-dinitrotoluene	11.93	11.84	12.04
2-Amino-4,6-dinitrotoluene	12.15	12.06	12.26
1,3-Dinitrobenzene	13.85	13.75	13.95
2-Nitrotoluene	15.15	15.04	15.24
PETN	15.34	15.23	15.43
3-Nitrotoluene	16.42	16.32	16.52
4-Nitrotoluene	16.42	16.32	16.52
2,6-Dinitrotoluene	17.14	17.05	17.25
1,3,5-Trinitrobenzene	18.37	18.27	18.47
2,4-Dinitrotoluene	19.46	19.36	19.56
Tetryl	19.46	19.36	19.56
2,4,6-Trinitrotoluene	21.71	21.62	21.82
1,2-Dinitrobenzene	11.43	11.33	11.53

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_141.d		
Lims ID:	CCV	Client ID:	
Inject. Date:	21-Jul-2011 23:58:00	Dil. Factor:	1.0000
Sample Type:	CCV		
Sample ID:	200-0000857-014		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	14
Lims Batch ID:	22013	Lims Sample ID:	14
Sublist:	chrom-8330_Biphenyl*sub2		
Detector:	A-21JUL111438.R141		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m		
Last Update:	26-Jul-2011 14:12:08	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: chirgwinb Date: 22-Jul-2011 09:03:32

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
8	2,6-diamino-4-nitrotoluene	4.642	4.651	-0.009	430625	399.3	
6	2,4-diamino-6-nitrotoluene	4.642	4.651	-0.009	430625	399.3	
14	HMX	5.451	5.478	-0.027	168376	202.9	
22	RDX	6.527	6.536	-0.009	122660	213.3	
4	2,4,6-Trinitrophenol	7.318	7.354	-0.036	142564	203.1	
18	Nitroglycerin	9.550	9.550	0.0	32071	4114.2	
17	Nitrobenzene	10.973	10.964	0.009	93426	206.8	
$ 1	1,2-Dinitrobenzene	11.426	11.426	0.0	119782	200.2	
11	4-Amino-2,6-dinitrotoluene	11.933	11.942	-0.009	238820	212.0	
10	2-Amino-4,6-dinitrotoluene	12.147	12.156	-0.009	244135	199.6	
3	1,3-Dinitrobenzene	13.845	13.845	0.0	269126	194.3	
19	o-Nitrotoluene	15.152	15.143	0.009	68030	214.5	M
21	PETN	15.339	15.330	0.009	32084	3657.1	A
15	m-Nitrotoluene	16.424	16.424	0.0	102171	404.5	
20	p-Nitrotoluene	16.424	16.424	0.0	102171	404.5	
9	2,6-Dinitrotoluene	17.144	17.153	-0.009	152140	207.1	
2	1,3,5-Trinitrobenzene	18.371	18.371	0.0	303065	211.9	
7	2,4-Dinitrotoluene	19.456	19.456	0.0	438960	422.9	
23	Tetryl	19.456	19.456	0.0	438960	422.9	
5	2,4,6-Trinitrotoluene	21.706	21.715	-0.009	184462	224.7	

QC Flag Legend

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 14:12:08 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_141.d

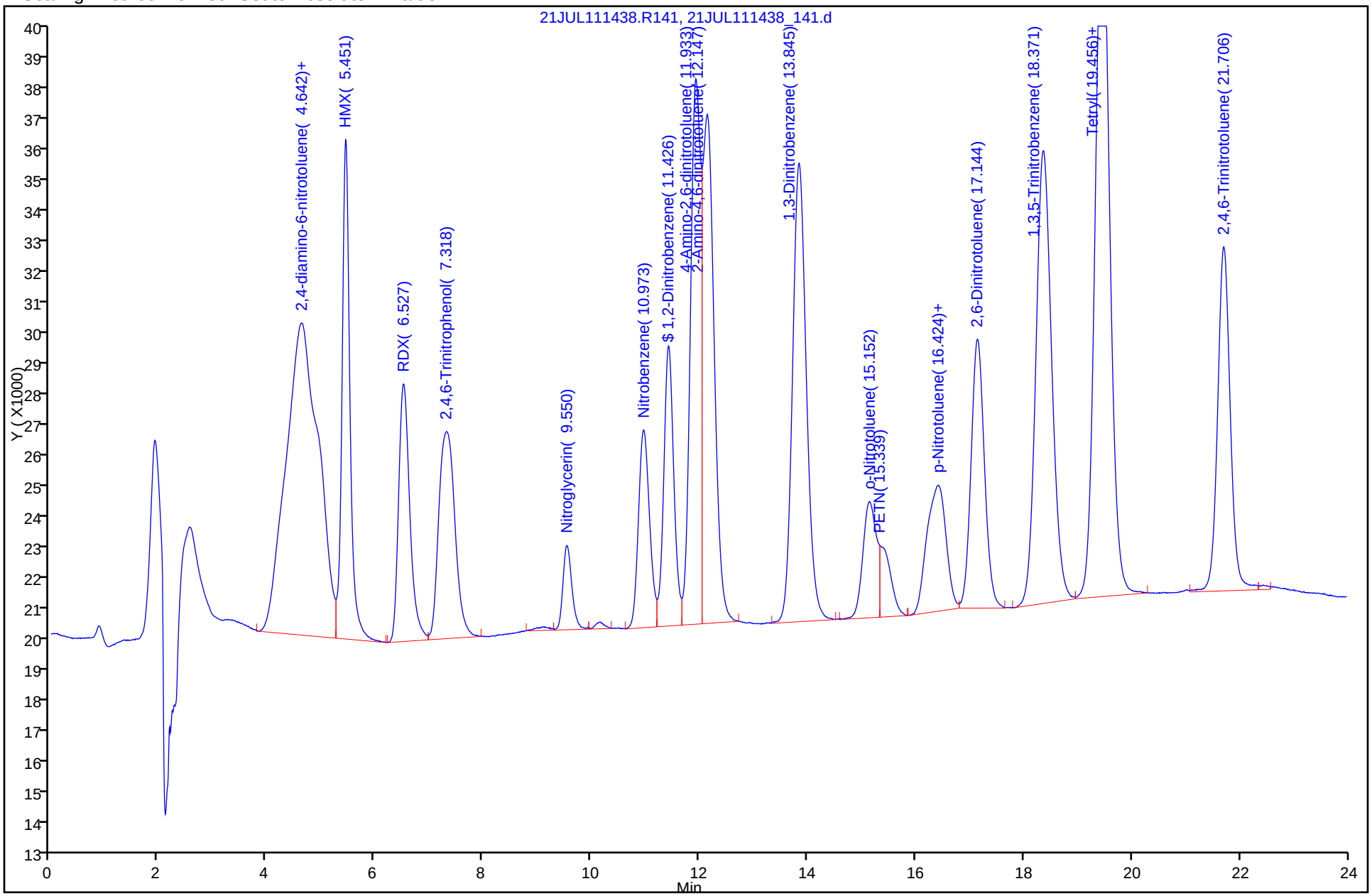
Injection Date: 21-Jul-2011 23:58:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1488

Lims Batch ID: 22013 Lims Sample ID: 14

Operator ID: RJH Injection Vol: 450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Jul-2011 14:12:08 Chrom Revision: 1.2 13-Jul-2011 10:43:06

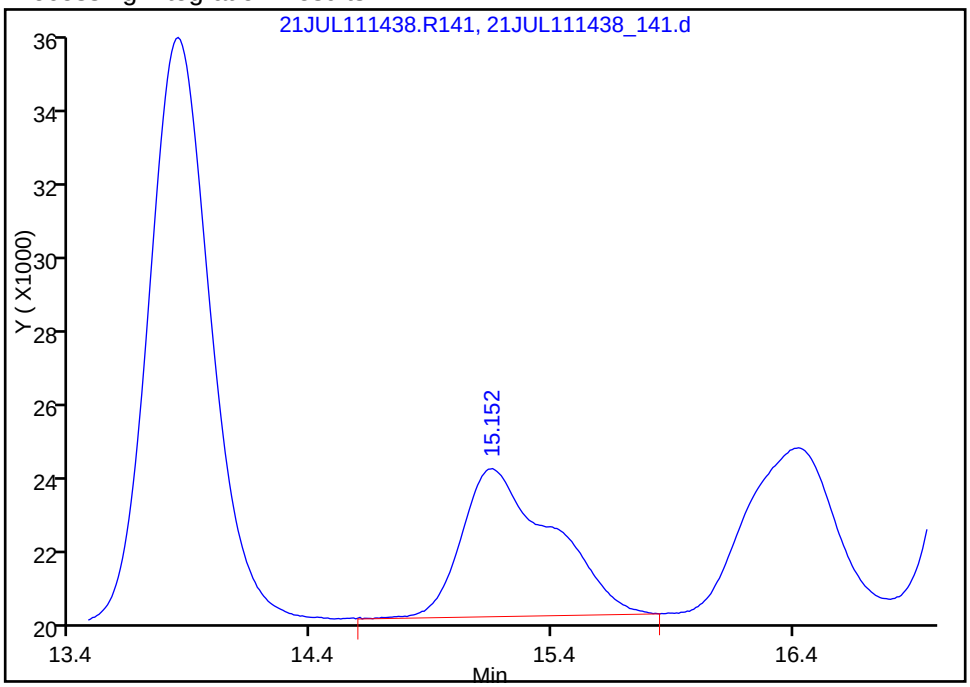
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_141.d		
Injection Date:	21-Jul-2011 23:58:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

19 o-Nitrotoluene, Signal: 1, Type: quant, RT: 15.14

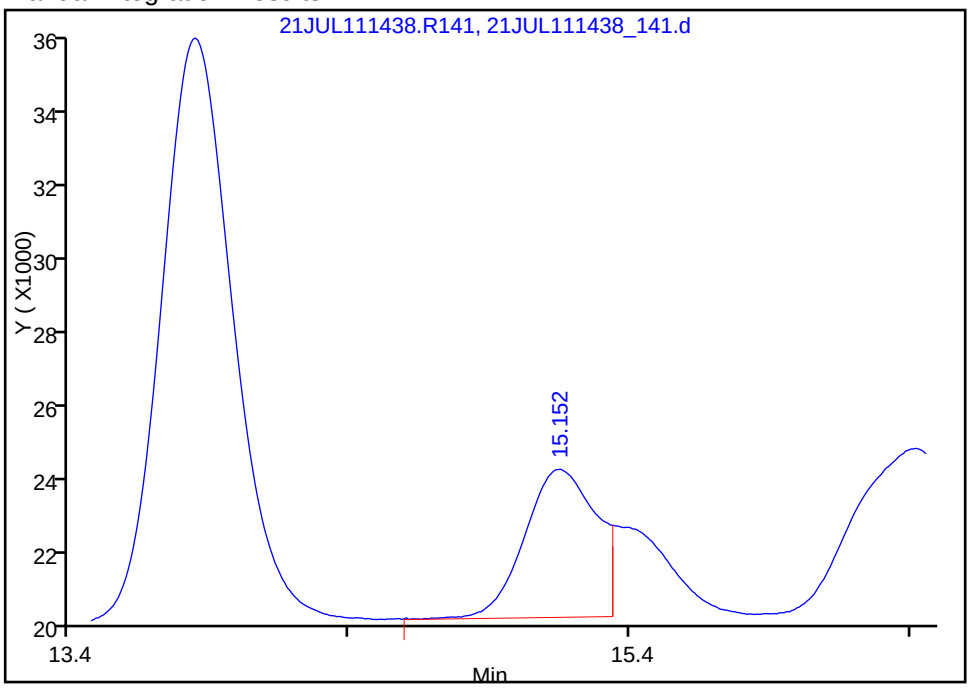
Processing Integration Results

RT: 15.15
Response: 100091
Amount: 314.7504



Manual Integration Results

RT: 15.15
Response: 68030
Amount: 214.5270



Reviewer: chirgwinb, 22-Jul-2011 09:03:32
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

Report Date: 26-Jul-2011 14:12:08 Chrom Revision: 1.2 13-Jul-2011 10:43:06

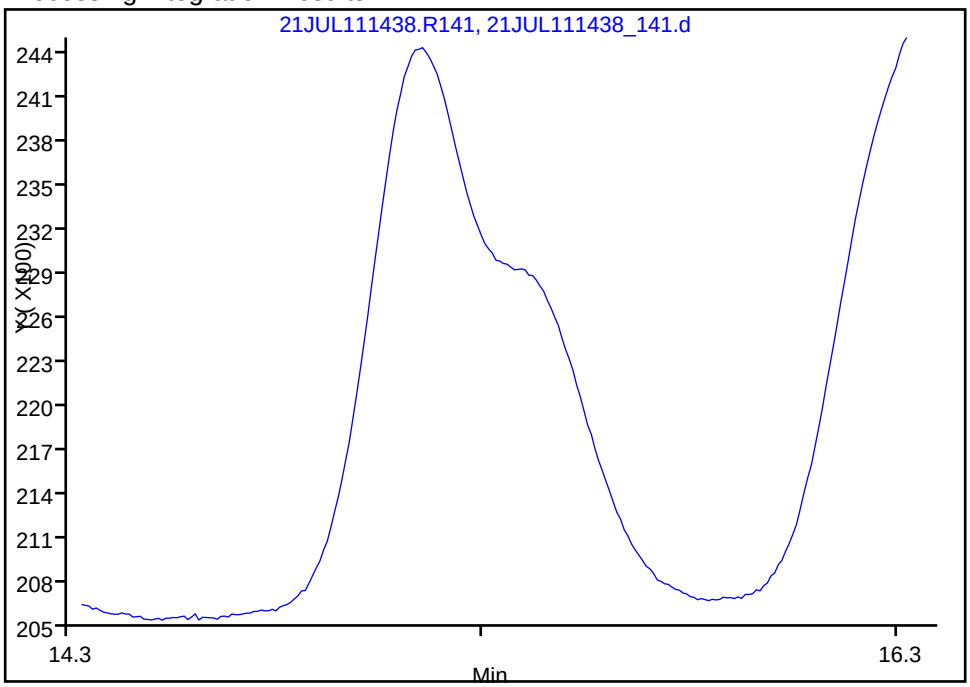
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_141.d		
Injection Date:	21-Jul-2011 23:58:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	14
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.33

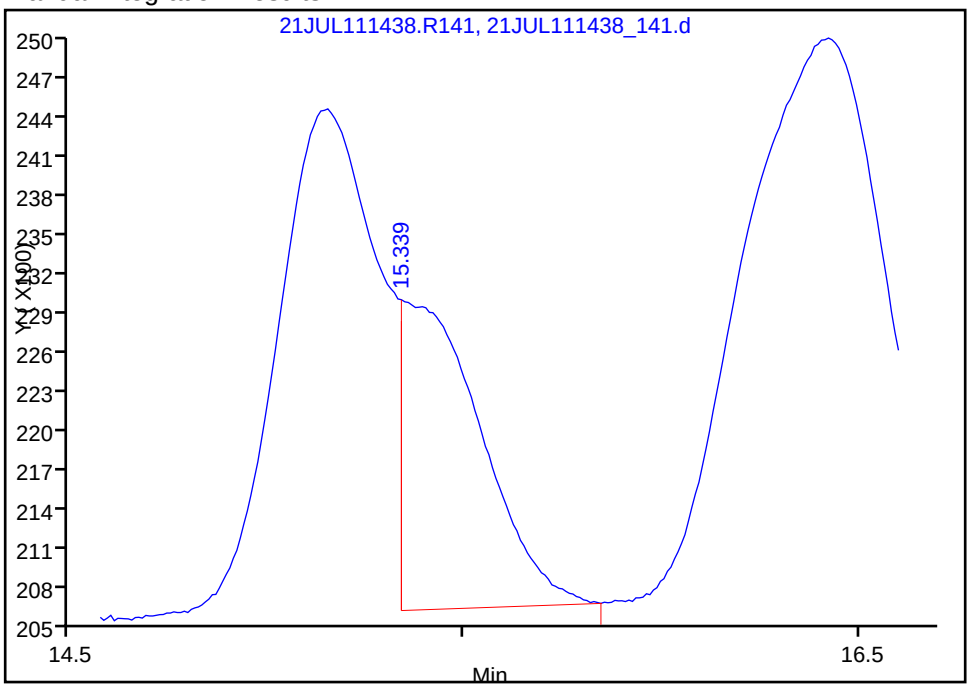
Not Detected
Expected RT: 15.33

Processing Integration Results



Manual Integration Results

RT: 15.34
Response: 32084
Amount: 3657.0800



Reviewer: chirgwinb, 22-Jul-2011 09:03:32
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: | Lab Sample ID: MB 200-21732/3-A

Matrix: Solid | Lab File ID: 21JUL111433_031.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.50(g) | Date Analyzed: 07/21/2011 16:54

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 22012 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.7
606-20-2	2,6-Dinitrotoluene	14	U	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	29	U	95	29	25
78-11-5	PETN	1700	U	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_031.d
Lims ID: MB 200-21732/3-A Client ID:
Inject. Date: 21-Jul-2011 16:54:00 Dil. Factor: 1.0000
Sample Type: MB
Sample ID: 200-0000856-003
Misc. Info.:
Operator: RJH Instrument ID: CH1208
Vol. Injected: 150.0000 ALS Bottle#: 3
Lims Batch ID: 22012 Lims Sample ID: 3
Detector: A-21JUL111433.R031

Method: \\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m
Last Update: 26-Jul-2011 12:32:12 Calib Date: 24-Jan-2011 23:18:00
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d
Limit Group: LC_8330B_Limits
Integrator: Falcon
Process Host: TAIBUR0100

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene		9.657				1
	2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
	3 HMX		10.679				1
	4 2,4-diamino-6-nitrotoluene		11.079				1
	5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				1
	6 MNX		13.228				1
	7 RDX		14.343				1
	8 2,4,6-Trinitrophenol		15.374				1
	9 1,3,5-Trinitrobenzene		16.094				1
$	10 1,2-Dinitrobenzene	16.414	16.405	0.009	64929	182.1	
	11 1,3-Dinitrobenzene		17.330				1
	12 Nitrobenzene		18.193				1
	13 Tetryl		18.459				1
	14 Nitroglycerin		19.197				1
	15 2,4,6-Trinitrotoluene		19.633				1
	16 4-Amino-2,6-dinitrotoluene		20.122				1
	17 2-Amino-4,6-dinitrotoluene		20.496				1
	18 2,6-Dinitrotoluene		20.816				1
	19 2,4-Dinitrotoluene		21.083				1
	20 o-Nitrotoluene		22.567				1
	21 p-Nitrotoluene		23.305				1
	22 m-Nitrotoluene		23.999				1
	23 PETN		24.710				1

QC Flag Legend

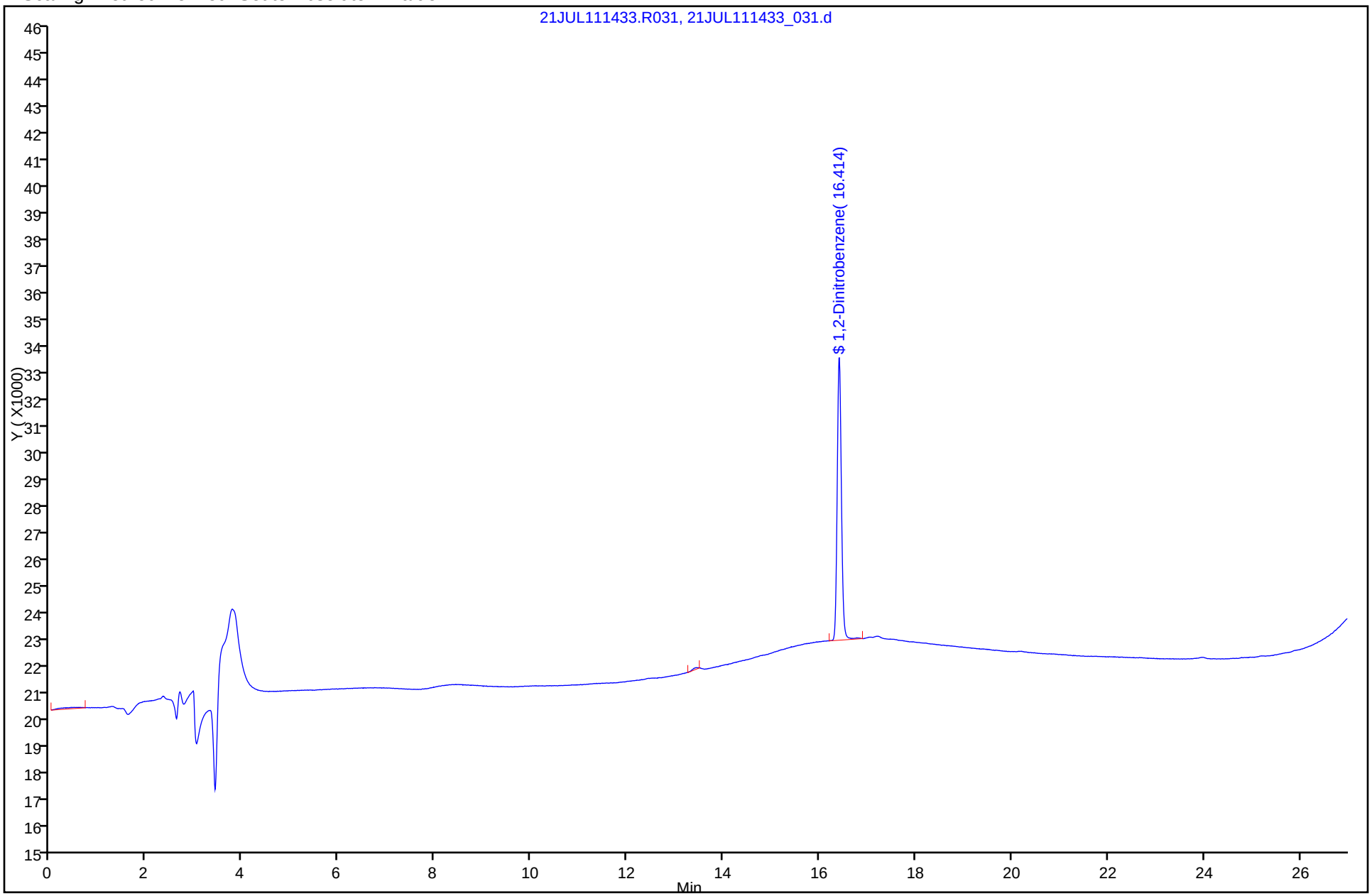
Processing Flags
1 - Missing Peaks

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_031.d

Injection Date:	21-Jul-2011 16:54:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: Lab Sample ID: MB 200-21732/3-A

Matrix: Solid Lab File ID: 21JUL111438_031.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.50(g) Date Analyzed: 07/21/2011 17:41

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 22013 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_031.d		
Lims ID:	MB 200-21732/3-A	Client ID:	
Inject. Date:	21-Jul-2011 17:41:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0000857-003		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1488
Vol. Injected:	450.0000	ALS Bottle#:	3
Lims Batch ID:	22013	Lims Sample ID:	3
Detector:	A-21JUL111438.R031		
Method:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m		
Last Update:	26-Jul-2011 14:12:04	Calib Date:	24-Jan-2011 19:43:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

First Level Reviewer: chirgwinb Date: 22-Jul-2011 09:00:01

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
8 2,6-diamino-4-nitrotoluene		4.651				1
6 2,4-diamino-6-nitrotoluene		4.651				1
13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
14 HMX		5.478				1
16 MNX		5.873				1
22 RDX		6.536				1
4 2,4,6-Trinitrophenol		7.354				1
18 Nitroglycerin		9.550				1
17 Nitrobenzene		10.964				1
$ 1 1,2-Dinitrobenzene	11.418	11.426	-0.008	114688	191.7	
11 4-Amino-2,6-dinitrotoluene		11.942				1
10 2-Amino-4,6-dinitrotoluene		12.156				1
3 1,3-Dinitrobenzene		13.845				1
19 o-Nitrotoluene		15.143				1
21 PETN		15.330				1
15 m-Nitrotoluene		16.424				1
20 p-Nitrotoluene		16.424				1
9 2,6-Dinitrotoluene		17.153				1
2 1,3,5-Trinitrobenzene		18.371				1
7 2,4-Dinitrotoluene		19.456				1
23 Tetryl		19.456				1
5 2,4,6-Trinitrotoluene		21.715				1

QC Flag Legend

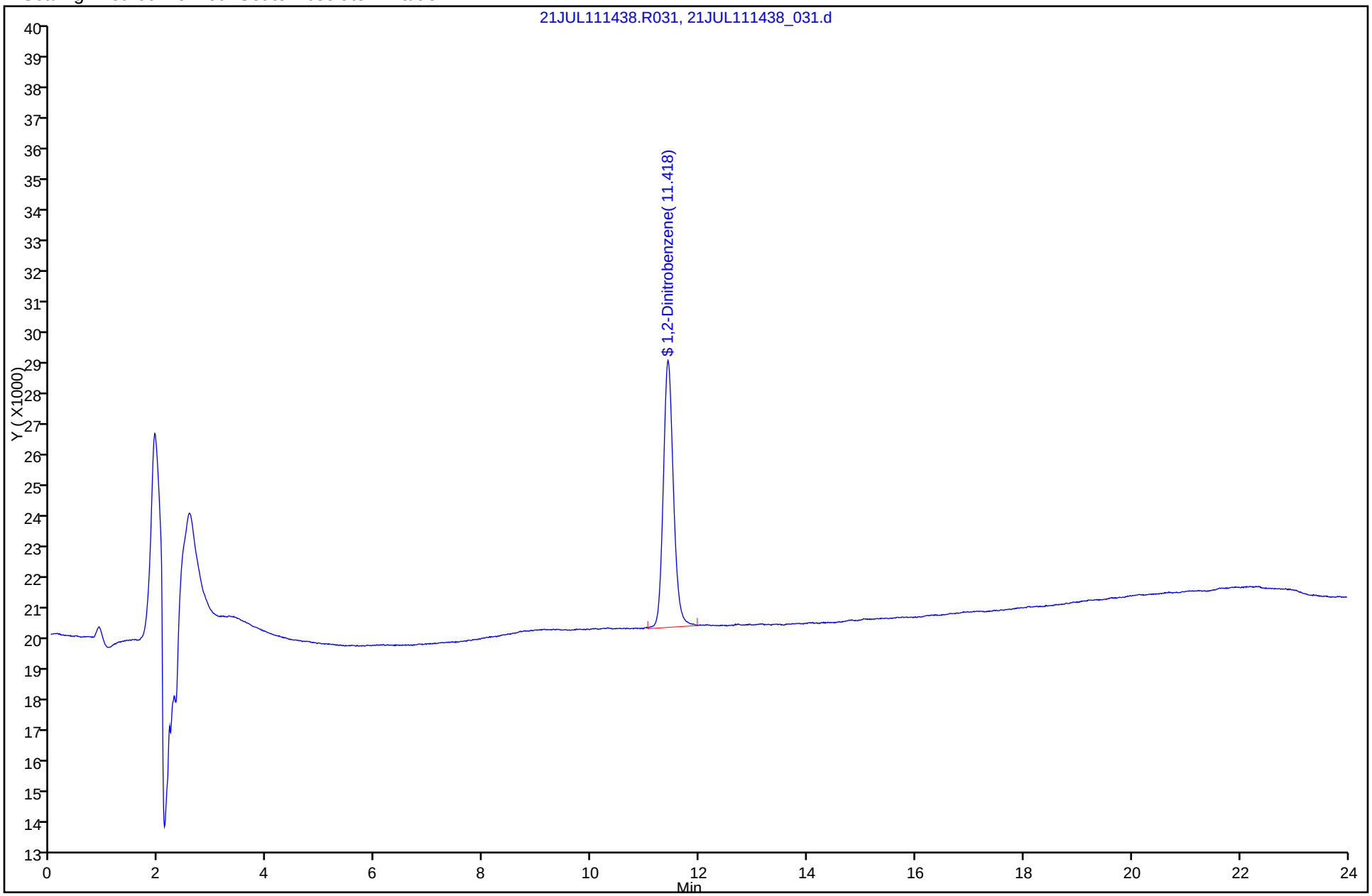
Processing Flags
1 - Missing Peaks

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_031.d

Injection Date:	21-Jul-2011 17:41:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	3
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: | Lab Sample ID: GB 200-21411/3-B

Matrix: Solid | Lab File ID: 21JUL111433_061.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.52(g) | Date Analyzed: 07/21/2011 18:46

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 22012 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	23	U	95	23	10
99-35-4	1,3,5-Trinitrobenzene	23	U	95	23	8.5
99-65-0	1,3-Dinitrobenzene	23	U	95	23	8.0
55-63-0	Nitroglycerin	1400	U	1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	14	U	95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	23	U M	95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	23	U	95	23	6.7
606-20-2	2,6-Dinitrotoluene	14	U M	95	14	5.9
121-14-2	2,4-Dinitrotoluene	29	U	95	29	15
99-08-1	3-Nitrotoluene	29	U M	95	29	25
78-11-5	PETN	1700	U	4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_061.d		
Lims ID:	GB 200-21411/3-B	Client ID:	
Inject. Date:	21-Jul-2011 18:46:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0000856-006		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	6
Lims Batch ID:	22012	Lims Sample ID:	6
Detector:	A-21JUL111433.R061		
Method:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m		
Last Update:	26-Jul-2011 12:32:12	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		
First Level Reviewer: chirgwinb		Date:	25-Jul-2011 16:13:48

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1 2,6-diamino-4-nitrotoluene		9.657				1
2 hexahydro-1,3,5-trinitroso-1,3,5-tria		9.689				1
3 HMX		10.679				1
4 2,4-diamino-6-nitrotoluene		11.079				1
5 hexahydro-1,3-dinitroso-5-nitro-1,3,5		11.545				M
6 MNX		13.228				1
7 RDX		14.343				1
8 2,4,6-Trinitrophenol		15.374				1
9 1,3,5-Trinitrobenzene		16.094				1
$ 10 1,2-Dinitrobenzene	16.405	16.405	0.0	64215	180.1	
11 1,3-Dinitrobenzene		17.330				1
12 Nitrobenzene		18.193				1
13 Tetryl		18.459				1
14 Nitroglycerin		19.197				1
15 2,4,6-Trinitrotoluene		19.633				1
16 4-Amino-2,6-dinitrotoluene	20.211	20.122	0.089	679	1.58	A
17 2-Amino-4,6-dinitrotoluene		20.496				1
18 2,6-Dinitrotoluene	20.869	20.816	0.053	250	0.8603	A
19 2,4-Dinitrotoluene		21.083				1
20 o-Nitrotoluene		22.567				1
21 p-Nitrotoluene		23.305				1
22 m-Nitrotoluene	23.990	23.999	-0.009	810	1.69	A
23 PETN		24.710				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 12:32:14 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_061.d

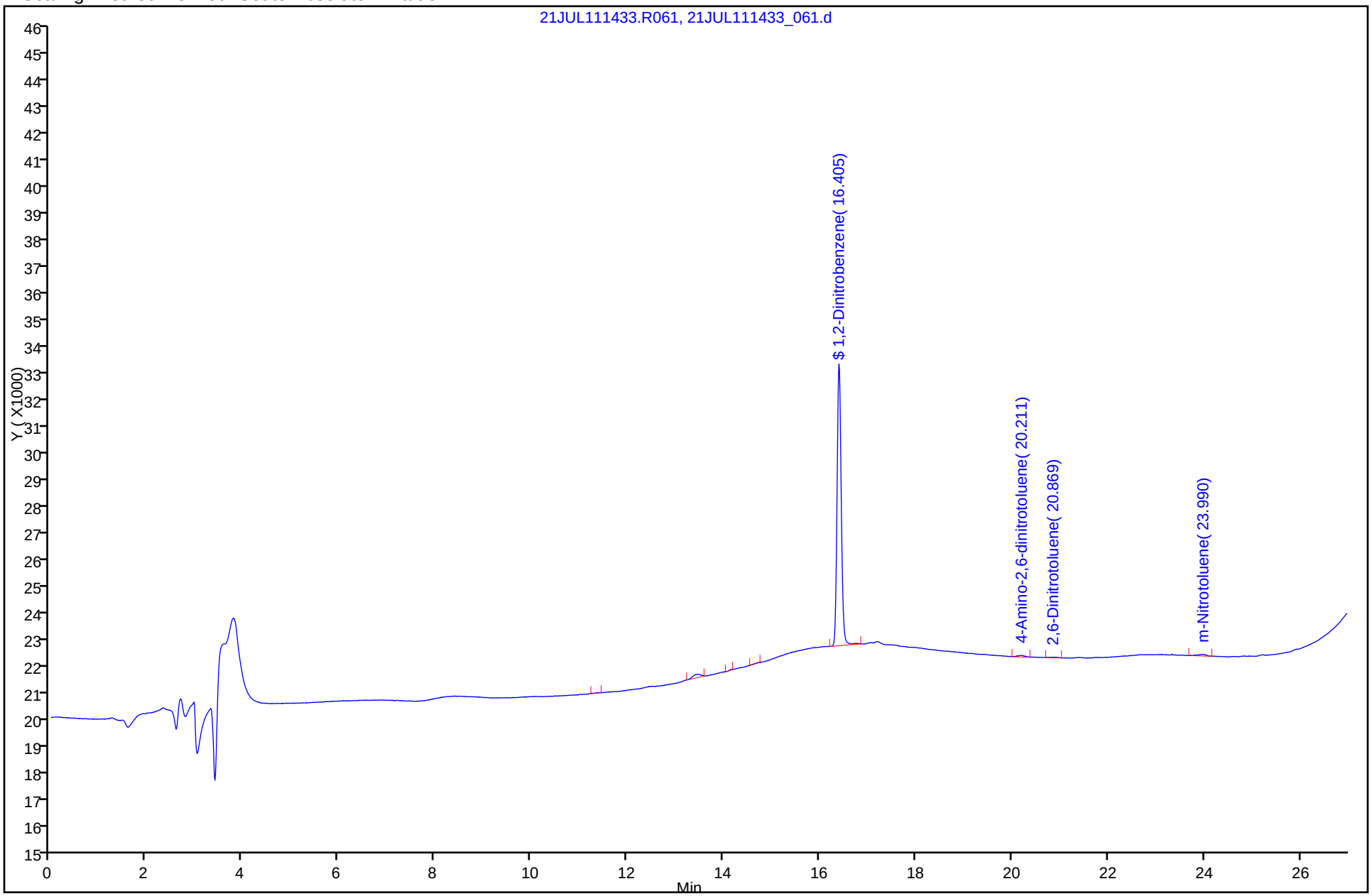
Injection Date: 21-Jul-2011 18:46:00 Limit Group: LC_8330B_Limits

Client ID: Instrument ID: CH1208

Lims Batch ID: 22012 Lims Sample ID: 6

Operator ID: RJH Injection Vol: 150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



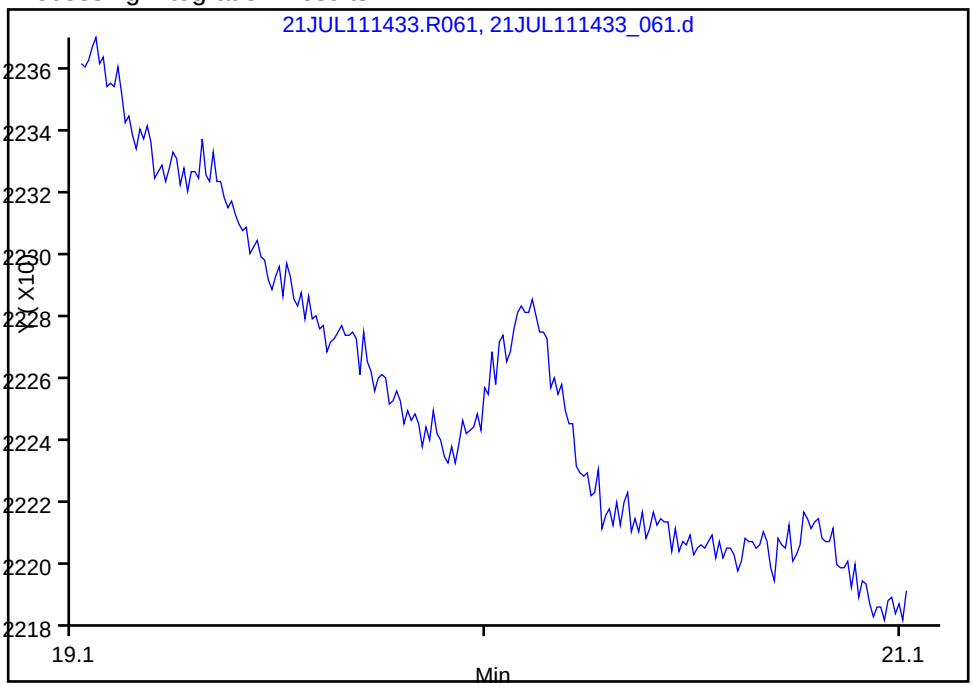
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_061.d		
Injection Date:	21-Jul-2011 18:46:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

16 4-Amino-2,6-dinitrotoluene, Signal: 1, Type: quant, RT: 20.12

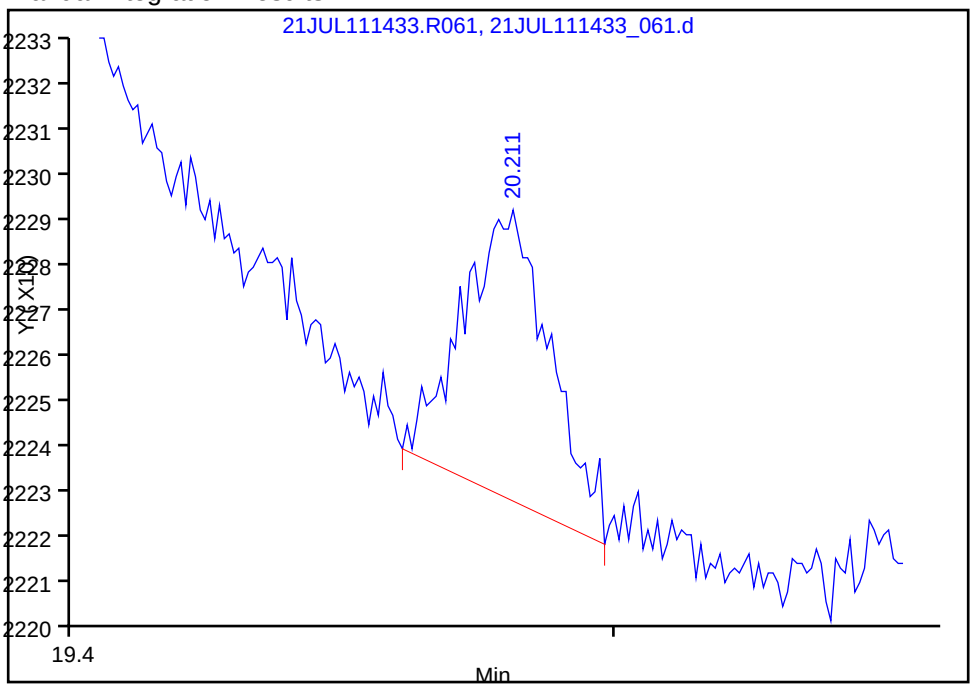
Not Detected
Expected RT: 20.12

Processing Integration Results



Manual Integration Results

RT: 20.21
Response: 679
Amount: 1.577796



Reviewer: chirgwinb, 25-Jul-2011 16:13:48
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 26-Jul-2011 12:32:14 Chrom Revision: 1.2 13-Jul-2011 10:43:06

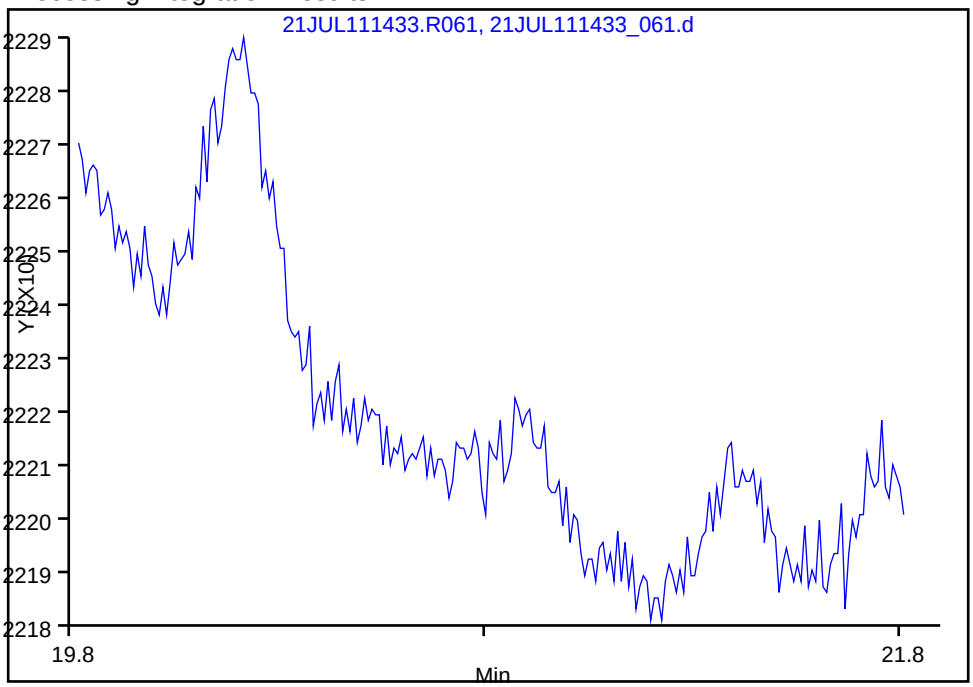
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_061.d		
Injection Date:	21-Jul-2011 18:46:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

18 2,6-Dinitrotoluene, Signal: 1, Type: quant, RT: 20.82

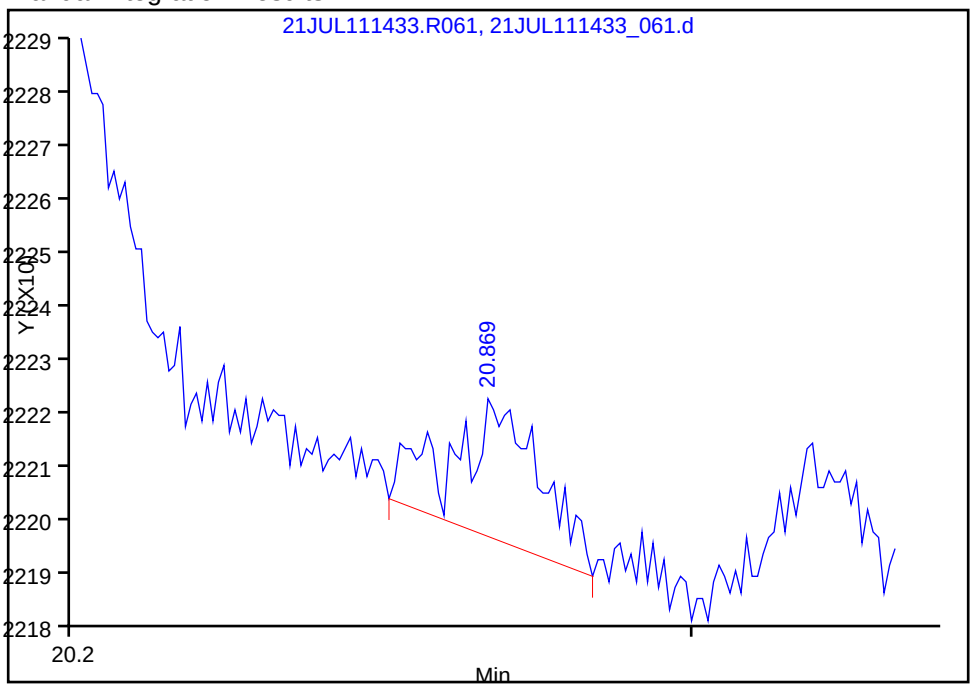
Not Detected
Expected RT: 20.82

Processing Integration Results



Manual Integration Results

RT: 20.87
Response: 250
Amount: 0.860339



Reviewer: chirgwinb, 25-Jul-2011 16:13:48
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

Report Date: 26-Jul-2011 12:32:14 Chrom Revision: 1.2 13-Jul-2011 10:43:06

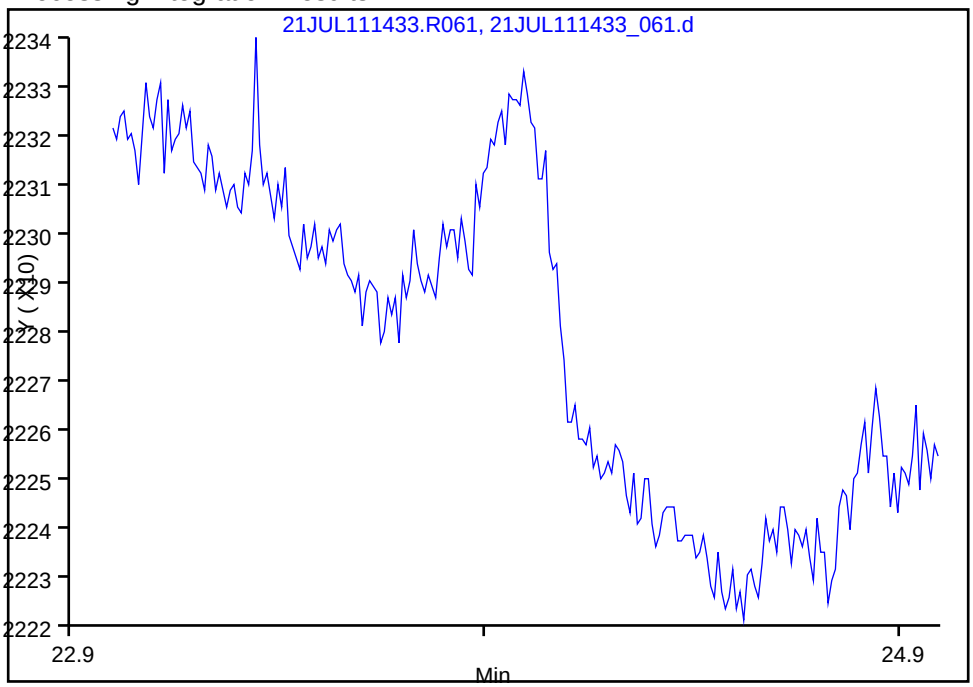
Manual Integration/User Assign Peak Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_061.d		
Injection Date:	21-Jul-2011 18:46:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	6
Operator ID:	RJH	Injection Vol:	150.00 ul

22 m-Nitrotoluene, Signal: 1, Type: quant, RT: 24.00

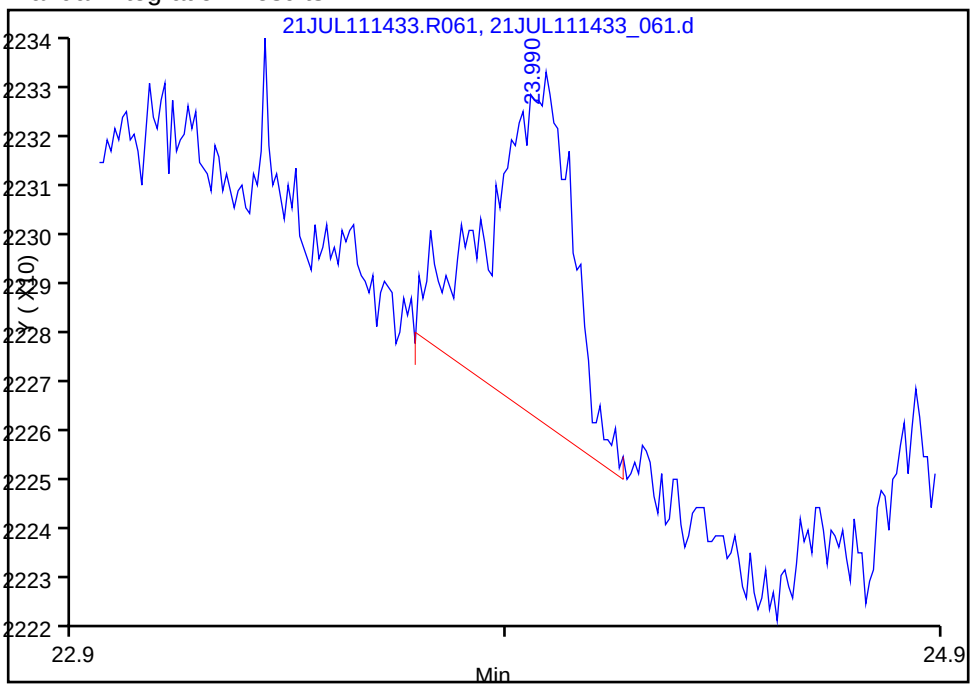
Not Detected
Expected RT: 24.00

Processing Integration Results



Manual Integration Results

RT: 23.99
Response: 810
Amount: 1.691758



Reviewer: chirgwinb, 25-Jul-2011 16:13:48
Audit Action: Assigned Compound ID
Audit Reason: Peak not found by the data system

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: Lab Sample ID: GB 200-21411/3-B

Matrix: Solid Lab File ID: 21JUL111438_061.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.52(g) Date Analyzed: 07/21/2011 19:24

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 22013 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_061.d
Lims ID: GB 200-21411/3-B Client ID:
Inject. Date: 21-Jul-2011 19:24:00 Dil. Factor: 1.0000
Sample Type: GB
Sample ID: 200-0000857-006
Misc. Info.:
Operator: RJH Instrument ID: CH1488
Vol. Injected: 450.0000 ALS Bottle#: 6
Lims Batch ID: 22013 Lims Sample ID: 6
Detector: A-21JUL111438.R061

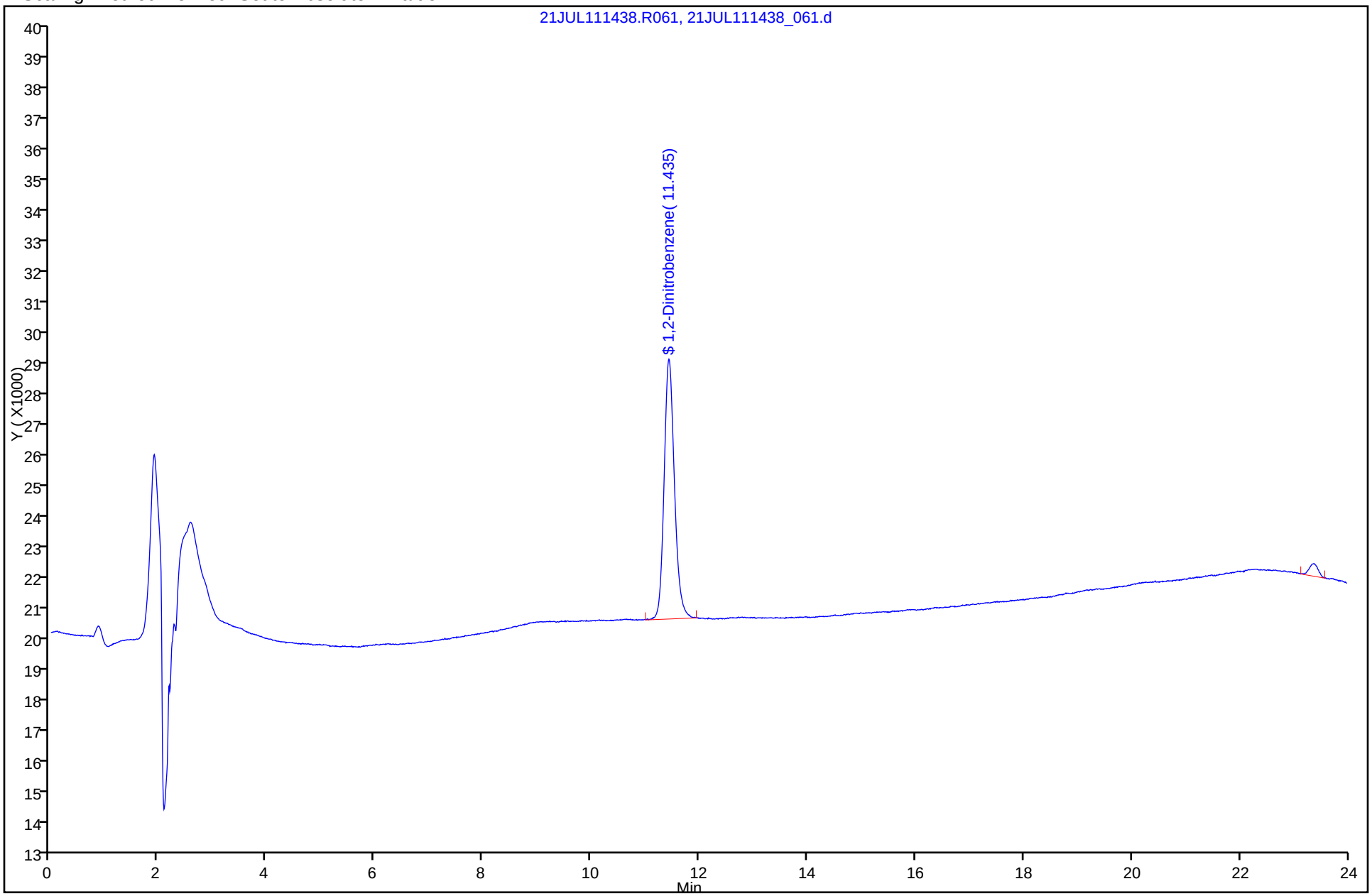
Method: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m
Last Update: 26-Jul-2011 14:12:04 Calib Date: 24-Jan-2011 19:43:00
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d
Limit Group: LC_8330B_Limits
Integrator: Falcon
Process Host: TAIBUR0100

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	12 hexahydro-1,3,5-trinitroso-1,3,5-tria		4.579				1
	8 2,6-diamino-4-nitrotoluene		4.651				1
	6 2,4-diamino-6-nitrotoluene		4.651				1
	13 hexahydro-1,3-dinitroso-5-nitro-1,3,5		5.042				1
	14 HMX		5.478				1
	16 MNX		5.873				1
	22 RDX		6.536				1
	4 2,4,6-Trinitrophenol		7.354				1
	18 Nitroglycerin		9.550				1
	17 Nitrobenzene		10.964				1
$	1 1,2-Dinitrobenzene	11.435	11.426	0.009	113521	189.7	
	11 4-Amino-2,6-dinitrotoluene		11.942				1
	10 2-Amino-4,6-dinitrotoluene		12.156				1
	3 1,3-Dinitrobenzene		13.845				1
	19 o-Nitrotoluene		15.143				1
	21 PETN		15.330				1
	15 m-Nitrotoluene		16.424				1
	20 p-Nitrotoluene		16.424				1
	9 2,6-Dinitrotoluene		17.153				1
	2 1,3,5-Trinitrobenzene		18.371				1
	7 2,4-Dinitrotoluene		19.456				1
	23 Tetryl		19.456				1
	5 2,4,6-Trinitrotoluene		21.715				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

Report Date: 26-Jul-2011 14:12:06 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_061.d
Injection Date: 21-Jul-2011 19:24:00 Limit Group: LC_8330B_Limits
Client ID: Instrument ID: CH1488
Lims Batch ID: 22013 Lims Sample ID: 6
Operator ID: RJH Injection Vol: 450.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: | Lab Sample ID: LCS 200-21732/4-A

Matrix: Solid | Lab File ID: 21JUL111433_041.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.52(g) | Date Analyzed: 07/21/2011 17:31

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 22012 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	1870		95	23	10
99-35-4	1,3,5-Trinitrobenzene	1860		95	23	8.5
99-65-0	1,3-Dinitrobenzene	1750		95	23	8.0
55-63-0	Nitroglycerin	37000		1900	1400	580
118-96-7	2,4,6-Trinitrotoluene	1880		95	14	6.3
19406-51-0	4-Amino-2,6-dinitrotoluene	1850		95	23	9.5
35572-78-2	2-Amino-4,6-dinitrotoluene	1850		95	23	6.7
606-20-2	2,6-Dinitrotoluene	1840		95	14	5.9
121-14-2	2,4-Dinitrotoluene	1840	J	95	29	15
99-08-1	3-Nitrotoluene	1900	J	95	29	25
78-11-5	PETN	38000		4800	1700	810

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_041.d		
Lims ID:	LCS 200-21732/4-A	Client ID:	
Inject. Date:	21-Jul-2011 17:31:00	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	200-0000856-004		
Misc. Info.:			
Operator:	RJH	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	4
Lims Batch ID:	22012	Lims Sample ID:	4
Detector:	A-21JUL111433.R041		
Method:	\\Btv-lims1\ChromData\CH1208\20110721-856.b\8330_C18.m		
Last Update:	26-Jul-2011 12:32:12	Calib Date:	24-Jan-2011 23:18:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20110124-366.b\24JAN111521_131.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	TAIBUR0100		

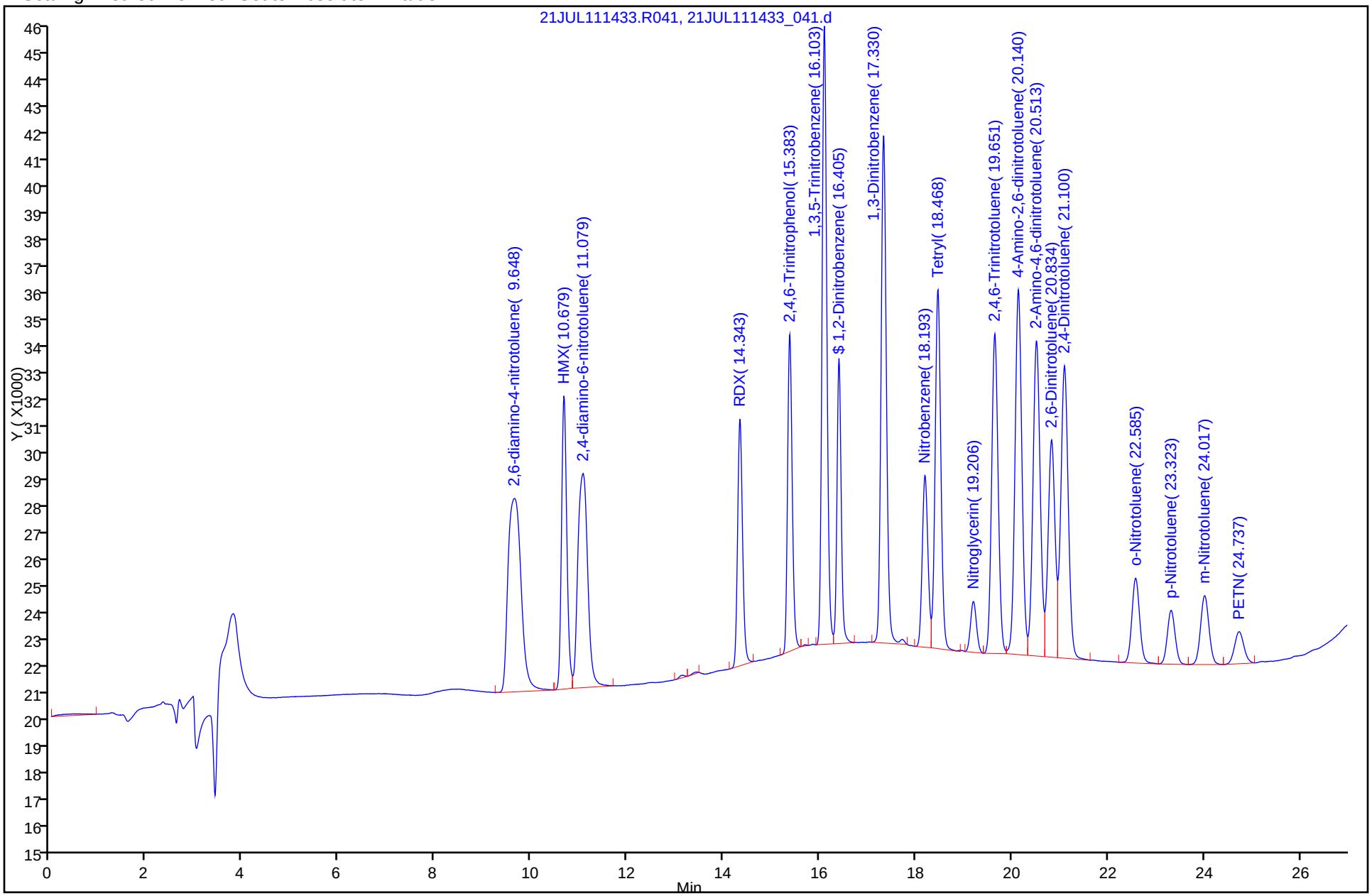
	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene	9.648	9.657	-0.009	138767	195.6	
3	HMX	10.679	10.679	0.0	85259	194.5	
4	2,4-diamino-6-nitrotoluene	11.079	11.079	0.0	115251	193.2	
7	RDX	14.343	14.343	0.0	66632	196.4	
8	2,4,6-Trinitrophenol	15.383	15.374	0.009	80244	196.7	
9	1,3,5-Trinitrobenzene	16.103	16.094	0.009	162336	195.5	
$ 10	1,2-Dinitrobenzene	16.405	16.405	0.0	65719	184.3	
11	1,3-Dinitrobenzene	17.330	17.330	0.0	148433	183.7	
12	Nitrobenzene	18.193	18.193	0.0	53425	195.2	
13	Tetryl	18.468	18.459	0.009	112834	190.3	
14	Nitroglycerin	19.206	19.197	0.009	16517	3889.2	
15	2,4,6-Trinitrotoluene	19.651	19.633	0.018	113962	198.1	
16	4-Amino-2,6-dinitrotoluene	20.140	20.122	0.018	137261	194.8	
17	2-Amino-4,6-dinitrotoluene	20.513	20.496	0.017	124960	194.7	
18	2,6-Dinitrotoluene	20.834	20.816	0.018	82716	194.0	
19	2,4-Dinitrotoluene	21.100	21.083	0.017	119387	193.3	
20	o-Nitrotoluene	22.585	22.567	0.018	36264	195.3	
21	p-Nitrotoluene	23.323	23.305	0.018	23013	198.1	
22	m-Nitrotoluene	24.017	23.999	0.018	31866	200.3	
23	PETN	24.737	24.710	0.027	16488	3995.8	

Report Date: 26-Jul-2011 12:32:13 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\Btv-lims1\ChromData\CH1208\20110721-856.b\21JUL111433_041.d

Injection Date:	21-Jul-2011 17:31:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1208
Lims Batch ID:	22012	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	150.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Client Sample ID: Lab Sample ID: LCS 200-21732/4-A

Matrix: Solid Lab File ID: 21JUL111438_041.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 07/18/2011 12:52

Sample wt/vol: 10.52(g) Date Analyzed: 07/21/2011 18:16

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 22013 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87		40-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_041.d
Lims ID: LCS 200-21732/4-A Client ID:
Inject. Date: 21-Jul-2011 18:16:00 Dil. Factor: 1.0000
Sample Type: LCS
Sample ID: 200-0000857-004
Misc. Info.:
Operator: RJH Instrument ID: CH1488
Vol. Injected: 450.0000 ALS Bottle#: 4
Lims Batch ID: 22013 Lims Sample ID: 4
Detector: A-21JUL111438.R041

Method: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\8330_Biphenyl.m
Last Update: 26-Jul-2011 14:12:04 Calib Date: 24-Jan-2011 19:43:00
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b\24JAN111214_131.d
Limit Group: LC_8330B_Limits
Integrator: Falcon
Process Host: TAIBUR0100

First Level Reviewer: chirgwinb Date: 22-Jul-2011 09:00:59

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	8 2,6-diamino-4-nitrotoluene	4.668	4.651	0.017	397254	368.8	
	6 2,4-diamino-6-nitrotoluene	4.668	4.651	0.017	397254	368.8	
	14 HMX	5.451	5.478	-0.027	145077	175.1	
	22 RDX	6.536	6.536	0.0	108477	188.7	
	4 2,4,6-Trinitrophenol	7.354	7.354	0.0	132195	188.5	
	18 Nitroglycerin	9.559	9.550	0.009	31733	4071.0	
	17 Nitrobenzene	10.973	10.964	0.009	84855	187.6	
$	1 1,2-Dinitrobenzene	11.435	11.426	0.009	104175	174.0	
	11 4-Amino-2,6-dinitrotoluene	11.942	11.942	0.0	212487	188.6	
	10 2-Amino-4,6-dinitrotoluene	12.156	12.156	0.0	211672	172.9	
	3 1,3-Dinitrobenzene	13.854	13.845	0.009	236302	170.6	
	19 o-Nitrotoluene	15.143	15.143	0.0	60908	192.3	M
	21 PETN	15.339	15.330	0.009	29257	3317.8	A
	15 m-Nitrotoluene	16.433	16.424	0.009	89898	355.9	
	20 p-Nitrotoluene	16.433	16.424	0.009	89898	355.9	
	9 2,6-Dinitrotoluene	17.153	17.153	0.0	129622	176.6	
	2 1,3,5-Trinitrobenzene	18.380	18.371	0.009	258786	180.9	
	7 2,4-Dinitrotoluene	19.465	19.456	0.009	366624	353.3	
	23 Tetryl	19.465	19.456	0.009	366624	353.3	
	5 2,4,6-Trinitrotoluene	21.715	21.715	0.0	153300	186.6	

QC Flag Legend

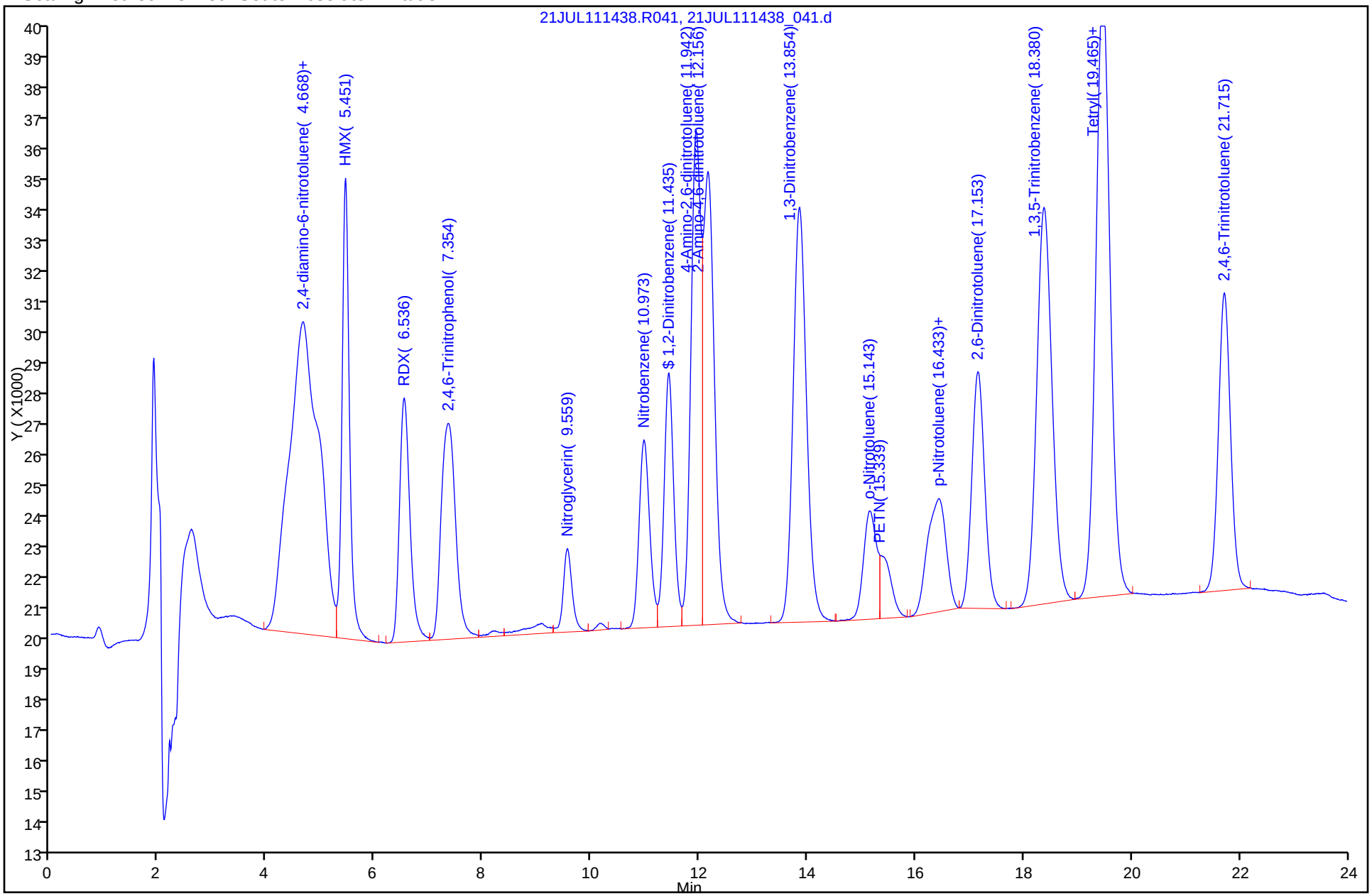
Review Flags
M - Manually Integrated
A - User Assigned ID

Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

Data File: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_041.d

Injection Date:	21-Jul-2011 18:16:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	450.00 ul

Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Jul-2011 14:12:05 Chrom Revision: 1.2 13-Jul-2011 10:43:06

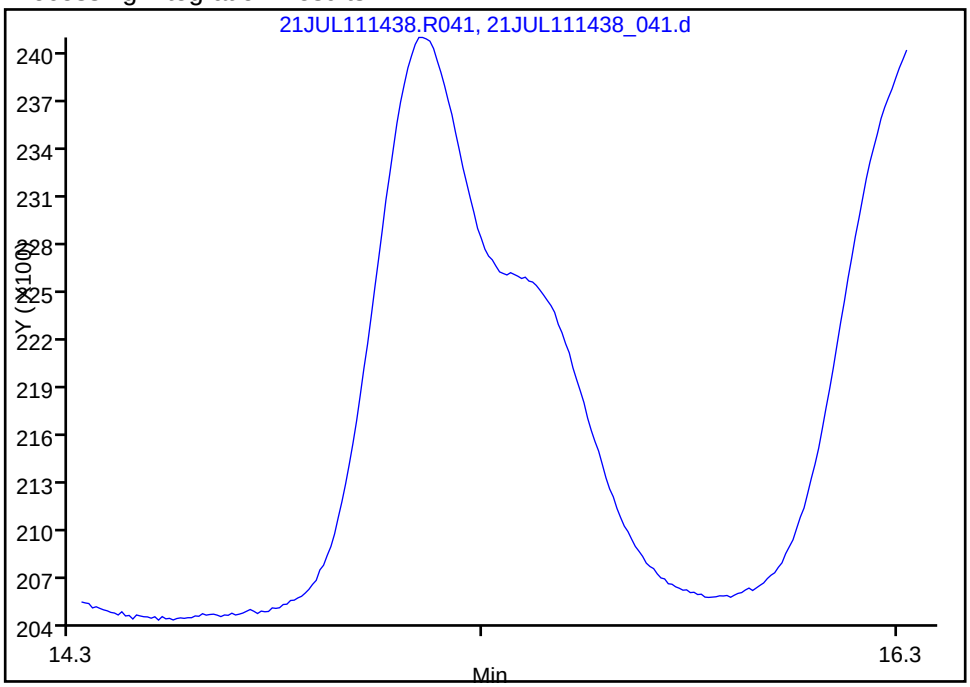
Manual Integration/User Assign Peak Report

Data File:	\\BTV-LIMS1\ChromData\CH1488\20110721-857.b\21JUL111438_041.d		
Injection Date:	21-Jul-2011 18:16:00	Limit Group:	LC_8330B_Limits
Client ID:		Instrument ID:	CH1488
Lims Batch ID:	22013	Lims Sample ID:	4
Operator ID:	RJH	Injection Vol:	450.00 ul

21 PETN, Signal: 1, Type: quant, RT: 15.33

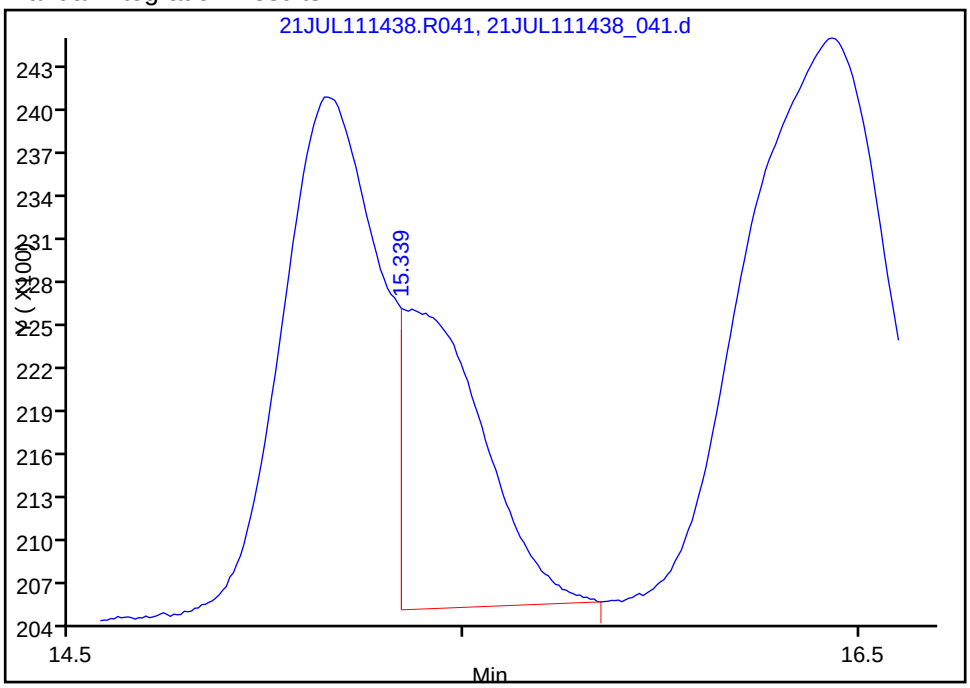
Not Detected
Expected RT: 15.33

Processing Integration Results



Manual Integration Results

RT: 15.34
Response: 29257
Amount: 3317.8140



Reviewer: chirgwinb, 22-Jul-2011 09:00:59
Audit Action: Assigned Compound ID
Audit Reason: Baseline Event

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 012411_CAL Worklist Num: 366
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110124-366.b
Anaylysis Type: SemiVOA Creator:
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0000366-001	ICB		24-Jan-2011 15:48:00	24JAN111521_01	1	1.0		sv
# 2 IC 2	200-0000366-002	IC	2	24-Jan-2011 16:26:00	24JAN111521_02	2	1.0		sv
# 3 IC 3	200-0000366-003	IC	3	24-Jan-2011 17:03:00	24JAN111521_03	3	1.0		sv
# 4 IC 4	200-0000366-004	IC	4	24-Jan-2011 17:41:00	24JAN111521_04	4	1.0		sv
# 5 ICRTAV 5	200-0000366-005	ICRTAV	5	24-Jan-2011 18:18:00	24JAN111521_05	5	1.0		sv
# 6 IC 6	200-0000366-006	IC	6	24-Jan-2011 18:55:00	24JAN111521_06	6	1.0		sv
# 7 IC 7	200-0000366-007	IC	7	24-Jan-2011 19:33:00	24JAN111521_07	7	1.0		sv
# 8 IC 2 NX	200-0000366-008	IC	2	24-Jan-2011 20:10:00	24JAN111521_08	8	1.0		sv
# 9 IC 3 NX	200-0000366-009	IC	3	24-Jan-2011 20:48:00	24JAN111521_09	9	1.0		sv
#10 IC 4 NX	200-0000366-010	IC	4	24-Jan-2011 21:25:00	24JAN111521_10	10	1.0		sv
#11 IC 5 NX	200-0000366-011	IC	5	24-Jan-2011 22:03:00	24JAN111521_11	11	1.0		sv
#12 IC 6 NX	200-0000366-012	IC	6	24-Jan-2011 22:40:00	24JAN111521_12	12	1.0		sv
#13 IC 7 NX	200-0000366-013	IC	7	24-Jan-2011 23:18:00	24JAN111521_13	13	1.0		sv
#14 CCVL	200-0000366-014	CCVL		24-Jan-2011 23:55:00	24JAN111521_14	14	1.0		sv
#15 CCVL PETN	200-0000366-015	CCVL		25-Jan-2011 00:33:00	24JAN111521_15	15	1.0		sv
#16 ICV	200-0000366-016	ICV		25-Jan-2011 01:10:00	24JAN111521_16	16	1.0		sv
#17 CCVL NX	200-0000366-017	CCVL		25-Jan-2011 01:47:00	24JAN111521_17	17	1.0		sv
#18 ICV NX	200-0000366-018	ICV		25-Jan-2011 02:25:00	24JAN111521_18	17	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 072111_1 Worklist Num: 856
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110721-856.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 Blank	200-0000856-001	Client		21-Jul-2011 15:39:00	21JUL111433_01	1	1.0		sv
# 2 CCV	200-0000856-002	CCV		21-Jul-2011 16:16:00	21JUL111433_02	2	1.0		sv
# 3 MB 200-21732/3-A	200-0000856-003	MB		21-Jul-2011 16:54:00	21JUL111433_03	3	1.0		sv
# 4 LCS 200-21732/4-A	200-0000856-004	LCS		21-Jul-2011 17:31:00	21JUL111433_04	4	1.0		sv
# 5 200-5916-A-2-B	200-0000856-005	Client		21-Jul-2011 18:09:00	21JUL111433_05	5	1.0	WPR02-SS19	sv
# 6 GB 200-21411/3-B	200-0000856-006	GB		21-Jul-2011 18:46:00	21JUL111433_06	6	1.0		sv
# 7 MB 200-21802/1-A	200-0000856-007	MB		21-Jul-2011 19:24:00	21JUL111433_07	7	1.0		sv
# 8 LCS 200-21802/2-A	200-0000856-008	LCS		21-Jul-2011 20:01:00	21JUL111433_08	8	1.0		sv
# 9 200-6015-E-1-A	200-0000856-009	Client		21-Jul-2011 20:38:00	21JUL111433_09	9	1.0	SCW-004-072011	sv
#10 200-6015-E-2-A	200-0000856-010	Client		21-Jul-2011 21:16:00	21JUL111433_10	10	1.0	SCW-005-072011	sv
#11 200-6015-E-3-A	200-0000856-011	Client		21-Jul-2011 21:53:00	21JUL111433_11	11	1.0	SCW-006-072011	sv
#12 200-6015-D-4-A	200-0000856-012	Client		21-Jul-2011 22:31:00	21JUL111433_12	12	1.0	SCW-206-072011	sv
#13 200-6015-E-6-A	200-0000856-013	Client		21-Jul-2011 23:08:00	21JUL111433_13	13	1.0	SW-012-072011	sv
#14 CCV	200-0000856-014	CCV		21-Jul-2011 23:46:00	21JUL111433_14	14	1.0		sv
#15 200-6015-D-7-A	200-0000856-015	Client		22-Jul-2011 00:23:00	21JUL111433_15	15	1.0	SW-011-072011	sv
#16 200-6015-E-8-A	200-0000856-016	Client		22-Jul-2011 01:01:00	21JUL111433_16	16	1.0	SW-009-072011	sv
#17 200-6015-E-9-A	200-0000856-017	Client		22-Jul-2011 01:38:00	21JUL111433_17	17	1.0	SW-008-072011	sv
#18 200-6015-E-10-A	200-0000856-018	Client		22-Jul-2011 02:15:00	21JUL111433_18	18	1.0	SW-006-072011	sv
#19 200-6015-D-11-A	200-0000856-019	Client		22-Jul-2011 02:53:00	21JUL111433_19	19	1.0	OART-072011	sv
#20 200-6015-D-12-A	200-0000856-020	Client		22-Jul-2011 03:30:00	21JUL111433_20	20	1.0	SW-005-072011	sv
#21 200-6015-D-13-A	200-0000856-021	Client		22-Jul-2011 04:08:00	21JUL111433_21	21	1.0	SW-205-072011	sv
#22 200-6015-E-14-A	200-0000856-022	Client		22-Jul-2011 04:45:00	21JUL111433_22	22	1.0	SW-010-072011	sv
#23 200-6015-D-15-A	200-0000856-023	Client		22-Jul-2011 05:23:00	21JUL111433_23	23	1.0	SW-013-072011	sv
#24 200-6015-D-12-B MS	200-0000856-024	MS		22-Jul-2011 06:00:00	21JUL111433_24	24	1.0	SW-005-072011	sv
#25 200-6015-D-12-C MSD	200-0000856-025	MSD		22-Jul-2011 06:37:00	21JUL111433_25	25	1.0	SW-005-072011	sv
#26 CCV	200-0000856-026	CCV		22-Jul-2011 07:15:00	21JUL111434_01	1	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 012411_CAL Worklist Num: 363
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20110124-363.b
Anaylysis Type: SemiVOA Creator:
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0000363-001	ICB		24-Jan-2011 12:53:00	24JAN111214_01	1	1.0		sv
# 2 IC 2	200-0000363-002	IC	2	24-Jan-2011 13:27:00	24JAN111214_02	2	1.0		sv
# 3 IC 3	200-0000363-003	IC	3	24-Jan-2011 14:02:00	24JAN111214_03	3	1.0		sv
# 4 IC 4	200-0000363-004	IC	4	24-Jan-2011 14:36:00	24JAN111214_04	4	1.0		sv
# 5 ICRTAV 5	200-0000363-005	ICRTAV	5	24-Jan-2011 15:10:00	24JAN111214_05	5	1.0		sv
# 6 IC 6	200-0000363-006	IC	6	24-Jan-2011 15:44:00	24JAN111214_06	6	1.0		sv
# 7 IC 7	200-0000363-007	IC	7	24-Jan-2011 16:18:00	24JAN111214_07	7	1.0		sv
# 8 IC 2 NX	200-0000363-008	IC	2	24-Jan-2011 16:52:00	24JAN111214_08	8	1.0		sv
# 9 IC 3 NX	200-0000363-009	IC	3	24-Jan-2011 17:27:00	24JAN111214_09	9	1.0		sv
#10 IC 4 NX	200-0000363-010	IC	4	24-Jan-2011 18:01:00	24JAN111214_10	10	1.0		sv
#11 IC 5 NX	200-0000363-011	IC	5	24-Jan-2011 18:35:00	24JAN111214_11	11	1.0		sv
#12 IC 6 NX	200-0000363-012	IC	6	24-Jan-2011 19:09:00	24JAN111214_12	12	1.0		sv
#13 IC 7 NX	200-0000363-013	IC	7	24-Jan-2011 19:43:00	24JAN111214_13	13	1.0		sv
#14 CCVL	200-0000363-014	CCVL		24-Jan-2011 20:18:00	24JAN111214_14	14	1.0		sv
#15 CCVL PETN	200-0000363-015	CCVL		24-Jan-2011 20:52:00	24JAN111214_15	15	1.0		sv
#16 ICV	200-0000363-016	ICV		24-Jan-2011 21:26:00	24JAN111214_16	16	1.0		sv
#17 CCVL NX	200-0000363-017	CCVL		24-Jan-2011 22:00:00	24JAN111214_17	17	1.0		sv
#18 ICV NX	200-0000363-018	ICV		24-Jan-2011 22:34:00	24JAN111214_18	18	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 072111_1 Worklist Num: 857
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20110721-857.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 BLANK	200-0000857-001	Client		21-Jul-2011 16:33:00	21JUL111438_01	1	1.0		sv
# 2 CCV	200-0000857-002	CCV		21-Jul-2011 17:07:00	21JUL111438_02	2	1.0		sv
# 3 MB 200-21732/3-A	200-0000857-003	MB		21-Jul-2011 17:41:00	21JUL111438_03	3	1.0		sv
# 4 LCS 200-21732/4-A	200-0000857-004	LCS		21-Jul-2011 18:16:00	21JUL111438_04	4	1.0		sv
# 5 200-5916-A-2-B	200-0000857-005	Client		21-Jul-2011 18:50:00	21JUL111438_05	5	1.0	WPR02-SS19	sv
# 6 GB 200-21411/3-B	200-0000857-006	GB		21-Jul-2011 19:24:00	21JUL111438_06	6	1.0		sv
# 7 MB 200-21802/1-A	200-0000857-007	MB		21-Jul-2011 19:58:00	21JUL111438_07	7	1.0		sv
# 8 LCS 200-21802/2-A	200-0000857-008	LCS		21-Jul-2011 20:32:00	21JUL111438_08	8	1.0		sv
# 9 200-6015-E-1-A	200-0000857-009	Client		21-Jul-2011 21:07:00	21JUL111438_09	9	1.0	SCW-004-072011	sv
#10 200-6015-E-2-A	200-0000857-010	Client		21-Jul-2011 21:41:00	21JUL111438_10	10	1.0	SCW-005-072011	sv
#11 200-6015-E-3-A	200-0000857-011	Client		21-Jul-2011 22:15:00	21JUL111438_11	11	1.0	SCW-006-072011	sv
#12 200-6015-D-4-A	200-0000857-012	Client		21-Jul-2011 22:49:00	21JUL111438_12	12	1.0	SCW-206-072011	sv
#13 200-6015-E-6-A	200-0000857-013	Client		21-Jul-2011 23:23:00	21JUL111438_13	13	1.0	SW-012-072011	sv
#14 CCV	200-0000857-014	CCV		21-Jul-2011 23:58:00	21JUL111438_14	14	1.0		sv
#15 200-6015-D-7-A	200-0000857-015	Client		22-Jul-2011 00:32:00	21JUL111438_15	15	1.0	SW-011-072011	sv
#16 200-6015-E-8-A	200-0000857-016	Client		22-Jul-2011 01:06:00	21JUL111438_16	16	1.0	SW-009-072011	sv
#17 200-6015-E-9-A	200-0000857-017	Client		22-Jul-2011 01:40:00	21JUL111438_17	17	1.0	SW-008-072011	sv
#18 200-6015-E-10-A	200-0000857-018	Client		22-Jul-2011 02:14:00	21JUL111438_18	18	1.0	SW-006-072011	sv
#19 200-6015-D-11-A	200-0000857-019	Client		22-Jul-2011 02:49:00	21JUL111438_19	19	1.0	OART-072011	sv
#20 200-6015-D-12-A	200-0000857-020	Client		22-Jul-2011 03:23:00	21JUL111438_20	20	1.0	SW-005-072011	sv
#21 200-6015-D-13-A	200-0000857-021	Client		22-Jul-2011 03:57:00	21JUL111438_21	21	1.0	SW-205-072011	sv
#22 200-6015-E-14-A	200-0000857-022	Client		22-Jul-2011 04:31:00	21JUL111438_22	22	1.0	SW-010-072011	sv
#23 200-6015-D-15-A	200-0000857-023	Client		22-Jul-2011 05:05:00	21JUL111438_23	23	1.0	SW-013-072011	sv
#24 200-6015-D-12-B MS	200-0000857-024	MS		22-Jul-2011 05:40:00	21JUL111438_24	24	1.0	SW-005-072011	sv
#25 200-6015-D-12-C MSD	200-0000857-025	MSD		22-Jul-2011 06:14:00	21JUL111438_25	25	1.0	SW-005-072011	sv
#26 CCV	200-0000857-026	CCV		22-Jul-2011 06:48:00	21JUL111438_26	26	1.0		sv

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 072111_1 Worklist Num: 856
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20110721-856.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount	
# 5 200-5916-A-2-B 200-0000856-005	WPR02-SS19 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		5.6630	0.0000	1000	
11 1,3-Dinitrobenzene		32.60	0.0000	1000	
14 Nitroglycerin		218 NC	0.0000	20000	ND
15 2,4,6-Trinitrotolu		2.1171	0.0000	1000	
16 4-Amino-2,6-dinitr		10.66	0.0000	1000	
17 2-Amino-4,6-dinitr		6.7478 NC	0.0000	1000	ND
18 2,6-Dinitrotoluene		42.29	0.0000	1000	
19 2,4-Dinitrotoluene		0.6263 LOL	0.0000	1000	
22 m-Nitrotoluene		85.17	0.0000	1000	
23 PETN		739	0.0000	20000	
# 9 200-6015-E-1-A 200-0000856-009	SCW-004-072011 LC_8330B_Limits				
16 4-Amino-2,6-dinitr		1.2708 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		0.9712 LOL	0.0000	1000	
19 2,4-Dinitrotoluene		0.4661 LOL	0.0000	1000	
#10 200-6015-E-2-A 200-0000856-010	SCW-005-072011 LC_8330B_Limits				
7 RDX		3.9893 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		0.5730 LOL	0.0000	1000	
#11 200-6015-E-3-A 200-0000856-011	SCW-006-072011 LC_8330B_Limits				
7 RDX		1.4046 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		0.4126 LOL	0.0000	1000	
16 4-Amino-2,6-dinitr		1.7391 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		1.1933 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		0.4580 LOL	0.0000	1000	
#12 200-6015-D-4-A 200-0000856-012	SCW-206-072011 LC_8330B_Limits				
7 RDX		18.17 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		0.4705 LOL	0.0000	1000	
16 4-Amino-2,6-dinitr		1.1930	0.0000	1000	
17 2-Amino-4,6-dinitr		1.3083 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		0.6166 LOL	0.0000	1000	

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount	
#13 200-6015-E-6-A 200-0000856-013	SW-012-072011 LC_8330B_Limits				IC SURR
7 RDX		24.01	0.0000	1000	
9 1,3,5-Trinitrobenz		0.9567 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.3119	0.0000	1000	
17 2-Amino-4,6-dinitr		1.9607 NC	0.0000	1000	ND
#15 200-6015-D-7-A 200-0000856-015	SW-011-072011 LC_8330B_Limits				
7 RDX		5.3537 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		1.1582 NC	0.0000	1000	<DL
16 4-Amino-2,6-dinitr		1.4010 NC	0.0000	1000	<DL
17 2-Amino-4,6-dinitr		1.9793 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		0.6716 <DL	0.0000	1000	
#16 200-6015-E-8-A 200-0000856-016	SW-009-072011 LC_8330B_Limits				
7 RDX		2.3397 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		0.7130 <DL	0.0000	1000	
15 2,4,6-Trinitrotolu		0.6945 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.2369 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		2.1082 NC	0.0000	1000	ND
#17 200-6015-E-9-A 200-0000856-017	SW-008-072011 LC_8330B_Limits				~~IC SURR~~ 11/22/11
7 RDX		11.99	0.0000	1000	
9 1,3,5-Trinitrobenz		1.2426 NC	0.0000	1000	ND
15 2,4,6-Trinitrotolu		0.6911 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.3557 NC	0.0000	1000	<DL
17 2-Amino-4,6-dinitr		1.6174 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		1.1798 <DL	0.0000	1000	
#18 200-6015-E-10-A 200-0000856-018	SW-006-072011 LC_8330B_Limits				
7 RDX		1.5546 NC	0.0000	1000	ND
9 1,3,5-Trinitrobenz		0.8855 NC	0.0000	1000	ND
15 2,4,6-Trinitrotolu		0.7101 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		0.9540 <DL	0.0000	1000	
17 2-Amino-4,6-dinitr		1.7090 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		0.8609 <DL	0.0000	1000	
#19 200-6015-D-11-A 200-0000856-019	OART-072011 LC_8330B_Limits				IC SURR
7 RDX		108	0.0000	1000	
16 4-Amino-2,6-dinitr	IC	2.5425	0.0000	1000	
17 2-Amino-4,6-dinitr	IC	1.2555 NC	0.0000	1000	<DL

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount	
#20 200-6015-D-12-A 200-0000856-020	SW-005-072011 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		0.9084 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		1.8224 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		1.0147 LDL	0.0000	1000	
#21 200-6015-D-13-A 200-0000856-021	SW-205-072011 LC_8330B_Limits				
9 1,3,5-Trinitrobenz		1.3029 NC	0.0000	1000	ND
15 2,4,6-Trinitrotolu		1.2479 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.0162 LDL	0.0000	1000	
17 2-Amino-4,6-dinitr		1.5894 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		1.2154 LDL	0.0000	1000	
#22 200-6015-E-14-A 200-0000856-022	SW-010-072011 LC_8330B_Limits				
7 RDX		38.45	0.0000	1000	
9 1,3,5-Trinitrobenz		1.0749 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.3020	0.0000	1000	
17 2-Amino-4,6-dinitr		1.2897 NC	0.0000	1000	ND
19 2,4-Dinitrotoluene		0.7218 LDL	0.0000	1000	
#23 200-6015-D-15-A 200-0000856-023	SW-013-072011 LC_8330B_Limits				
7 RDX		10.60	0.0000	1000	
9 1,3,5-Trinitrobenz		2.7446 NC	0.0000	1000	ND
16 4-Amino-2,6-dinitr		1.1152 NC	0.0000	1000	ND
17 2-Amino-4,6-dinitr		0.9743 LDL	0.0000	1000	
19 2,4-Dinitrotoluene		1.2251 LDL	0.0000	1000	

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1208 Start Date: 01/24/2011 15:48

Analysis Batch Number: 12556 End Date: 01/25/2011 02:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-12556/1		01/24/2011 15:48	1		C-18 4.6(mm)
IC 200-12556/2		01/24/2011 16:26	1	24JAN111521_021.d	C-18 4.6(mm)
IC 200-12556/3		01/24/2011 17:03	1	24JAN111521_031.d	C-18 4.6(mm)
IC 200-12556/4		01/24/2011 17:41	1	24JAN111521_041.d	C-18 4.6(mm)
ICRT 200-12556/5		01/24/2011 18:18	1	24JAN111521_051.d	C-18 4.6(mm)
IC 200-12556/6		01/24/2011 18:55	1	24JAN111521_061.d	C-18 4.6(mm)
IC 200-12556/7		01/24/2011 19:33	1	24JAN111521_071.d	C-18 4.6(mm)
IC 200-12556/8		01/24/2011 20:10	1		C-18 4.6(mm)
IC 200-12556/9		01/24/2011 20:48	1		C-18 4.6(mm)
IC 200-12556/10		01/24/2011 21:25	1		C-18 4.6(mm)
IC 200-12556/11		01/24/2011 22:03	1		C-18 4.6(mm)
IC 200-12556/12		01/24/2011 22:40	1		C-18 4.6(mm)
IC 200-12556/13		01/24/2011 23:18	1		C-18 4.6(mm)
CCVL 200-12556/14		01/24/2011 23:55	1		C-18 4.6(mm)
CCVL 200-12556/15		01/25/2011 00:33	1		C-18 4.6(mm)
ICV 200-12556/16		01/25/2011 01:10	1	24JAN111521_161.d	C-18 4.6(mm)
CCVL 200-12556/17		01/25/2011 01:47	1		C-18 4.6(mm)
ICV 200-12556/18		01/25/2011 02:25	1		C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1208 Start Date: 07/21/2011 15:39

Analysis Batch Number: 22012 End Date: 07/22/2011 07:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/21/2011 15:39	1		C-18 4.6(mm)
CCVRT 200-22012/2		07/21/2011 16:16	1	21JUL111433_021.d	C-18 4.6(mm)
MB 200-21732/3-A		07/21/2011 16:54	1	21JUL111433_031.d	C-18 4.6(mm)
LCS 200-21732/4-A		07/21/2011 17:31	1	21JUL111433_041.d	C-18 4.6(mm)
200-5916-2	WPR02-SS19	07/21/2011 18:09	1	21JUL111433_051.d	C-18 4.6(mm)
GB 200-21411/3-B		07/21/2011 18:46	1	21JUL111433_061.d	C-18 4.6(mm)
ZZZZZ		07/21/2011 19:24	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 20:01	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 20:38	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 21:16	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 21:53	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 22:31	1		C-18 4.6(mm)
ZZZZZ		07/21/2011 23:08	1		C-18 4.6(mm)
CCV 200-22012/14		07/21/2011 23:46	1	21JUL111433_141.d	C-18 4.6(mm)
ZZZZZ		07/22/2011 00:23	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 01:01	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 01:38	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 02:15	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 02:53	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 03:30	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 04:08	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 04:45	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 05:23	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 06:00	1		C-18 4.6(mm)
ZZZZZ		07/22/2011 06:37	1		C-18 4.6(mm)
CCV 200-22012/26		07/22/2011 07:15	1		C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1488 Start Date: 01/24/2011 12:53

Analysis Batch Number: 12535 End Date: 01/24/2011 22:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-12535/1		01/24/2011 12:53	1		Biphenyl 4.6(mm)
IC 200-12535/2		01/24/2011 13:27	1	24JAN111214_021.d	Biphenyl 4.6(mm)
IC 200-12535/3		01/24/2011 14:02	1	24JAN111214_031.d	Biphenyl 4.6(mm)
IC 200-12535/4		01/24/2011 14:36	1	24JAN111214_041.d	Biphenyl 4.6(mm)
ICRT 200-12535/5		01/24/2011 15:10	1	24JAN111214_051.d	Biphenyl 4.6(mm)
IC 200-12535/6		01/24/2011 15:44	1	24JAN111214_061.d	Biphenyl 4.6(mm)
IC 200-12535/7		01/24/2011 16:18	1	24JAN111214_071.d	Biphenyl 4.6(mm)
IC 200-12535/8		01/24/2011 16:52	1		Biphenyl 4.6(mm)
IC 200-12535/9		01/24/2011 17:27	1		Biphenyl 4.6(mm)
IC 200-12535/10		01/24/2011 18:01	1		Biphenyl 4.6(mm)
IC 200-12535/11		01/24/2011 18:35	1		Biphenyl 4.6(mm)
IC 200-12535/12		01/24/2011 19:09	1		Biphenyl 4.6(mm)
IC 200-12535/13		01/24/2011 19:43	1		Biphenyl 4.6(mm)
CCVL 200-12535/14		01/24/2011 20:18	1		Biphenyl 4.6(mm)
CCVL 200-12535/15		01/24/2011 20:52	1		Biphenyl 4.6(mm)
ICV 200-12535/16		01/24/2011 21:26	1	24JAN111214_161.d	Biphenyl 4.6(mm)
CCVL 200-12535/17		01/24/2011 22:00	1		Biphenyl 4.6(mm)
ICV 200-12535/18		01/24/2011 22:34	1		Biphenyl 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Instrument ID: CH1488 Start Date: 07/21/2011 16:33

Analysis Batch Number: 22013 End Date: 07/22/2011 06:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/21/2011 16:33	1		Biphenyl 4.6(mm)
CCVRT 200-22013/2		07/21/2011 17:07	1	21JUL111438_021.d	Biphenyl 4.6(mm)
MB 200-21732/3-A		07/21/2011 17:41	1	21JUL111438_031.d	Biphenyl 4.6(mm)
LCS 200-21732/4-A		07/21/2011 18:16	1	21JUL111438_041.d	Biphenyl 4.6(mm)
200-5916-2	WPR02-SS19	07/21/2011 18:50	1	21JUL111438_051.d	Biphenyl 4.6(mm)
GB 200-21411/3-B		07/21/2011 19:24	1	21JUL111438_061.d	Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 19:58	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 20:32	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 21:07	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 21:41	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 22:15	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 22:49	1		Biphenyl 4.6(mm)
ZZZZZ		07/21/2011 23:23	1		Biphenyl 4.6(mm)
CCV 200-22013/14		07/21/2011 23:58	1	21JUL111438_141.d	Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 00:32	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 01:06	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 01:40	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 02:14	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 02:49	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 03:23	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 03:57	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 04:31	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 05:05	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 05:40	1		Biphenyl 4.6(mm)
ZZZZZ		07/22/2011 06:14	1		Biphenyl 4.6(mm)
CCV 200-22013/26		07/22/2011 06:48	1		Biphenyl 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-5916-1

SDG No.: 5916

Batch Number: 21732 Batch Start Date: 07/18/11 12:52 Batch Analyst: Callahan, Christopher G

Batch Method: 8330 Batch End Date: 07/19/11 10:43

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00018	EX8330MTXSPi 00011	LCSUPPSPi 00040	
200-5916-A-2-A	WPR02-SS19	8330, 8330B	T	10.55 g	100 mL	100 uL			
GB 200-21411/3-A		8330, 8330B		10.52 g	100 mL	100 uL			
MB 200-21732/3		8330, 8330B		10.50 g	100 mL	100 uL			
LCS 200-21732/4		8330, 8330B		10.52 g	100 mL	100 uL	500 uL	500 uL	

Batch Notes	
Batch Comment	ACN Lot# 156141

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

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ALIGN FEDEX AIRBILL POUCH HERE

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#61377 07/07 50FG2/F556/F5F4

91 IT

200

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Form ID No. 0215

RECIPIENT: PEEL HERE

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From This portion can be removed for Recipient's records.

Date 7 July 11 FedEx Tracking Number 870714924532

Sender's Name Phone

Company

Address Dept./Floor/Suite/Room

City State ZIP 80401

2 Your Internal Billing Reference 31030.003.001 /45031

3 To

Recipient's Name James Madison Phone 802 660-1110

Company Tesi America – Burlington

HOLD Weekday — Print FedEx location address below. NOT available for FedEx First Overnight.

HOLD Saturday — Print FedEx location address below. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address 30 Community Dr. Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Suite 4

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City South Burlington State VT ZIP 05403

8707 1492 4532

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations. *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including ... or placed in a FedEx ... FedEx packaging

- [ ] Cargo Aircraft Only

...cct. No. or Credit Card No. below.

- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

[redacted]

Credit Card Auth.

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TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica

Client Information	Sampler: DAVE Ahlborn / Jason LORD	Lab PM:	Carrier Tracking No(s):	COC No: 1 of 1
Client Contact: MARY Franquemont	Phone: 303 763 7188	E-Mail:		Page: 1 of 1
Company: TLI Solutions, INC.				Job #:
Address: 560 Golden Ridge Rd, ste 130	Due Date Requested: 25 JULY 2011			
City: Golden	TAT Requested (days):			
State, Zip: CO 80401				
Phone: 303 763 7188	PO #: 00 75133			
Email: mfranquemont@tlisolutions.com	WO #: 03886-551-0001-0302			
Project Name: West Point RI	Project #: TLI 30130-0003.0001			
Site: WEST Point, NY	SSOW#:			

Analysis Requested

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8330 B	6010 B	7471B	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
~~WPR~~					N						
WPR07-5520	7July11	1212	G		N	X	X	X	X		See Attached
WPR02-5519	5July11	0918	C		W		X				

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Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 18 Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Incremental sample for WPR02-5519 (See attached analyte list)

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7 JULY 1755	TLI		7/8/11 1010	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No
Custody Seal No.: 106446

Cooler Temperature(s) °C and Other Remarks: 2.8

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-5916-1
SDG Number: 5916

Login Number: 5916
List Source: TestAmerica Burlington
List Number: 1
Creator: Keeton, Jamie

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	106446
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8ºC, IR GUN ID 96, CF 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

VALIDATION REPORTS

DATA VALIDATION REPORT

RI for MMRP Site US Army Garrison West Point

SAMPLE DELIVERY GROUP: 200-5816

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	RI for MMRP Site US Army Garrison West Point
Contract Task Order:	1303.005D.00.001
Sample Delivery Group:	200-5816
Project Manager:	John Gerhard
Matrix:	soil
QC Level:	IV
No. of Samples:	8
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica Laboratories, Inc. Burlington, VT

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Matrix*	*Collection*	*Method*
WPR02-SS09	200-5816-1	Solid	06/27/11	8330B
WPR02-SS10	200-5816-2	Solid	06/27/11	8330B
WPR02-SS11	200-5816-3	Solid	06/27/11	8330B
WPR02-SS12	200-5816-4	Solid	06/27/11	8330B
WPR02-SS15	200-5816-5	Solid	06/28/11	8330B
WPR02-SS16	200-5816-6	Solid	06/28/11	8330B
WPR02-SS17	200-5816-7	Solid	06/28/11	8330B
WPR02-SS18	200-5816-8	Solid	06/28/11	8330B

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Code	Qualification Code Description
H0	The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial **c**alibration. Reject nondetects for HPLC.
H0a	Analyte is positively confirmed but outside the retention time window; however, spectral matches must be provided (hexp – diode array detector).
H0b	Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H3	The surrogate is <10%R, which indicates the potential for a severely low bias in the results. Follow external laboratory limits located within the associated data package.
H3a	The surrogate is < the LAL but ≥10%R, which indicates the potential for a low bias in the results. Follow the external laboratory limits located within the associated data package.
H3b	The surrogate %R value is > the UAL, which indicates a potential for a high bias in the results and a potential for false positive results. Follow the external laboratory limits located within the associated data package.
H3c	At least one surrogate is > the UAL and one surrogate is < the LAL, which indicates a greater than normal degree of uncertainty in the result. Follow external laboratory limits located within the associated data package.
H3d	Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H4	The sample result is ≤5X the concentration of the related analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
H4a	The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.
H4d	The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
H4e	Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H7	The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.
H7a	The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.
H7c	The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.
H7d	The ICV and/or CCV were not analyzed at the appropriate method frequency.
H7f	Required calibration information is missing or Samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.
H8	The analyte was not confirmed on a second dissimilar column or diode array spectrums do not match library.
H8a	The required second dissimilar column or diode array documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H9	The extraction/analytical holding time was exceeded by <2X the published method for holding times.
H9a	The extraction/analytical holding time was exceeded by >2X the published method for holding times.
H9b	The affected analytes are regarded as rejected because the analytical holding time was exceeded.
H12	The LCS percent recovery was <10%. Follow external laboratory limits located within the associated data package.

H12a	The LCS percent recovery was < the Lower Acceptance Limit (LAL) but >10%. Follow external laboratory limits located within the associated data package.
H12b	The LCS percent recovery was > than the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the asscociated data package.
H12c	The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H15	The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.
H19	The project chemist identified quality deficiencies in the reported data that requires further qualification. This code can ONLY be used and/or under advisement by the project chemist.
H88	Duplicate, dilution, or reanalysis.
HE0	The IS retention time has shifted by >30 seconds
HE0b	Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO and external laboratory for information.
HE1a	The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method specific windows. Qualify data as R if the IS area count is <25%.
HE1b	If the internal standard was used for quantification and its area count is <70% but >25% of the average of that obtained from the calibration standards, qualify all associated detects as J+ and all associated non-detects as UJ.
HE1c	The internal standard area counts must not vary by >70% to 130% from the average of those obtained from the calibration standards or from the mid-level calibration standard. If the internal standard was used for quantification and its area count is >130% of the average of that obtained from the calibration standards, qualify all associated detects as J- and all associated non-detects as UJ.
HE1d	Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE3	The surrogate is <10% recovery, which indicates the potential for a severely low bias in the results. Follow the external laboratory limits. Qualify non-detected results as R and detected results as J-. Also, if an initial dilution was performed on any sample and surrogate recovery is <10% recovery and all results are non-detect, qualify all sample results as R.
HE3a	The surrogate is < the Lower Acceptance Limit but ≥10% recovery, which indicates the potential for a low bias in the results. Follow the external laboratory limits. Qualify non-detected results as UJ and detected results as J-. Also, if an initial dilution was performed on any sample and at least one surrogate recover is < the Lower Acceptance Limit, but ≥10%, or all surrogate recoveries are <10% and the results for one or more compounds are > the PQL, qualify non-detected results as UJ and detected results as J-.
HE3b	The surrogate % recovery value is > the Upper Acceptance Limit, which indicates the potential for a high bias in the results and a potential for false positive results. Follow the external laboratory limits.
HE3c	At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit, which indicates a > normal degree of uncertainty in the result. Follow the external laboratory limits.
HE3d	Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.

	Sample and blank surrogate recoveries must be within limits specified by the laboratory. Surrogate compound recoveries shall be calculated using the procedure described in SW-846 EPA Method 8000B. Reported recoveries shall be accompanied by the applicable acceptance limits. Results from spiked or replicate QC samples that have surrogate recoveries <10% cannot be used to evaluate associated sample results. Associated sample results should be qualified for lack of accuracy and/or precision data, as applicable. In the case of a blank analysis with surrogates out of specification, special consideration must be given to the validity of associated sample data. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical. If one or more samples in the batch show acceptable surrogate recoveries, the blank problem may be considered to be an isolated occurrence. However, even if this judgment allows some us of the affected data, analytical problems remain that must be corrected by the laboratory. If the surrogate recovery acceptance criteria were not reported in the data package, request amended data from the laboratory. If, based on professional judgment, the laboratory's internal acceptance criteria are excessively wide or biased, notify the program manager.
HE4	The sample result is ≤5 times the concentration of the related analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank. The concentration of each target analyte found in the blank must be < the associated MDL. The sample results must not be corrected by subtracting any blank value. If QC problems exist with any blank, all data associated with the case must be carefully evaluated to determine whether there is an inherent variability in the data for the case or if the problem is an isolated occurrence not affecting other data. If a compound found in a blank is also found in a field sample, qualify the sample result for that compound in accordance with the scenarios given below. If gross contamination exists, qualify results for all affected compounds as R due to interference. If inordinate numbers of other target compounds are found at low levels in a blank, discuss the presence of those compounds in the data validation report as it may be indicative of a problem at the laboratory. Attachment 5 provides examples of application of the blank qualification guidelines. Certain circumstances may warrant deviations from these guidelines.
HE4a	The affected analytes are considered estimates and biased high because this analyte was identified in the method blank but was >5x.
HE4d	The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and equipment blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
HE4e	Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE4f	The absence of sample carry-over must be determined and verified. If examination of the run logs indicates that any samples in the analytical run of interest required dilution and there is no documentation of a rinse or blank analysis immediately following the original undiluted analysis, then sample carry-over may be suspected in

	the subsequent sample. If any target analyte found in the sample requiring dilution exceeded the high calibration standard and was also found in the following sample at a concentration <5x the PQL, qualify the result for that analyte in the second sample as R. If no data are available for the sample that required dilution, the laboratory has not documented that carry-over was evaluated, and any analyte was also found in the following sample as a concentration <5x the PQL, qualify the result for that analyte in the second sample as N.
HE7	The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. LC/MS/MS instrument calibration shall be performed using a minimum of five (5) calibration standards. The lowest point of the curve must be at or below the reporting limit. If calibration curves are used, five (5) standards are required for a linear (first order) calibration model, six (6) standards are required for a quadratic (second order) model, and seven (7) standards are required for a third order polynomial. Higher order curves should not normally be used. If the laboratory uses a higher order equation to establish a calibration curve, it should be evaluated for the appropriate application. If an insufficient number of calibration standards was used, the PQLs were incorrect, or all points were not analyzed within a 24-hour period, qualify all associated detects as J and all associated non-detects as UJ.
HE7a	The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD or r^2. If the %RSD for any target analyte is >20% but ≤40%, qualify all associated detects as J and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. If the %RSD for any target analyte is >40% but ≤60%, qualify all associated detects as J and all associated non-detects as UJ. If the %RSD for any target analyte is >60%, qualify all associated detects as J and all associated non-detects as R. If the r^2 for any target analyte is <0.99 but ≥0.90, qualify all associated detects as J and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. If the r^2 for any target analyte is >0.90 but ≤0.80, qualify all associated detects as J and all associated non-detects as UJ. If the r^2 for any target analyte is <0.80, qualify all associated detects as J and all associated non-detects if the intercept for any target analyte is positive and >3x the intercept J+ as R.
HE7b	The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV. If the average RF for any target analyte is < the specified minimum RF, or <0.05 if no minimum is specified, qualify all associated detects as J and all associated nondetects as UJ if the RF is ≥0.01 and as R if the RF is <0.01.
HE7c	The ICV and/or CCV were recovered outside the method limits. The %D between the ICV and CCV standard concentrations and their true values shall be calculated according to the formula in Attachment 4, and must be ≤20%. The evaluation of CCV data applies to all CCVs that bracket samples of interest. If the %D was reported with

	the wrong sign (e.g., +%D for negative bias), document the occurrence in the data validation report and assess any infractions using the correct sign. 1. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >20%, qualify all associated detects as J+.\ 2. If the %D between a measured ICV and/or CCV concentration and is true value for any analyte is >20% but ≤40% and negative (low bias), qualify all associated detects as J- and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. 3. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >40% but ≤60% and negative, qualify all associated detects as Jand all associated non-detects as UJ. 4. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >60% and is negative, qualify all associated detects as J- and all associated non-detects as R.
HE7d	The ICV and/or CCV were not analyzed at the appropriate method frequency. An ICV standard is analyzed immediately following an initial calibration. For high explosive analysis, the ICV standard analysis results are not required to be reported in the data package unless the samples in the SDG were analyzed after the initial calibration but before a CCV standard analysis was performed. In this case, the ICV %D is assessed according to the calibration verification criteria described below for the associated samples. If a CCV is analyzed prior to samples and ICV data are also reported in the package, both the ICV %D and the appropriate CCV %D are to be assessed as described below. If both ICV %D and CCV %D infractions occur, the worst infraction should be evaluated for result qualification. A CCV must be analyzed in the following instances: • at the beginning of each analytical run; • at least once every 10 samples; and • at the end of each analytical run. If multiple CCVs were analyzed to obtain a passing CCV, the calibration is not verified and the calibration frequency is not met. If the ICV and CCV standards were not analyzed at the proper frequency, or if either a required ICV or CCV was not analyzed, or if all target compounds were not present in any ICV or CCV standard, qualify all associated detects as J and all associated nondetects as UJ. If all required ICVs and CCVs were not analyzed, qualify all associated detects as J and all associated non-detects as R.
HE7f	Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.
HE8a	The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE9	The extraction/analytical holding time is exceeded by <2x the published method for holding times.
HE9a	The extraction/analytical holding time was exceeded by more than 2x the published method for holding times.
HE12	An LCS should be analyzed at a frequency of once per data package, once per matrix, or once per 20 analytical samples, whichever is most frequent. The LCS must meet all sample acceptance criteria and all method-specific LCS requirements. The LCS for high explosives must meet laboratory-derived acceptance criteria. If surrogate and IS recovery acceptance criteria are not met for the LCS

	analysis, the LCS must be reanalyzed. If the recovery acceptance criteria are not reported in the analytical data package recovery limits of 70% to 130% should be used as the criteria. If, based on professional judgment, the laboratory's internal acceptance criteria are excessively wide or acceptable recoveries are significantly biased, notify the program manager. The LCS percent recovery was <10%. Qualify detected results as J- and not detected results as R.
HE12a	The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits. Qualify detected results as J- and not detected results as UJ.
HE12b	The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits. Qualify detected results as J+.
HE12c	The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.
HE12d	The MS/MSD percent recovery was <10%. The MS/MSD data shall not be used to evaluate associate field sample results unless the MS/MSD sample was from the same client and of similar matrix. If the acceptance criteria are not reported, recovery limits are 70% to 130%. The MS and MSD %R must be within the limits unless the sample concentration is >4X the spike concentration. The MS and MSD results may be used in conjunction with other QC results to determine the need for qualification of the data. An effort to determine to what extent the results of the MS/MSD affect the associated data should first be made. This determination should be made considering the MS/MSD sample matrix, the surrogate and internal standard recoveries, and the LCS results. Professional judgment should be used to determine if MS/MSD failure warrants qualification of only the results for the failed compounds or if the compounds associated with the failed MS compound are affected. Generally, unless evidence exists to warrant qualification of other compounds, only the compounds in the MS spiking mixture shall be qualified. If the surrogate, internal standard, and LCS recoveries are within the required acceptance criteria and either the MS or MSD recovery for any target analyte is <10%, qualify results as R.
HE12e	If the MS/MSD percent recovery was >10%, but <70%, qualify all detects as J and all non-detects as UJ.
HE12f	If the MS/MSD percent recovery was >130%, qualify all associated detects as J+.
HE12g	If the MS/MSD relative percent difference was >30%, and the acceptance criteria are not reported, recovery limits of 70% to 130% and an RPD of ≤30% should be used as the criteria. For solid and waste samples, it may be appropriate to accept an RPD of up to 40% based on professional judgment.
HE15	If the affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference, qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.
HE15a	The Practical Quantitation Limits must be adjusted to reflect all sample dilutions, concentrations, splits, clean-up activities, and dry weight factors that are not accounted for by the method. Samples must be diluted and reanalyzed when any analyte exceeds the calibration range. Data from the original sample analysis should be included when any sample requires dilution due to one or more analytes exceeding the calibration range. The original undiluted results document the actual MDLs for non-detects. If the PQLs have not been properly adjusted, request an amended report from the laboratory. If an initial dilution was required because of expected high concentrations

	of non-target analytes or because one or more target analytes were expected to greatly exceed the instrument working range and the laboratory was not able to analyze the undiluted sample, note the dilution and elevated MDLs in the data validation report. If any target analyte exceeded the calibration range and the original undiluted sample result was reported, qualify all detects from the undiluted analysis that exceeded the calibration range as J. If any target analyte exceeded the calibration range and the sample was diluted and reanalyzed and the diluted sample data were reported, qualify all non-detects from the diluted analysis as UJ. If any target analyte exceeded the calibration range and the original undiluted sample analysis was not reported, request this information from the laboratory. If data from the original sample analysis are unavailable, refer to HEXP3 and HEXP3a for assessment of initially diluted samples with low surrogate recovery. The laboratory shall strive to make dilutions in such a way that the final concentration is measured in the mid-range of the calibration curve, and that results are not reported from measurements below the lowest concentration standard. If the instrument response (reported result/dilution factor) for a diluted sample is < that of the lowest concentration standard, qualify all associated detects from the diluted analysis as J.
HE16	The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance criteria. CRI analysis recoveries for high explosives analysis must be within limits specified by the Laboratory. If acceptance criteria are not reported, the recovery acceptance range shall be 70% to 130%. 1. If frequency criteria were not met, qualify all detects <5X the PQL as J and all nondetects as UJ. 2. If the recovery is > the upper acceptance limit, qualify all associated detects <5X the PQL as J+. 3. If the recovery is < the lower acceptance limit but ≥30%, qualify all associated detects <5X the PQL as J- and all associated non-detects as UJ. 4. If the recovery is <30%, qualify all associated detects <5X the PQL as J- and all associated non-detects as R.
HE16a	The required CRI sample information is missing. Contact the SMO or the external laboratory for information.
HE19	The project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the project chemist.
HE88	Duplicate, dilution, or reanalysis.
E	Interference; ICP Serial Dilution analysis was not within control limits.
N	Lack of accuracy; MS recovery outside of control limits
U_LAB, J_LAB, NQ	Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found with the Form 1 analytical data summary sheets generated by the external laboratory.
*	Lack of precision; Lab Duplicate is not within control limits.

III. Method Analyses

A. EPA METHOD 8330—Energetics

Reviewed By: L. Calvin
Date Reviewed: October 3, 2011

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Explosives, Nitroaromatics, and Nitramines (DVP-16, Rev. 0),* the *LANL Standard Operating Procedure for Routine Validation of High Explosive (HE) Analytical Data (SOP-5164, Rev. 0), EPA Method 8330*, USEPA Region II *Validation of Nitroaromatics and Nitroamines by HPLC, SW-846 Method 8330A (SOP HW-16, Rev. 2*), the *Final Uniform Federal Policy Quality Assurance Project Plan presented as Appendix J of Remedial Investigation for Military Munitions Response Program Sites U.S. Army Garrison – West Point, West Point New York (QAPP),* and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The soil samples were extracted within 14 days of collection and analyzed within 40 days of extraction.

- Calibration: The initial calibration had correlation coefficients of ≥0.995 or %RSDs of ≤20%. The ICV and CCVs bracketing the sample analyses had %Ds within the QC limit of ≤15%.

- Blanks: The method blanks had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

- Surrogate Recovery: Recoveries were within laboratory-established QC limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample WPR02-SS16. Recoveries and RPDs were within laboratory-established LCS QC limits.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: Samples WPR02-SS09 and WPR01-SS10 were identified as field duplicate samples, and WPR02-SS11 was identified as a triplicate. Samples WPR01-SS09 and WPR02-SS10 had no reportable target compound detects. Sample

WPR02-SS11 had a detect marginally above the detection limit (DL) for 2,4,6-trinitrotoluene.

Samples WPR02-SS16 and WPR02-SS17 were also identified as field duplicates. Both samples had reportable detects between the DL and limit of quantitation (LOQ) for 2-amino-4,6-dinitrotoluene with an RPD of 18%. Sample WPR02-SS17 also had detects between the DL and LOQ for 1,3,5-trinitrobenzene and 1,3-dinitrobenzene.

- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times indicated no problems with target compound identification. Confirmation analyses were performed for any target compound detected above the DL on the primary column. Confirmed sample results were reported from the primary column.

  Photodiode array (PDA) spectra were provided for further identification of any detect above the LOQ. Any detect above the LOQ not supported by PDA analysis was qualified as an estimated nondetect, "UJ," with the qualification code "H8," indicating a poor spectral match.

  Intercolumn RPDs were calculated for all results. Any confirmed result with an intercolumn RPD >25% and ≤50% was qualified as estimated, "J." Any result detected below the LOD with an intercolumn RPD >50% was qualified as a nondetect, "U," at the LOD. No qualification codes are defined for these qualifications. The following table lists identification and intercolumn RPD qualifications.

Sample ID	Analyte	Qualification	Reason / Code (if applicable)
WPR02-SS09 WPR02-SS10 WPR02-SS12 WPR02-SS17 WPR02-SS18	2,4,6-trinitrotoluene	U	<LOQ, intercolumn RPD >50%
WPR02-SS15	2,6-dinitrotoluene	U	<LOQ, intercolumn RPD >50%
WPR02-SS15 WPR02-SS16 WPR02-SS18	1,3-dinitrobenzene	U	<LOQ, intercolumn RPD >50%
WPR02-SS12 WPR02-SS16	1,3,5-trinitrobenzene	U	<LOQ, intercolumn RPD >50%
WPR02-SS18	RDX	U	<LOQ, intercolumn RPD >50%
WPR02-SS11 WPR02-SS12 WPR02-SS16 WPR02-SS17 WPR02-SS18	2,6-dinitrotoluene	UJ	Poor PDA match / H8

Sample ID	Analyte	Qualification	Reason / Code (if applicable)
WPR02-SS15 WPR02-SS16 WPR02-SS17	nitroglycerin	UJ	Poor PDA match / H8
WPR02-SS12 WPR02-SS17	1,3-dinitrobenzene 2-amino-4,6-dinitrotoluene	J	intercolumn RPD >25%
WPR02-SS18	1,3,5-trinitrobenzene	J	intercolumn RPD >25%

- Compound Quantification and Reported Detection Limits: Compound quantification was verified from the raw data. The limits of quantitation (LOQs) were supported by the lower levels of the initial calibration, and were adjusted by the laboratory for the actual sample weights extracted. Any result reported between the LOQ and the DL was qualified as estimated, "J." Reported nondetects are valid at the value in the result field which is equivalent to the LOD in the absence of interference.

Validated Sample Result Forms: 200-5816

Analysis Method 8330B

Sample Name WPR02-SS09 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-1 **Sample Date:** 06/27/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	23	95	23	8.5	ug/kg	U	U	
1,3-Dinitrobenzene	99-65-0	23	95	23	8.0	ug/kg	U	U	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	29	95	29	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	14	95	14	5.9	ug/kg	U	U	
2-Amino-4,6-dinitrotoluene	35572-78-2	23	95	23	6.7	ug/kg	U	U	
3-Nitrotoluene	99-08-1	29	95	29	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	U	U	
PETN	78-11-5	1700	4800	1700	810	ug/kg	U	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS10 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-2 **Sample Date:** 06/27/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	23	95	23	8.5	ug/kg	U	U	
1,3-Dinitrobenzene	99-65-0	23	95	23	8.0	ug/kg	U	U	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	14	95	14	5.9	ug/kg	UM	U	
2-Amino-4,6-dinitrotoluene	35572-78-2	23	95	23	6.6	ug/kg	U	U	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	U	U	
PETN	78-11-5	1700	4700	1700	810	ug/kg	U	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS11 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-3 **Sample Date:** 06/27/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	23	95	23	8.5	ug/kg	U	U	
1,3-Dinitrobenzene	99-65-0	23	95	23	8.0	ug/kg	U	U	
2,4,6-Trinitrotoluene	118-96-7	9.3	95	14	6.3	ug/kg	JM	J	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	130	95	14	5.9	ug/kg	MJ	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	23	95	23	6.6	ug/kg	U	U	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	U	U	
PETN	78-11-5	1700	4700	1700	810	ug/kg	U	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS12 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-4 **Sample Date:** 06/27/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	24	95	23	8.5	ug/kg	MJ	U	
1,3-Dinitrobenzene	99-65-0	63	95	23	8.0	ug/kg	MJ	J	
2,4,6-Trinitrotoluene	118-96-7	15	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	29	95	29	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	140	95	14	5.9	ug/kg	J	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	120	95	23	6.7	ug/kg	M	J	
3-Nitrotoluene	99-08-1	92	95	29	25	ug/kg	JM	J	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	U	U	
PETN	78-11-5	1700	4800	1700	810	ug/kg	UM	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS15 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-5 **Sample Date:** 06/28/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	23	95	23	8.5	ug/kg	UM	U	
1,3-Dinitrobenzene	99-65-0	79	95	23	8.0	ug/kg	MJ	U	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	U	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	90	95	14	5.9	ug/kg	MJ	U	
2-Amino-4,6-dinitrotoluene	35572-78-2	11	95	23	6.6	ug/kg	JM	J	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	U	U	
Nitroglycerin	55-63-0	2900	1900	1400	580	ug/kg	MJ	UJ	H8
PETN	78-11-5	1700	4700	1700	810	ug/kg	U	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS16 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-6 **Sample Date:** 06/28/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	90	95	23	8.4	ug/kg	MJ	U	
1,3-Dinitrobenzene	99-65-0	23	95	23	8.0	ug/kg	MJ	U	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	U	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	140	95	14	5.9	ug/kg	MJ	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	30	95	23	6.6	ug/kg	JM	J	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	8600	1900	1400	580	ug/kg	M	UJ	H8
PETN	78-11-5	1700	4700	1700	810	ug/kg	UM	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS17 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-7 **Sample Date:** 06/28/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	30	95	23	8.4	ug/kg	JM	J	
1,3-Dinitrobenzene	99-65-0	22	95	23	8.0	ug/kg	JM	J	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	110	95	14	5.9	ug/kg	J	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	36	95	23	6.6	ug/kg	J	J	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	7700	1900	1400	580	ug/kg	MJ	UJ	H8
PETN	78-11-5	1700	4700	1700	810	ug/kg	UM	U	
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

Analysis Method 8330B

Sample Name WPR02-SS18 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5816-8 **Sample Date:** 06/28/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	200	95	23	8.4	ug/kg	M	J	
1,3-Dinitrobenzene	99-65-0	27	95	23	8.0	ug/kg	MJ	U	
2,4,6-Trinitrotoluene	118-96-7	14	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	U	U	
2,6-Dinitrotoluene	606-20-2	210	95	14	5.9	ug/kg	J	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	23	95	23	6.6	ug/kg	UM	U	
3-Nitrotoluene	99-08-1	28	95	28	25	ug/kg	UM	U	
4-Amino-2,6-dinitrotoluene	19406-51-0	23	95	23	9.5	ug/kg	UM	U	
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	U	U	
PETN	78-11-5	1700	4700	1700	810	ug/kg	U	U	
RDX	121-82-4	34	95	23	10	ug/kg	J	U	

DATA VALIDATION REPORT

RI for MMRP Site US Army Garrison West Point

SAMPLE DELIVERY GROUP: 200-5916

Prepared by

MEC^X, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	RI for MMRP Site US Army Garrison West Point
Contract Task Order:	1303.005D.00.001
Sample Delivery Group:	200-5916
Project Manager:	John Gerhard
Matrix:	soil
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica Laboratories, Inc. Burlington, VT

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Matrix*	*Collection*	*Method*
WPR02-SS19	200-5916-2	Solid	07/05/11	8330B

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The case narrative for this SDG noted that analysis of sample WPR07-SS20 was cancelled at the client's request. The COC was appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Code	Qualification Code Description
H0	The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial **c**alibration. Reject nondetects for HPLC.
H0a	Analyte is positively confirmed but outside the retention time window; however, spectral matches must be provided (hexp – diode array detector).
H0b	Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H3	The surrogate is <10%R, which indicates the potential for a severely low bias in the results. Follow external laboratory limits located within the associated data package.
H3a	The surrogate is < the LAL but ≥10%R, which indicates the potential for a low bias in the results. Follow the external laboratory limits located within the associated data package.
H3b	The surrogate %R value is > the UAL, which indicates a potential for a high bias in the results and a potential for false positive results. Follow the external laboratory limits located within the associated data package.
H3c	At least one surrogate is > the UAL and one surrogate is < the LAL, which indicates a greater than normal degree of uncertainty in the result. Follow external laboratory limits located within the associated data package.
H3d	Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H4	The sample result is ≤5X the concentration of the related analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
H4a	The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.
H4d	The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
H4e	Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H7	The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.
H7a	The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.
H7c	The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.
H7d	The ICV and/or CCV were not analyzed at the appropriate method frequency.
H7f	Required calibration information is missing or Samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.
H8	The analyte was not confirmed on a second dissimilar column or diode array spectrums do not match library.
H8a	The required second dissimilar column or diode array documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H9	The extraction/analytical holding time was exceeded by <2X the published method for holding times.
H9a	The extraction/analytical holding time was exceeded by >2X the published method for holding times.
H9b	The affected analytes are regarded as rejected because the analytical holding time was exceeded.
H12	The LCS percent recovery was <10%. Follow external laboratory limits located within the associated data package.
H12a	The LCS percent recovery was < the Lower Acceptance Limit (LAL) but >10%. Follow external laboratory limits located within the associated data package.

H12b	The LCS percent recovery was > than the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the asscociated data package.
H12c	The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
H15	The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.
H19	The project chemist identified quality deficiencies in the reported data that requires further qualification. This code can ONLY be used and/or under advisement by the project chemist.
H88	Duplicate, dilution, or reanalysis.
HE0	The IS retention time has shifted by >30 seconds
HE0b	Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO and external laboratory for information.
HE1a	The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method specific windows. Qualify data as R if the IS area count is <25%.
HE1b	If the internal standard was used for quantification and its area count is <70% but >25% of the average of that obtained from the calibration standards, qualify all associated detects as J+ and all associated non-detects as UJ.
HE1c	The internal standard area counts must not vary by >70% to 130% from the average of those obtained from the calibration standards or from the mid-level calibration standard. If the internal standard was used for quantification and its area count is >130% of the average of that obtained from the calibration standards, qualify all associated detects as J- and all associated non-detects as UJ.
HE1d	Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE3	The surrogate is <10% recovery, which indicates the potential for a severely low bias in the results. Follow the external laboratory limits. Qualify non-detected results as R and detected results as J-. Also, if an initial dilution was performed on any sample and surrogate recovery is <10% recovery and all results are non-detect, qualify all sample results as R.
HE3a	The surrogate is < the Lower Acceptance Limit but ≥10% recovery, which indicates the potential for a low bias in the results. Follow the external laboratory limits. Qualify non-detected results as UJ and detected results as J-. Also, if an initial dilution was performed on any sample and at least one surrogate recover is < the Lower Acceptance Limit, but ≥10%, or all surrogate recoveries are <10% and the results for one or more compounds are > the PQL, qualify non-detected results as UJ and detected results as J-.
HE3b	The surrogate % recovery value is > the Upper Acceptance Limit, which indicates the potential for a high bias in the results and a potential for false positive results. Follow the external laboratory limits.
HE3c	At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit, which indicates a > normal degree of uncertainty in the result. Follow the external laboratory limits.
HE3d	Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Sample and blank surrogate recoveries must be within limits specified by the laboratory. Surrogate compound recoveries shall be calculated using the procedure

	described in SW-846 EPA Method 8000B. Reported recoveries shall be accompanied by the applicable acceptance limits. Results from spiked or replicate QC samples that have surrogate recoveries <10% cannot be used to evaluate associated sample results. Associated sample results should be qualified for lack of accuracy and/or precision data, as applicable. In the case of a blank analysis with surrogates out of specification, special consideration must be given to the validity of associated sample data. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical. If one or more samples in the batch show acceptable surrogate recoveries, the blank problem may be considered to be an isolated occurrence. However, even if this judgment allows some us of the affected data, analytical problems remain that must be corrected by the laboratory. If the surrogate recovery acceptance criteria were not reported in the data package, request amended data from the laboratory. If, based on professional judgment, the laboratory's internal acceptance criteria are excessively wide or biased, notify the program manager.
HE4	The sample result is ≤5 times the concentration of the related analyte in the method blank, which indicates the reported detection is considered indistinguishable from contamination in the blank. The concentration of each target analyte found in the blank must be < the associated MDL. The sample results must not be corrected by subtracting any blank value. If QC problems exist with any blank, all data associated with the case must be carefully evaluated to determine whether there is an inherent variability in the data for the case or if the problem is an isolated occurrence not affecting other data. If a compound found in a blank is also found in a field sample, qualify the sample result for that compound in accordance with the scenarios given below. If gross contamination exists, qualify results for all affected compounds as R due to interference. If inordinate numbers of other target compounds are found at low levels in a blank, discuss the presence of those compounds in the data validation report as it may be indicative of a problem at the laboratory. Attachment 5 provides examples of application of the blank qualification guidelines. Certain circumstances may warrant deviations from these guidelines.
HE4a	The affected analytes are considered estimates and biased high because this analyte was identified in the method blank but was >5x.
HE4d	The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and equipment blank, which indicates the reported detection is considered indistinguishable from contamination in the blank.
HE4e	Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE4f	The absence of sample carry-over must be determined and verified. If examination of the run logs indicates that any samples in the analytical run of interest required dilution and there is no documentation of a rinse or blank analysis immediately following the original undiluted analysis, then sample carry-over may be suspected in the subsequent sample.

	If any target analyte found in the sample requiring dilution exceeded the high calibration standard and was also found in the following sample at a concentration <5x the PQL, qualify the result for that analyte in the second sample as R. If no data are available for the sample that required dilution, the laboratory has not documented that carry-over was evaluated, and any analyte was also found in the following sample as a concentration <5x the PQL, qualify the result for that analyte in the second sample as N.
HE7	The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. LC/MS/MS instrument calibration shall be performed using a minimum of five (5) calibration standards. The lowest point of the curve must be at or below the reporting limit. If calibration curves are used, five (5) standards are required for a linear (first order) calibration model, six (6) standards are required for a quadratic (second order) model, and seven (7) standards are required for a third order polynomial. Higher order curves should not normally be used. If the laboratory uses a higher order equation to establish a calibration curve, it should be evaluated for the appropriate application. If an insufficient number of calibration standards was used, the PQLs were incorrect, or all points were not analyzed within a 24-hour period, qualify all associated detects as J and all associated non-detects as UJ.
HE7a	The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD or r^2. If the %RSD for any target analyte is >20% but ≤40%, qualify all associated detects as J and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. If the %RSD for any target analyte is >40% but ≤60%, qualify all associated detects as J and all associated non-detects as UJ. If the %RSD for any target analyte is >60%, qualify all associated detects as J and all associated non-detects as R. If the r^2 for any target analyte is <0.99 but ≥0.90, qualify all associated detects as J and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. If the r^2 for any target analyte is >0.90 but ≤0.80, qualify all associated detects as J and all associated non-detects as UJ. If the r^2 for any target analyte is <0.80, qualify all associated detects as J and all associated non-detects if the intercept for any target analyte is positive and >3x the intercept J+ as R.
HE7b	The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV. If the average RF for any target analyte is < the specified minimum RF, or <0.05 if no minimum is specified, qualify all associated detects as J and all associated nondetects as UJ if the RF is ≥0.01 and as R if the RF is <0.01.
HE7c	The ICV and/or CCV were recovered outside the method limits. The %D between the ICV and CCV standard concentrations and their true values shall be calculated according to the formula in Attachment 4, and must be ≤20%. The evaluation of CCV data applies to all CCVs that bracket samples of interest. If the %D was reported with the wrong sign (e.g., +%D for negative bias), document the occurrence in the data validation report and assess any infractions using the correct sign.

	1. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >20%, qualify all associated detects as J+.\ 2. If the %D between a measured ICV and/or CCV concentration and is true value for any analyte is >20% but ≤40% and negative (low bias), qualify all associated detects as J- and, if any other calibration criteria have been exceeded for that compound, qualify all associated non-detects as UJ. 3. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >40% but ≤60% and negative, qualify all associated detects as Jand all associated non-detects as UJ. 4. If the %D between a measured ICV and/or CCV concentration and its true value for any analyte is >60% and is negative, qualify all associated detects as J- and all associated non-detects as R.
HE7d	The ICV and/or CCV were not analyzed at the appropriate method frequency. An ICV standard is analyzed immediately following an initial calibration. For high explosive analysis, the ICV standard analysis results are not required to be reported in the data package unless the samples in the SDG were analyzed after the initial calibration but before a CCV standard analysis was performed. In this case, the ICV %D is assessed according to the calibration verification criteria described below for the associated samples. If a CCV is analyzed prior to samples and ICV data are also reported in the package, both the ICV %D and the appropriate CCV %D are to be assessed as described below. If both ICV %D and CCV %D infractions occur, the worst infraction should be evaluated for result qualification. A CCV must be analyzed in the following instances: • at the beginning of each analytical run; • at least once every 10 samples; and • at the end of each analytical run. If multiple CCVs were analyzed to obtain a passing CCV, the calibration is not verified and the calibration frequency is not met. If the ICV and CCV standards were not analyzed at the proper frequency, or if either a required ICV or CCV was not analyzed, or if all target compounds were not present in any ICV or CCV standard, qualify all associated detects as J and all associated nondetects as UJ. If all required ICVs and CCVs were not analyzed, qualify all associated detects as J and all associated non-detects as R.
HE7f	Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.
HE8a	The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.
HE9	The extraction/analytical holding time is exceeded by <2x the published method for holding times.
HE9a	The extraction/analytical holding time was exceeded by more than 2x the published method for holding times.
HE12	An LCS should be analyzed at a frequency of once per data package, once per matrix, or once per 20 analytical samples, whichever is most frequent. The LCS must meet all sample acceptance criteria and all method-specific LCS requirements. The LCS for high explosives must meet laboratory-derived acceptance criteria. If surrogate and IS recovery acceptance criteria are not met for the LCS analysis, the LCS must be reanalyzed. If the recovery acceptance criteria are not reported in the analytical data package recovery limits of 70% to 130% should be used as the

	criteria. If, based on professional judgment, the laboratory's internal acceptance criteria are excessively wide or acceptable recoveries are significantly biased, notify the program manager. The LCS percent recovery was <10%. Qualify detected results as J- and not detected results as R.
HE12a	The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits. Qualify detected results as J- and not detected results as UJ.
HE12b	The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits. Qualify detected results as J+.
HE12c	The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.
HE12d	The MS/MSD percent recovery was <10%. The MS/MSD data shall not be used to evaluate associate field sample results unless the MS/MSD sample was from the same client and of similar matrix. If the acceptance criteria are not reported, recovery limits are 70% to 130%. The MS and MSD %R must be within the limits unless the sample concentration is >4X the spike concentration. The MS and MSD results may be used in conjunction with other QC results to determine the need for qualification of the data. An effort to determine to what extent the results of the MS/MSD affect the associated data should first be made. This determination should be made considering the MS/MSD sample matrix, the surrogate and internal standard recoveries, and the LCS results. Professional judgment should be used to determine if MS/MSD failure warrants qualification of only the results for the failed compounds or if the compounds associated with the failed MS compound are affected. Generally, unless evidence exists to warrant qualification of other compounds, only the compounds in the MS spiking mixture shall be qualified. If the surrogate, internal standard, and LCS recoveries are within the required acceptance criteria and either the MS or MSD recovery for any target analyte is <10%, qualify results as R.
HE12e	If the MS/MSD percent recovery was >10%, but <70%, qualify all detects as J and all non-detects as UJ.
HE12f	If the MS/MSD percent recovery was >130%, qualify all associated detects as J+.
HE12g	If the MS/MSD relative percent difference was >30%, and the acceptance criteria are not reported, recovery limits of 70% to 130% and an RPD of ≤30% should be used as the criteria. For solid and waste samples, it may be appropriate to accept an RPD of up to 40% based on professional judgment.
HE15	If the affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference, qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.
HE15a	The Practical Quantitation Limits must be adjusted to reflect all sample dilutions, concentrations, splits, clean-up activities, and dry weight factors that are not accounted for by the method. Samples must be diluted and reanalyzed when any analyte exceeds the calibration range. Data from the original sample analysis should be included when any sample requires dilution due to one or more analytes exceeding the calibration range. The original undiluted results document the actual MDLs for non-detects. If the PQLs have not been properly adjusted, request an amended report from the laboratory. If an initial dilution was required because of expected high concentrations of non-target analytes or because one or more target analytes were expected to greatly exceed the instrument working range and the laboratory was not able to

	analyze the undiluted sample, note the dilution and elevated MDLs in the data validation report. If any target analyte exceeded the calibration range and the original undiluted sample result was reported, qualify all detects from the undiluted analysis that exceeded the calibration range as J. If any target analyte exceeded the calibration range and the sample was diluted and reanalyzed and the diluted sample data were reported, qualify all non-detects from the diluted analysis as UJ. If any target analyte exceeded the calibration range and the original undiluted sample analysis was not reported, request this information from the laboratory. If data from the original sample analysis are unavailable, refer to HEXP3 and HEXP3a for assessment of initially diluted samples with low surrogate recovery. The laboratory shall strive to make dilutions in such a way that the final concentration is measured in the mid-range of the calibration curve, and that results are not reported from measurements below the lowest concentration standard. If the instrument response (reported result/dilution factor) for a diluted sample is < that of the lowest concentration standard, qualify all associated detects from the diluted analysis as J.
HE16	The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance criteria. CRI analysis recoveries for high explosives analysis must be within limits specified by the Laboratory. If acceptance criteria are not reported, the recovery acceptance range shall be 70% to 130%. 1. If frequency criteria were not met, qualify all detects <5X the PQL as J and all nondetects as UJ. 2. If the recovery is > the upper acceptance limit, qualify all associated detects <5X the PQL as J+. 3. If the recovery is < the lower acceptance limit but ≥30%, qualify all associated detects <5X the PQL as J- and all associated non-detects as UJ. 4. If the recovery is <30%, qualify all associated detects <5X the PQL as J- and all associated non-detects as R.
HE16a	The required CRI sample information is missing. Contact the SMO or the external laboratory for information.
HE19	The project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the project chemist.
HE88	Duplicate, dilution, or reanalysis.
E	Interference; ICP Serial Dilution analysis was not within control limits.
N	Lack of accuracy; MS recovery outside of control limits
U_LAB, J_LAB, NQ	Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found with the Form 1 analytical data summary sheets generated by the external laboratory.
*	Lack of precision; Lab Duplicate is not within control limits.

III. Method Analyses

A. EPA METHOD 8330—Energetics

Reviewed By: L. Calvin
Date Reviewed: October 5, 2011

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Explosives, Nitroaromatics, and Nitramines (DVP-16, Rev. 0),* the *LANL Standard Operating Procedure for Routine Validation of High Explosive (HE) Analytical Data (SOP-5164, Rev. 0), EPA Method 8330*, USEPA Region II *Validation of Nitroaromatics and Nitroamines by HPLC, SW-846 Method 8330A (SOP HW-16, Rev. 2*), the *Final Uniform Federal Policy Quality Assurance Project Plan presented as Appendix J of Remedial Investigation for Military Munitions Response Program Sites U.S. Army Garrison – West Point, West Point New York (QAPP),* and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The soil sample was extracted within 14 days of collection and analyzed within 40 days of extraction.

- Calibration: The initial calibration had correlation coefficients of ≥0.995 or %RSDs of ≤20%. The ICV and CCVs bracketing the sample analysis had %Ds within the QC limit of ≤15%.

- Blanks: The method blanks had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

- Surrogate Recovery: Recoveries were within laboratory-established QC limits.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample in this SDG. Evaluation of method accuracy was based on LCS results.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: This SDG had no identified field duplicate samples.

- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times indicated no problems with target compound identification. Confirmation analyses were performed for any target compound detected above the DL on the primary column. Confirmed sample results were reported from the primary column.

  Photodiode array (PDA) spectra were provided for further identification of any detect above the LOQ. Any detect above the LOQ not supported by PDA analysis was qualified as an estimated nondetect, "UJ," with the qualification code "H8," indicating a poor spectral match.

  Intercolumn RPDs were calculated for all results. Any confirmed result with an intercolumn RPD >25% and ≤50% was qualified as estimated, "J." Any result detected below the LOD with an intercolumn RPD >50% was qualified as a nondetect, "U," at the LOD. No qualification codes are defined for these qualifications. The following table lists identification and intercolumn RPD qualifications.

Sample ID	Analyte	Qualification	Reason / Code (if applicable)
WPR02-SS19	1,3,5-trinitrobenzene 2,4,6-trinitrotoluene	U	<LOQ, intercolumn RPD >50%
	2,6-dinitrotoluene 3-nitrotoluene PETN 1,3-dinitrobenzene 4-amino-2,6-dinitrotoluene	UJ	Poor PDA match / H8

- Compound Quantification and Reported Detection Limits: Compound quantification was verified from the raw data. The reviewer noted significant matrix interference affecting the baseline in a large portion of the sample chromatogram on both the primary and confirmation columns. The limits of quantitation (LOQs) were supported by the lower levels of the initial calibration, and were adjusted by the laboratory for the actual sample weights extracted. Any result reported between the LOQ and the DL was qualified as estimated, "J." Reported nondetects are valid at the value in the result field which is equivalent to the LOD in the absence of interference.

Validated Sample Result Forms: 200-5916

Analysis Method 8330B

Sample Name WPR02-SS19 **Matrix Type:** Solid **Result Type:** O

Lab Sample Name: 200-5916-2 **Sample Date:** 07/05/11

Analyte	CAS No	Result Value	LOQ	LOD	DL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,3,5-Trinitrobenzene	99-35-4	54	95	23	8.4	ug/kg	MJ	U	
1,3-Dinitrobenzene	99-65-0	310	95	23	8	ug/kg	MJ	UJ	H8
2,4,6-Trinitrotoluene	118-96-7	20	95	14	6.3	ug/kg	MJ	U	
2,4-Dinitrotoluene	121-14-2	28	95	28	15	ug/kg	UM	U	
2,6-Dinitrotoluene	606-20-2	400	95	14	5.9	ug/kg	J	UJ	H8
2-Amino-4,6-dinitrotoluene	35572-78-2	23	95	23	6.6	ug/kg	UM	U	
3-Nitrotoluene	99-08-1	810	95	28	25	ug/kg	MJ	UJ	H8
4-Amino-2,6-dinitrotoluene	19406-51-0	100	95	23	9.5	ug/kg	M	UJ	H8
Nitroglycerin	55-63-0	1400	1900	1400	580	ug/kg	UM	U	
PETN	78-11-5	7000	4700	1700	810	ug/kg	MJ	UJ	H8
RDX	121-82-4	23	95	23	10	ug/kg	U	U	

APPENDIX F
MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL

MRSPP FINAL RULE

COMPANHIA TEXTIL KARSTEN, Calle Grande, 25–27, 67890 Lisbon, Portugal, PTKAR2527LIS
HURON LANDMARK, 1840 Huron Road, Windsor, ON, Canada N9C 2L5; XOHURLAN1840WIN

PART 141—ENTRY OF MERCHANDISE

■ 5. The general authority citation for Part 141 and specific authority citation for § 114.113 continue to read as follows:

Authority: 19 U.S.C. 66, 1448, 1624.

* * * * *

Section 141.113 also issued under 19 U.S.C. 1499, 1623.

§ 141.113 [Amended]

■ 6. In § 141.113, paragraph (b) is amended by removing the words ''12.130 of this chapter'' and by adding, in their place, the words ''§ 102.21 or § 102.22 of this chapter, as applicable,''.

PART 144—WAREHOUSE AND REWAREHOUSE ENTRIES AND WITHDRAWALS

■ 7. The general authority citation for Part 144 continues to read as follows:

Authority: 19 U.S.C. 66, 1484, 1557, 1559, 1624.

* * * * *

§ 144.38 [Amended]

■ 8. In § 144.38, paragraph (f)(1) is amended by removing the words ''§ 12.130 of this chapter'' and by adding, in their place, the words ''§ 102.21 or § 102.22 of this chapter, as applicable''.

PART 146—FOREIGN TRADE ZONES

■ 9. The authority citation for Part 146 is revised to read as follows:

Authority: 19 U.S.C. 66, 81a–81u, 1202 (General Note 3(i), Harmonized Tariff Schedule of the United States), 1623, 1624.

§ 146.63 [Amended]

■ 10. In § 146.63, paragraph (d)(1) is amended by removing the words § 12.130 of this chapter'' and by adding, in their place, the words ''§ 102.21 or § 102.22 of this chapter, as applicable''.

PART 163—RECORDKEEPING

■ 11. The authority citation for Part 163 continues to read as follows:

Authority: 5 U.S.C. 301; 19 U.S.C. 66, 1484, 1508, 1510, 1624.

■ 12. The Appendix to Part 163 is amended by removing under section IV the listing of ''§ 12.130 Textiles and textile products Single country declaration Multiple country declaration VISA'' and the listing of ''§ 12.132 NAFTA textile requirements'', and by adding a new listing under section IV in numerical order to read as follows:

Appendix to Part 163—Interim (a)(1)(A) List.

* * * * *

IV. * * *

§ 102.25 NAFTA textile requirements

* * * * *

Robert C. Bonner,

Commissioner of Customs and Border Protection.

Approved: September 30, 2005.

Timothy E. Skud,

Deputy Assistant Secretary of the Treasury.

[FR Doc. 05–19985 Filed 9–30–05; 2:38 pm]

BILLING CODE 9110–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 179

Munitions Response Site Prioritization Protocol

AGENCY: Department of Defense.

ACTION: Final rule.

SUMMARY: The Department of Defense (hereinafter the Department) is promulgating the Munitions Response Site (MRS) Prioritization Protocol (MRSPP) (hereinafter referred to as the rule) as a rule. This rule implements the requirement established in section 311(b) of the National Defense Authorization Act for Fiscal Year 2002 for the Department to assign a relative priority for munitions responses to each location (hereinafter MRS) in the Department's inventory of defense sites known or suspected of containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC).

DATES: This rule is effective October 5, 2005.

FOR FURTHER INFORMATION CONTACT: If there are specific questions or to request an opportunity to review the docket for this rulemaking, please contact Ms. Patricia Ferrebee, Office of the Deputy Under Secretary of Defense (Installations & Environment) [ODUSD (I&E)], 703–571–9060. This final rule along with relevant background information is available on the World Wide Web at the Defense Environmental Network & Information eXchange Web site, *https://www.denix.osd.mil/MMRP*.

SUPPLEMENTARY INFORMATION:

Preamble Outline

I. Authority

This rule is being finalized under the authority of section 311(b) of the National Defense Authorization Act for Fiscal Year 2002, codified at section 2710(b) of title 10 of the U.S. Code [10 U.S.C. 2710(b)].

II. Background

The Department of Defense (hereinafter the Department) developed the rule in consultation with states and tribes, as required by statute. The Department published the proposed rule in the **Federal Register** as a proposed rule on August 22, 2003, at 68 FR 50900. A technical correction to the proposed rule was published on September 10, 2003, at 68 FR 53430.

The public comment period for the proposed rule ended November 19, 2003. Sixteen commenters submitted comments on the proposed rule. The preamble to this final rule consists mainly of an explanation of the Department's responses to these comments. Therefore, both this preamble and the preamble to the proposed rule should be reviewed should a question arise as to the meaning or intent of the final rule. Unless directly contradicted or superseded by this preamble to the rule or by the rule, the preamble to the proposed rule reflects the Department's intent for the rule.

The preamble to the final rule provides a discussion of each proposed rule section on which comments were received. Revisions to the proposed rule that are simply editorial or that do not

reflect substantive changes are not addressed in this preamble.

In addition to the comments on the proposed rule, the Department received a number of comments that addressed topics outside the scope of the proposed rule. These topics included: The universe of sites that comprise the inventory, which is established by statute; funding for munitions responses; comments on data quality; a proposal for training to educate Department personnel, regulators, and/or stakeholders; and implementing guidance that the Department may develop for the rule. These comments are not addressed in this rule. All comments the Department received are presented in a ''Response to Comments'' document, which has been placed in the docket for this rulemaking.

III. Summary of Significant Changes to the Final Rule

The Department made a number of changes to the proposed rule that are reflected in this final rule. Many of these revisions pertain to clarification of terms and definitions based on comments received, or changes to reflect new statutory definitions promulgated in the National Defense Authorization Act for 2004 and codified at 10 U.S.C. 101.

The most significant change to the proposed rule pertains to the module that evaluates the potential health hazards associated with MC. The Department modified this module in response to several comments. This module now has seven potential outcomes (*i.e.*, A through G) rather than the three potential outcomes described in the proposed rule (*i.e.*, high, medium, and low). A detailed explanation of this modification is provided in a following section of this preamble.

The Department has also revised the proposed rule to clarify that current land owners may participate in application of the rule at Formerly Used Defense Sites (FUDS). Another change was to clarify that the quality assurance panel that reviews each priority will consist of only Department personnel.

IV. Response to Comments

This section contains the Department's responses to the comments received on the proposed rule, organized by the structure of the proposed and final rules.

A. Section 179.2. Applicability and Scope

Several commenters stated that the proposed rule should be published as Departmental guidance and not as a federal regulation. The Department, however, interpreted the language in the National Defense Authorization Act for 2002 as a term of art invoking the requirement for public comment provided in the Administrative Procedures Act. The Department is proceeding with publishing the final rule as a federal regulation.

One commenter stated that sites containing chemical warfare materiel (CWM) should be included as potential MRSs. The Department observes that the proposed rule makes clear that, if CWM is present at a defense site [as defined in 10 U.S.C. 2710(e)] in the form of UXO, DMM, or MC, that site would be an MRS and would be included in the inventory, and that all MRSs in the inventory are addressed under the rule. The Department made no change to the rule to address this comment.

Another comment stated that the Department had not clearly explained the scope of the exclusion for ''combat operations'' under 10 U.S.C. 2710(d)(2). This exclusion exempts from the requirement for inclusion in the inventory and application of the rule all locations where ''the presence of military munitions'' resulted ''from combat operations.'' The Department has not modified the rule.

A commenter requested that the Department change the Department's Control classification in the Status of Property data elements (proposed rule, Appendix A, Tables 5 and 15) to include land or water bodies owned, leased, or otherwise possessed by state military departments. The Department declined to make this change, as the Department does not have jurisdiction over properties owned, leased, or otherwise possessed by state military departments. Such locations are under state jurisdiction and would not be included in the 10 U.S.C. 2710(a) inventory.

B. Section 179.3. Definitions

This section of the preamble addresses comments on the definitions in section 179.3 of the proposed rule.

The Department has modified definitions from the proposed rule or included certain new definitions to make this regulation consistent with terms and definitions promulgated by the National Defense Authorization Act for Fiscal Year 2004. These terms and definitions are codified at 10 U.S.C. 101. Affected terms are military munitions, operational range, range activities, and UXO.

The Department has also added the term ''munitions and explosives of concern (MEC)'' to the final rule for consistency with new Department policy. MEC, which is intended to distinguish specific categories of military munitions that may pose unique explosives safety risks, means UXO, as defined in 10 U.S.C. 101(e)(5); discarded military munitions, as defined in 10 U.S.C. 2710(e)(2); or munitions constituents (*e.g.*, TNT, RDX), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard. As used in the rule, this term does not create any new category of materials covered under the proposed rule, nor does it exclude any category of materials covered under the proposed rule, and is adopted herein simply for consistency with terminology used elsewhere within the Department.

In response to a comment, the term ''chemical warfare agents'' has been changed to ''chemical agents.'' The definition of ''chemical warfare agents'' has also been changed to read: ''Chemical agent means a chemical compound (to include experimental compounds) that, through its chemical properties produces lethal or other damaging effects on human beings, is intended for use in military operations to kill, seriously injure, or incapacitate persons through its physiological effects. Excluded are research, development, testing and evaluation (RDTE) solutions; riot control agents; chemical defoliants and herbicides; smoke and other obscuration materials; flame and incendiary materials; and industrial chemicals. This definition is adopted based on 50 U.S.C. 1521(j)(1) in which the term ''chemical agents and munitions'' means ''* * * an agent or munition that, through its chemical properties, produces lethal or other damaging effects on human beings, except that such term does not include riot control agents, chemical herbicides, smoke, and other obscuration materials.'' This change makes the terminology used in the final rule consistent with the existing statutory definition of ''chemical agent and munition'' in 50 U.S.C. 1521(j)(1). The Department observes that chemical agents under 50 U.S.C. 1521(j)(1) include the V- and G-series nerve agents; H-series (*i.e.*, ''mustard'' agents) and L-series (*i.e.*, lewisite) blister agents; and certain industrial chemicals, including hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG), when contained in a military munition; and does not include riot control agents (*e.g.*, w-chloroacetophenone [CN] and o-chlorobenzylidenemalononitrile [CS] tear gas); chemical defoliants and herbicides; smoke and other obscuration materials; flame and incendiary materials; and industrial chemicals that

are not configured as a military munition.

The definition of ''chemical warfare materiel (CWM)'' has changed to reflect the adoption of the term ''chemical agent'' discussed previously in this rule.

One commenter stated that although the definition of ''military range'' includes buffer zones with restricted access and exclusionary areas, exclusionary zones at some former target bombing areas are not well defined. While the Department realizes this may be the case at some former military ranges, it believes site conditions and personnel experience will help ensure such areas are included and provide for reasonable application of the rule.

A commenter requested a change to the definition of ''MRS,'' maintaining that portions of a munitions response area (MRA) may not be part of an MRS and, therefore, would not be evaluated using this rule. The Department would like to clarify that, depending on site-specific factors, an MRA may be designated a single MRS or may be subdivided for the purposes of evaluation into multiple MRSs. In each and every case, however, once all the MRSs comprising an MRA have been evaluated (whether the MRA consists of a single MRS or multiple MRSs), the total acreage encompassed by the MRA will have been evaluated using this rule. Through this disciplined and documented approach, the protocol will ensure that an MRA's entire acreage will be addressed.

For example, in investigating a 1,000-acre MRA, the Department may identify five discrete locations (*e.g.*, MRS 1 through 5) that constitute 1,000 acres that require evaluation. Formal decision documents will be prepared for all five MRSs that document the Department's evaluations for the entire 1000 acres. This will ensure that the entire MRA acreage will be evaluated using the protocol.

One commenter requested adding to the end of the definition of ''MRA'': ''* * * therefore, all property within a munitions response area is known to require a munitions response.'' The Department observes that the definition of ''MRA'' already states, ''An MRA is comprised of one or more munitions response sites'' and the definition of an ''MRS'' is ''* * * a discrete location within an MRA that is known to require a munitions response.'' Because an MRA must comprise at least one MRS, the Department does not believe the definition requires modification as suggested by the commenter.

In response to another comment as to whether or not the acreage of an MRA includes water bodies, the Department observes that the acreage of an MRA may extend beyond the terrestrial boundary and include water bodies, such as lakes, ponds, streams, and coastal areas.

One commenter requested adding CWM, in addition to UXO, DMM, and MC, to the definitions of several terms, including MRA and MRS, and at several locations in the tables (Appendix A) of the proposed rule. The Department points out that the definition of ''military munitions'' already includes CWM; therefore, all other terms that build on the military munitions definition, specifically UXO and DMM, already include CWM.

C. Section 179.4. Policy

One commenter noted many positive attributes to the proposed rule. These included affirmative statements concerning the Department's active solicitation of participation by and inclusion of the states, the tribes, and stakeholders; identifying the need for a quality assurance panel to promote consistency in the application of the rule; straightforward recognition that the same level of information will not be available for all sites, and that for some sites, more information will be required in order to realistically apply the rule; and weighting factors, for the most part, are well explained and easy to understand. These comments did not require changing the proposed rule.

One commenter stated that the team approach to prioritization was too broad and implies that several people from multiple agencies, community groups, or tribes will need to be involved in the application of the rule to a specific MRS. The Department continues to believe that it is important to receive input and feedback from such sources in assigning a relative priority for response activities to each MRS and has not amended the proposed rule to address this comment.

The Department received a comment recommending that a state regulatory agency be designated to play a major role in the munitions response process, and if a state agency is unable to perform in this capacity, the U.S. Environmental Protection Agency (U.S. EPA) should do so. In such situations, involvement of U.S. EPA personnel is a matter for U.S. EPA to decide and not the Department; however, the Department notes that it will use a team approach for prioritization and encourages these agencies to participate.

The Department received a comment soliciting clarification on whether stakeholders will have input on the ''no longer required'' determination. An MRS will have the ''no longer required'' determination assigned only after the Response Complete (RC) or Remedy-in-Place (RIP) milestone is achieved. Stakeholders are afforded opportunities to participate and provide input throughout the munitions response process, to include prior to and following these milestones; however, stakeholders do not have a role in determining when an MRS has met the requirements for achieving these milestones.

D. Section 179.5. Responsibilities

A comment was received regarding the term ''administrative control'' and whether this term referred to specific Component's ownership responsibilities. The Department would like to clarify that the phrase ''under their administrative control'' reflects the delegation of responsibilities for munitions responses within the Department. This responsibility does not require the Department to have a current real property interest at a particular MRS.

The Department received several comments pertaining to prioritization at FUDS sites. One commenter asked for clarification of the phrase ''under the administrative control of,'' specifically pertaining to how the rule will apply at a FUDS. Under 10 U.S.C. 2701, the Department is required to ''carry out a program of environmental restoration * * * at each facility or site which was under the jurisdiction of the Secretary * * * at the time of actions leading to contamination.'' Therefore, under this requirement, the Department will apply the rule to an MRS at a FUDS if that MRS is included in the 10 U.S.C. 2710(a) inventory. FUDS, however, are not considered under the Department's control for the purposes of the Status of Property data elements in Appendix A, Tables 5 and 15.

Another commenter noted that for FUDS, the property owner should be involved with applying the rule to any MRS at the FUDS. The Department agrees and has modified section 179.5 to state: ''Ensure that EPA, other federal agencies (as appropriate or required), state regulatory agencies, tribal governments, local restoration advisory boards or technical review committees, local community stakeholders, and the current property owner (if the MRS is outside Departmental control) are offered opportunities to participate throughout the process of application of the rule and in making sequencing recommendations.''

Several commenters stated concerns pertaining to MRSs that have already been evaluated using the Risk

Assessment Code (RAC). The Department wishes to clarify that all MRSs in the 10 U.S.C. 2710(a) inventory will be evaluated using the rule and the most current information available, irrespective of whether that MRS has been evaluated under the RAC framework.

One commenter inquired whether a low prioritization score means ''no further action.'' The Department would like to clarify this is not the case. Prioritization scores are the first tool when defining the need for a munitions response.

One commenter asked the Department to add a definition of ''evaluation pending'' to the rule and publish procedures and time frames that apply to evaluation pending sites. The Department's response is that evaluation pending status is given to an MRS only when there is insufficient information to complete the evaluation using the rule. As soon as sufficient data are available, the MRS will be evaluated. Although the Department is not specifying time frames for addressing the MRS in evaluation pending status as part of this regulation, the Department will be developing specific goals to drive program progress.

A commenter asked for clarification as to when the rule will be applied at sites where the environmental restoration process is considered complete. The Department responds that, as stated in the proposed rule, an MRS no longer requires a priority when the Department has achieved the RC or RIP milestones. This means that a Component or another entity has conducted a munitions response, all objectives set out in the decision document for the MRS have been achieved, and no further action, except for long-term management and/or five-year reviews, is required.

There were many comments pertaining to the quality assurance panel that will review prioritization decisions, especially inquiries about the panel's composition and authority. The Department wishes to clarify that the panel will comprise Component representatives trained in application of the rule who were not involved in the initial scoring of a specific MRS being reviewed. Stakeholders participate in application of the rule at an MRS, but will not be part of the quality assurance panel. The panel is an internal management and oversight function to ensure consistency of the rule's application. Components are, however, required to provide regulators and stakeholders the opportunity to comment on the quality assurance panel's rationale for any changes to the priority originally assigned.

One commenter proposed that the circumstances under which the rule shall be reapplied include when a quality assurance panel recommends a priority change. In response, the Department states that the panel will not direct a Component to reapply the rule; rather, the panel's decision, when adopted, will supersede the original priority assigned. If the panel recommends a change that results in a different priority, the Component will report, in the inventory data submitted to the ODUSD(I&E), the rationale for this change. The Component will also provide this rationale to the appropriate regulatory agencies and involved stakeholders for comment before finalizing the change.

Another commenter expressed support for the quality assurance panel in ensuring uniform application of the rule, but voiced concern this panel may not be effective if they must review all decisions before the prioritization can be finalized. According to the comment, initially it may be more productive to require that the panel review a percentage of the priority decisions to ensure they can review enough data to decide either to support or to change the priority assigned. The Department's response is that absent a review of each prioritization decision, it cannot be stated with authority that all decisions are in fact representative of site conditions and that the rule has been applied in a consistent manner. For this reason, at least initially, the Department is unwilling to consider a sampling-based approach to the work of the quality assurance panel.

One commenter stated that the rule's emphasis on Management Action Plans (MAPs) may place a strain on already limited state resources, especially in those states that do not already have a MAP. The Department responds that MAPs have been a requirement for all sites addressed under the Defense Environmental Restoration Program (DERP) for many years. If a specific site is not addressed in a MAP, that matter should be referred to the appropriate Component's Deputy Assistant Secretary with responsibility for environmental matters. Should such a referral not result in action, the matter should then be referred to the ODUSD(I&E).

Another commenter questioned how the MAPs for several MRSs would be integrated with the statewide MAP being developed in the FUDS program. The Department would like to clarify that the statewide MAP in the FUDS program collectively addresses all FUDS within a state, and that a MAP for each individual FUDS is also required.

Several commenters noted that conditions at an MRS are subject to change and such changes should be reflected in the priority. The Department agrees and has designed the rule to be reapplied if any specific factor considered in the application of the rule changes and if that change has the potential to affect the priority assigned.

There were several comments pertaining to sites where investigations were previously conducted. In response, the Department affirms that an appropriate munitions response is required for each MRS, and that an MRS reaches the ''no longer required'' evaluation only when the Department has conducted a munitions response, all objectives set out in the decision document for the MRS have been achieved, and no further action, except for long-term management and/or five-year reviews, is required.

One commenter questioned the Department's reasons for rescoring sites based on a munitions response, arguing that the result will be to lower scores at the MRS without making progress toward completing all required munitions response activities. The commenter feels that partial munitions responses and continual rescoring is an inefficient approach to the program as a whole. The commenter suggests that once an MRS has received a score suitable to obtain funding, the score should not be lowered based on a munitions response that does not comprehensively and completely address the hazards present at the MRS. The Department disagrees, and notes that an annual reevaluation of the priority assigned to each MRS is statutorily mandated under 10 U.S.C. 2710(c)(1).

In response to a comment received on the certified letter the Department will send to states, territories, federal agencies, and tribal and local governments requesting their involvement in prioritization, the Department will send the letter to any known designee specified by the organization, or in the absence of such a designation, to the head of the organization.

E. Section 179.6. Procedures

This section addresses comments received on section 179.6 of the proposed rule and on the classification tables in Appendix A.

One commenter recommended that the Department revise the rule so that all data elements are consistent using a scale of zero to five; the Explosive Hazard Evaluation (EHE) module,

Chemical Warfare Materiel Hazard Evaluation (CHE) module, and Relative Risk Site Evaluation (RRSE) module be combined into one module; and the priority assigned to a site not be influenced by the type or source of the hazard that may be present at the site. The Department has not adopted such a change. Reducing the scale from seven to five, eliminating the modules, and not addressing the type and source of the hazard will not ensure that the priority given to an MRS adequately reflects the hazard posed by conditions at the MRS. The Department's objectives for the rule are: (1) ensuring that the priority sufficiently reflects actual conditions and potential hazards at the MRS, and (2) that the tool used be straightforward and easy to use. The current construct achieves those objectives.

One commenter requested clarification as to the correct procedure when multiple classifications apply at a given MRS. The commenter questioned whether the scores are cumulative within the module or if only the highest value is used. The Department wishes to clarify that the one highest value within each data element is used. For example, if at a specific MRS both (1) hand grenades containing an explosive filler, which would be categorized as sensitive under Appendix A, Table, and would score 30, and (2) DMM, containing a high-explosive filler, that have not been damaged by burning or detonation, which would be categorized as high explosive (unused) under Appendix A, Table 1, and would score 15 are present, the score (30 points) for the hand grenades containing an explosive filler would be selected.

Numerous comments received address both the EHE and CHE modules, particularly pertaining to the accessibility and receptor factors of these modules. Where this is the case, the comment and response appear under the EHE module responses for simplicity, but pertain to both sections.

1. Section 179.6(a). Explosive Hazard Evaluation Module

The Department received numerous comments on the Munitions Type data element (Appendix A, Table 1) and modified the rule to address many of the comments. For example, the Department modified two classifications within this data element to reflect the inherent difference between primary and secondary explosives. Explosives are classified as primary or secondary based on their susceptibility to initiation. Primary explosives, such as lead azide, are highly susceptible to initiation. Secondary explosives (*e.g.*, TNT, RDX, HMX), which constitute the bulk of the explosives likely to be present at an MRS, are formulated to be far less susceptible to initiation. To address these differences, the Department added to the sensitive classification: ''Bulk primary explosives, or mixtures of these with environmental media such that the mixture poses an explosive hazard.'' The Department also revised the Bulk high explosives, pyrotechnics or propellant classification to exclude primary explosives: ''Bulk secondary explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.''

Also pertaining to the Munitions Type data element, another commenter noted that bulk high explosives mixed with environmental media can be reactive as well as explosive, and the hazard threshold of explosive is too high and should be lowered. The commenter suggested adding ''or reactive'' after ''that result in the mixture being explosive'' in the description of ''bulk high explosives'' and definitions for the terms ''reactive'' and ''explosive soil.'' The Department chose not to make these changes because the commenter did define ''reactive'' in this context, and the focus of the EHE module is explosive hazards.

The Department also added an additional classification to the Munitions Type data element to reflect the lesser risk posed by pyrotechnics that are unused or undamaged. The Pyrotechnic (used or damaged) classification is assigned a score of 20 points, while the Pyrotechnic (not used or damaged) classification is assigned a score of 10 points.

The Department modified the text of the Propellant classification to be consistent with the other classifications, adding ''* * * that have been damaged by burning or detonation'' and ''* * * that are deteriorated to the point of instability'' to the criteria for propellants that are DMM. The Department also corrected the Practice classification pertaining to the criteria for DMM to read: ''* * * that have not been damaged by burning or detonation'' and ''* * * that have not deteriorated to the point of instability.'' The Department also provided greater detail in the definition of a ''practice munition.''

One commenter stated that all practice munitions should be classified together and any MRS with practice munitions should receive a score of 15. The commenter's position is that many practice munitions with sensitive fuzes have miniscule amounts of explosives, while other practice munitions without sensitive fuzes have a much larger explosive or pyrotechnic spotting charge (*e.g.*, practice bombs). Because practice bombs, which receive a score of 5, account for some of the most common and dangerous UXO and cause many serious injuries, the commenter feels that practice munitions without sensitive fuzes that have explosive or pyrotechnic spotting charges are not classified correctly. The Department agrees with the commenter that practice munitions with explosive or pyrotechnic charges do pose an explosive hazard. When developing the rule, the Department defined practice munitions as those munitions that contain inert filler. Practice munitions with explosive or pyrotechnic charges are classified separately under the same data element and are given a value.

One commenter identified an inconsistency pertaining to the Munitions Type data element in that the definition of ''small arms ammunition'' category used the term ''evidence'' but did not specify whether this included ''historical evidence'' and ''physical evidence,'' as is the case for ''evidence of no munitions.'' The Department has revised the small arms ammunitions category within the Munitions Type data element to state: ''All used munitions or DMM that are categorized as small arms ammunition. [Physical evidence or historical evidence that no other types of munitions (*e.g.*, grenades, sub-caliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.]''

Several commenters questioned the level of investigation required for assessing whether physical or historical evidence indicates that no UXO or DMM are present and suggested that specific investigation requirements should be developed for different sites. The Department has defined both historical evidence and physical evidence in the rule. The personnel applying the rule at an MRS will determine the appropriate level of evidence. The Department will not provide additional detail in the final rule, but may address this situation in implementing guidance or training materials.

One commenter requested clarification on the applicability of the proposed rule to open burning/open detonation (OB/OD) units. The commenter expressed concern that the rule indicates that OB/OD sites are excluded because they were used or permitted for disposal of military munitions. The Department would like to clarify that OB/OD units are subject

to prioritization under the rule only when the unit meets the requirements for inclusion in the 10 U.S.C. 2710(a) inventory.

One commenter suggested specifically including quality assurance test ranges within the EHE module Source of Hazard data element (Appendix A, Table 2) as they are not currently identified. To the extent that a quality assurance test range is a location that is known or suspected of containing UXO, DMM, or MC and is included in the inventory required under 10 U.S.C. 2710(a), the rule would be applied to that location. To the extent that such a quality assurance test range meets the criteria of Appendix A, Table 2 (*i.e.*, it meets the test for being a ''former range''), it is already included.

One commenter did not understand why a former munitions treatment area or unit would receive a lower score than a former military range given the unknown hazard posed by munitions that have been treated by OB/OD. The Department's response is that the higher value assigned to former military ranges reflects the fact that UXO are fuzed munitions that have been through their firing and arming cycle. In contrast, munitions treated in an OB/OD unit, while potentially damaged, are not normally fuzed and would most likely not complete their arming sequence. For this reason, UXO at a former military range is considered to pose a greater hazard than DMM at an OB/OD site.

In response to a comment, the Department modified the Former industrial operating facilities classification within the Source of Munitions data element to include former munitions maintenance facilities.

A commenter requested the definition of ''evidence of no munitions'' within the Munitions Type, Source of Hazard, and Location of Munitions (Appendix A, Tables 1, 2, and 3) data elements be changed to indicate that evidence shows that no UXO or DMM were ''ever''resent. The Department declines to make this change as the Department does not want to exclude sites from this classification where evidence indicates that munitions were at one time present but have since been removed, for example, as part of normal Department operation of a military range while the range was in use. This situation is different from UXO or DMM that are removed as part of a munitions response, as described in the next paragraph.

Another commenter asked about UXO that is on the surface and has since been removed, and UXO that is emergent from year to year, such as through frost heave. If munitions were found on the surface of an MRS, the MRS would be classified as Confirmed Surface. If investigation confirms that there are only subsurface munitions present, and natural phenomena (*e.g.*, frost heave or tidal action) occur on the MRS, the second-highest category—Confirmed subsurface, active—should be selected.

In response to a comment, the Department clarified the definition of ''on the surface'' to mean above the soil layer. UXO found in the tundra of Alaska, for example, is considered ''on the surface'' for the purposes of the rule, as the tundra is above the soil layer.

Several commenters stated that within the Information on the Location of Munitions and the Information on the Location of CWM data elements (Appendix A, Tables 3 and 13), no water depth is specified for the Subsurface, physical constraint category. The Department, however, would like to note that in these tables, a water depth of 120 feet was cited as a physical constraint.

Several commenters asked the relevance for selecting 120 feet as the depth for constituting a subsurface physical constraint. The Department selected this depth because of the limited time (less than 15 minutes) normally allowed to scuba divers at this depth, the considerable effort needed to dive to and below this depth, and the dangers associated with such deep dives to basic scuba divers.

Also pertaining to Appendix A, Tables 3 and 13, a commenter requested that the Department use caution when evaluating activities that are ''likely to occur'' because land use and recreational activities can change in ways that no one can predict. The commenter also noted that similar caution is needed when evaluating physical constraints because some constraints are barriers only if they are both kept in place and maintained. The Department agrees with the commenter that conditions may change over time. To address changes that may occur over time, the rule requires reevaluation and rescoring if site conditions change.

Pertaining to the Ease of Access data elements (Appendix A, Tables 4 and 14), one commenter stated that the proposed rule was unclear if deep-water areas without any monitoring would be scored as a complete or incomplete barrier. The Department's response is that if a barrier such as deep water is present, it is evaluated as to its effectiveness in preventing access to all parts of the MRS. In the specific case described in the comment, deep-water areas not subject to surveillance would be scored as Barrier to MRS access is complete, but not monitored.

One commenter stated that it is inequitable that the highest score under the Ease of Access data element (Appendix A, Tables 4 and 14) is a ''10,'' indicating all areas of the MRS are accessible, whereas the Information on Location of Munitions and Information on Location of CWM data elements (Appendix A, Tables 3 and 13) have a maximum score of 20, and a score of 10 represents only the suspected presence of UXO or DMM. The Department believes the current construct is appropriate because the Information on Location of Munitions and Information on Location of CWM data elements address access to the munition or CWM, while the Ease of Access data elements address access to the MRS.

Some commenters noted that some terms, such as ''barrier,'' need further clarification to ensure all users apply the term consistently. For example, people may assess differently whether a security patrol is a partial barrier to the MRS or not a barrier at all. Additionally, perceptions of a barrier may vary, as ''deep or fast-moving water'' may be a challenge instead of a barrier to some people. The Department recognizes these commenters' points but believes the definition is sufficient for the purposes of prioritization. Final determination as to what features, either natural or man-made, are barriers should be based on site-specific knowledge and the judgment of the personnel applying the rule to a specific MRS. Additionally, the Component's quality assurance panels will ensure consistency in the final rule's application.

One commenter stated that some data elements, specifically within the accessibility and receptor factors, within the various modules and among modules, are redundant and should be consolidated. The Department disagrees. Each data element provides important information on its own, bringing data from different perspectives together to best reflect actual site conditions.

Several commenters expressed concern that the receptor factors of the EHE and CHE modules do not capture transient populations. The Department points out that two of the three data elements that address human receptors attempt to address population, regardless of whether it is permanent or transient. The Population Density data elements (Appendix A, Tables 6 and 16) focus on permanent population as based on U.S. Census Bureau data within a city, town, or county. The Population Near Hazard data elements (Appendix A, Tables 7 and 17) are based on any

inhabited structures, whether they are permanent or temporary, that are routinely occupied for any portion of a day. The Type of Activities/Structures data elements (Appendix A, Tables 8 and 18) are also intended to address both permanent and transient populations. The Department is confident that, combined, these data elements sufficiently address both permanent and transient populations.

A commenter questioned the relevance of the Population Density data element in scoring the EHE module because, per the comment, (1) this number is dependent upon and controlled by the Ease of Access data element, and (2) by including the Population Density element, the EHE module score unjustifiably and unnecessarily prioritizes higher those MRSs that are in more densely populated areas, even when potential access to the MRS is precluded by barriers. The Department disagrees because the Population Density data element considers both the on-site and off-site populations surrounding an MRS. While access is a prerequisite for an on-site population, the effects of an event (*e.g.*, an explosion) at an MRS may affect populations that are not on site. This is one of the reasons that several of the elements in the receptor factor include a swath extending up to two miles from the perimeter of the MRS. The same commenter also believed the Types of Activities/Structures data elements (Appendix A, Tables 8 and 18) can be reasonably measured via the Population Near Hazard data elements (Appendix A, Tables 7 and 17), noting that including the Types of Activities/Structures data elements only complicates the process and favors MRSs in higher population areas. The Department again disagrees. The Department included the Types of Activities/Structures data elements to account for the types of activities occurring on a site, and the potential for those activities to bring a receptor into contact with UXO or DMM. It was not developed to give undue weight to high-population areas.

One commenter did not agree that the two-mile criterion applied to evaluating the Population Near Hazard data element is reasonable or necessary for any MRS not having the potential to create a chemical agent hazard that could affect inhabitants within two miles of the boundary. Instead, distance criteria that more reasonably consider the risks from the actual or suspected types of explosive hazards should be used. The Department disagrees because the two-mile radius considers not only the size of the population that may come onto the MRS, but also the effects that an explosion on the MRS may have to areas off the MRS (*e.g.*, blast overpressure, fragment throw). While this distance may be less than two miles, the two-mile distance was selected as a conservative measure.

One commenter stated that the Population Near Hazard data elements should bear greater weight than the Population Density data elements because the greatest hazard is to the population closest to the MRS. The Department, however, notes that these data elements evaluate different aspects of population. The Population Density data elements are used to assess the number of persons that could possibly access the MRS, while the Population Near Hazard data elements focus on the population (through number of structures) within a two-mile range that could be impacted by an unintentional explosion or CA release. The data elements are complementary.

Several commenters disagreed with the Department's use of inhabited structures to indicate population in the Population Near Hazard and Types of Activities/Structures data elements as, for example, ''people may engage in all sorts of activities despite the absence of structures in the vicinity, and many of these activities would put them at considerably greater risk from military munitions than populations that are, relatively speaking, protected within structures.'' The Department notes the concern, but believes the rule sufficiently accounts for these populations. The rule relies on several indicators to assess potentially exposed populations. The Types of Activities/Structures data elements address activities conducted on the MRS, and the number of permanent or temporary structures present. Parks and recreational areas, where hikers, campers, and tourists may be present, are specifically included in the Types of Activities/Structures elements.

In response to one commenter's statement that UXO may be encountered through nonintrusive activities such as boating and fishing, the Department believes that such activities are accounted for in the Types of Activities/Structures data elements.

Several commenters noted that Types of Activities/Structures data elements seem structured to give the greatest weight to activities and structures involving the most people, and that warehousing, industrial, agricultural, and forestry activities are weighted less. Some commenters are concerned because these areas experience high-density populations and activities that penetrate the ground surface during working hours. The Department recognizes the commenters' concerns but notes that, even though agricultural and forestry activities penetrate the ground surface, the exposed population is typically smaller than commercial, residential, or recreational areas. The Department is balancing activity intrusiveness with the potential population that could be exposed to a hazard. The rule does, however, require reevaluation if site conditions change.

One commenter questioned how the scoring values among modules and within modules were selected. The commenter specifically noted that the numerical weighting assigned within and among data elements seemed arbitrary and unnecessarily complicated. Further, there is no rationale for applying a score of 30 (worst case score) to certain data elements and a value of only 5 (worst case score) to other data elements within the same module. The commenter cites the Population Near Hazard data element as an example. Within this data element, there are six classifications established based on the number of inhabited structures within a two-mile distance of an MRS. In this data element, 1–5 inhabited structures receives a score of only 1, while 26 or more inhabited structures receives a score of 5. The commenter believes that the score should be the same, regardless of whether a single residence or 26 residences were on or near the MRS. The Department disagrees with the commenter that all situations should be scored the same because it impairs differentiation and thus prioritization, which is the purpose of this rule. The rule-making development effort involved a series of meetings over a year and a half, including substantial consultation with states, tribes, and other federal agencies. The Department also tested the developing model during this time to determine if the model outcomes were reasonable given what was known about the trial MRSs. The data elements and scores as presented in the proposed rule provided the most rational results and distribution among the sites.

Many commenters believe that the definition of ''ecological resources'' (Appendix A, Tables 9 and 19) in the rule is too limited. The Department does not mean to imply that less sensitive ecological resources are not important. For the purposes of assigning a relative priority to each MRS, however, the Department believes that limiting this definition to the most sensitive habitats is appropriate so that these areas are elevated in priority.

Similar to the comments for ecological resources, a commenter noted that the definition of ''cultural resources'' used in the EHE and CHE modules is too narrow and the list of statutes should not be limited. The Department believes this definition is appropriate for the purposes of assigning a relative priority to each MRS.

One commenter stated that there may be only a few MRSs that score high enough to be included in the highest tier of the EHE module, and therefore, more sites will be distributed among the lower tiers. Based on the testing described in the proposed rule, the Department expects the universe of sites to be adequately distributed among the possible scores. The highest hazard sites are not expected to be the most numerous, nor are the lowest hazard sites expected to be the most numerous. The Department believes this construct is appropriate.

2. Section 179.6(b). Chemical Warfare Materiel Hazard Evaluation Module

One commenter agreed with the Department that MRSs with known or suspected CWM are important and deserve special attention. The commenter did state, however, that the potential for public exposure should be an important consideration when ranking such MRSs. MRSs that have high potential for public exposures and risk should be ranked higher than an MRS with CWM that has minimal opportunity for public exposure. The Department addressed this concern during the development of the rule by including data elements to factor in population density and public exposure. Based on the data used in the rule, an MRS with known or suspected CWM does not always rank higher than a site without CWM.

A commenter suggested that receptors under the CHE module should be weighted higher than those under the EHE module because CWM pose hazards associated with both the explosive impact and the dispersion of the chemical agents. The Department believes that the rule appropriately accounts for the special characteristics of CWM in the CWM Configuration and Sources of CWM data elements (Appendix A, Tables 11 and 12).

One commenter asked if all CWM is considered similar in the severity of its effects and regardless of concentration. The Department's response is that the rule does not consider the differences in the mechanism of action (e.g., neurotransmitter disruption) or the toxicological properties (*e.g.*, Lethal Dose for 50 percent of the exposed population [LD50]). The CWM Configuration and Sources of CWM data elements do address the differences in the hazards posed by CWM (*e.g.*, CWM with an explosive burster scores higher than CWM without a burster).

One commenter felt that classifying CWM mixed with UXO lower than CWM under the CWM Configuration data element does not make sense. The commenter stated that this implies that placing some conventional UXO at an MRS with known or suspected CWM can reduce the hazard at that site. To remedy the conflict, the commenter suggested deleting the category CWM mixed with UXO from Appendix A, Table 11 and treating all MRSs containing CWM UXO or damaged CWM DMM as the highest scoring hazard, irrespective of the presence of conventional munitions that are UXO or DMM. The Department, however, believes that explosively configured CWM, which are designed to achieve optimal dispersion of their chemical agent fill, that are UXO or that are damaged DMM should be assigned a higher score than undamaged CWM/DMM or CWM not configured as a munition that are mixed with conventional munitions that are UXO. The Department left this classification unchanged because the detonation of a conventional munition that both is a UXO and mixed with undamaged CWM/DMM or CWM not configured as a munition is less likely to result in a dispersal of any chemical agent present. The Department believes that the classifications assigned appropriately differentiate between the potential chemical agent hazards presented.

One commenter questioned why production facilities; research, development, testing and evaluation facilities; training facilities; and storage or transfer points were identified as separate categories with different hazard scorings within the Sources of CWM data element (Appendix A, Table 12). According to the commenter, the only important issues are: (1) The type of CWM (*i.e.*, it must be either UXO or DMM); (2) its condition (damaged or undamaged); and (3) the strength of evidence (known or suspected CWM contamination). The commenter recommended deleting all other categories. The Department does not believe that there are only three important issues and that the other categories are extraneous. The Department has identified those separate categories under the CWM Configuration and Sources of CWM data elements to enable it to evaluate all known and relevant data and to assign appropriate priorities.

One commenter stated that the rule does not consider CWM that has been managed via OB/OD activities or via on-site disposal (*e.g.*, burial). The Department disagrees, and observes that while not specifically described as OB/OD or burial sites, these sites have in common that any CWM present is DMM. The CWM Configuration data element (Appendix A, Table 11) specifically includes CWM that are DMM, and addresses those differently depending on whether or not the CWM has been damaged (irrespective of how that damage occurred). The Sources of CWM data element (Appendix A, Table 12) specifically considers DMM that are on the surface or in the subsurface, irrespective of how the CWM came to be there.

One commenter stated that it is not clear whether CWM mixed with UXO includes or purposely excludes explosively configured CWM. The Department's response is that explosively configured CWM that is either UXO or damaged DMM receives a score of 30 in Table 11 of Appendix A. The CWM mixed with UXO is used for undamaged CWM that are DMM or that are not configured as a munition, and that are commingled with conventional munitions that are UXO. These score 25.

One commenter questioned whether the receptor factor in the CHE module should be the same as for the EHE, given the impact of wind drift on populations if a chemical agent is released. Evaluation of factors such as dispersion by wind current is far more complex than is appropriate for a prioritization tool. Such factors may, however, be important during a munitions response and be important considerations in the evaluation of remedial alternatives. The Department believes that the current receptor construct is sufficient for assigning each MRS a relative priority.

3. Section 179.6(c). Health Hazard Evaluation (HHE) Module

The Department received a number of comments on the Relative Risk Site Evaluation (RRSE) module, which is intended to evaluate the health hazards associated with MC and any incidental nonmunitions-related contaminants at an MRS. The Department has revised and renamed this module in response to the most significant comments received on the proposed rule. Several commenters noted that although the EHE and CHE module results seemed well balanced in terms of the distribution of outcomes, the RRSE module appeared to score too many sites as ''high,'' inappropriately skewing the overall priority assigned to the MRS.

Specifically, it was observed that having only three outcomes (*i.e.*, high, medium, and low) as provided in the RRSE module can result in this one module being the dominating factor in the overall priority assignment. In response to this significant comment, the Department analyzed the construct of the module and revised it so that the outcome in the rule has seven possible answers, increasing the ability to differentiate among MRSs. Accordingly, the Department believes that the revised module better reflects the relative evaluation of explosive, CWM, and MC hazards potentially present at the site. The Department has also changed the name of the module to the Health Hazard Evaluation (HHE) Module to differentiate it from the three-outcome RRSE used in the Department's Installation Restoration program (IRP). The Department will apply the HHE only to MRSs subject to this rule. The HHE module is intended to evaluate health hazards associated with MC at an MRS, with only incidental nonmunitions-related contaminants addressed under the MMRP.

The RRSE will continue to be applied to sites in the IRP category of the DERP.

Within the revised framework, the data and the process by which the data are evaluated are the same as within the RRSE; however, the distinction between the previous and revised frameworks lies in the greater number of outcomes (*i.e.*, seven versus three). Only MRSs with the maximum results for the three factors (*i.e.*, Contaminant Hazard Factor (CHF), Receptor Factor, and Migration Pathway Factor) are assigned the highest priority (*i.e.*, Category A). In other words, only those MRSs with significant MC-related health hazards, an identified receptor, and an evident migration pathway are assigned to Category A for the HHE module.

Tables 1, 2, and 3 below illustrate the derivation of the seven categories of the HHE. Table 1, which reproduces Table 21 of Appendix A, provides the three potential outcomes for each of the factors in the HHE. Table 2, which reproduces Table 22 of Appendix A, illustrates the different possible combinations of the results. The frequency in this table denotes the number of times each combination is used. Table 3, which reproduces Table 23 of Appendix A, spreads the possible combinations across seven categories, permitting only the most and least hazardous combinations in the highest and lowest categories. The other combinations are spread across the five remaining categories in a bell curve based on frequency of the combination.

TABLE 1.—HHE MODULE RATING

Contaminant hazard factor		Receptor factor		Migration pathway factor	
Significant	High (H)	Identified	High (H)	Evident	High (H)
Moderate	Middle (M)	Potential	Middle (M)	Potential	Middle (M)
Minimal	Low (L)	Limited	Low (L)	Confined	Low (L)

TABLE 2.—HHE MODULE RATING

Contaminant hazard factor	Receptor factor	Migration pathway		
		Evident	Potential	Confined
Significant	Identified	HHH	HHM	HHL
	Potential	HHM	HMM	HML
	Limited	HHL	HML	HLL
Moderate	Identified	HHM	HMM	HML
	Potential	HMM	MMM	MML
	Limited	HML	MML	MLL
Minimal	Identified	HHL	HML	HLL
	Potential	HML	MML	MLL
	Limited	HLL	MLL	LLL

TABLE 3.—HHE MODULE

Combination	Frequency	Category
HHH	1	A
HHM	3	B
HHL	3	C
HMM	3	
HML	6	D
MMM	1	
HLL	3	E
MML	3	
MLL	3	F
LLL	1	G

A commenter asked why the ecological receptors for surface water and sediment in the Receptor factor are limited to critical habitats ''and other similar environments.'' The Department's response is that it chose to focus on locations of critical habitat as a means of delineating among ecological receptors. Almost all areas are habitat for some species, and considering all habitats equally provides no differentiating criteria. In response to the same commenter, the Department wishes to clarify that consumption of fish in contaminated waters is accounted for in the HHE.

One commenter questioned the exclusion of an ecological endpoint during the evaluation of surface soils and requested that the Department consider groundwater as a minor receptor factor. The Department's response is that ecological receptors are not considered for evaluation of the surface soil since ecological standards are generally not available for the CHF calculation.

Some comments were received requesting that the Department change the comparison value used for carcinogens from a 1×10^{-4} to a 1×10^{-6} value, which would make it consistent with some states' cleanup goals. This rule, however, is not using the 1×10^{-4} value for cleanup; it is being used to assign a relative priority for action. The Department believes that 1×10^{-4} is an appropriate value for prioritization. Further, changing the range will not change the relative ranking of any individual site, as all sites would shift equally if a different endpoint were used.

One commenter stated that the Receptor Factor should not be limited to surface soil as receptors have the potential for exposure to subsurface soil during intrusive activities or after development where subsurface soils have been brought to the surface. The

Department responds that where subsurface soil is coming to the surface, or is exposed in a manner in which people can contact it (*e.g.,* in an excavation), it is treated as surface soil.

Another commenter stated the module appears to underestimate the risks posed by landfills. The Department points out the releases from landfills usually do not include UXO, DMM, or MC. It is more likely that a landfill would be addressed under the IRP category of the DERP and, as such, would not be evaluated under this rule.

One commenter stated there is little detail describing the terms ''identified,'' ''potential,'' and ''limited'' receptors. Until guidance specific to the HHE is developed, the Department suggests reviewing the Relative Risk Site Evaluation Primer (available at *http://www.dtic.mil/envirodod*) for detailed information on the use of this factor.

A commenter remarked that the Receptor Factor for groundwater should consider individuals exposed inadvertently, such as construction workers conducting invasive activities, in addition to water supply exposure. The HHE was primarily developed to consider long-term chronic exposures, not short-term exposures, through water consumption because such exposures are the dominant case associated with groundwater contamination. Further, as part of prioritization, it would be difficult to determine if workers are being exposed in this way. Finally, this rule is not intended as a risk assessment nor will it take the place of a risk assessment, where unusual exposure scenarios can be properly considered.

A few commenters were concerned as to whether or not CHF values are established for all constituents, and if not, how the Department would establish these values. The Department will initially adopt the current contaminant tables in the Relative Risk Site Evaluation Primer as a basis for the HHE. These values are updated every few years. The Department will also continue to work with U.S. EPA in its efforts to promulgate CHF values for MC and for other constituents.

Several comments pertained to state involvement and concerns about data quality and consistency. The Department intends on developing guidance and conducting training to ensure consistency in implementation of the rule. Additionally, states will be involved in applying the rule, including the HHE module.

4. Section 179.6(d). Determining the MRS Priority

The Department received several comments regarding how the module for MC is integrated into the overall priority matrix because the EHE and CHE modules have seven categories and the RRSE category has three. Some commenters believe that because there are too few RRSE categories, sites with high RRSE scores drive the priority unnecessarily too high. In response to this and other comments, the Department revised the RRSE module (now the HHE module) to provide a number of categories consistent with the other modules in the rule.

One commenter remarked on the pros and cons of driving module scores into tiers versus discrete scores and on the Department's intentions. The Department's response is that the Department's intent was to assign relative priorities to each MRS, not to develop a one-N listing of priorities. If the latter had been the intent, the number of possible outcomes would have become unwieldy.

One commenter maintained that the module with the lowest numerical priority value should not determine the MRS priority. The commenter's view is that this approach is intrinsically flawed because it fails to consider the cumulative risk posed by the two modules having a lesser priority ranking, even though those risks may be significant, and when combined, may be greater than that posed by the third module. The commenter suggested that all module priority scores be considered cumulatively in determining the priority for establishing which MRS presents the greatest overall hazard. The Department acknowledges the commenter's concern that there is a cumulative aspect to the hazards evaluated by each module. During the development of the rule, the Department considered using a cumulative total to assign the priority but was unable to define the mathematical relationship between the three modules in a manner that appeared rational or acceptable to the states, tribes, and others consulted during the development. Therefore, the Department's approach is to assign the priority based on the highest hazard posed by the conditions at the site.

F. Section 179.7. Sequencing

Two commenters stated that although the factors to be considered in making sequencing decisions include the ''reasonably anticipated future land use,'' land use assumptions, even reasonable ones, may change and need to be reconsidered. The Department's response is that the rule is used to assign to each MRS a relative priority, given the associated risks. To the extent any specific factors considered in application of the rule change, and that change affects the priority assigned to an MRS, the annual reexamination of assigned priorities should identify and consider the change. As a rule, the Department will address those sites with the highest risk first. Sequencing decisions are, however, often driven by other factors. Although sequencing decisions may change as relative priorities change, once a sequencing decision is made and execution of the munitions response has begun, it is unlikely that a change in relative priority would affect the sequencing decision.

One commenter noted that the proposed rule required the Department to report the results of sequencing; however, there is no mention of how the Department will make available all the results of the ranking. In response, the Department will compile the sequencing results and make them available to the public.

V. Administrative Requirements

A. Regulatory Impact Analysis Pursuant to Executive Order 12866

Executive Order 12866 (58 FR 51735 [October 4, 1993]) requires each agency taking regulatory action to determine whether that action is ''significant.'' The agency must submit any regulatory actions that qualify as ''significant'' to the Office of Management and Budget (OMB) for review, assess the costs and benefits anticipated as a result of the proposed action, and otherwise ensure that the action meets the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may (1) have an annual effect on the economy of $100 million or more or adversely effect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The Department has determined that the rule is not a significant rule under Executive Order 12866 because it is not likely to result in a rule that will meet any of the four prerequisites.

(1) The rule will not have an annual effect on the economy of $100 million or more or adversely affect in a material

way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities.

The primary effect on the economy will be the necessity for state and/or local governments to conduct oversight of the environmental restoration activities. The Department previously determined that the rule does not place a burden in excess of $100 million each year on state, local, or tribal governments. The changes from the proposed rule do not significantly change the analysis conducted in support of the proposed rule, which showed that the effects on the economy as a whole, any particular sector of the economy, productivity, competition, or jobs are not significant. In addition, because the one impact that was identified, costs for state oversight are reimbursable through the Defense and State Memorandum of Agreement (DSMOA) program, the overall impact to any individual state is minimal.

Similarly, the previous determination that the proposed rule does not have a direct adverse effect on the environment, public health, and safety remains unchanged by the final rule. Any adverse effects were either a result of the actions that caused the UXO, DMM, or MC to be present at the MRS (e.g., the site's use as a military range, treatment of waste military munitions at the site) , which predate the application of the rule, or are the result of the munitions response activities that are implemented after the application of the rule. In the latter case, munitions response activities are performed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), a process that fully considers the overall impacts to human health and the environment posed by UXO, DMM, or MC and the response to such.

For these reasons, the Department has determined that the rule will not adversely affect, in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities.

(2) The rule will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency.

Implementation of the rule will not create a serious inconsistency or otherwise interfere with another agency's action because the Department has lead authority for administering the DERP under 10 U.S.C. 2701(a)(1). The DERP statute delineates the responsibilities of the Department and authority of U.S. EPA to some extent. The Department is required by 10 U.S.C. 2701(a)(3) to consult with the U.S. EPA in its administration of the environmental restoration program. Further, Section 2701(c)(2) of the statute gives the Department the responsibility of conducting environmental restoration activities on all properties owned or leased by it, except those for which U.S. EPA has entered into a settlement with a potentially responsible party. The rule's ranking system will not interfere with the Hazard Ranking System (HRS) maintained by the U.S. EPA because each serves its own purpose. U.S. EPA uses the HRS to place uncontrolled waste sites on the National Priorities List (NPL). U.S. EPA does not use the HRS to determine the priority in funding U.S. EPA remedial response actions. The Department will use the rule to assign a relative priority to each MRS based on the risks posed at each MRS, relative to the risks posed at other MRSs, and may use the rule as a basis for determining which MRS will receive funding. The Department's use of the rule should not interfere with U.S. EPA's use of the HRS. The Department action may interfere with U.S. EPA action in a situation where U.S. EPA decides to pursue response action at an MRS that the Department has designated as a low priority. Where this occurs, the Department will cooperate, to the extent possible, with U.S. EPA and rely on existing interagency processes to reach agreement on MRS priorities and response actions. Based on the above reasoning, the Department has determined that there is minimal potential for inconsistencies or interference with action by any other agency.

(3) The rule will not materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof.

The rule will not materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof because no entitlements, grants, user fees, or loan programs are invoked through prioritization of each MRS for response activities.

(4) The rule will not raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Finally, the rule does not raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. Congress has already established the requirement for environmental restoration of MRSs and for the Department's development of a method to assign each MRS a relative priority. The rule is merely a method for the Department to determine a relative priority of an MRS for response action. The Department has identified no novel legal or policy issues that this rule will create on either an MRS-specific basis or overall. Nor has the Department identified any novel legal or policy issues arising out of the President's priorities or principles set forth in the Regulatory Impact Analysis.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act [SBREFA] of 1996), requires that an agency conduct a regulatory flexibility analysis when publishing a notice of rulemaking for any proposed or final rule. The regulatory flexibility analysis determines the impact of the rule on small entities (*i.e.*, small businesses, small organizations, and small governmental jurisdictions). SBREFA amended the Regulatory Flexibility Act to require federal agencies to state the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

The Department hereby certifies that the rule will not have a significant economic impact on a substantial number of small entities. The nature of the rule provides the factual basis for a determination that no regulatory flexibility analysis is required. The rule merely provides a procedure by which the Department may assign a relative priority to each MRS for response actions. No costs are directly imposed on small entities nor is any action directly required of small entities through this rule. Because the Department bears the financial responsibility for remediating MRSs, and the source of its funding is Congress, implementation of the rule will not directly affect small entities in a financial manner. For the foregoing reasons, the Department believes that the rule, if promulgated, would not have a significant economic impact on a substantial number of small entities.

C. Unfunded Mandates

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, requires federal agencies to assess the effects of their regulatory actions on state, local, and tribal

governments and the private sector. Section 202 of the UMRA requires that, prior to promulgating proposed and final rules with ''federal mandates'' that may result in expenditures by state, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year, the agency must prepare a written statement, including a cost-benefit analysis of the rule. Under Section 205 of the UMRA, the Department must also identify and consider a reasonable number of regulatory alternatives to the rule and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. Certain exceptions to Section 205 exist. For example, when the requirements of Section 205 are inconsistent with applicable law, Section 205 does not apply. In addition, an agency may adopt an alternative other than the least costly, most cost-effective, or least burdensome in those cases where the agency publishes with the final rule an explanation of why such alternative was not adopted. Section 203 of the UMRA requires that the agency develop a small government agency plan before establishing any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments. The small government agency plan must include procedures for notifying potentially affected small governments, providing officials of affected small governments with the opportunity for meaningful and timely input in the development of regulatory proposals with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The Department has determined that the rule does not contain a federal mandate that may result in expenditures of $100 million or more for state, local, and tribal governments in the aggregate, or by the private sector in any one year. The term ''federal mandate'' means any provision in statute or regulation or any federal court ruling that imposes ''an enforceable duty'' upon state, local, or tribal governments, and includes any condition of federal assistance or a duty arising from participation in a voluntary federal program that imposes such a duty. The rule does not contain a federal mandate because it imposes no enforceable duty upon state, tribal, or local governments. The Department is responsible for funding munitions responses and imposes no costs on other entities by prioritizing MRSs using the rule. The Department recognizes that the state, local, or tribal government may expend funds to conduct oversight of the response activities. The rule, however, does not require such oversight. To the degree such oversight is required, it is required by preexisting law on which the rule has no effect.

D. Paperwork Reduction Act

The Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.*, prohibits a federal agency from conducting or sponsoring a collection of information that requires OMB approval, unless such approval has been obtained and the collection request displays a currently valid OMB control number. Nor is any person required to respond to an information collection request that has not complied with the PRA. The term ''collection of information'' includes collection of information from ten or more persons. The Department has determined that the PRA does not apply to this rule because, although the Department will collect information on the MRS, it does not mandate that any person supply information. All information collected from persons will be voluntary, for example, through an interview. Therefore, the PRA does not apply to the rule.

E. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, Section 12(d) (15 U.S.C. 272 note), directs federal agencies to use technical standards developed by voluntary consensus standards bodies in its regulatory activities, except in those cases in which using such standards would be inconsistent with applicable law or otherwise impractical. ''Technical standards'' means performance-based or design-specific technical specifications and related management systems practices. Voluntary consensus means that the technical standards are developed or adopted by voluntary consensus standards organizations. In those cases in which a federal agency does not use voluntary consensus standards that are available and applicable, the agency must provide OMB with an explanation.

The rule does not involve performance-based or design-specific technical specifications or related management systems practices. The values for relative risk used in the HHE module, to the extent they qualify as technical standards, were formed through consensus. The rule is therefore in compliance with the NTTAA.

F. Environmental Justice Requirements Under Executive Order 12898

Under Executive Order 12898, ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,'' a federal agency must, where practicable and appropriate, collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, federal agencies must then use this information to determine whether their activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

The Department believes that implementation of the rule will address environmental justice concerns in several ways. First, the rule will address environmental justice by ensuring that prioritization is based primarily on risk to the human health and environment of all populations. The Department recognizes that prioritization of MRSs for response action could result in a low-priority designation for some MRSs located in low-income or minority neighborhoods. Under the risk-based approach, such prioritization could only be viewed as environmental injustice if low-income and minority populations were disproportionately located near low-risk MRSs. However, should this be the case, the final rule would allow the Department to consider this fact in its sequencing decisions. Second, the Department has reserved a step in the rule for consideration of environmental justice concerns, having supplemented the risk-based prioritization decision with consideration of whether low-income or minority populations are near the MRS in question. Third, because the rule will provide the Department with an established method for choosing which MRSs to address first, it will ensure uniformity among decisions and eliminate the potential for intentional discrimination against low-income and minority populations. Finally, the Department's engagement with various stakeholders, most notably tribal governments, in developing the rule has helped to build consideration of environmental justice concerns into the rule.

The Department plans to continue to study the environmental justice effects once the rule is implemented. Until that time, no data exist regarding whether low-income and minority populations live near high-risk MRSs as opposed to low-risk MRSs. As such, there is

currently no way of determining whether generally focusing response efforts first at those MRSs that pose a relatively higher risk will in any way adversely affect these or any particular segment of the population. The Department decided to include environmental justice considerations in the body of the proposed rule as a precautionary measure, but will examine the effect of the rule on low-income and minority populations, once the Department has implemented it and has compiled data from which to draw.

At this time, the Department believes that no action will directly result from the rule that will have a disproportionately high and adverse human health and environmental effect on any segment of the population. The Department will examine, however, the effects of implementation to ensure that no disproportionately high and adverse human health or environmental effect occurs.

G. Federalism Considerations Under Executive Order 13132

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), establishes certain requirements for federal agencies issuing regulations, legislative comments, proposed legislation, or other policy statements or actions that have ''federal implications.'' Under the Executive Order, any of these agency documents or actions have ''federal implications'' when they have ''substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.'' Section 6 of the Executive Order prohibits any agency from issuing a regulation that has federal implications, imposes substantial direct compliance costs on state and local governments, and is not required by statute. Such a regulation may be issued only if the federal government provides the funds necessary to pay the direct compliance costs incurred by state and local governments, or the agency consults with state and local officials early in the process of developing the proposed regulation. Further, a federal agency may issue a regulation that has federalism implications and preempts state law only if the agency consults with state and local officials early in the process of developing the proposed regulation.

The rule does not have federalism implications because it will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. The statute authorizing the Department's environmental restoration program, 10 U.S.C. 2701, clearly defines the role and responsibilities of the Department with respect to state and local governments. The role and primary responsibility of the Department is to implement an appropriate environmental restoration program at MRSs. The Department funds environmental restoration activities and does not directly affect the states in any manner. The only potential dispute regarding distribution of power may arise where the state attempts to require the Department to respond to an MRS under a state hazardous waste law, and the Department has not ranked the MRS as a high priority or allocated funding for environmental restoration of the MRS. Such a situation, however, would be dealt with per established legal principles regarding the relationship of states to the federal government. The rule does not alter this relationship. Additionally, it would not be appropriate for the rule to attempt to assign roles to the Department or any state because such assignment of roles is outside the scope of the statutory mandate. The rule does not impose direct compliance costs on state or local governments because the Department funds environmental restoration activities.

Finally, development of a method for prioritizing action at MRSs was specifically required by statute. Therefore, the requirements of the Executive Order, Section 6, do not apply to the rule.

List of Subjects in 32 CFR Part 179

Arms and munitions, Environmental protection, Government property, Military personnel.

■ Accordingly, 32 CFR part 179 is added to Chapter 1, Subchapter H to read as follows:

PART 179—MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL (MRSPP)

Sec.

Authority: 10 U.S.C. 2710 *et seq.*

§ 179.1 Purpose.

The Department of Defense (the Department) is adopting this Munitions Response Site Prioritization Protocol (MRSPP) (hereinafter referred to as the ''rule'') under the authority of 10 U.S.C. 2710(b). Provisions of 10 U.S.C. 2710(b) require that the Department assign to each defense site in the inventory required by 10 U.S.C. 2710(a) a relative priority for response activities based on the overall conditions at each location and taking into consideration various factors related to safety and environmental hazards.

§ 179.2 Applicability and scope.

(a) This part applies to the Office of the Secretary of Defense, the Military Departments, the Defense Agencies and the Department Field Activities, and any other Department organizational entity or instrumentality established to perform a government function (hereafter referred to collectively as the ''Components'').

(b) The rule in this part shall be applied at all locations:

(1) That are, or were, owned by, leased to, or otherwise possessed or used by the Department, and

(2) That are known to, or suspected of, containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), and

(3) That are included in the inventory established pursuant to 10 U.S.C. 2710(a).

(c) The rule in this part shall not be applied at the locations not included in the inventory required under 10 U.S.C. 2710(a). The locations not included in the inventory are:

(1) Locations that are not, or were not, owned by, leased to, or otherwise possessed or used by the Department,

(2) Locations neither known to contain, or suspected of containing, UXO, DMM, or MC,

(3) Locations outside the United States,

(4) Locations where the presence of military munitions results from combat operations,

(5) Currently operating military munitions storage and manufacturing facilities,

(6) Locations that are used for, or were permitted for, the treatment or disposal of military munitions, and

(7) Operational ranges.

§ 173.3 Definitions.

This part includes definitions for many terms that clarify its scope and applicability. Many of the terms relevant to this part are already defined, either in 10 U.S.C. 101, 10 U.S.C.

2710(e), or the Code of Federal Regulations. Where this is the case, the statutory and regulatory definitions are repeated here strictly for ease of reference. Citations to the U.S. Code or the Code of Federal Regulations are provided with the definition, as applicable. Unless used elsewhere in the U.S. Code or the Code of Federal Regulations, these terms are defined only for purposes of this part.

Barrier means a natural obstacle or obstacles (*e.g.*, difficult terrain, dense vegetation, deep or fast-moving water), a man-made obstacle or obstacles (*e.g.*, fencing), and combinations of natural and man-made obstacles.

Chemical agent (CA) means a chemical compound (to include experimental compounds) that, through its chemical properties produces lethal or other damaging effects on human beings, is intended for use in military operations to kill, seriously injure, or incapacitate persons through its physiological effects. Excluded are research, development, testing and evaluation (RDTE) solutions; riot control agents; chemical defoliants and herbicides; smoke and other obscuration materials; flame and incendiary materials; and industrial chemicals. (This definition is based on the definition of ''chemical agent and munition'' in 50 U.S.C. 1521(j)(1).)

Chemical Agent (CA) Hazard is a condition where danger exists because CA is present in a concentration high enough to present potential unacceptable effects (*e.g.*, death, injury, damage) to people, operational capability, or the environment.

Chemical Warfare Materiel (CWM) means generally configured as a munition containing a chemical compound that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. CWM includes V- and G-series nerve agents or H-series (mustard) and L-series (lewisite) blister agents in other-than-munition configurations; and certain industrial chemicals (*e.g.*, hydrogen cyanide (AC), cyanogen chloride (CK), or carbonyl dichloride (called phosgene or CG)) configured as a military munition. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include riot control devices; chemical defoliants and herbicides; industrial chemicals (*e.g.*, AC, CK, or CG) not configured as a munition; smoke and other obscuration-producing items; flame and incendiary-producing items; or soil, water, debris, or other media contaminated with low concentrations of chemical agents where no CA hazards exist. For the purposes of this Protocol, CWM encompasses four subcategories of specific materials:

(1) *CWM, explosively configured* are all munitions that contain a CA fill and any explosive component. Examples are M55 rockets with CA, the M23 VX mine, and the M360 105-mm GB artillery cartridge.

(2) *CWM, nonexplosively configured* are all munitions that contain a CA fill, but that do not contain any explosive components. Examples are any chemical munition that does not contain explosive components and VX or mustard agent spray canisters.

(3) *CWM, bulk container* are all non-munitions-configured containers of CA (e.g., a ton container) and CAIS K941, toxic gas set M–1 and K942, toxic gas set M–2/E11.

(4) *CAIS* are military training aids containing small quantities of various CA and other chemicals. All forms of CAIS are scored the same in this rule, except CAIS K941, toxic gas set M–1; and CAIS K942, toxic gas set M–2/E11, which are considered forms of CWM, bulk container, due to the relatively large quantities of agent contained in those types of sets.

Components means the Office of the Secretary of Defense, the Military Departments, the Defense Agencies, the Department Field Activities, and any other Department organizational entity or instrumentality established to perform a government function.

Defense site means locations that are or were owned by, leased to, or otherwise possessed or used by the Department. The term does not include any operational range, operating storage or manufacturing facility, or facility that is used for or was permitted for the treatment or disposal of military munitions. (10 U.S.C. 2710(e)(1))

Discarded military munitions (DMM) means military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include UXO, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. 2710(e)(2))

Explosive hazard means a condition where danger exists because explosives are present that may react (*e.g.,* detonate, deflagrate) in a mishap with potential unacceptable effects (*e.g.,* death, injury, damage) to people, property, operational capability, or the environment.

Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, and demolition charges; and devices and components of any item thereof. The term does not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components, other than nonnuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*) have been completed. (10 U.S.C. 101(e)(4))

Military range means designated land and water areas set aside, managed, and used to research, develop, test, and evaluate military munitions, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas. (40 CFR 266.201)

Munitions and explosives of concern distinguishes specific categories of military munitions that may pose unique explosives safety risks, such as UXO, as defined in 10 U.S.C. 101(e)(5); discarded military munitions, as defined in 10 U.S.C. 2710(e)(2); or munitions constituents (*e.g.,* TNT, RDX), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

Munitions constituents means any materials originating from UXO, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. 2710(e)(3))

Munitions response means response actions, including investigation, removal actions, and remedial actions, to address the explosives safety, human

health, or environmental risks presented by UXO, discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.

Munitions response area (MRA) means any area on a defense site that is known or suspected to contain UXO, DMM, or MC. Examples are former ranges and munitions burial areas. An MRA comprises one or more munitions response sites.

Munitions response site (MRS) means a discrete location within an MRA that is known to require a munitions response.

Operational range means a range that is under the jurisdiction, custody, or control of the Secretary of Defense and that is used for range activities, or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities. (10 U.S.C. 101(e)(3))

Range means a designated land or water area that is set aside, managed, and used for range activities of the Department of Defense. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use in accordance with regulations and procedures prescribed by the Administrator of the Federal Aviation Administration. (10 U.S.C. 101(e)(1)(A) and (B))

Range activities means research, development, testing, and evaluation of military munitions, other ordnance, and weapons systems; and the training of members of the armed forces in the use and handling of military munitions, other ordnance, and weapons systems. (10 U.S.C. 101(3)(2))

Unexploded ordnance (UXO) means military munitions that:

(1) Have been primed, fuzed, armed, or otherwise prepared for action;

(2) Have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and

(3) Remain unexploded, whether by malfunction, design, or any other cause. (10 U.S.C. 101(e)(5))

United States means, in a geographic sense, the states, territories, and possessions and associated navigable waters, contiguous zones, and ocean waters of which the natural resources are under the exclusive management authority of the United States. (10 U.S.C. 2710(e)(10))

§ 179.4 Policy.

(a) In assigning a relative priority for response activities, the Department generally considers those MRSs posing the greatest hazard as being the highest priority for action. The priority assigned should be based on the overall conditions at each MRS, taking into consideration various factors relating to safety and environmental hazard potential.

(b) In addition to the priority assigned to an MRS, other considerations (*e.g.,* availability of specific equipment, intended reuse, stakeholder interest) can affect the sequence in which munitions response actions at a specific MRS are funded.

(c) It is Department policy to ensure that U.S. EPA, other federal agencies (as appropriate or required), state regulatory agencies, tribal governments, local restoration advisory boards or technical review committees, and local stakeholders are offered opportunities to participate in the application of the rule in this part and making sequencing recommendations.

§ 179.5 Responsibilities.

Each Component shall:

(a) Apply the rule in this part to each MRS under its administrative control when sufficient data are available to populate all the data elements within any or all of the three hazard evaluation modules that comprise the rule. Upon further delineation and characterization of an MRA into more than one MRS, Components shall reapply the rule to all MRSs within the MRA. In such cases where data are not sufficient to populate one or two of the hazard evaluation modules (*e.g.,* there are no constituent sampling data for the Health Hazard Evaluation [HHE] module), Components will assign a priority based on the hazard evaluation modules evaluated and reapply the rule once sufficient data are available to apply the remaining hazard evaluation modules.

(b) Ensure that the total acreage of each MRA is evaluated using this rule (i.e., ensure the all MRSs within the MRA are evaluated).

(c) Ensure that EPA, other federal agencies (as appropriate or required), state regulatory agencies, tribal governments, local restoration advisory boards or technical review committees, local community stakeholders, and the current landowner (if the land is outside Department control) are offered opportunities as early as possible and throughout the process to participate in the application of the rule and making sequencing recommendations.

(1) To ensure EPA, other federal agency, state regulatory agencies, tribal governments, and local government officials are aware of the opportunity to participate in the application of the rule, the Component organization responsible for implementing a munitions response at the MRS shall notify the heads of these organizations (or their designated point of contact), as appropriate, seeking their involvement prior to beginning prioritization. Records of the notification will be placed in the Administrative Record and Information Repository for the MRS.

(2) Prior to beginning prioritization, the Component organization responsible for implementing a munitions response at the MRS shall publish an announcement in local community publications requesting information pertinent to prioritization or sequencing decisions to ensure the local community is aware of the opportunity to participate in the application of the rule.

(d) Establish a quality assurance panel of Component personnel to review, initially, all MRS prioritization decisions. Once the Department determines that its Components are applying the rule in a consistent manner and the rule's application leads to decisions that are representative of site conditions, the Department may establish a sampling-based approach for its Components to use for such reviews. This panel reviewing the priority assigned to an MRS shall not include any participant involved in applying the rule to that MRS. If the panel recommends a change that results in a different priority, the Component shall report, in the inventory data submitted to the Office of the Deputy Under Secretary of Defense (Installations & Environment) (ODUSD[I&E]), the rationale for this change. The Component shall also provide this rationale to the appropriate regulatory agencies and involved stakeholders for comment before finalizing the change.

(e) Following the panel review, submit the results of applying the rule along with the other inventory data that 10 U.S.C. 2710(c) requires be made publicly available, to the ODUSD(I&E). The ODUSD(I&E) shall publish this information in the report on environmental restoration activities for that fiscal year. If sequencing decisions result in action at an MRS with a lower MRS priority ahead of an MRS with a higher MRS priority, the Component shall provide specific justification to the ODUSD(I&E).

(f) Document in a Management Action Plan (MAP) or its equivalent all aspects

of the munitions responses required at all MRSs for which that MAP is applicable. Department guidance requires that MAP be developed and maintained at an installation (or Formerly Used Defense Site [FUDS] property) level and address each site at that installation or FUDS. For the FUDS program, a statewide MAP may also be developed.

(g) Develop sequencing decisions at installations and FUDS with input from appropriate regulators and stakeholders (*e.g.,* community members of an installation's restoration advisory board or technical review committee), and document this development in the MAP. Final sequencing may be impacted by Component program management considerations. If the sequencing of any MRS is changed from the sequencing reflected in the current MAP, the Component shall provide information to the appropriate regulators and stakeholders documenting the reasons for the sequencing change, and shall request their review and comment on that decision.

(h) Ensure that information provided by regulators and stakeholders that may influence the priority assigned to an MRS or sequencing decision concerning an MRS is included in the Administrative Record and the Information Repository.

(i) Review each MRS priority at least annually and update the priority as necessary to reflect new information. Reapplication of the rule is required under any of the following circumstances:

(1) Upon completion of a response action that changes site conditions in a manner that could affect the evaluation under this rule.

(2) To update or validate a previous evaluation at an MRS when new information is available.

(3) To update or validate the priority assigned where that priority has been previously assigned based on evaluation of only one or two of the three hazard evaluation modules.

(4) Upon further delineation and characterization of an MRA into MRSs.

(5) To categorize any MRS previously classified as ''evaluation pending.''

§ 179.6 Procedures.

The rule in this part comprises the following three hazard evaluation modules.

(a) Explosive Hazard Evaluation (EHE) module.

(1) The EHE module provides a single, consistent, Department-wide approach for the evaluation of explosive hazards. This module is used when there is a known or suspected presence of an explosive hazard. The EHE module is composed of three factors, each of which has two to four data elements that are intended to assess the specific conditions at an MRS. These factors are:

(i) *Explosive hazard,* which has the data elements *Munitions Type* and *Source of Hazard* and constitutes 40 percent of the EHE module score. (See Appendix A to this part, Tables 1 and 2.)

(ii) *Accessibility,* which has the data elements *Location of Munitions, Ease of Access,* and *Status of Property* and constitutes 40 percent of the EHE module score. (See Appendix A, Tables 3, 4, and 5.)

(iii) Receptors, which has the data elements *Population Density, Population Near Hazard, Types of Activities/Structures,* and *Ecological and/or Cultural Resources* and constitutes 20 percent of the EHE module score. (See Appendix A, Tables 6, 7, 8, and 9.)

(2) Based on MRS-specific information, each data element is assigned a numeric score, and the sum of these score is the EHE module score. The EHE module score results in an MRS being placed into one of the following ratings. (See Appendix A, Table 10.)

(i) *EHE Rating A (Highest)* is assigned to MRSs with an EHE module score from 92 to 100.

(ii) *EHE Rating B* is assigned to MRSs with an EHE module score from 82 to 91.

(iii) *EHE Rating C* is assigned to MRSs with an EHE module score from 71 to 81.

(iv) *EHE Rating D* is assigned to MRSs with an EHE module score from 60 to 70.

(v) *EHE Rating E* is assigned to MRSs with an EHE module score from 48 to 59.

(vi) *EHE Rating F* is assigned to MRSs with an EHE module score from 38 to 47.

(vii) *EHE Rating G (Lowest)* is assigned to MRSs with an EHE module score less than 38.

(3) There are also three other possible outcomes for the EHE module:

(i) *Evaluation pending.* This category is used when there are known or suspected UXO or DMM, but sufficient information is not available to populate the nine data elements of the EHE module.

(ii) *No longer required.* This category is reserved for MRSs that no longer require an assigned priority because the Department has conducted a response, all objectives set out in the decision document for the MRS have been achieved, and no further action, except for long-term management and recurring reviews, is required.

(iii) *No known or suspected explosive hazard.* This category is reserved for MRSs that do not require evaluation under the EHE module.

(4) The EHE module rating shall be considered with the CHE and HHE module ratings to determine the MRS priority.

(5) MRSs lacking information for determining an EHE module rating shall be programmed for additional study and evaluated as soon as sufficient data are available. Until an EHE module rating is assessed, MRSs shall be rated as ''evaluation pending'' for the EHE module.

(b) Chemical Warfare Materiel Hazard Evaluation (CHE) module. (1) The CHE module provides an evaluation of the chemical hazards associated with the physiological effects of CWM. The CHE module is used only when CWM are known or suspected of being present at an MRS. Like the EHE module, the CHE module has three factors, each of which has two to four data elements that are intended to assess the conditions at an MRS.

(i) *CWM hazard,* which has the data elements *CWM Configuration* and *Sources of CWM* and constitutes 40 percent of the CHE score. (See Appendix A to this part, Tables 11 and 12.)

(ii) *Accessibility,* which focuses on the potential for receptors to encounter the CWM known or suspected to be present on an MRS. This factor consists of three data elements, *Location of CWM, Ease of Access,* and *Status of Property,* and constitutes 40 percent of the CHE score. (See Appendix A, Tables 13, 14, and 15.)

(iii) *Receptor,* which focuses on the human and ecological populations that may be impacted by the presence of CWM. It has the data elements *Population Density, Population Near Hazard, Types of Activities/Structures,* and *Ecological and/or Cultural Resources* and constitutes 20 percent of the CHE score. (See Appendix A, Tables 16, 17, 18, and 19.)

(2) Similar to the EHE module, each data element is assigned a numeric score, and the sum of these scores (*i.e.*, the CHE module score) is used to determine the CHE rating. The CHE module score results in an MRS being placed into one of the following ratings. (See Appendix A, Table 20.)

(i) *CHE Rating A (Highest)* is assigned to MRSs with a CHE score from 92 to 100.

(ii) *CHE Rating B* is assigned to MRSs with a CHE score from 82 to 91.

(iii) *CHE Rating C* is assigned to MRSs with a CHE score from 71 to 81.

(iv) *CHE Rating D* is assigned to MRSs with a CHE score from 60 to 70.

(v) *CHE Rating E* is assigned to MRSs with a CHE score from 48 to 59.

(vi) *CHE Rating F* is assigned to MRSs with a CHE score from 38 to 47.

(vii) *CHE Rating G (Lowest)* is assigned to MRSs with a CHE score less than 38.

(3) There are also three other potential outcomes for the CHE module:

(i) *Evaluation pending.* This category is used when there are known or suspected CWM, but sufficient information is not available to populate the nine data elements of the CHE module.

(ii) *No longer required.* This category is reserved for MRSs that no longer require an assigned priority because the Department has conducted a response, all objectives set out in the decision document for the MRS have been achieved, and no further action, except for long-term management and recurring reviews, is required.

(iii) *No known or suspected CWM hazard.* This category is reserved for MRSs that do not require evaluation under the CHE module.

(4) The CHE rating shall be considered with the EHE module and HHE module ratings to determine the MRS priority.

(5) MRSs lacking information for assessing a CHE module rating shall be programmed for additional study and evaluated as soon as sufficient data are available. Until a CHE module rating is assigned, the MRS shall be rated as ''evaluation pending'' for the CHE module.

(c) Health Hazard Evaluation (HHE) module.

(1) The HHE provides a consistent Department-wide approach for evaluating the relative risk to human health and the environment posed by MC. The HHE builds on the RRSE framework that is used in the Installation Restoration Program (IRP) and has been modified to address the unique requirements of MRSs. The HHE module shall be used for evaluating the potential hazards posed by MC and other chemical contaminants. The HHE module is intended to evaluate MC at sites. Any incidental nonmunitions-related contaminants may be addressed incidental to a munitions response under the MMRP.

(2) The module has three factors:

(i) Contamination Hazard Factor (CHF), which indicates MC, and any nonmunitions-related incidental contaminants present; this factor contributes a level of High (H), Middle (M), or Low (L) based on Significant, Moderate, or Minimal contaminants present, respectively. (See Appendix A to this part, Table 21.)

(ii) Receptor Factor (RF), which indicates the receptors; this factor contributes a level of H, M, or L based on Identified, Potential, or Limited receptors, respectively. (See Appendix A, Table 21.)

(iii) Migration Pathway Factor (MPF), which indicates environmental migration pathways, and contributes a level of H, M, or L based on Evident, Potential or Confined pathways, respectively. (See Appendix A, Table 21.)

(3) The H, M, and L levels for the CHF, RF, and MPF are combined in a matrix to obtain composite three-letter combination levels that integrate considerations of all three factors. (See Appendix A, Table 22.)

(4) The three-letter combination levels are organized by frequency, and the resulting frequencies result in seven HHE ratings. (See Appendix A, Table 23.)

(i) HHE Rating A (Highest) is assigned to MRSs with an HHE combination level of high for all three factors.

(ii) HHE Rating B is assigned to MRSs with a combination level of high for CHF and RF and medium for MPF (HHM).

(iii) HHE Rating C is assigned to MRSs with a combination level of high for the CHF and RF and low for MPF (HHL), or high for CHF and medium for the RF and MPF (HMM).

(iv) HHE Rating D is assigned to MRSs with a combination level of high for the CHF, medium for the RF, and low for the MPF (HML), or medium for all three factors (MMM).

(v) HHE Rating E is assigned to MRSs with a combination level of high for the CHF and low for the RF and MPF (HLL), or medium for the CHF and RF and low for the MPF (MML).

(vi) HHE Rating F is assigned to MRSs with a combination level of medium for the CHF and low for the RF and MPF (MLL).

(vii) HHE Rating G (Lowest) is assigned to MRSs with a combination level of low for all three factors (LLL).

(5) The HHE three-letter combinations are replaced by the seven HHE ratings. (See Appendix A, Table 24.)

(6) There are also three other potential outcomes for the HHE module:

(i) *Evaluation pending.* This category is used when there are known or suspected MC, and any incidental nonmunitions-related contaminants present, but sufficient information is not available to determine the HHE module rating.

(ii) *No longer required.* This category is reserved for MRSs that no longer require an assigned MRS priority because the Department has conducted a response, all objectives set out in the decision document for the MRS have been achieved, and no further action, except for long-term management and recurring reviews, is required.

(iii) *No known or suspected munitions constituent hazard.* This rating is reserved for MRSs that do not require evaluation under the HHE module.

(7) The HHE module rating shall be considered with the EHE and CHE module ratings to determine the MRS priority.

(8) MRSs lacking information sufficient for assessing an HHE module rating shall be programmed for additional study and evaluated as soon as sufficient data are available. Until an HHR module rating is assigned, the MRS shall be classified as ''evaluation pending'' for the HHE module.

(d) Determining the MRS priority. (1) An MRS priority is determined based on integrating the ratings from the EHE, CHE, and HHE modules. Until all three hazard evaluation modules have been evaluated, the MRS priority shall be based on the results of the modules completed.

(2) Each MRS is assigned to one of eight MRS priorities based on the ratings of the three hazard evaluation modules, where Priority 1 indicates the highest potential hazard and Priority 8 the lowest potential hazard. Under the rule in this part, only MRSs with CWM can be assigned to Priority 1 and no MRS with CWM can be assigned to Priority 8. (See Appendix A to this part, Table 25.)

(3) An ''evaluation pending'' rating is used to indicate that an MRS requires further evaluation. This designation is only used when none of the three modules has a numerical rating (*i.e.*, 1 through 8) and at least one module is rated ''evaluation pending.'' The Department shall develop program metrics focused on reducing the number of MRSs with a status of ''evaluating pending'' for any of the three modules. (See Appendix A, Table 25.)

(4) A ''no longer required'' rating is used to indicate that an MRS no longer requires prioritization. The MRS will receive this rating when none of the three modules has a numerical (*i.e.*, 1 through 8) or an ''evaluation pending'' designation, and at least one of the modules is rated ''no longer required.''

(5) A rating of ''no known or suspected hazard'' is used to indicate that an MRS has no known or expected hazard. This designation is used only when the hazard evaluation modules are

rated as ''no known or suspected explosive hazard,'' ''no known or suspected CWM hazard,'' and ''no known or suspected MC hazard.'' (See Appendix A, Table 25.)

§ 179.7 Sequencing.

(a) *Sequencing considerations.* The sequencing of MRSs for action shall be based primarily on the MRS priority determined through applying the rule in this part. Generally, an MRS that presents a greater relative risk to human health, safety, or the environment will be addressed before an MRS that presents a lesser relative risk. Other factors, however, may warrant consideration when determining the sequencing for specific MRSs. In evaluating other factors in sequencing decisions, the Department will consider a broad range of issues. These other, or risk-plus factors, do not influence or change the MRS priority, but may influence the sequencing for action. Examples of factors that the Department may consider are:

(1) Concerns expressed by regulators or stakeholders.

(2) Cultural and social factors.

(3) Economic factors, including economic considerations pertaining to environmental justice issues, economies of scale, evaluation of total life cycle costs, and estimated valuations of long-term liabilities.

(4) Findings of health, safety, or ecological risk assessments or evaluations based on MRS-specific data.

(5) Reasonably anticipated future land use, especially when planning response actions, conducting evaluations of response alternatives, or establishing specific response action objectives.

(6) A community's reuse requirements at Base Realignment and Closure (BRAC) installations.

(7) Specialized considerations of tribal trust lands (held in trust by the United States for the benefit of any tribe or individual). The United States holds the legal title to the land and the tribe holds the beneficial interest.

(8) Implementation and execution considerations (*e.g.*, funding availability; the availability of the necessary equipment and people to implement a particular action; examination of alternatives to responses that entail significant capital investments, a lengthy period of operation, or costly maintenance; alternatives to removal or treatment of contamination when existing technology cannot achieve established standards [*e.g.*, maximum contaminant levels]).

(9) Mission-driven requirements.

(10) The availability of appropriate technology (*e.g.*, technology to detect, discriminate, recover, and destroy UXO).

(11) Implementing standing commitments, including those in formal agreements with regulatory agencies, requirements for continuation of remedial action operations until response objectives are met, other long-term management activities, and program administration.

(12) Established program goals and initiatives.

(13) Short-term and long-term ecological effects and environmental impacts in general, including injuries to natural resources.

(b) *Procedures and documentation for sequencing decisions.* (1) Each installation or FUDS is required to develop and maintain a Management Action Plan (MAP) or its equivalent. Sequencing decisions, which will be documented in the MAP at military installations and FUDS, shall be developed with input from appropriate regulators and stakeholders (*e.g.*, community members of an installation's restoration advisory board or technical review committee). If the sequencing of an MRS is changed from the sequencing reflected in the current MAP, information documenting the reasons for the sequencing change will be provided for inclusion in the MAP. Notice of the change in the sequencing shall be provided to those regulators and stakeholders that provided input to the sequencing process.

(2) In addition to the information on prioritization, the Components shall ensure that information provided by regulators and stakeholders that may influence the sequencing of an MRS is included in the Administrative Record and the Information Repository.

(3) Components shall report the results of sequencing to ODUSD(I&E) (or successor organizations). ODUSD(I&E) shall compile the sequencing results reported by each Component and publish the sequencing in the report on environmental restoration activities for that fiscal year. If sequencing decisions result in action at an MRS with a lower MRS priority ahead of an MRS with a higher priority, specific justification shall be provided to the ODUSD(I&E).

Appendix A to Part 179—Tables of the Munitions Response Site Prioritization Protocol

The tables in this Appendix are solely for use in implementing 32 CFR part 179.

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Table 1
Classifications Within the EHE Module *Munitions Type* Data Element

Classification	Description	Score
Sensitive	• All UXO that are considered likely to function upon any interaction with exposed persons (e.g., submunitions, 40mm high-explosive [HE] grenades, white phosphorus [WP] munitions, high-explosive antitank [HEAT] munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions). • All hand grenades containing energetic filler. • Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	• All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." • All DMM containing a high-explosive filler that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	25
Pyrotechnic (used or damaged)	• All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). • All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: - Been damaged by burning or detonation - Deteriorated to the point of instability.	20
High explosive (unused)	• All DMM containing a high explosive filler that: - Have not been damaged by burning or detonation - Are not deteriorated to the point of instability.	15
Propellant	• All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., rocket motor). • All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., rocket motor) that are: - Damaged by burning or detonation - Deteriorated to the point of instability.	15
Bulk secondary high explosives, pyrotechnics, or propellant	• All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., rocket motor), that are deteriorated. • Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10

Table 1
Classifications Within the EHE Module *Munitions Type* Data Element

Classification	Description	Score
Pyrotechnic (not used or damaged)	• All DMM containing a pyrotechnic fillers (i.e., red phosphorous), other than white phosphorous filler, that: – Have not been damaged by burning or detonation – Are not deteriorated to the point of instability.	10
Practice	• All UXO that are practice munitions that are not associated with a sensitive fuze. • All DMM that are practice munitions that are not associated with a sensitive fuze and that have not: – Been damaged by burning or detonation – Deteriorated to the point of instability.	5
Riot control	• All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3
Small arms	• All used munitions or DMM that are categorized as small arms ammunition. [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.]	2
Evidence of no munitions	• Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0

Notes:

- *Former* (as in "former military range") means the MRS is a location that was (1) closed by a formal decision made by the Component with administrative control over the location, or (2) put to a use incompatible with the presence of UXO, DMM, or MC.
- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.
- *Practice munitions* means munitions that contain an inert filler (e.g., wax, sand, concrete), a spotting charge (i.e., a small charge of red phosphorus, photoflash powder, or black powder used to indicate the point of impact), and a fuze.
- The term *small arms ammunition* means ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.

Table 2
Classifications Within the EHE Module *Source of Hazard* Data Element

Classification	Description	Score
Former range	• The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10
Former munitions treatment (i.e., OB/OD) unit	• The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	• The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	• The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	• The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	• The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	• The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	• The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	• The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	• The MRS is a former military range where only small arms ammunition was used. [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS into this category.]	1
Evidence of no munitions	• Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0

Notes:

- *Former* (as in "former military range") means the MRS is a location that was (1) closed by a formal decision made by the Component with administrative control over the location, or (2) put to a use incompatible with the presence of UXO, DMM, or MC.
- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.
- *Practice munitions* means munitions that contain an inert filler (e.g., wax, sand, concrete), a spotting charge (i.e., a small charge of red phosphorus, photoflash powder, or black powder used to indicate the point of impact), and a fuze.
- The term *small arms ammunition* means ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or below, or for shotguns.

Table 3
Classifications Within the EHE Module *Information on the Location of Munitions* Data Element

Classification	Description	Score
Confirmed surface	• Physical evidence indicates that there are UXO or DMM on the surface of the MRS. • Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	• Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. • Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	• Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. • Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	• There is physical evidence (e.g., munitions debris, such as fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	• There is historical evidence indicating that UXO or DMM may be present at the MRS.	5
Subsurface, physical constraint	• There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2

Table 3
Classifications Within the EHE Module *Information on the Location of Munitions* Data Element

Classification	Description	Score
Small arms (regardless of location)	• The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability. [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1
Evidence of no munitions	• Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0

Notes:

- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.
- *In the subsurface* means the munition (i.e., a DMM or UXO) is (1) entirely beneath the ground surface, or (2) fully submerged in a water body.
- *On the surface* means the munition (i.e., a DMM or UXO) is (1) entirely or partially exposed above the ground surface (i.e., above the soil layer), or (2) entirely or partially exposed above the surface of a water body (e.g., as a result of tidal activity).
- The term *small arms ammunition* means ammunition, without projectiles that contain explosives (other than tracers), that is .50 caliber or smaller, or for shotguns.

Table 4
Classifications Within the EHE Module *Ease of Access* Data Element

Classification	Description	Score
No barrier	• There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	• There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete, but not monitored	• There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	• There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0

Notes:

• *Barrier* means a natural obstacle or obstacles (e.g., difficult terrain, dense vegetation, deep or fast-moving water), a man-made obstacle or obstacles (e.g., fencing), or a combination of natural and man-made obstacles.

Table 5
Classifications Within the EHE *Status of Property* Data Element

Classification	Description	Score
Non-DoD control	• The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by the Department. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	• The MRS is on land or is a water body that is owned, leased, or otherwise possessed by the Department, and the Department plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	• The MRS is on land or is a water body that is owned, leased, or otherwise possessed by the Department. With respect to property that is leased or otherwise possessed, the Department must control access to the MRS 24 hours per day, every day of the calendar year.	0

Table 6
Classifications Within the EHE Module *Population Density* Data Element

Classification	Definition	Score
> 500 persons per square mile	• There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100 to 500 persons per square mile	• There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	• There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1

Notes:

- If an MRS is in more than one county, the Component will use the largest population value among those counties. If the MRS is within or borders a city or town, the population density for that city or town, instead of the county population density, is used.

Table 7
Classifications Within the EHE Module *Population Near Hazard* Data Element

Classification	Description	Score
26 or more structures	• There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25	• There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15	• There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10	• There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5	• There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0	• There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0

Notes:

- The term *inhabited structures* means permanent or temporary structures, other than military munitions-related structures, that are routinely occupied by one or more persons for any portion of a day.

Table 8
Classifications Within the EHE Module *Types of Activities/Structures* Data Element

Classification	Description	Score
Residential, educational, commercial, or subsistence	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	• There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1

Notes:

- The term *inhabited structures* means permanent or temporary structures, other than Department-related structures, that are routinely occupied by one or more persons for any portion of a day.

Table 9
Classifications Within the EHE Module *Ecological and/or Cultural Resources* Data Element

Classification	Description	Score
Ecological and cultural resources present	• There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	• There are ecological resources present on the MRS.	3
Cultural resources present	• There are cultural resources present on the MRS.	3
No ecological or cultural resources present	• There are no ecological resources or cultural resources present on the MRS.	0

Notes:

- *Ecological resources* means that (1) a threatened or endangered species (designated under the Endangered Species Act [ESA]) is present on the MRS; or (2) the MRS is designated under the ESA as critical habitat for a threatened or endangered species; or (3) there are identified sensitive ecosystems such as wetlands or breeding grounds present on the MRS.
- *Cultural resources* means there are recognized cultural, traditional, spiritual, religious, or historical features (e.g., structures, artifacts, symbolism) on the MRS. Requirements for determining if a particular feature is a cultural resource are found in *the National Historic Preservation Act, Native American Graves Protection and Repatriation Act, Archeological Resources Protection Act, Executive Order 13007*, and *the American Indian Religious Freedom Act*. As examples: American Indians or Alaska Natives deem an MRS to be of religious significance; there are areas used by American Indians or Alaska Natives for subsistence activities (e.g., hunting, fishing).

Table 10
Determining the EHE Rating from the EHE Module Score

Overall EHE Module Score	EHE Rating
The MRS has an overall EHE module score from 92 to 100.	EHE Rating A
The MRS has an overall EHE module score from 82 to 91.	EHE Rating B
The MRS has an overall EHE module score from 71 to 81.	EHE Rating C
The MRS has an overall EHE module score from 60 to 70.	EHE Rating D
The MRS has an overall EHE module score from 48 to 59.	EHE Rating E
The MRS has an overall EHE module score from 38 to 47.	EHE Rating F
The MRS has an overall EHE module score less than 38.	EHE Rating G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard

Table 11
Classifications Within the CHE Module *CWM Configuration* Data Element

Classification	Description	Score
CWM, explosive configuration, either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is: • Explosively configured CWM that are UXO (i.e., CWM/UXO). • Explosively configured CWM that are DMM (i.e., CWM/DMM) that have been damaged.	30
CWM mixed with UXO	• The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25
CWM, explosive configuration that are DMM (undamaged)	• The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is: • Nonexplosively configured CWM/DMM. • Bulk CWM/DMM (e.g., ton container).	15
CAIS K941 and CAIS K942	• The CWM/DMM known or suspected of being present at the MRS is CAIS K941-toxic gas set M-1 or CAIS K942-toxic gas set M-2/E11.	12
CAIS (chemical agent identification sets)	• Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10
Evidence of no CWM	• Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0

Notes:

- The term *CWM/UXO* means CWM that are UXO.
- The notation *CWM/DMM* means CWM that are DMM, to include CAIS K941, toxic gas set M-1; and K942, toxic gas set M-2/E11.
- The term CAIS/DMM means CAIS, other than CAIS K941 and K942.
- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.

Table 12
Classifications Within the CHE Module *Sources of CWM* Data Element

Classification	Description	Score
Live-fire involving CWM	• The MRS is a former military range that supported live-fire of explosively configured CWM and the CWM/UXO are known or suspected of being present on the surface or in the subsurface. • The MRS is a former military range that supported live-fire with conventional munitions, and CWM/DMM are on the surface or in the subsurface commingled with conventional munitions that are UXO.	10
Damaged CWM/DMM surface or subsurface	• There are damaged CWM/DMM on the surface or in the subsurface at the MRS.	10
Undamaged CWM/DMM surface	• There are undamaged CWM/DMM on the surface at the MRS.	10
CAIS/DMM surface	• There are CAIS/DMM on the surface.	10
Undamaged CWM/DMM, subsurface	• There are undamaged CWM/DMM in the subsurface at the MRS.	5
CAIS/DMM subsurface	• There are CAIS/DMM in the subsurface at the MRS.	5
Former CA or CWM Production Facilities	• The MRS is a facility that formerly engaged in production of CA or CWM, and CWM/DMM is suspected of being present on the surface or in the subsurface.	3
Former Research, Development, Testing, and Evaluation (RDT&E) facility using CWM	• The MRS is at a facility that formerly was involved in non-live-fire RDT&E activities (including static testing) involving CWM, and there are CWM/DMM suspected of being present on the surface or in the subsurface.	3
Former Training Facility using CWM or CAIS	• The MRS is a location that formerly was involved in training activities involving CWM and/or CAIS (e.g., training in recognition of CWA, decontamination training) and CWM/DMM or CAIS/DMM are suspected of being present on the surface or in the subsurface.	2
Former Storage or Transfer points of CWM	• The MRS is a former storage facility or transfer point (e.g., intermodal transfer) for CWM.	1
Evidence of no CWM	• Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0

Notes:

- The term *CWM /UXO* means CWM that are UXO.
- The notation *CWM/DMM* means CWM that are DMM, to include CAIS K941, toxic gas set M-1; and K942, toxic gas set M-2/E11.
- The term CAIS/DMM means CAIS, other than CAIS K941 and K942.
- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.
- *In the subsurface* means the CWM (i.e., a DMM or UXO) is (1) entirely beneath the ground surface, or (2) fully submerged in a water body.
- *On the surface* means the CWM (i.e., a DMM or UXO) is (1) entirely or partially exposed above the ground surface (i.e., above the soil layer), or (2) entirely or partially exposed above the surface of a water body (e.g., as a result of tidal activity).

Table 13
Classifications Within the CHE Module *Information on the Location of CWM* Data Element

Classification	Description	Score
Confirmed surface	• Physical evidence indicates that there are CWM on the surface of the MRS. • Historical evidence (e.g., a confirmed incident report or accident report) indicates there are CWM on the surface of the MRS.	25
Confirmed subsurface, active	• Physical evidence indicates the presence of CWM in the subsurface of the MRS and the geological conditions at the MRS are likely to cause CWM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose CWM. • Historical evidence indicates that CWM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause CWM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose CWM.	20
Confirmed subsurface, stable	• Physical evidence indicates the presence of CWM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause CWM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause CWM to be exposed. • Historical evidence indicates that CWM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause CWM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause CWM to be exposed.	15
Suspected (physical evidence)	• There is physical evidence, other than the documented presence of CWM, indicating that CWM may be present at the MRS.	10
Suspected (historical evidence)	• There is historical evidence indicating that CWM may be present at the MRS.	5
Subsurface, physical constraint	• There is physical or historical evidence indicating that CWM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the CWM.	2

Table 13
Classifications Within the CHE Module *Information on the Location of CWM* Data Element

Classification	Description	Score
Evidence of no CWM	• Following investigation of the MRS, there is physical evidence that there is no CWM present or there is historical evidence indicating that no CWM are present.	0

Notes:

- *Historical evidence* means the investigation: (1) found written documents or records, (2) documented interviews of persons with knowledge of site conditions, or (3) found and verified other forms of information.
- *Physical evidence* means: (1) recorded observations from on-site investigations, such as finding intact UXO or DMM, or munitions debris (e.g., fragments, penetrators, projectiles, shell casings, links, fins); (2) the results of field or laboratory sampling and analysis procedures; or (3) the results of geophysical investigations.
- *In the subsurface* means the CWM (i.e., a DMM or UXO) is (1) entirely beneath the ground surface, or (2) fully submerged in a water body.
- *On the surface* means the CWM (i.e., a DMM or UXO) is (1) entirely or partially exposed above the ground surface (i.e., above the soil layer), or (2) entirely or partially exposed above the surface of a water body (e.g., as a result of tidal activity).

Table 14
Classifications Within the CHE Module *Ease of Access* Data Element

Classification	Description	Score
No barrier	• There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	10
Barrier to MRS access is incomplete	• There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete, but not monitored	• There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	• There is a barrier preventing access to all parts of the MRS, and there is active continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0

Notes:

- *Barrier* means a natural obstacle or obstacles (e.g., difficult terrain, dense vegetation, deep or fast moving water), a man-made obstacle or obstacles (e.g., fencing), or a combination of natural and man-made obstacles.

Table 15
Classifications Within the CHE Module *Status of Property* Data Element

Classification	Description	Score
Non-DoD control	• The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by the Department. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5
Scheduled for transfer from DoD control	• The MRS is on land or is a water body that is owned, leased, or otherwise possessed by the Department, and the Department plans to transfer that land or water body to control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3
DoD control	• The MRS is on land or is a water body that is owned, leased, or otherwise possessed by the Department. With respect to property that is leased or otherwise possessed, the Department controls access to the property 24 hours per day, every day of the calendar year.	0

Table 16
Classifications Within the CHE Module *Population Density* Data Element

Classification	Definition	Score
> 500 persons per square mile	• There are more than 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	5
100 to 500 persons per square mile	• There are 100 to 500 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	3
< 100 persons per square mile	• There are fewer than 100 persons per square mile in the county in which the MRS is located, based on U.S. Census Bureau data.	1

Notes:

• If an MRS is in more than one county, the Component will use the largest population value among those counties. If the MRS is within or borders a city or town, the population density for that city or town, instead of the county population density, is used.

Table 17 Classifications Within the CHE Module *Population Near Hazard* Data Element		
Classification	Description	Score
26 or more structures	• There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5
16 to 25	• There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15	• There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10	• There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5	• There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0	• There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Notes: • The term *inhabited structures* means permanent or temporary structures, other than military munitions-related structures, that are routinely occupied by one or more persons for any portion of a day.		

Table 18
Classifications Within the CHE Module *Types of Activities/Structures* Data Element

Classification	Description	Score
Residential, educational, commercial, or subsistence	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5
Parks and recreational areas	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4
Agricultural, forestry	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3
Industrial or warehousing	• Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary, or within the MRS's boundary, that are associated with industrial activities or warehousing.	2
No known or recurring activities	• There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1

Notes:

- The term *inhabited structures* means permanent or temporary structures, other than Department-related structures, that are routinely occupied by one or more persons for any portion of a day.

Table 19
Classifications Within the CHE Module *Ecological and/or Cultural Resources* Data Element

Classification	Description	Score
Ecological and cultural resources present	• There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	• There are ecological resources present on the MRS.	3
Cultural resources present	• There are cultural resources present on the MRS.	3
No ecological or cultural resources present	• There are no ecological resources or cultural resources present on the MRS.	0

Notes:

- *Ecological resources* means that: (1) a threatened or endangered species (designated under the Endangered Species Act [ESA]) is present on the MRS; or (2) the MRS is designated under the ESA as critical habitat for a threatened or endangered species; or (3) there are identified sensitive ecosystems such as wetlands or breeding grounds present on the MRS.
- *Cultural resources* means there are recognized cultural, spiritual, traditional, religious, or historical features (e.g., structures, artifacts, symbolism) on the MRS. Requirements for determining if a particular feature is a cultural resource are found in *the National Historic Preservation Act, Native American Graves Protection and Repatriation Act, Archeological Resources Protection Act, Executive Order 13007*, and *the American Indian Religious Freedom Act*. As examples: American Indians or Alaska Natives deem an MRS to be of spiritual significance; there are areas that are used by American Indians or Alaska Natives for subsistence activities (e.g., hunting, fishing).

Table 20
Determining the CHE Rating from the CHE Module Score

Overall CHE Module Score	CHE Rating
The MRS has an overall CHE module score from 92 to 100.	CHE Rating A
The MRS has an overall CHE module score from 82 to 91.	CHE Rating B
The MRS has an overall CHE module score from 71 to 81.	CHE Rating C
The MRS has an overall CHE module score from 60 to 70.	CHE Rating D
The MRS has an overall CHE module score from 48 to 59.	CHE Rating E
The MRS has an overall CHE module score from 38 to 47.	CHE Rating F
The MRS has an overall CHE module score less than 38.	CHE Rating G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard

Table 21
HHE Factor Levels

Contaminant Hazard Factor		Receptor Factor		Migration Pathway Factor	
Significant	High (H)	Identified	High (H)	Evident	High (H)
Moderate	Middle (M)	Potential	Middle (M)	Potential	Middle (M)
Minimal	Low (L)	Limited	Low (L)	Confined	Low (L)

Table 22
HHE Three-letter Combination Levels

Contaminant Hazard Factor	Receptor Factor	Migration Pathway		
		Evident	Potential	Confined
Significant	Identified	HHH	HHM	HHL
	Potential	HHM	HMM	HML
	Limited	HHL	HML	HLL
Moderate	Identified	HHM	HMM	HML
	Potential	HMM	MMM	MML
	Limited	HML	MML	MLL
Minimal	Identified	HHL	HML	HLL
	Potential	HML	MML	MLL
	Limited	HLL	MLL	LLL

Table 23
HHE Module Ratings

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 24
HHE Module Rating

Contaminant Hazard Factor	Receptor Factor	Migration Pathway		
		Evident	Potential	Confined
Significant	Identified	A	B	C
	Potential	B	C	D
	Limited	C	D	E
Moderate	Identified	B	C	D
	Potential	C	D	E
	Limited	D	E	F
Minimal	Identified	C	D	E
	Potential	D	E	F
	Limited	E	F	G

Table 25
MRS Priority Based on Highest Hazard Evaluation Module Rating

EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
Hazard Evaluation A (Highest)	2	Hazard Evaluation A (Highest)	1	Hazard Evaluation A (Highest)	2
Hazard Evaluation B	3	Hazard Evaluation B	2	Hazard Evaluation B	3
Hazard Evaluation C	4	Hazard Evaluation C	3	Hazard Evaluation C	4
Hazard Evaluation D	5	Hazard Evaluation D	4	Hazard Evaluation D	5
Hazard Evaluation E	6	Hazard Evaluation E	5	Hazard Evaluation E	6
Hazard Evaluation F	7	Hazard Evaluation F	6	Hazard Evaluation F	7
Hazard Evaluation G (Lowest)	8	Hazard Evaluation G (Lowest)	7	Hazard Evaluation G (Lowest) Low	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Dated: September 27, 2005.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 05–19696 Filed 10–4–05; 8:45 am]

BILLING CODE 5001–06–C

MRSPP FOR BATTERY KNOX - TD LAND MRS

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from Service and DoD databases. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the **MRS Summary**, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental nonmunitions-related contaminants (e.g., benzene, trichloroethylene) found at the MRS, and any potentially exposed human and ecological receptors. If possible, include a map of the MRS.

Munitions Response Site Name:	Battery Knox - TD Land (WSTPT-004-R-02)
Component:	US Army
Installation/Property Name:	U.S. Army Garrison - West Point
Location (City, County, State):	Putnam County, NY
Site Name/Project Name (Project No.):	Battery Knox - TD Land /West Point - MMRP (W912DR-09-D-006, DO 001)
Date Information Entered/Updated:	9/10/2013
Point of Contact (Name/Phone):	Jeff Sanborn, US-Army Garrison West Point, Directorate of Public Works –Environmental Management Division (845-938-5041)

Project Phase ("X" only one):										
	PA		**SI**	**X**	**RI**		**FS**		**RD**
	RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	Groundwater		**Sediment (human receptor)**
X	**Surface soil**		**Surface water (ecological receptor)**
	Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary: The Battery Knox - TD Land MRS consists of a recreational area, railroad, private residences, and a private school. This MRS is located to the east of the Hudson River, across from West Point and encompasses 12 privately owned parcels of land.

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

Battery Knox was located on the west bank of the Hudson River. The weapons that may have been used at Battery Knox include 100-lb and 300-lb Parrott guns, 8-inch converted rifle, and 10-inch muzzle-loaded Rodman guns. The direction of fire associated with Battery Knox was east toward targets located in the Hudson River. The Battery Knox - TD Land MRS encompasses 141 acres located on 12 privately owned parcels on the eastern bank of the Hudson River in Putnam County. The MRS is part of the Battery Knox range fan. This MRS is associated with potential overshots east of the targets that were located in the Hudson River. There are no known impact areas or firing points within the MRS. The boundaries of the Battery Knox - TD Land MRS are not specific to streets or buildings. An active railroad line passes through the western side of the MRS adjacent to the Hudson River, and the MRS contains recreational areas (boating, fishing, hiking, athletic fields), commercial property, private residences, and a private school. No MEC or MD were identified during the RI.

Description of Pathways for Human and Ecological Receptors:

Based on the results of the RI field investigations, it is not expected that a MEC source or explosive safety hazard is present in the MRS. Because no MEC source was identified and because an explosive safety hazard is not anticipated to exist in the MRS, the revised CSM for MEC identified incomplete pathways for surface and subsurface soils for all receptors having access to the MRS. MC sampling was conducted at the Battery Knox - TD Land MRS during the RI to further evaluate the presence of trace amounts of explosives identified during the SI. The MC sampling results indicated that no explosive compounds were detected above screening levels in the soil samples at the Battery Knox - TD Land MRS that would pose a potential risk to human and ecological receptors. Therefore, the pathways for human and ecological receptors to contact MC are considered incomplete because no potential MC sources, and thus no potential risk, are known to exist in the Battery Knox - TD Land MRS.

Description of Receptors (Human and Ecological):

Current receptors include residents (adults and children), school children, recreational users (including boaters, fishermen, hikers, and athletes), and railroad personnel. Potential ecological receptors (e.g., mammals, birds, and insects) are presented in Section 1.3.7.5 of the RI Report for the Battery Knox - TD Land MRS.

Table 1
EHE Module: Munitions Type Data Element Table

DIRECTIONS: Below are 11 classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms ammunition* , *physical evidence* , and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Possible Score	Score
Sensitive	♦ UXO that are considered most likely to function upon any interaction with exposed persons (e.g., submunitions, 40mm high-explosive [HE] grenades, white phosphorous [WP] munitions, high-explosive antitank [HEAT] munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions). ♦ Hand grenades containing energetic filler. ♦ Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.	30	
High explosive (used or damaged)	♦ UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." ♦ DMM containing a high-explosive filler that have: ■ Been damaged by burning or detonation ■ Deteriorated to the point of instability.	25	
Pyrotechnic (used or damaged)	♦ UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades). ♦ DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have: ■ Been damaged by burning or detonation ■ Deteriorated to the point of instability.	20	
High explosive (unused)	♦ DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	♦ UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). ♦ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: ■ Damaged by burning or detonation ■ Dteriorated to the point of instability.	15	
Bulk secondary high explosives, pyrotechnics, or propellant	♦ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). ♦ DMM that are bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10	
Pyrotechnic (used or damaged)	♦ DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	♦ UXO that are practice munitions that are not associated with a sensitive fuze. ♦ DMM that are practice munitions that are not associated with a sensitive fuze and that have not: ■ Been damaged by burning or detonation ■ Deteriorated to the point of instability.	5	
Riot control	♦ UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	♦ Used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions [e.g., grenades, subcaliber training rockets, demolition charges] were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	♦ Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	0
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space provided.

NOTES: No evidence of UXO has been reported at the Battery Knox - TD Land MRS. No MEC or MD was identified during the SI or RI. Results are presented in Section 1.4.2 and Section 5.1.

Tables 2 through 9 are intentionally omitted according to Active-Army Guidance because there is evidence of no UXO at this MRS.

Battery Knox - TD MRS (WSTPT-004-R-02)

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 1	0	0
Source of Hazard	Table 2	0	
Accessibility Factor Data Elements			
Location of Munitions	Table 3	0	0
Ease of Access	Table 4	0	
Status of Property	Table 5	0	
Receptor Factor Data Elements			
Population Density	Table 6	0	0
Population Near Hazard	Table 7	0	
Types of Activities/Structures	Table 8	0	
Ecological and/or Cultural Resources	Table 9	0	
EHE MODULE TOTAL			**0**

4. Circle the appropriate range for the **EHE Module Total** below.

5. Circle the **EHE Module Rating** that corresponds to the range selected and record this value in the **EHE Module Rating** box found at the bottom of this table.

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**No Known or Suspected Explosive Hazard**

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Table 11

CHE Module: CWM Configuration Data Element Table

DIRECTIONS: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO* , *CWM/DMM* , *physical evidence* , and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Possible Score	Score
CWM, that are either UXO, or explosively configured, damaged DMM	The CWM known or suspected of being present at the MRS are: ♦ CWM that are UXO (i.e. CWM/UXO) ♦ Explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	♦ The CWM known or suspected of being present at the MRS are undamaged CWM/DMM or CWM not configured as a munition that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	♦ The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM/DMM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS are: ♦ Nonexplosively configured CWM/DMM either damaged or undamaged ♦ Bulk CWM (e.g., ton container).	15	
CAIS K941 and CAIS K942	♦ The CWM/DMM known or suspected of being present at the MRS is CAIS K941-toxic gas set M-1 or CAIS K942-toxic gas set M-2/E11.	12	
CAIS (chemical agent identification sets)	♦ CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	♦ Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space provided.

Notes: There is no known or suspected CWM hazard at this MRS.

Tables 12 through 19 are intentionally omitted according to Active-Army Guidance because there is evidence of no CWM at this MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
CHE MODULE TOTAL			**0**

4. Circle the appropriate range for the **CHE Module Total** below.

5. Circle the **CHE Module Rating** that corresponds to the range selected and record this value in the **CHE Module Rating** box found at the bottom of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional groundwater contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
No samples were collected from the MRS.			
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MRS Summary:	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with human endpoints present in the surface water, select the box at the bottom of the table.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
No samples were collected from the MRS.			
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MRS Summary:	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
No samples were collected from the MRS.			
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MRS Summary:	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
No samples were collected from the MRS.			
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
No samples were collected from the MRS.			
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface soil contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
3-Nitrotoluene [99-08-1]	0.092	0.610	0.151
1,3-Dinitrobenzene [99-65-0]	0.063	0.610	0.103
1,3,5-Trinitrobenzene [99-35-4]	0.200	220	0.001
2-Amino-4,6-Dinitrotoluene [35572-78-2]	0.120	150	0.001
		Total from Table 27	
		Sum the Ratios	0.3

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = $\sum$ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**L**

Receptor Factor

DIRECTIONS: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**
	Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

DIRECTIONS: Only use this table if there are more than five contaminants in any given medium present at the MRS. This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B of the Primer) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: Do not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
				SUBTOTAL FOR SURFACE SOIL		0.00
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
				SUBTOTAL FOR SEDIMENT		0
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
				SUBTOTAL FOR SURFACE WATER		0

NOTES: All other metals either were not detected, estimated values, or essential nutrients (i.e., Calcium and Magnesium).

	SUBTOTAL FOR GROUNDWATER	0

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the HHE ratings provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater	N/A	N/A	N/A	N/A	N/A
Table 22 - Surface Water (Human Endpoint)	N/A	N/A	N/A	N/A	N/A
Table 23 - Sediment (Human Endpoint)	N/A	N/A	N/A	N/A	N/A
Table 24 - Surface Water (Ecological Endpoint)	N/A	N/A	N/A	N/A	N/A
Table 25 - Sediment (Ecological Endpoint)	N/A	N/A	N/A	N/A	N/A
Table 26 - Surface Soil	L	L	M	LLM	F
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

Justification of No Known or Suspected MC Hazard alternative module rating is based on the results of the risk assessment presented in Section 6 of the Remedial Investigation report, which indicates no MC chemicals of concern at the MRS.

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings
Evaluation Pending
No Longer Required
No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this relative priority in the **MRS Priority or Alternative MRS Rating** at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
No Known or Suspected Explosive Hazard	No Known or Suspected Explosive Hazard	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS Priority or Alternative MRS Rating	No Known or Suspected Hazard