PRE-DESIGN INVESTIGATION REPORT
Country Cleaners – RD
(NYSDEC Site Number 152187)

NYSDEC STANDBY ENGINEERING CONTRACT
Work Assignment #D007625-14

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ACRONYMS AND ABBREVIATIONS

6NYCRR	Title 6 of the Official Compilation of New York Codes, Rules and Regulations
AE	American Environmental
AECOM	AECOM Technical Services, Inc.
AES	Associated Environmental Services Inc.
amsl	above mean sea level
BEI	Berninger Environmental, Inc.
bgs	below ground surface
cis-1,2 DCE	cis-1,2 dichloroethene
DVS	Data Validation Services
EPA	Environmental Protection Agency
FAP	Field Activities Plan
gpm	gallons per minute
HASP	Health and Safety Plan
HSA	hollow stem auger
IDW	investigative derived waste
IHWD	Inactive Hazardous Waste Disposal
INTEX	Intex Environmental Group, Inc.
ISCO	in situ chemical oxidation
MIP	membrane interface probe
MTBE	methyl-tert-butyl ether
NAD83	North American Datum 1983
NAVD88	North American Vertical Datum 1988
ND	non-detect
NOD	natural oxidant demand
NTU	Nephelometric Turbidity Units
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
PCE	tetrachloroethylene
PDI	Pre-Design Investigation
PID	photoionization detector
PPE	personal protective equipment
PVC	polyvinyl chloride
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAOs	Remedial Action Objectives
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SCDHS	Suffolk County Department of Health Services
sf	square feet
TAL	Target Analyte List

TCE	trichloroethylene
TDS	total dissolved solids
TOC	total organic carbon
TSS	total suspended solids
UGA	upper glacial aquifer
USGS	United States Geological Survey
VOCs	volatile organic compounds

1 PURPOSE AND OBJECTIVES

1.1 Purpose

Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR) has completed this Pre-Design Investigation (PDI) Report as part of the remedial design (RD) for the Country Cleaners site under Superfund Standby Engineering Contract No. D007625-14. This report has been prepared to summarize results of the pilot study, and provide an evaluation of the site-specific conditions needed to complete the RD of an in situ chemical oxidation (ISCO) remedy for the site.

1.2 Objectives

The pilot test objective was to evaluate the use of sodium permanganate to treat groundwater contaminated with tetrachloroethylene (PCE). Specific objectives of the pilot study included:

- Evaluation of the distribution effectiveness of the ISCO application in the shallow saturated zone (radius of influence);
- Evaluation of the effectiveness of the ISCO application destroying PCE; and
- Evaluation of the rebound of PCE after the ISCO application.

1.3 Site Background

1.3.1 Site Location and Description

The Country Cleaners site is located at 410 West Main Street in Huntington, Suffolk County, New York at the southeast corner of the intersection of West Main Street and Hillside Avenue (Figure 1). The site is approximately 9,500 square feet (sf) and consists of a 3,600 sf single story building and parking area (Figure 2). The Site is bordered by residential properties to the south and west, a large residential complex (Nathan Hale Condominiums) to the north, and a Getty Gas Station to the east. The Site is currently used as an active dry cleaning business by Jim Dandy Cleaners.

1.3.2 Site History

According to information gathered during the Remedial Investigations (RI) conducted from 2008 to 2011 by AECOM, dry cleaning operations have been conducted at the site since at least 1985. The Suffolk County Department of Health Services (SCDHS) conducted a site investigation on the Getty Service Station property located directly east of the Site. The investigation revealed groundwater contaminated with tetrachloroethene (PCE). Further investigations by the SCDHS and NYSDEC were conducted which identified Country Cleaners as the source of PCE groundwater contamination. As a result of these investigations the Site was listed as a Class 2 Inactive Hazardous Waste Disposal (IHWD) Site in 2003. Shallow groundwater is contaminated with, Perchloroethylene (PCE), trichloroethylene (TCE) and cis-1,2-dichloroethene (cis-1,2 DCE) above the NYS Class GA groundwater quality standards.

1.3.3 Summary of Previous Investigations and Remedial Actions

In 1996 Lou Halperin Properties, Inc. contracted Berninger Environmental, Inc. (BEI) to perform a limited subsurface investigation at the Getty Service Station property located adjacent to Country Cleaners. A strong PCE odor was noted during the installation of monitoring wells installed to a depth of 50 feet below ground surface (bgs). PCE was detected at MW-2 at 2,170 µg/l and TCE at 398 µg/l. Methyl-tert-butyl ether (MTBE) (960 µg/l), benzene (6.5 µg/l), and toluene (31 µg/l) were also detected. BEI attributed the presence of chlorinated solvents PCE and TCE to Country Cleaners.

In October 1997 soil and sludge sampling was conducted at the Country Cleaners site by the Suffolk County Department of Health Services (SCDHS). Samples were collected beneath a condensate pipe located at the southeast corner of the building, in the nearby storm drain and an area near the boiler blow-down. PCE concentrations from sludge in the storm drain and soil beneath the condensate pipe were non-detect (ND) and 1 mg/kg, respectively. The PCE concentration where the boiler blow-down was located was 12,000 mg/kg.

Subsequent to the October 1997 investigation, SCDHS conducted a second round of investigation at the site in January and March 1998. In January 1998 one groundwater sample

was collected from monitoring well MW-2 located on the Getty Station property and analyzed for volatile organic compounds (VOCs). PCE was detected at a concentration of 3,500 µg/l, TCE at 65 µg/l, and cis-1,2 DCE at 450 µg/l; MTBE was also detected at 410 µg/l. In March, four surface soil samples were collected in the yard area south of the building. Samples were collected from nine (9) inches bgs and were analyzed for VOCs. PCE was detected at a concentration of 0.72 mg/kg, 9.3 mg/kg, 1.6 mg/kg, and 0.44 mg/kg.

In 2000 Impact Environmental (Impact) performed additional sampling for SCDHS. The investigation included soil sampling southeast of the building and groundwater sampling at existing monitoring well MW-2 on the Getty Station property and new monitoring well, MW-1 installed on the Country Cleaner site. The PCE concentrations in groundwater were 1,888 µg/l (MW-1) and 2,853 µg/l (MW-2). TCE and cis-1,2-DCE were also detected. MW-1 had concentrations of 97.5 µg/l (TCE) and 17.7 µg/l (cis-1,2-DCE) and MW-2 had concentrations of 184 µg/l (TCE) and 583 µg/l (cis-1,2-DCE). Soil concentrations of PCE were 0.01 mg/kg and 0.031 mg/kg.

In December 2001 under the direction and oversight of the SCDHS, the owner remediated the storm drain southeast of the building. 1,000 gallons of oily water and 36 tons of contaminated soil/sediments were removed to a depth of 26 feet bgs. An unknown quantity of soil was also removed from the unpaved portions of the yard. Subsequent soil sampling confirmed that PCE contamination remains in a location near the southeast corner of the building. An old floor drain was also found in the floor of the boiler room during the course of the investigation that could be a point of discharge contributing to the contaminated groundwater at the site.

From 2008 to 2010 a Remedial Investigation (RI) was conducted by AECOM to determine the sources of contamination at the site and its potential threat to human health or the environment. The scope of the RI consisted of three main efforts:

- Membrane interface probe (MIP) investigation (July 2008);

- Direct Push Soil Sampling and Hydropunch Groundwater Sampling September 2008 and February 2009; and
- Groundwater monitoring well installation and sampling (December 2009 – February 2010).

The MIP investigation was conducted in July 2008 as a screening effort to optimize the investigative phases (e.g., Hydropunch borings and monitoring well installation). A total of 41 MIP soil probes were installed between July 8 and July 17, 2008 to depths ranging from approximately 60 feet bgs to 130 feet bgs. MIP locations in the vicinity of the site (MIP-1 through MIP-4) were advanced first. AECOM advanced subsequent borings in a direction perpendicular to the assumed groundwater flow direction (north or northeast) in order to determine the plume width and the vertical extent of groundwater contamination. After the plume width and depth was determined by several transects, AECOM advanced borings in the down gradient direction to determine the extent of off-site groundwater impacts.

Elevated MIP readings were detected at the Site in the northwest corner of the parking area; and east and northeast of the Site on the Getty Service Station. Lower responses were found at MW-1 southwest of the Site along Hillside Avenue. The data shows the plume moving to the north and northeast. The plume is located in the interval roughly between 50 feet above mean sea level (amsl) and 30 feet amsl.

Hydropunch groundwater and soil samples were collected from MIP boring locations using direct push drilling in 2008 and early 2009. Groundwater and soil samples were collected from nine direct push borings and were analyzed for VOCs. Only PCE, TCE, and cis-1,2 DCE were detected in groundwater at concentrations exceeding the NYS Class GA groundwater criteria. No VOCs were detected in soil at concentrations exceeding the NYSDEC Residential soil cleanup objectives (SCOs). Hydropunch data were used as a screening tool to determine the appropriate screened interval for permanent monitoring well installation.

AECOM and the drilling subcontractor, Aztech Technologies, Inc, installed 14 permanent monitoring wells between December 2, 2009 and January 8, 2010 using 4.25-inch hollow stem augers (HSAs). These wells are shown on Figure 3. Groundwater samples were collected in January and February 2010 from the 14 new monitoring wells and existing monitoring well MW-2 and analyzed for VOCs. Samples from three wells (MW-3S, MW-2S, and MW-8S) were also analyzed for metals, natural attenuation parameters (ethane, ethene, and methane), ammonia, biochemical oxygen demand (BOD5), chloride, chemical oxygen demand (COD), nitrate, phosphorus, sulfate, sulfide, total organic carbon (TOC), and alkalinity. Concentrations in the groundwater samples exceeded the NYS Class GA groundwater criteria for PCE, TCE and cis-1,2 DCE.

During well installation, AECOM collected two soil samples for TOC and grain size analysis. The soil collected at MW-2D from 54-56 feet bgs was characterized as poorly graded sand with silt; TOC was not detected in this sample. The soil collected at MW-4S from 60-62 feet bgs was characterized as poorly graded sand with silt and gravel with a TOC concentration of 2,000 mg/kg.

1.4 Site Geology and Hydrogeology

1.4.1 Regional and Site Geology

The site is located in the town of Huntington, Suffolk County, New York on the north shore of Long Island. Long Island consists predominantly of a thick sequence of Upper Cretaceous and Quaternary unconsolidated sediments. The deposits overlie crystalline basement bedrock of Precambrian to Early Paleozoic age. The surface of the bedrock dips southward toward the Atlantic Ocean.

Recent deposits (0 to 20 feet bgs) consist of sandy loam, gravel, silt and clay layers. Underlying those deposits are the Upper Pleistocene strata which consist of the following: till (clay, sand and boulders as ground moraine in the area north of the Harbor Hill terminal moraine), outwash deposits (brown well stratified sand and gravel), and ice contact deposits (stratified sand and gravel and isolated deposits of till) (AECOM, 2011).

Soil observed during borings drilled on Site was generally classified as fine to medium sand with varying amounts of silt and gravel. A thick clay layer at an elevation of approximately 5 feet amsl was encountered throughout the site during installation of the deep wells by AECOM. (AECOM, 2011).

1.4.2 Regional and Site Hydrogeology

The hydrogeologic setting in the area of the site is primarily composed of a relatively thick sequence of unconsolidated deposits. Underlying the study area is the upper glacial aquifer (UGA). The UGA is comprised of 60 to 80 feet of glacial deposits consisting predominately of relatively highly permeable sands and gravels. Beneath the UGA is the Magothy Formation, the Clay Member of the Raritan Formation (aquitard), and Lloyd Sand member of the Raritan Formation overlaying basement bedrock.

The water table varies regionally from approximately 30-75 feet bgs (USGS, 2006) in this portion of Long Island. According to the potentiometric surfaces of the UGA, prepared by the United States Geological Survey (USGS, 2010), groundwater flow in the study area is generally to the north – northeast.

The measured depth to groundwater in the study area during the PDI and the RI (AECOM, 2011) ranged from approximately 34 to 72 feet bgs. During the PDI depth to water was measured in November 2014, and again in June 2015 using a water level indicator. Groundwater contour maps were prepared using the data collected during the PDI and the RI completed by AECOM in 2010 (Figures 4 – 9). The regional hydraulic gradient from the Country Cleaners to Huntington Bay is approximately 0.003 feet (USGS, 2010). The hydraulic gradient calculated on-site from the HDR June 2015 data ranges from 0.004-0.014 in the shallow groundwater and from 0.005-0.008 in the deep groundwater. These higher hydraulic gradients will result in a much faster groundwater velocity.

1.5 Selected Remedy

The purpose of the selected groundwater remedy is to meet the Remedial Action Objectives (RAOs) for the site identified in the March 2012 ROD, which are:

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards (PCE – 5 µg/l, TCE – 5 µg/l, and DCE – 5 µg/l); and
- Prevent contact with, or inhalation of, volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable;
- Prevent the discharge of contaminants to surface water; and
- Remove the source of ground or surface water contamination.

The selected remedy consists of ISCO followed by in-situ bioremediation, institutional controls and site management for on-site groundwater and in-situ bioremediation for off-site groundwater. Potassium permanganate was selected as the oxidant.

ISCO involves the introduction of a chemical oxidant into the subsurface to transform contaminants into less harmful chemicals. During this process the chemical oxidant creates a subsurface condition that is toxic to existing microbial populations needed for in situ bioremediation. To provide the time allowed for the subsurface conditions to return to normal and allow microbial populations to survive and regenerate, the remedial action has been split into two phases. The first phase will be the implementation of ISCO to treat groundwater contamination on-site and near the site. The second phase will include the implementation of in-situ bioremediation for the off-site groundwater and any remaining groundwater contamination in areas previously treated using ISCO. The estimated period between the phases is

approximately two years but will have to be verified with subsurface information collected during the post-ISCO monitoring.

When conditions are appropriate, a design will be prepared for bioremediation under a separate work assignment or an amendment to the existing one.

2 PRE-DESIGN INVESTIGATION FIELD ACTIVITIES

The PDI included a comprehensive round of groundwater sampling, installation of piezometers and an injection well, and a pilot test. All of the field activities were conducted in conformance with the HDR Program Field Activities Plan (FAP), Health and Safety Plan (HASP), and Quality Assurance Project Plan (QAPP).

2.1 Installation of Piezometers and Injection Well

Three piezometers (PZ-1, PZ-2, PZ-3) and one injection well (IW-1) were installed north of the on-site building as shown on Figure 3. The radius of the injection is typically between 5 to 20 feet, therefore observation wells were installed radially at approximately 5, 10 and 15 feet from the injection well. The injection well (IW-1) was installed north of the building, within the on-site plume delineated during the RI conducted by AECOM. All wells were screened at the water table around 60 feet bgs.

In October 2014, Associated Environmental Services Inc. (AES) from Happauge, New York mobilized a Diedrich D120 Drill Rig for the drilling and installation of the piezometers and the injection well. Locations were hand cleared to five feet bgs using a jackhammer, air compressor, air-knife, and portable Utili-Vac vacuum.

A decontamination/staging area was set up in the east side of the parking lot entrance to Jim Dandy Cleaners. Drilling operations began on October 28, 2014 and over the course of approximately four days the piezometers and injection well were installed. Hollow stem auger (HSA) cuttings were screened using a photoionization detector (PID) and lithology descriptions

was recorded by the on-site HDR geologist. Observations of odor, compaction, and color were also noted in the boring logs.

The scope of work outlined the collection of two undisturbed samples using a Shelby tube for geotechnical analysis including bulk density testing, porosity, specific gravity, and sieve analysis. One Shelby tube was advanced at 60 feet bgs. Additional attempts to collect the second Shelby tube sample were unsuccessful. As a result a grab sample was collected of cuttings from 65-70 feet bgs. Samples were shipped via next day FedEx on October 31, 2014 to Ackenheil Engineers, Inc. in Pittsburgh, PA for geotechnical analysis.

Soil cuttings and water generated during the installation and development of wells were stored on-site in 23 drums (8 water and 15 soil) for off-site disposal. Waste characterization samples were collected by the investigative derived waste (IDW) subcontractor American Environmental (AE) on November 3, 2014. Samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) using a one week turn-around time. Results identified the waste as nonhazardous. Drums were removed and properly disposed off-site by AE.

The piezometers and injection well were constructed of 2-inch diameter, Schedule 80 polyvinyl chloride (PVC) casing and 10 feet of 0.020-inch slot screen. Well screens were set at approximately 60 to 70 feet bgs. The annular spaces surrounding the screened sections of the piezometers and injection well and two feet above the top of the screens were filled with #1 sand. The annular space two feet above the top of the sand pack was filled with bentonite pellets. Finally, the annular space from the top of the bentonite seal to the surface was filled with vadose zone drill cuttings that were previously screened with a PID meter. The boring logs and well construction logs are included as Appendix A.

The piezometers and the injection well were completed as flush-mounts with a manhole (flush-mount box), locking cap, and seal to prevent surface water from draining into the well. The inner casings were marked with a permanent reference point for the collection of water level

measurements. The surface pavement was restored to existing conditions following the drilling activities.

The newly installed piezometers and the injection well were developed in accordance with the HDR Program FAP. On October 31, 2014 AES began development of the wells using a surge and pump method. AES used the pump to surge the well by lowering it into the well with a subsequent upstroke to cause fluids and loosened sediments to be pulled from the formation into the well. The well was then purged at a rate between 1.1 and 1.3 gallons per minute (gpm). While purging the well, HDR collected turbidity readings, pH, conductivity, and temperature readings every 10 minutes. Each well was purged until the water from the well had consistent turbidity readings below 50 Nephelometric turbidity units (NTUs). Approximately 110 to 120 gallons of water was purged from each well. Depth to water and depth to bottom measurements were collected before and after development. Well development logs are included as Appendix B.

New York State licensed (License # 49759) surveyor, YEC Inc. surveyed the location of the newly installed piezometers and the injection well and completed a topographic and boundary survey. Ground surface and top of well casing elevations to an accuracy of 0.01 feet were surveyed using North American Vertical Datum 1988 (NAVD88) as the datum. Coordinates for the wells were tied to the New York State Plan Coordinate System (NAD83) with an accuracy of 0.1 feet. The survey has been included as Appendix C.

2.2 Groundwater Baseline Sampling

HDR conducted baseline groundwater sampling of the three newly installed piezometers and the injection well and fifteen existing monitoring wells from November 18-21. Groundwater samples were collected and analyzed for Target Analyte List (TAL) metals and VOCs. The three new piezometers, the injection well, and four existing shallow wells located near the proposed treatment area were also sampled for TOC, total dissolved solids (TDS), total suspended solids (TSS), chloride, and sulfate. The wells sampled included MW-1S, MW-1D, MW-2, MW-2D, MW-3S, MW-3D, MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-7S, MW-7D, MW-8S,

MW-8D, IW-1, PZ-1, PZ-2, and PZ-3. In accordance with the HDR Program FAP, the wells were purged and sampled with a Grundfos® Redi Flo 2 pump using USEPA Region II low flow techniques.

Prior to sampling activities, a synoptic round of water levels were measured on November 18, 2014. Water levels were measured with an electronic water level meter. Headspace readings were collected with a PID.

Baseline groundwater samples were collected November 19-21. Samples were collected using USEPA Region II low flow sampling techniques. Wells were purged with a Grundfos® Redi Flo 2 pump at a rate of approximately 100-500 ml/min. Field parameters were collected using a flow through cell with a U-52 water quality meter including: pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity at five minute intervals. After stabilization was obtained the water line was disconnected from the water quality meter, and groundwater samples were collected for laboratory analysis. Groundwater sampling purge logs and chains of custody have been included as Appendix D.

Samples were shipped to Test America laboratory and analyzed for VOCs using EPA Method 8260B and TAL metals using EPA Method 6010C. The analytical results are summarized in Table 2. Data was validated by Data Validation Services (DVS).

2.3 ISCO Pilot Study

A pilot test was conducted to gain information needed to design the in situ chemical oxidation remedy for the on-site contamination. HDR subcontracted INTEX Environmental Group, Inc. (INTEX) to perform the injections for the pilot test. At the recommendation of NYSDEC, sodium permanganate was used as the ISCO reagent instead of potassium permanganate due to the spatial constraints. Sodium permanganate is available in solution form and can be delivered to the Site ready for injection. Potassium permanganate is delivered in solid form and mixed on-site to prepare the solution for injection requiring additional space for storing the chemical in solid form and for storage tanks to prepare the solution. The use of sodium permanganate

decreased the overall staging area and minimized interference with the parking area for the operating business.

The injection study area was a 15x20 feet area near the southeast corner of the Jim Dandy Cleaner parking lot and included three observation piezometers (PZ-1, PZ-2, PZ-3) and one injection well (IW-1). A typical radius of influence for ISCO ranges from 5 to 20 feet, so observation piezometers were installed radially at approximately 5, 10 and 15 feet from the injection well. Following the injection, groundwater samples collected from piezometers would be monitored for water quality parameters and color to determine the radius of influence achieved. Measurements would be conducted immediately following the injection, then once per week for four weeks and then monthly for two months.

Intex mobilized equipment to the site on January 23, 2015; however, due to a snow storm; the work was postponed one week. On January 30, 2015, 40% sodium permanganate solution was received and securely stored in the placarded containment enclosure. Injections were conducted from February 2 - 5.

The permanganate solution was mixed on-site in a 250 gallon polyethylene chemical resistant tank, diluting the 40% solution with potable water to make the 10% solution. Permanganate was mixed and injected over a three day period. The first batch of approximately 800 gallons was mixed on February 2 and was injected on February 3. On February 4 approximately 1,500 gallons of permanganate was mixed and injected into the subsurface. On February 5, the final day of injection, approximately 700 gallons was mixed and injected. The permanganate solution was pumped from the 250 gallon polyethylene tank to a distribution manifold using a double diaphragm pump into injection well IW-1 and then fed by gravity into the subsurface. The injection well head included a pressure gauge, check valve, flow control valve, temperature gauge, and injection hose. An electromagnetic flow meter was attached to the hose to track the amount of chemical injected into the subsurface. Details of injection equipment and permits are included in Appendix E.

The injection was anticipated to start at a rate of 0.5 gallons per minute (gpm) and then be gradually increased to 2.5 gpm, however it was readily accepted into the subsurface and the pump had to be throttled down to maintain the desired injection rate of 2.5 gpm. The injection head pressure and temperature were monitored and recorded. Injections were continuously gravity fed down the line with no increase in pressure. Groundwater was also monitored in the observation piezometers PZ-1, PZ-2, and PZ-3 at the beginning, middle, and end of each day. The samples were collected using dedicated polyethylene bladders and measured for water quality parameters using a U-52 meter. Water levels were measured were at the beginning and immediately following the completion of the injection at the end of each day. Based on the water level measurements collected no mounding was observed. All observations and field parameters were recorded and are located in Appendix D. The total volume of oxidant injected was 3,000 gallons. All daily reports and details of on-site activities are described in Appendix F.

Five rounds of samples were collected post-injection on February 13, 19, 26, March 6, and April 23, 2015 and analyzed for TAL metals, VOCs, chloride, sulfide, TOC, total dissolved solids (TDS), total suspended solids (TSS), and alkalinity. Groundwater samples were collected from IW-1 (injection well) and surrounding observation wells including PZ-1, PZ-2, PZ-3. Based on the direction of groundwater flow identified by AECOM during the RI it was anticipated that purple color would be observed in existing monitoring wells MW-4S, MW-2, and MW-3S. As a result samples were collected from these wells during the April 23 sampling event. All post injection samples were collected using bailers. The sample results are included in Appendix G.

2.4 Waste Management

Investigative derived wastes (IDW) were generated during the baseline groundwater sampling, drilling activities, and well development. The following IDW were generated:

- Soil/drill cuttings during installation of wells;
- Water collected during the development of wells;
- Water collected during the low flow purging of wells pre-injection (existing and new);
- Water from decontamination activities (drill rods and associated equipment, sampling pumps, etc.);

- Personal protective equipment (PPE), disposable sampling supplies, and associated debris; and
- General trash such as water bottles, paper towels, plastic sheeting, etc.

Decontamination of the drill rig and associated down-hole equipment occurred following the completion of each boring. Groundwater sampling equipment was decontaminated after each sample was collected at a well location.

The purge water from the sampling events, well development, and decontamination liquids were containerized in NYSDOT-approved drums. All drill cuttings were stored at the staging area at the rear of the facility for off-site disposal. Each drum was properly labeled with contents and accumulation date. The drums were sampled by AE, characterized, and disposed in accordance with non-hazardous waste criteria. Waste disposal manifests and waste characterization lab results are included in Appendix H.

Consumable sampling equipment, PPE, and miscellaneous trash generated during all field activities were placed in plastic trash bags, tied, and disposed off-site as municipal waste.

During the injection pilot study and post-injection sampling rounds IDW was not generated. Permanganate residue in polyethylene tanks, manifolds, and hoses was rinsed on-site and pumped into the subsurface. During post injection sampling rounds grab samples were collected using a dedicated bailer with no purge water generated.

2.5 Quality Assurance/Quality Control

The overall Quality Assurance/Quality Control (QA/QC) objective was to develop and implement procedures for field sampling, chain-of-custody, laboratory analyses, and reporting to ensure data were collected in a uniform manner, and that data were of consistently high quality. The HDR Program QAPP outlines the overall QA/QC program in detail; the Work Assignment specific details and associated documentation are described below.

2.5.1 Equipment Calibration

Field instrumentation was properly calibrated with reference standards at the start of each day of field activities. If readings collected during field activities were suspect, equipment was recalibrated. Equipment calibration information was recorded in the daily field notes.

2.5.2 Field Quality Control

Field quality control (QC) samples collected during the baseline groundwater sampling included field duplicate and trip blank samples. One field duplicate sample was collected as a measure of the precision of the sample collection process and analytical reproducibility. The duplicate sample was grabbed at the same time, using the identical procedures, equipment, and type of containers used for sample collection. The field duplicate sample was collected on November 21 from PZ-3 with the nomenclature PZ-99. Sample results for the field duplicate sample are summarized with the respective parent sample in Table 1.

Trip blanks were also prepared each day and accompanied each cooler of groundwater samples. The trip blanks served as an evaluation of potential contamination generated from sample containers or contamination occurring during the sample transport and laboratory storage processes. Trip blanks are identified by "TB" followed by the date the sample was shipped. Results for the trip blank samples are included in Table 2.

3 PRE-DESIGN INVESTIGATION RESULTS

3.1 Baseline Sampling Results

Baseline groundwater sampling results are provided in Table 1. Three VOCs were detected in one or more wells, PCE, TCE , and trans 1,2-dichloroethene (trans 1,2-DCE). Only PCE was detected at concentrations greater than the NYSDEC groundwater standard. PCE concentrations ranged from non-detect (ND) to 480 µg/l.

Baseline sample results were compared to samples collected in 2010. PCE concentrations from the 2014 sampling event were between 24% - 44% lower than PCE concentrations from the 2010 sampling. Both sampling events used low flow techniques, however the 2010 sampling was

completed with a bladder pump while the 2014 sampling was completed with a Grundfos® Redi Flo 2 pump. Sample results are summarized on Figure 10.

Sodium and manganese ranged from 19.80 µg/l – 24,700 µg/l and 70 µg/l – 972 µg/l, respectively. Turbidity ranged from 0 – 6.44 NTU, redox (ORP) from 141 – 341 mV, and DO from 6.44 – 8.23 mg/l.

3.2 ISCO Pilot Test Results

Table 2 summarizes the PCE concentrations detected in the groundwater after the completion of the ISCO injection. PCE concentration reductions were observed in IW-1, PZ-1, PZ-2, and PZ-3. Reductions were between 65% – 99%. The furthest piezometer from the injection well where oxidant was observed was PZ-2, which is 10 feet from IW-1. No purple color was observed in piezometer PZ-3, however as discussed below PCE concentrations were reduced.

Samples were collected weekly for four weeks following the ISCO injection and then again in March and April. A discussion of the results is provided below:

- In IW-1 PCE concentrations decreased from 340 µg/l (baseline) to 32 µg/l (90.5% reduction) three weeks following the ISCO injection. Rebound was observed on March 6, four weeks following the ISCO injection. The rebound concentration was 780 µg/l, which was greater than the baseline of 340 µg/l. This indicates that a source outside the injection area may still be present at the Site. Three weeks following the ISCO injection sodium and manganese increased from 24,700 µg/l to 121,000 µg/l and 178 µg/l to 18,900 µg/l, respectively, before gradually dropping back to baseline levels. ORP and conductivity generally increased during the three weeks following the injection and gradually began to drop back to baseline levels. This is consistent with what is expected with ISCO. Purple color was noted in the groundwater at IW-1until March 6. These results indicate that IW-1 was directly influenced by the injection as expected and the life of the oxidant in the subsurface is estimated at one month.

- PCE concentrations in PZ-1 decreased from 300 µg/l (baseline) to 1 µg/l (99% reduction) in the three weeks following the injection. Sodium and manganese increased from 24,100 µg/l to 89,200 µg/l and 70 µg/l to 44,500 µg/l, respectively. Purple color was noted in PZ-1 until March 6 where a rebound was observed. Conductivity, DO, and redox were observed to increase during the three weeks following the ISCO injection and then drop back to baseline levels.
- PCE concentrations in PZ-2 decreased from 110 µg/l (baseline) to 0.68 µg/l (99% reduction) in the three weeks following the injection. A slight purple color was noted in PZ-2 until March 6. As expected sodium and manganese concentrations increased in the three weeks following the injection and then gradually dropped to baseline levels. An increase was also observed in conductivity, DO and redox, followed by a gradual drop to baseline levels.
- No purple color was observed in PZ-3 during any of the sampling events; however, a decrease in PCE from 480 µg/l (baseline) to 360 µg/l (25% reduction) was observed three weeks following the injection. Sodium and manganese concentrations were also observed to increase within the three weeks following the injection. There was no change in DO levels, but there was an increase in conductivity and redox potential. The reduction of PCE suggests that the oxidant did influence PZ-3 which is approximately 15 feet down gradient from PZ-2.
- No samples or observations were collected from MW-2, MW-3S, and MW-4S during February and March sampling events. Samples were collected on April 23, eleven (11) weeks following the ISCO injection. During this sampling event no purple color was noted in groundwater from these wells. PCE concentrations increased from 230 µg/l to 530 µg/l (MW-2), 250 µg/l to 420 µg/l (MW-3S), and 160 µg/l to 420 µg/l (MW-4S).

As indicated above the purple color of the permanganate disappeared after three to four weeks. Typically permanganate can persist in the subsurface from two to nine months or more depending upon a site's characteristics. The subsurface was observed to be fine to medium sand

and could potentially contain gravel layers which could have provided a preferential pathway for the ISCO resulting in faster than expected groundwater velocity.

Rebounds observed were greater than the baseline sampling completed in 2014. This indicates that a source outside the injection area may still be present at the Site.

4 CONCLUSIONS AND RECOMMENDATIONS

The area affected by the ISCO pilot test covered an area of approximately 15 feet by 15 feet, based on an observed reduction in the concentration of PCE.

The ISCO pilot test demonstrated the following:

- Injection rate of 2.5 gpm is achievable
- Effective radius of influence of 10 feet based on purple color observed during and immediately following the injection

The overall effectiveness of sodium permanganate in reducing the PCE concentration in the treatment area was between 65% - 99% with a rebound occurring three weeks following the injection. A rebound greater than the baseline sampling potentially indicates the presence of a source outside the injection area that re-contaminated the treatment area after the permanganate was no longer present.

Permanganate disappeared after approximately 3-4 weeks following the injection. This could be the result of one or more of the following scenarios:

- An unknown source within the vicinity of the injection well that caused the sodium permanganate to be expended within a short time period;
- Dilution of the permanganate by groundwater flow; or
- A preferential pathway (gravel layer) that allowed permanganate to be carried away from the treatment area before being expended.

Based on the results it is likely that multiple injections within short time periods (less than one month) would be needed to reduce groundwater PCE concentrations to below the groundwater quality standard. Additionally, the subsurface geology will need to be carefully observed to

prevent injection screens from being installed in areas with more permeable layers (i.e. gravel) during the installation of injection points.

The groundwater flow direction in the RI presented a more northeast direction as compared to the actual groundwater flow determined by HDR which is a more north-northeast direction. Based on the groundwater contour maps prepared by HDR, the plume potentially travels between monitoring wells MW-7S/MW-7D and MW-8S/MW-8D. To more fully understand the off-site plume it is recommended that at least one additional monitoring well be installed between monitoring wells MW-7S/MW-7D and MW-8S/MW-8D.

HDR recommends moving forward with the design for injecting ISCO to treat contaminated groundwater in the on-site treatment zone indicated in the FS. Based on the rebound observed, which indicates the presence of a potential source may exist beneath the building, the design will attempt to inject ISCO beneath the building to reduce any potential source that may exist. Injection of ISCO beneath the building may mitigate the potential for treated areas down gradient of the potential source becoming re-contaminated.

5 CERTIFICATION

I DEMETRIOS KLERIDES certify that I am currently a NYS registered professional engineer and that this Pre-Design Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.



Signature: Demetrios Klerides

Date: 12/16/2015

Name: Demetrios Klerides, PE

License No.: 066129

REFERENCES

AECOM Technical Services, Inc. (AECOM), 2011. Remedial Investigation Report- Country Cleaners. December 2011.

NYSDEC, 2012. Record of Decision, Country Cleaners State Superfund Project, Huntington, Suffolk County, Site No. 152187.

Hydrogeology of the Huntington-Smithtown area Suffolk County, New York. E.R. Lubke. Geological Survey Water- Supply Paper 1964. http://pubs.usgs.gov/wsp/1669d/report.pdf

USGS Depth- to- Water tool for Long Island, NY, 2006. http://ny.water.usgs.gov/maps/li-dtw/

USGS Groundwater Conditions in Long Island, NY, 2010. http://ny.water.usgs.gov/maps/li-gc10/

Table 1 - Groundwater Samples Analytical Results Pre ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			MW-4D-99-GW-20141121	MW-4S-66-GW-20141121	MW-5D-65-GW-20141119	MW-5S-45-GW-20141119	MW-6S-80-20141121	MW-7D-88-GW-20141120	MW-7S-59-GW-20141120
Sample Depth			99	66	65	45	80	88	59
Sample Type			Initial	Initial	Initial	Initial	Initial	Initial	Initial
Lab Sample Number			460-86700-7	460-86700-5	460-86694-1	460-86599-3	460-86917-1	460-86700-6	460-86700-8
Sampling Date			11/21/2014	11/21/2014	11/19/2014	11/19/2014	11/21/2014	11/20/2014	11/20/2014
Dilution Factor			1	1	1	1	1	1	1
Analyte	CAS #	NYSDEC Class GA Standards (ug/L) ◇	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethylene	127-18-4	5	U	**160**	U	U	U	0.25 J	17
Trans-1,2-Dichloroethene	156-60-5	5	U	0.18 J	U	U	U	U	U
Trichloroethylene	79-01-6	5	U	1.7	U	U	U	U	1.8 J

Table 1 - Groundwater Samples Analytical Results Pre ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			MW-8D-80-GW-20141119	MW-8S-45-GW-20141119	PZ-1-66-GW-20141121	PZ-2-66-GW-20141121	PZ-3-66-GW-20141121	PZ-99-66-GW-20141121	TB-20141119
Sample Depth			**80**	**45**	**66**	**66**	**66**	**66**	**N/A**
Sample Type			**Initial**	**Initial**	**Initial**	**Initial**	**Initial**	**Duplicate**	**Trip Blank**
Lab Sample Number			**460-86694-3**	**460-86694-2**	**460-86700-2**	**460-86917-2**	**460-86917-3**	**460-86917-4**	**460-86599-4**
Sampling Date			**11/19/2014**	**11/19/2014**	**11/21/2014**	**11/21/2014**	**11/21/2014**	**11/21/2014**	**11/19/2014**
Dilution Factor			**1**	**1**	**1**	**1**	**1**	**1**	**1**
Analyte	**CAS #**	**NYSDEC Class GA Standards (ug/L) ◇**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Tetrachloroethylene	127-18-4	5	U	**6.1**	**300**	**110**	**480**	**500**	U
Trans-1,2-Dichloroethene	156-60-5	5	U	U	U	U	U	U	U
Trichloroethylene	79-01-6	5	U	U	1.8	0.59 J	4.1	3.9	U

Table 1 - Groundwater Samples Analytical Results Pre ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			TB-20141121
Sample Depth			
Sample Type			Initial
Lab Sample Number			460-86700-9
Sampling Date			11/21/2014
Dilution Factor			1
Analyte	CAS #	NYSDEC Class GA Standards (ug/L) ◇	ug/L
Tetrachloroethylene	127-18-4	5	U
Trans-1,2-Dichloroethene	156-60-5	5	U
Trichloroethylene	79-01-6	5	U

Table 1 - Groundwater Samples Analytical Results Pre ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Notes:

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Values that are bold and underlined exceed NYSDEC TOGS 1.1.1 Class Ga Groundwater Standards, example **10**

Table 2 - Groundwater Samples Analytical Results Post ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			IW-1-20150213	IW-1-20150226	IW-1-20150306	IW-1-20150423	PZ-1-20150213	PZ-1-20150219	PZ-1-20150306
Sample Depth			66	66	66	66	66	66	66
Sample Type			Initial	Initial	Initial	Initial	Initial	Initial	Initial
Lab Sample Number			460-90528-1	460-91061-1	460-91310-1	460-93827-1	460-90528-2	460-90759-1	460-91310-2
Sampling Date			2/13/2015	2/26/2015	3/6/2015	4/23/2015	2/13/2015	2/19/2015	3/6/2015
Dilution Factor			1	1	1	1	1	1	1
Analyte	CAS #	NYSDEC Class GA Standards (ug/L) ◇	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethylene	127-18-4	5	**120**	**32**	**780**	**120**	1	**9.4**	14
Trans-1,2-Dichloroethene	156-60-5	5	U	U	U	U	U	U	U
Trichloroethylene	79-01-6	5	U	U	3.1	0.63 J	U	U	U

Table 2 - Groundwater Samples Analytical Results Post ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			PZ-1-20150423	PZ-2-20150213	PZ-2-20150306	PZ-2-20150423	PZ-3-20150213	PZ-3-20150219	PZ-3-20150226
Sample Depth			66	66	66	66	66	66	66
Sample Type			Initial	Initial	Initial	Initial	Initial	Initial	Initial
Lab Sample Number			460-93827-2	460-90528-3	460-91310-3	460-93827-3	460-90528-4	460-90759-2	460-91061-2
Sampling Date			4/23/2015	2/13/2015	3/6/2015	4/23/2015	2/13/2015	2/19/2015	2/26/2015
Dilution Factor			1	1	1	1	1	1	1
Analyte	CAS #	NYSDEC Class GA Standards (ug/L) ◇	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethylene	127-18-4	5	**20**	0.68 **J**	**5.1**	13	**460**	**310**	**360**
Trans-1,2-Dichloroethene	156-60-5	5	U	U	U	U	U	U	U
Trichloroethylene	79-01-6	5	U	U	U	U	2.4	2.2	2.4

Table 2 - Groundwater Samples Analytical Results Post ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Sample ID			PZ-3-20150306	PZ-3-20150423	MW-2S-20150423	MW-3S-20150423	MW-4S-20150423	TB-20150423
Sample Depth			66	66	62	54	66	
Sample Type			Initial	Initial	Initial	Initial	Initial	Initial
Lab Sample Number			460-91310-4	460-93827-4	460-93827-6	460-93827-7	460-93827-5	460-93827-8
Sampling Date			3/6/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015
Dilution Factor			1	1	1	1	1	1
Analyte	CAS #	NYSDEC Class GA Standards (ug/L) ◇	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Tetrachloroethylene	127-18-4	5	340	380	530	420	300	U
Trans-1,2-Dichloroethene	156-60-5	5	U	U	U	U	U	U
Trichloroethylene	79-01-6	5	2.2	2.6	4.2	2.6	2.6	U

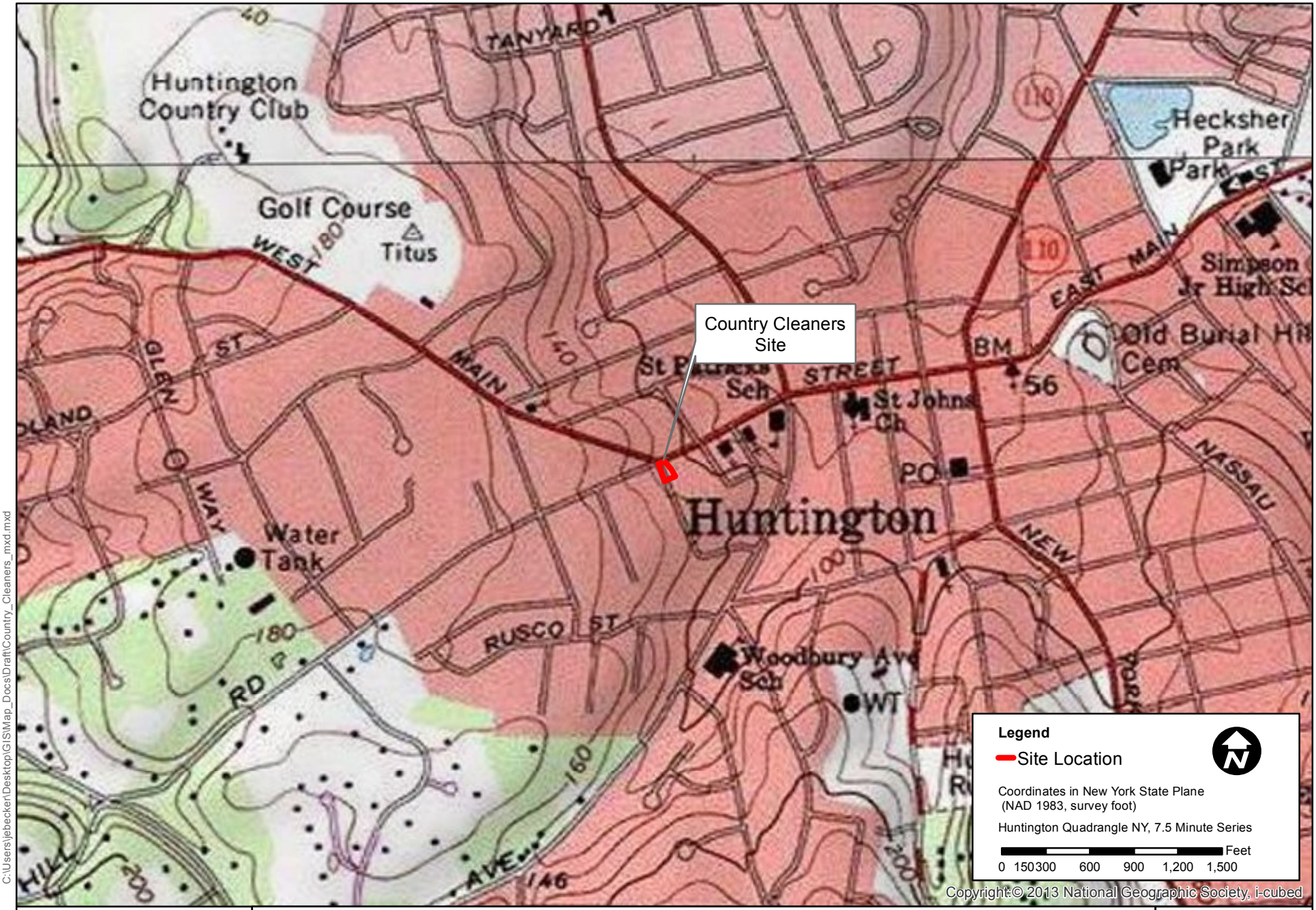
Table 2 - Groundwater Samples Analytical Results Post ISCO Injection
Country Cleaners Pre-Design Investigation
NYSDEC Site # 152187

Notes:

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Values that are bold and underlined exceed NYSDEC TOGS 1.1.1 Class Ga Groundwater Standards, example **10**



C:\Users\jbecker\Desktop\GIS\Map_Docs\Draft\Country_Cleaners_mxd.mxd

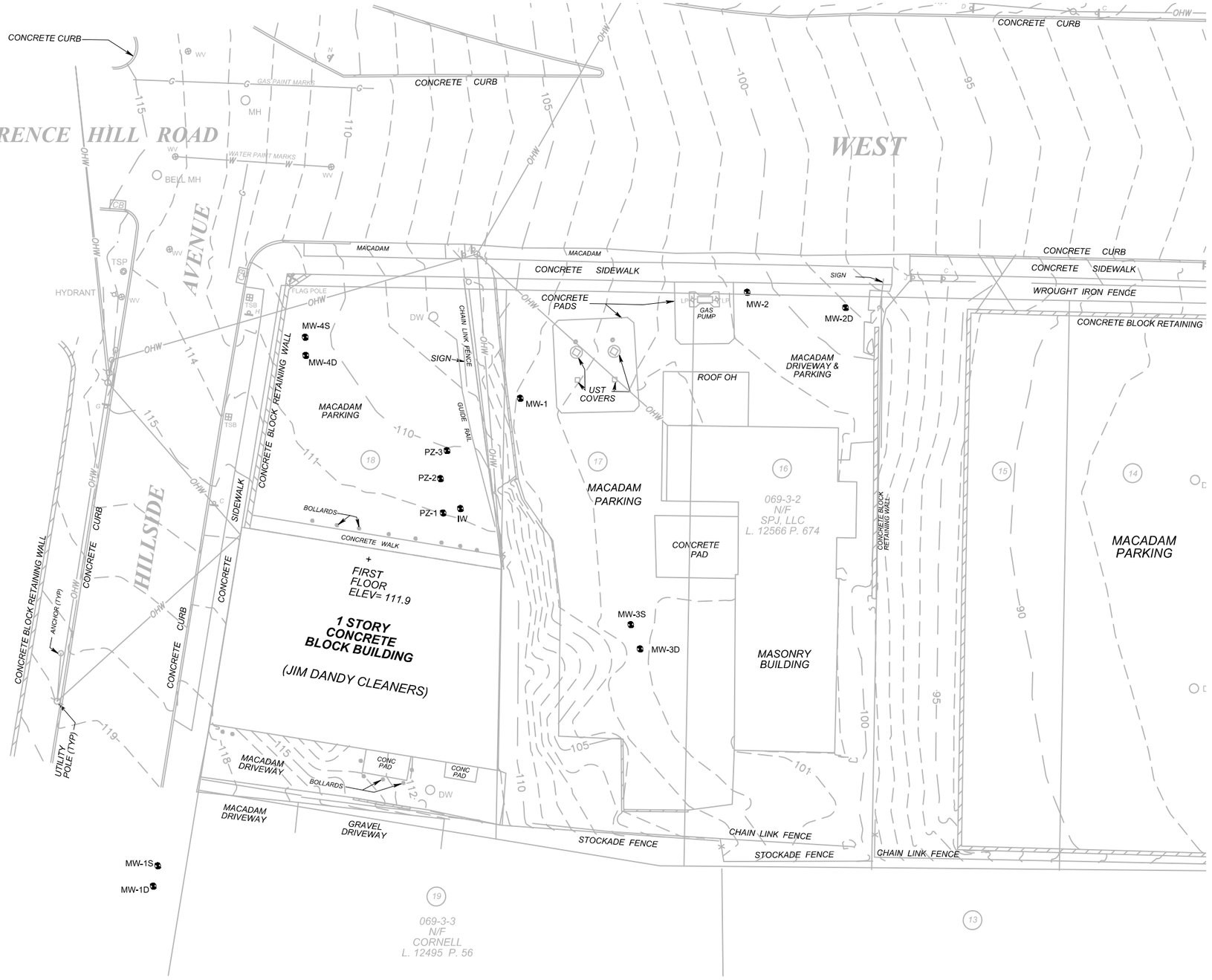
Site Location Map

Country Cleaners Pre-Design Investigation NYSDEC Site #152187

Huntington, Suffolk County, New York

Date: December 2015

Figure: 1



LEGEND

- PROPERTY LINE
- LOT LINE
- LOT NUMBER
- GUIDE RAIL
- BOLLARDS
- CHAIN LINK FENCE
- STOCKADE FENCE
- WROUGHT IRON FENCE
- RETAINING WALL (CONC BLOCK OR RR TIE)
- EDGE OF GRAVEL
- CONCRETE CURB
- TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGN AND LABEL (REFER TO SIGN KEY)
- LIGHT POLE
- MONITORING WELL
- OVERHEAD WIRE
- POWER POLE
- ANCHOR POLE AND WIRE
- UNDERGROUND WATER LINE
- WATER VALVE
- HYDRANT
- UNDERGROUND GAS LINE
- SANITARY SEWER MANHOLE
- TELECOMMUNICATION MANHOLE
- DRAINAGE MANHOLE
- DRYWELL
- DRAINAGE CATCH BASIN
- ELECTRIC MANHOLE
- MANHOLE (UNDETERMINED TYPE)
- CONTOURS (1' INTERVAL)

0 30 60

SCALE IN FEET

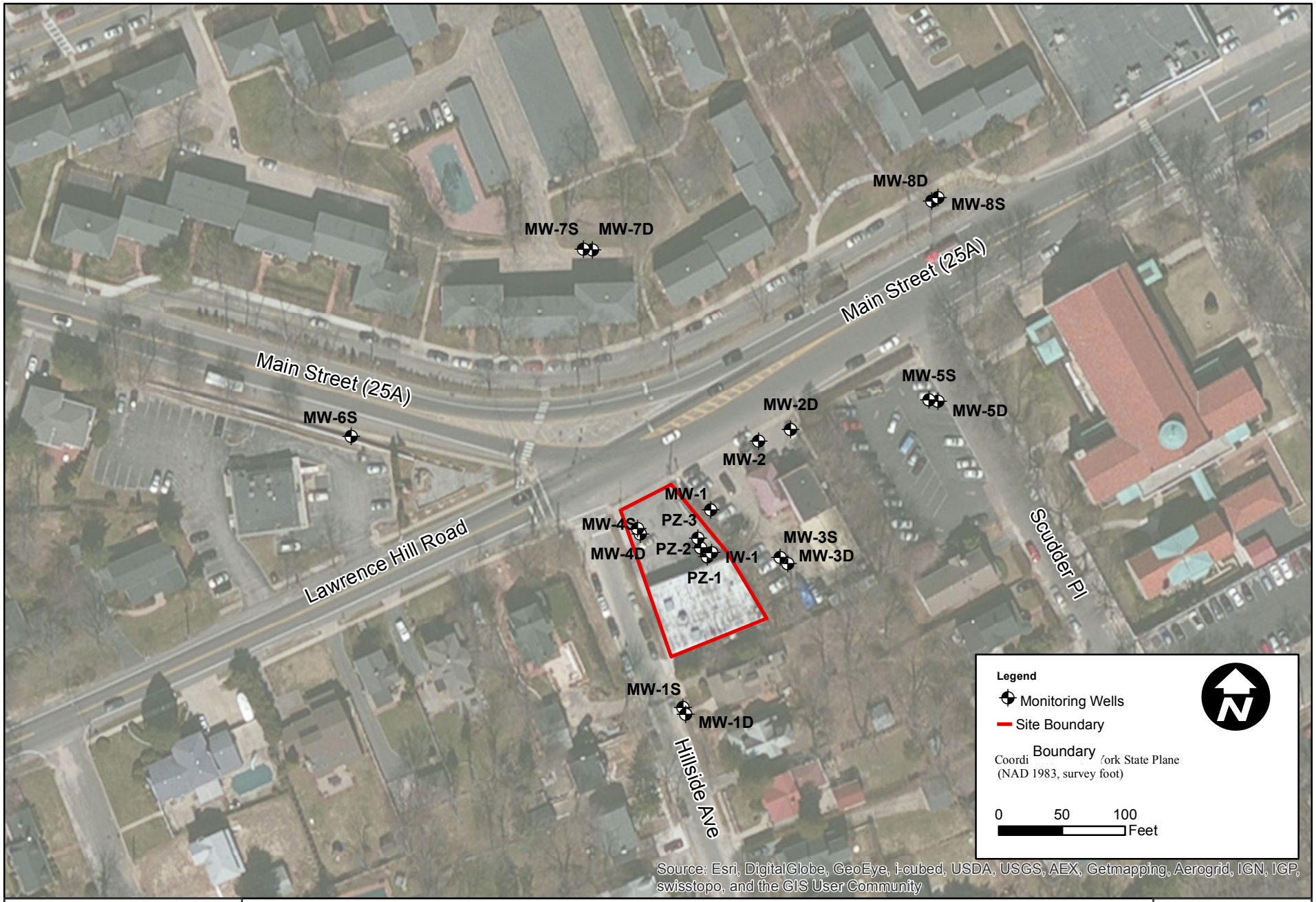
SOURCE: SURVEY COMPLETED BY YEC, INC ON MAY 19, 2015.

SITE PLAN

COUNTRY CLEANERS
NYSDEC SITE #152187
HUNTINGON, NY

DATE
DECEMBER 2015

FIGURE
2

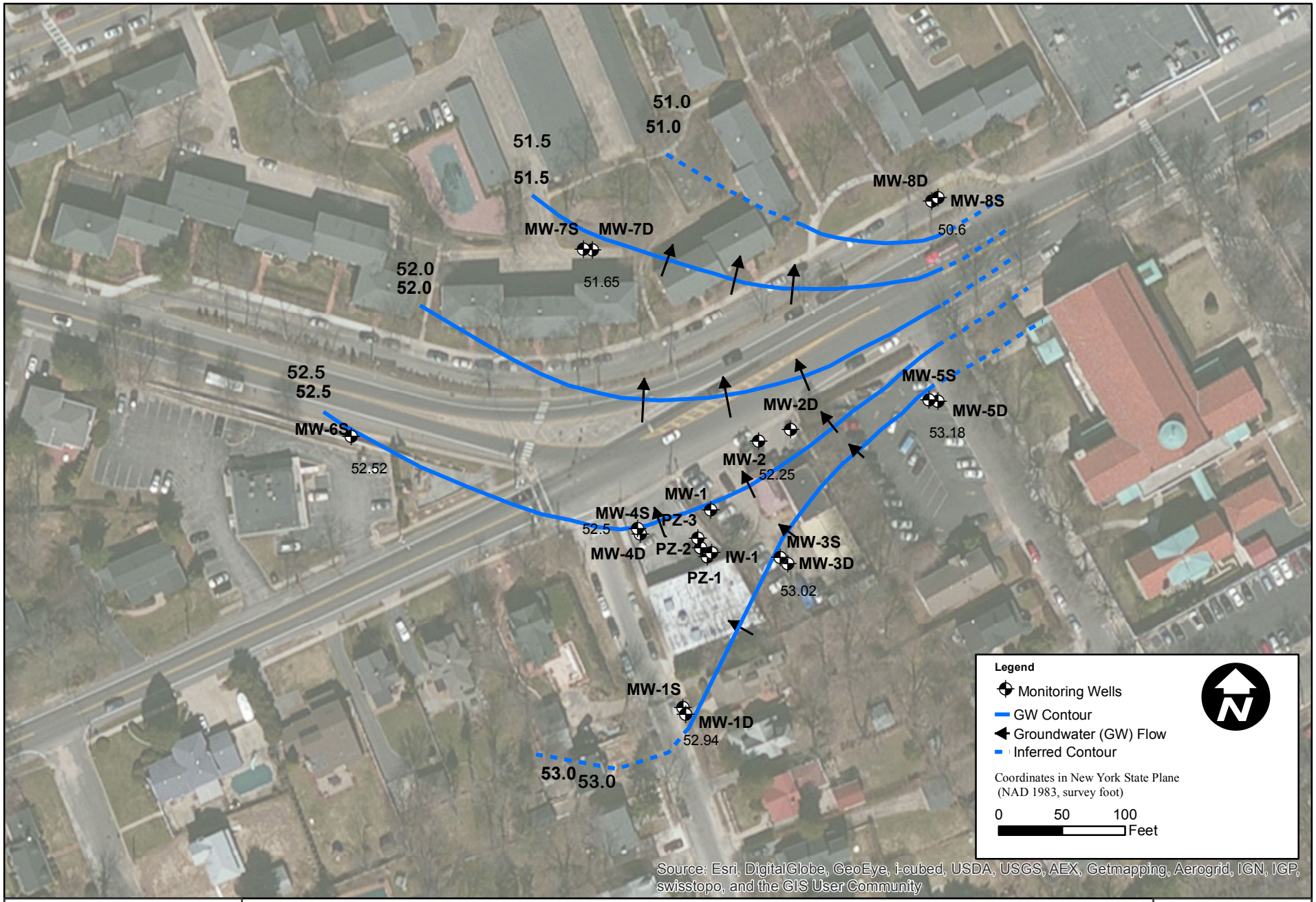


Monitoring Well Location Map

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 3

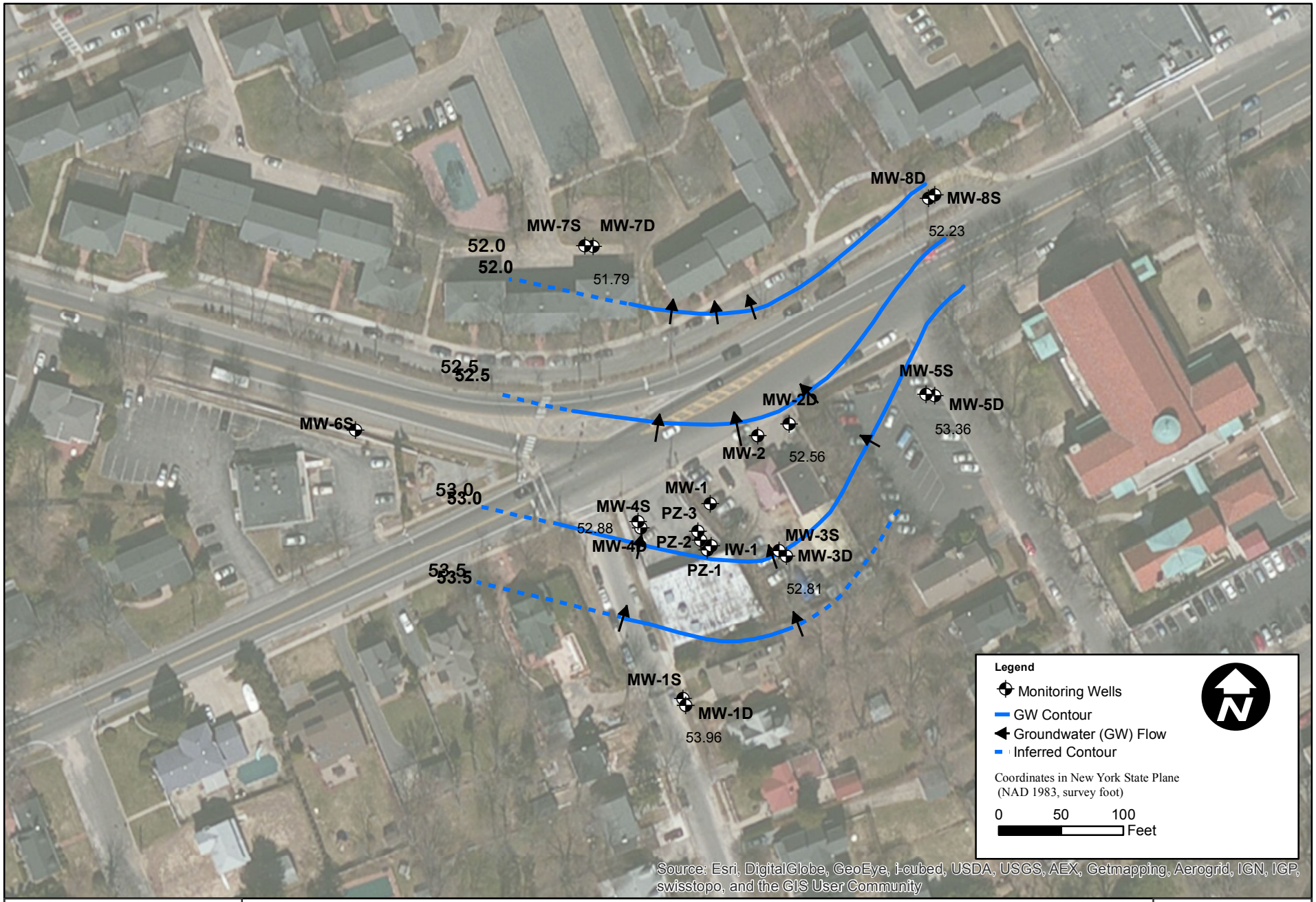


AECOM Shallow Groundwater Elevation Map (5/10/2010)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 4

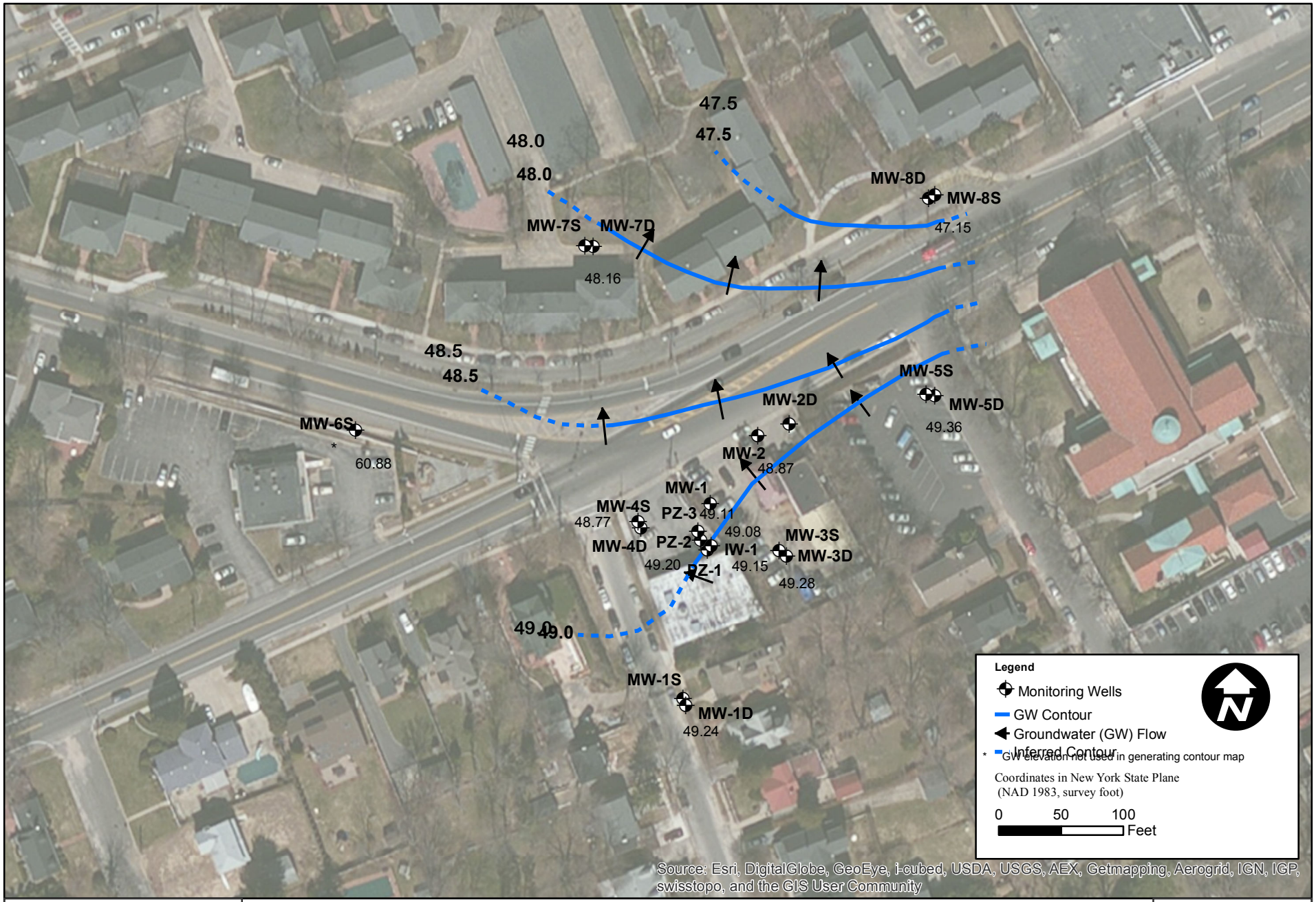


AECOM Deep Groundwater Elevation Map (5/10/2010)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 5

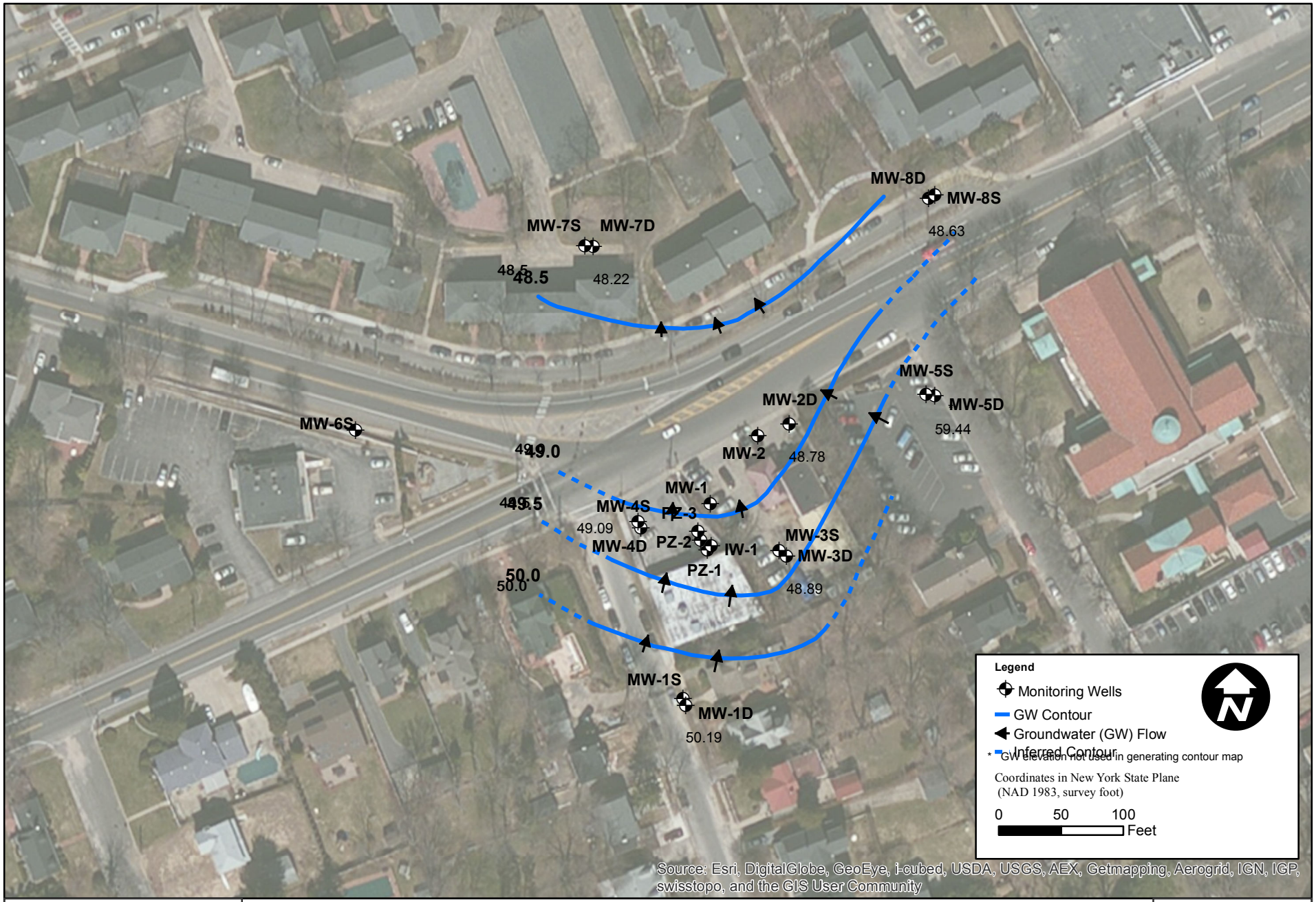


HDR Shallow Groundwater Elevation Map (11/18/2014)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 6

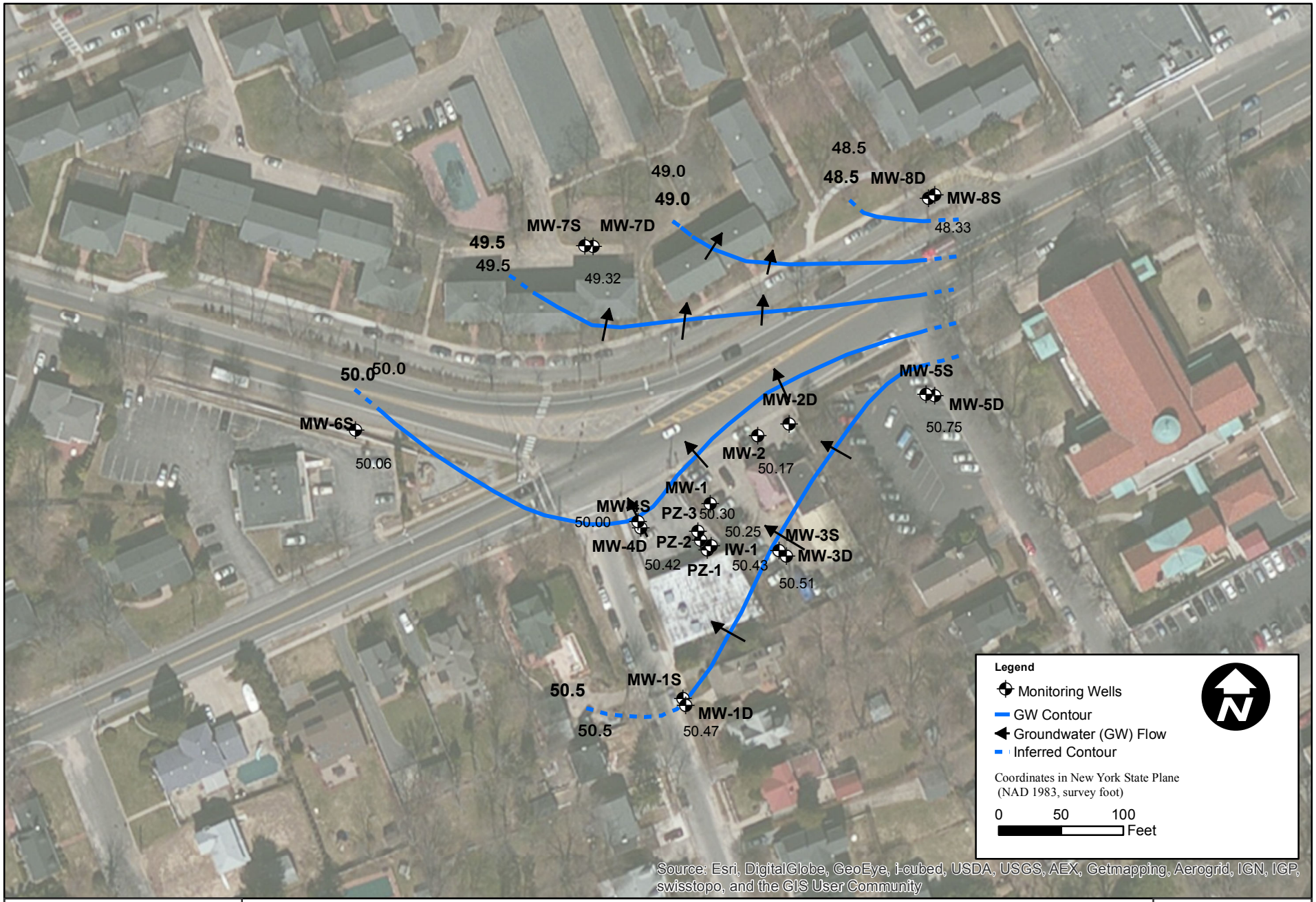


HDR Deep Groundwater Elevation Map (11/18/2014)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 7

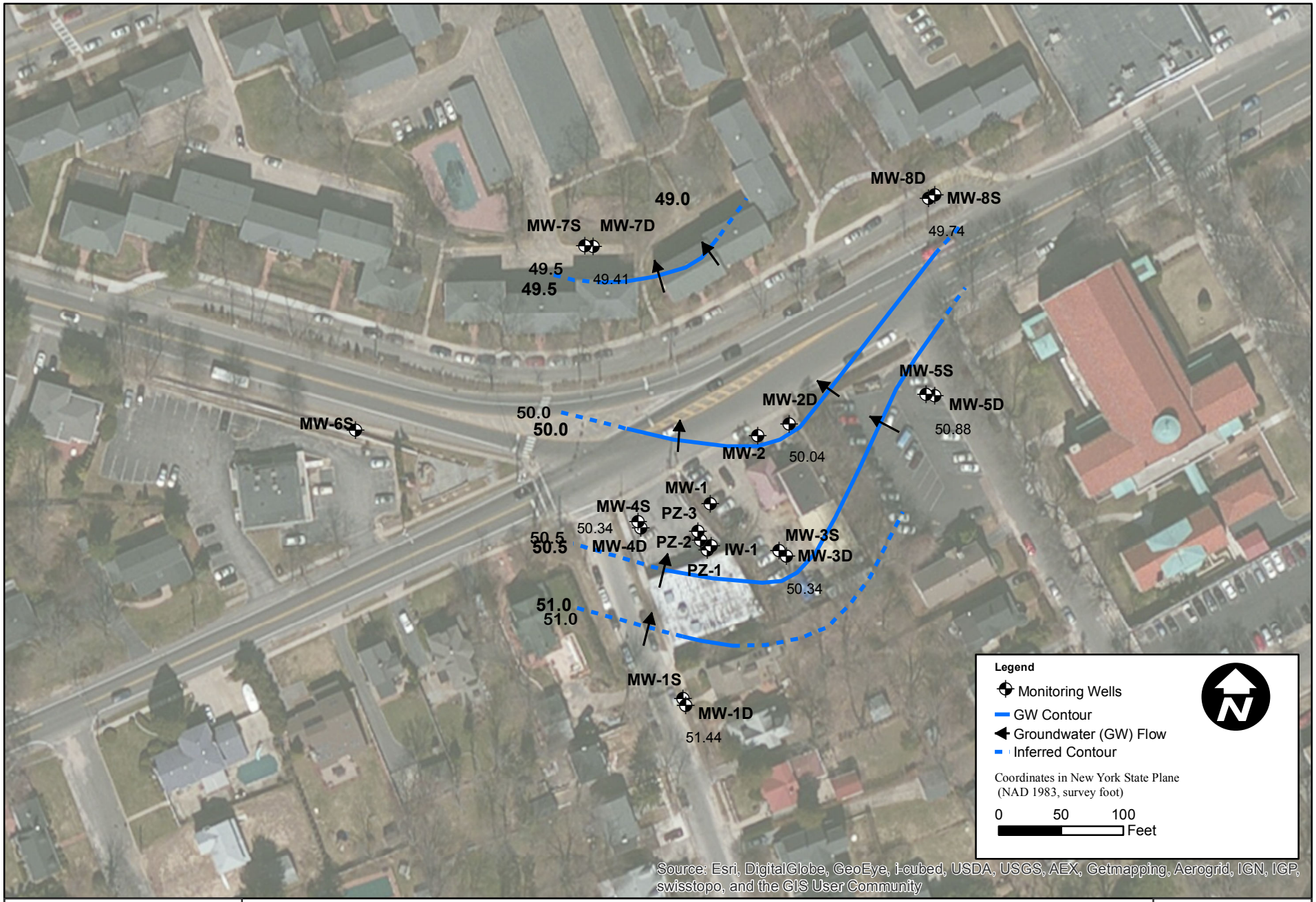


HDR Shallow Groundwater Elevation Map (6/22/2015)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 8

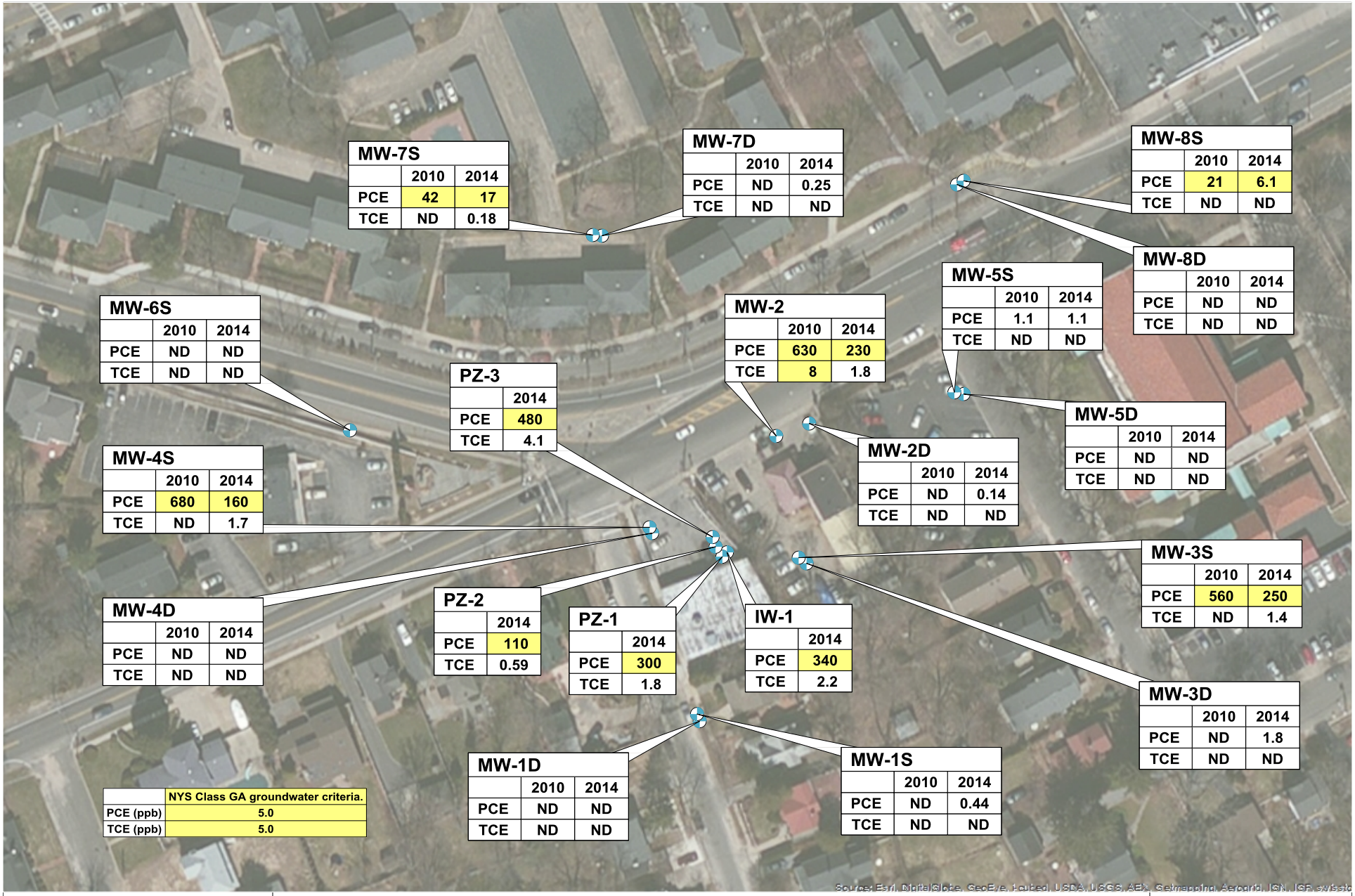


HDR Deep Groundwater Elevation Map (6/22/2015)

Country Cleaners Pre-Design Investigation NYSDEC Site #152187
Huntington, Suffolk County, New York

Date: December 2015

Figure: 9



Baseline Groundwater Results

Country Cleaners Pre-Design Investigation NYSDEC Site #152187

Huntington, Suffolk County, New York

Date: December 2015

Figure: 10

Appendix A

ENGINEERS FIELD BORING LOG

Boring	**IW-1**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME NYSDEC Country Cleaners

SITE LOCATION Huntington, NY **DATE** 27-Sep-2014 **DRILLER NAME / COMPANY** Associated

MONITORING INSTRUMENTATION Multi-RAE **HDR FIELD INSPECTOR** EB

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	PID (ppm)	Sample Description	Remarks
0				NR	0' - 0.3' Asphalt 0.3 - 1' Light Grey and Brown F-C Sand and F-C Angular Gravel (Fill) 1' - 8' Medium Brown F-C SAND and F-C Rounded Gravel.	Auger Cuttings No Odors, No PID Dry
8				NR	8' - 40' Medium Brown F-C SAND with some F-C Rounded Gravel, trace Silt	
				NR		Auger Cuttings Damp No Odors, No PID
40				NR	40' - 71' Medium Brown F-M SAND, trace Silt.	
				88		Auger Cuttings No Odors, PID Wet
71					EOB	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions	Strata Descriptions (con't)
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill	V
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits	T
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand	D
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt	R
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay	

ENGINEERS FIELD BORING LOG

Boring	**PZ-1**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME NYSDEC Country Cleaners

SITE LOCATION Huntington, NY **DATE** 30-Sep-2014 **DRILLER NAME / COMPANY** Associated

MONITORING INSTRUMENTATION Multi-RAE **HDR FIELD INSPECTOR** EB

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID (ppm)	Sample Description	Remarks
0				NR	0' - 0.3' Asphalt 0.3 - 1' Light Grey and Brown F-C Sand and F-C Angular Gravel (Fill) 1' - 8' Medium Brown F-C SAND and F-C Rounded Gravel.	Auger Cuttings No Odors, No PID Dry
8				NR	8' - 40' Medium Brown F-C SAND with some F-C Rounded Gravel, trace Silt	
				NR		Auger Cuttings Damp No Odors, No PID
40				NR	40' - 71' Medium Brown F-M SAND, trace Silt.	
				39		Auger Cuttings No Odors, PID Wet
71					EOB	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions	Strata Descriptions (con't)
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill	V
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits	T
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand	D
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt	R
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay	

ENGINEERS FIELD BORING LOG

Boring	**PZ-2**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME NYSDEC Country Cleaners

SITE LOCATION Huntington, NY **DATE** 29-Sep-2014 **DRILLER NAME / COMPANY** Associated

MONITORING INSTRUMENTATION Multi-RAE **HDR FIELD INSPECTOR** EB

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	PID (ppm)	Sample Description	Remarks
0				NR	0' - 0.3' Asphalt 0.3 - 1' Light Grey and Brown F-C Sand and F-C Angular Gravel (Fill) 1' - 8' Medium Brown F-C SAND and F-C Rounded Gravel.	Auger Cuttings No Odors, No PID Dry
8				NR	8' - 40' Medium Brown F-C SAND with some F-C Rounded Gravel, trace Silt	
				NR		Auger Cuttings Damp No Odors, No PID
40				NR	40' - 71' Medium Brown F-M SAND, trace Silt.	
				165		Auger Cuttings No Odors, PID Wet
71					EOB	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions	Strata Descriptions (con't)
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill	V
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits	T
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand	D
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt	R
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay	

ENGINEERS FIELD BORING LOG

Boring	**PZ-3**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME NYSDEC Country Cleaners

SITE LOCATION Huntington, NY **DATE** 28-Sep-2014 **DRILLER NAME / COMPANY** Associated

MONITORING INSTRUMENTATION Multi-RAE **HDR FIELD INSPECTOR** EB

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	PID (ppm)	Sample Description	Remarks
0				NR	0' - 0.3' Asphalt 0.3 - 1' Light Grey and Brown F-C Sand and F-C Angular Gravel (Fill) 1' - 8' Medium Brown F-C SAND and F-C Rounded Gravel.	Auger Cuttings No Odors, No PID Dry
8				NR	8' - 40' Medium Brown F-C SAND with some F-C Rounded Gravel, trace Silt	
40				NR		Auger Cuttings Damp No Odors, No PID
				NR	40' - 71' Medium Brown F-M SAND, trace Silt.	
71				13		Auger Cuttings No Odors, PID Wet
					EOB	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions	Strata Descriptions (con't)
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill	V
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits	T
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand	D
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt	R
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay	

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 147-228506

PROJECT NAME: NYSDEC Country Cleaners

WELL No.: **IW-1**

CLIENT: NYSDEC

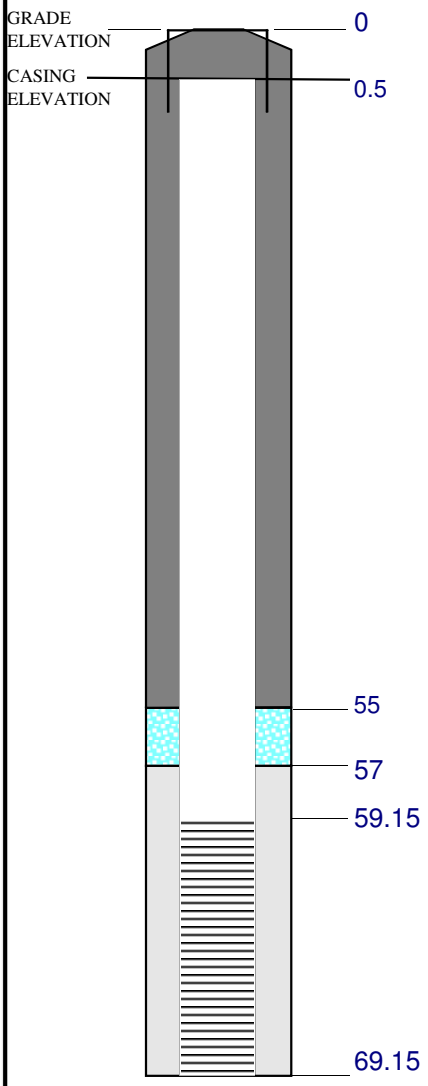
LOCATION: Huntington, NY

DATE DRILLED: 27-Oct-14

DATE DEVELOPED: 31-Oct-14

CONSTRUCTION COMPLETED: 27-Oct-14

DEVELOPING METHOD: Over pumping with Waterspout 2 Pump.



NOT TO SCALE

INSPECTOR: E. Brandt

DRILLING CONTRACTOR: Associated

TYPE OF WELL: Overburden

STATIC WATER LEVEL: DATE:

MEASURING POINT: Top of PVC - North Side

TOTAL DEPTH OF WELL: 69.15 TOTAL DEPTH OF BORING: 71

DRILLING METHOD

TYPE: 4.25" HSA

DIAMETER: 4.25" CASING: PVC

SAMPLING METHOD

TYPE:

DIAMETER: WEIGHT:

FALL: INTERVAL:

RISER PIPE LEFT IN PLACE

MATERIAL: PVC

DIAMETER: 2 inch LENGTH: 60 JOINT TYPE: Flush Thread

SCREEN

MATERIAL: Stainless Steel

INTERVAL: 59.15 - 69.15 DIAMETER: 2 inch

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.020

FILTER PACK

GRADE:

SAND: #1 GRAVEL: NATURAL:

AMOUNT: INTERVAL: 57 - 71'

SEAL(s)

Portland Cement	INTERVAL:		AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	55 - 58	AMOUNT:
Other: Cuttings	INTERVAL:	1' - 55'	AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

NOTES:

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 147-228506

PROJECT NAME: NYSDEC Country Cleaners

WELL No.: **PZ-1**

CLIENT: NYSDEC

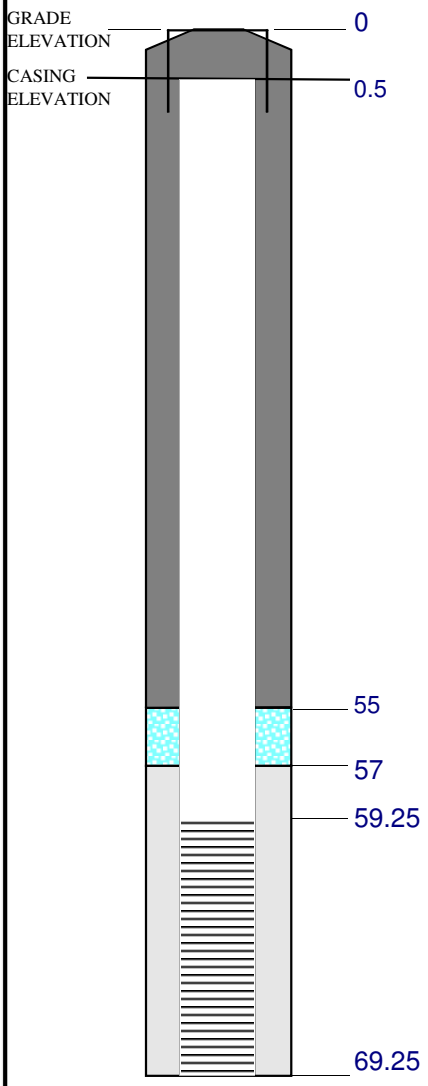
LOCATION: Huntington, NY

DATE DRILLED: 30-Oct-14

DATE DEVELOPED: 31-Oct-14

CONSTRUCTION COMPLETED: 30-Oct-14

DEVELOPING METHOD: Over pumping with Waterspout 2 Pump.



NOT TO SCALE

INSPECTOR: E. Brandt

DRILLING CONTRACTOR: Associated

TYPE OF WELL: Overburden

STATIC WATER LEVEL: DATE:

MEASURING POINT: Top of PVC - North Side

TOTAL DEPTH OF WELL: 69.25 TOTAL DEPTH OF BORING: 71

DRILLING METHOD

TYPE: 4.25" HSA

DIAMETER: 4.25" CASING: PVC

SAMPLING METHOD

TYPE:

DIAMETER: WEIGHT:

FALL: INTERVAL:

RISER PIPE LEFT IN PLACE

MATERIAL: PVC

DIAMETER: 2 inch LENGTH: 60 JOINT TYPE: Flush Thread

SCREEN

MATERIAL: Stainless Steel

INTERVAL: 59.25 - 69.25 DIAMETER: 2 inch

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.020

FILTER PACK

GRADE:

SAND: #1 GRAVEL: NATURAL:

AMOUNT: INTERVAL: 57 - 71'

SEAL(s)

NOTES:

Portland Cement	INTERVAL:		AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	55 - 58	AMOUNT:
Other: Cuttings	INTERVAL:	1' - 55'	AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 147-228506

PROJECT NAME: NYSDEC Country Cleaners

WELL No.: **PZ-2**

CLIENT: NYSDEC

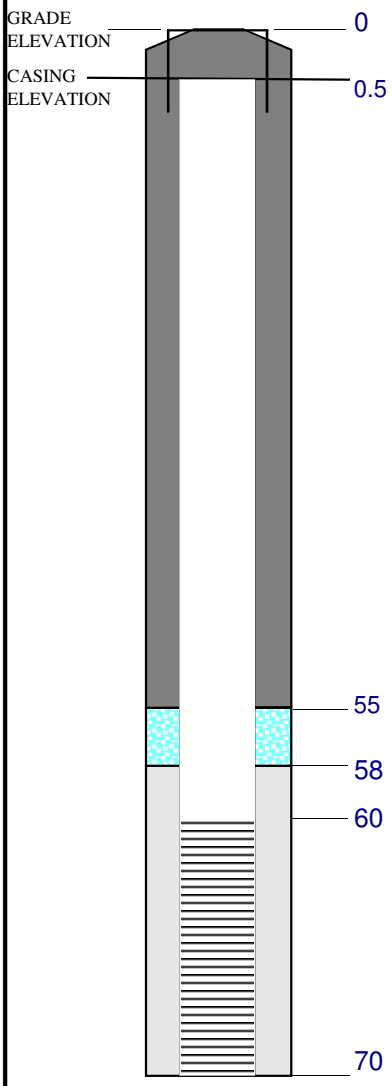
LOCATION: Huntington, NY

DATE DRILLED: 29-Oct-14

DATE DEVELOPED: 31-Oct-14

CONSTRUCTION COMPLETED: 30-Oct-14

DEVELOPING METHOD: Over pumping with Waterspout 2 Pump.



NOT TO SCALE

INSPECTOR: E. Brandt

DRILLING CONTRACTOR: Associated

TYPE OF WELL: Overburden

STATIC WATER LEVEL: DATE:

MEASURING POINT: Top of PVC - North Side

TOTAL DEPTH OF WELL: 70 TOTAL DEPTH OF BORING: 71

DRILLING METHOD

TYPE: 4.25" HSA

DIAMETER: 4.25" CASING: PVC

SAMPLING METHOD

TYPE:

DIAMETER: WEIGHT:

FALL: INTERVAL:

RISER PIPE LEFT IN PLACE

MATERIAL: PVC

DIAMETER: 2 inch LENGTH: 60 JOINT TYPE: Flush Thread

SCREEN

MATERIAL: Stainless Steel

INTERVAL: 60 - 70 DIAMETER: 2 inch

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.020

FILTER PACK

GRADE:

SAND: #1 GRAVEL: NATURAL:

AMOUNT: INTERVAL: 58 - 71'

SEAL(s)

NOTES:

Portland Cement	INTERVAL:		AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	55 - 58	AMOUNT:
Other: Cuttings	INTERVAL:	1' - 55'	AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 147-228506

PROJECT NAME: NYSDEC Country Cleaners

WELL No.: **PZ-3**

CLIENT: NYSDEC

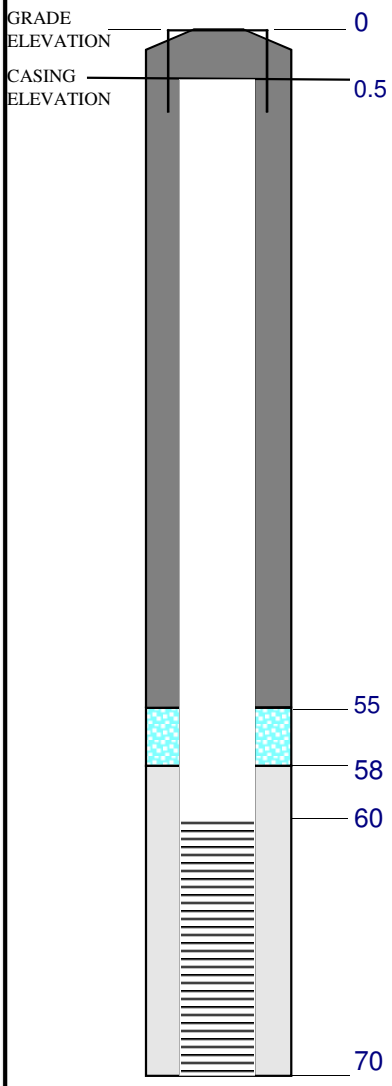
LOCATION: Huntington, NY

DATE DRILLED: 28-Oct-14

DATE DEVELOPED: 31-Oct-14

CONSTRUCTION COMPLETED: 29-Oct-14

DEVELOPING METHOD: Over pumping with Waterspout 2 Pump.



NOT TO SCALE

INSPECTOR: E. Brandt

DRILLING CONTRACTOR: Associated

TYPE OF WELL: Overburden

STATIC WATER LEVEL: DATE:

MEASURING POINT: Top of PVC - North Side

TOTAL DEPTH OF WELL: 70 TOTAL DEPTH OF BORING: 71

DRILLING METHOD

TYPE: 4.25" HSA

DIAMETER: 4.25" CASING: PVC

SAMPLING METHOD

TYPE:

DIAMETER: WEIGHT:

FALL: INTERVAL:

RISER PIPE LEFT IN PLACE

MATERIAL: PVC

DIAMETER: 2 inch LENGTH: 60 JOINT TYPE: Flush Thread

SCREEN

MATERIAL: Stainless Steel

INTERVAL: 60 - 70 DIAMETER: 2 inch

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.020

FILTER PACK

GRADE:

SAND: #1 GRAVEL: NATURAL:

AMOUNT: INTERVAL: 58 - 71'

SEAL(s)

NOTES:

Portland Cement	INTERVAL:		AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	55 - 58	AMOUNT:
Other: Cuttings	INTERVAL:	1' - 55'	AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

Appendix B

Well Development Log

Site: NYSDEC Country Cleaners
Well #: IW-1 **DTB:** 69.15
Date Started: 31-Oct-2014 **Start SWL:** 61.58 **Developed By:** E. Brandt/Associated
Date Finished: 31-Oct-2014 **Finish SWL:** 61.58 **Method:** Waterspout 2 Pump

Meters
pH: Myron 6P **Conductivity:** Myron 6P
Temp: Myron 6P **Turb.:** LaMotte 2020WE

Time	pH	Temp	S. Conductivity	Turb.	Est. Purged Vol.	Comments
1344						Start Pump
1345	6.06	14.2	351.3	Over	1	Murky - Formation
1355	6.34	14.1	341.1	90	18	
1405	6.30	14.1	337.6	88	30	Clearing
1415	6.24	14.1	335.5	16	40	Clearing
1425	6.25	14.0	335.0	149	50	Clearing
1435	6.21	14.1	331.1	43	65	Clearing - Sand Pack
1445	6.13	14.1	331.9	14	80	Clear
1455	6.19	14.1	330.4	7	95	Clear
1500	6.12	14.1	329.7	5	100	Clear
1505	6.14	14.1	328.6	5	110	Clear
1506						End Of Development

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Site: NYSDEC Country Cleaners
Well #: PZ-1 **DTB:** 69.25
Date Started: 31-Oct-2014 **Start SWL:** 61.63 **Developed By:** E. Brandt/Associated
Date Finished: 31-Oct-2014 **Finish SWL:** 61.63 **Method:** Waterspout 2 Pump

Meters
pH: Myron 6P **Conductivity:** Myron 6P
Temp: Myron 6P **Turb.:** LaMotte 2020WE

Time	pH	Temp	S. Conductivity	Turb.	Est. Purged Vol.	Comments
1210	6.10	14.2	364.2	Over	1	Start Pump
1220	6.05	14.3	369.4	64	15	Clearing - Surge Well
1240	6.09	14.3	341.7	Over	35	Silty
1250	5.99	14.3	330.5	36	50	Clearing up
1300	5.99	14.3	326.0	60	65	Clearing
1310	5.99	14.3	322.6	17	80	Clearing up - Sand Pack
1320	6.00	14.3	318.9	6	90	Clear
1330	5.99	14.3	317.1	5	100	Clear
1340	5.97	14.3	315.2	5	110	Clear
1341						End Of Development

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

Site: NYSDEC Country Cleaners
Well #: PZ-2 **DTB:** 70
Date Started: 31-Oct-2014 **Start SWL:** 61.24 **Developed By:** E. Brandt/Associated
Date Finished: 31-Oct-2014 **Finish SWL:** 61.24 **Method:** Waterspout 2 Pump

Meters
pH: Myron 6P **Conductivity:** Myron 6P
Temp: Myron 6P **Turb.:** LaMotte 2020WE

Time	pH	Temp	S. Conductivity	Turb.	Est. Purged Vol.	Comments
1032						Start Pump
1035	6.21	14.0	352.6	Over	2	Opaque - Formation
1045	6.23	14.1	351.3	86	20	Clearing - Surge
1055	6.18	14.2	345.2	115	35	Clearing
1105	6.17	14.2	338.9	121	45	Opaque - Surged, Clearing
1115	6.14	14.3	334.2	101	60	Clearing
1125	6.09	14.3	328.8	79	70	Clearing - Sand pack
1135	6.07	14.3	323.7	36	80	Clearing - Sand pack
1145	6.05	14.3	323.2	21	100	Clearing
1155	6.08	14.2	322.2	10	110	Clear/Colorless
1156						End of Development

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Well Development Log

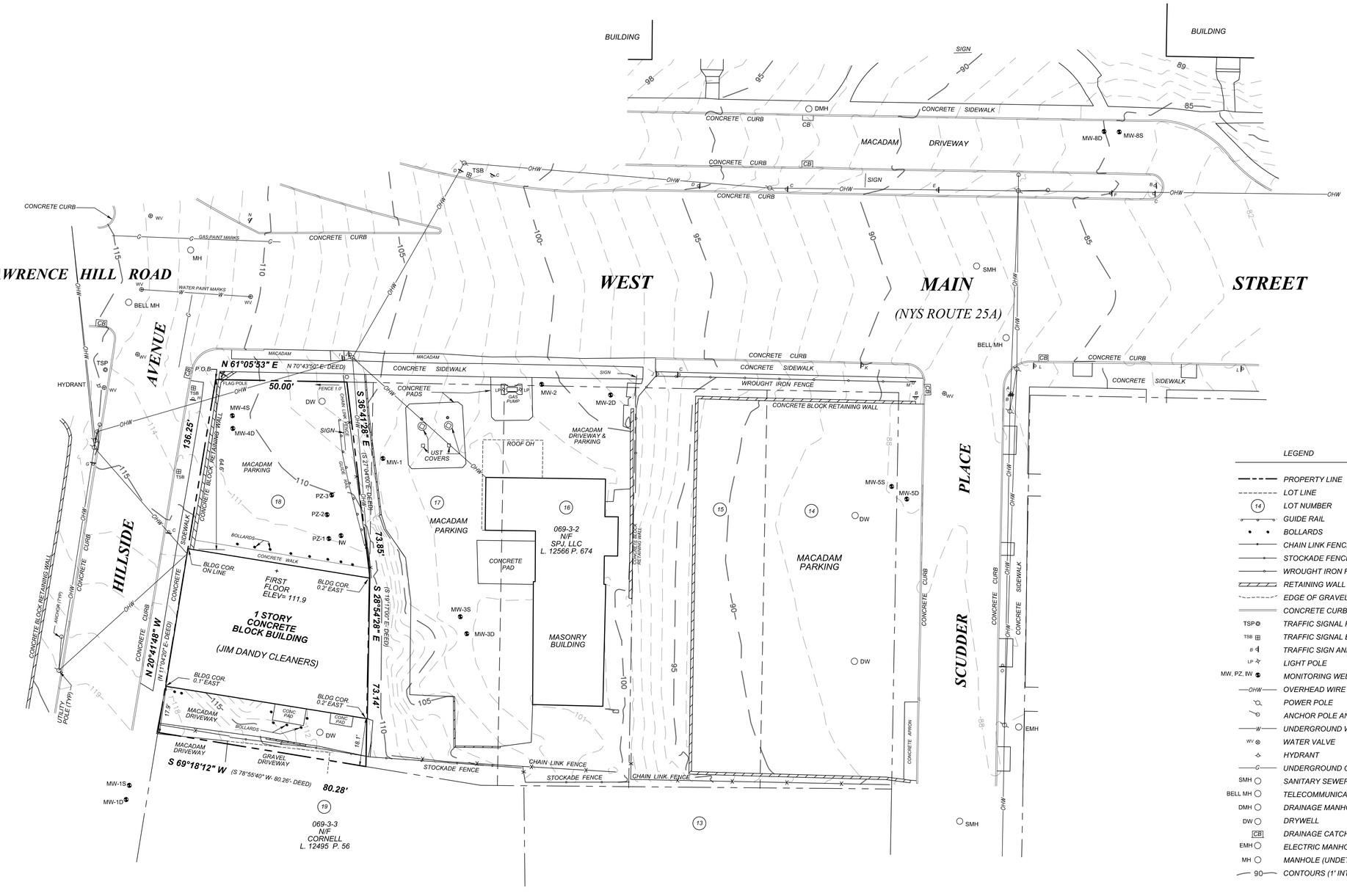
Site: NYSDEC Country Cleaners
Well #: PZ-3 **DTB:** 70
Date Started: 31-Oct-2014 **Start SWL:** 60.87 **Developed By:** E. Brandt/Associated
Date Finished: 31-Oct-2014 **Finish SWL:** 60.9 **Method:** Waterspout 2 Pump

Meters
pH: Myron 6P **Conductivity:** Myron 6P
Temp: Myron 6P **Turb.:** LaMotte 2020WE

Time	pH	Temp	S. Conductivity	Turb.	Est. Purged Vol.	Comments
0830						Start Pump
0840	5.48	13.6	329.7	2822 AU	3	Opaque
0850	5.94	13.8	310.2	3654 AU	5	Opaque
0900	6.09	13.9	310.1	Over	17	Opaque
0910	6.11	13.8	311.5	1254 AU	23	Opaque
0920	6.11	13.8	310.2	26	40	Clearing - Surge
0930	6.11	13.8	305.2	1074 AU	60	Opaque - Formation
0940	6.08	13.8	300.7	Over	70	Opaque - Sand Pack
0950	6.04	13.9	306.4	695	80	Clearing - Sand Pack
1000	6.04	14.0	304.2	16	100	Clearing
1005	6.02	14.1	303.1	8	105	Clearing
1010	6.02	14.1	303.2	28	115	Clear
1015	6.04	14.1	304.5	34	120	Clear
						End Of Development

Note:
Temperature is measured in Celsius
Turbidity is measured in NTU
Volume is measured in gallons

Appendix C



NOTES:

1. TAX LOT: 069-3-1
2. RECORD DEED: LIBER 12484 PAGE 145
3. RECORD OWNER: K.B.K. HUNTINGTON CORP.
   P.O. BOX 676
   RUCKERSVILLE, VA 22968
4. AREA: 9,493 S.F. = 0.218 ACRE
5. SUBJECT TO THE FINDINGS OF AN UP TO DATE ABSTRACT OF TITLE
6. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW
7. ONLY COPIES OF THIS MAP BEARING THE LICENSED LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID, TRUE COPIES
8. UNDEGROUND UTILITIES SUCH AS SEWERAGE DISPOSAL SYSTEMS, WATER, GAS AND/OR ELECTRIC LINES, ARE NOT SHOWN AND ARE NOT CERTIFIED TO
9. HORIZONTAL DATUM: NAD 83 FROM GPS OBERVATIONS
10. VERTICAL DATUM: NAVD 88 FROM GPS OBSERVATIONS
11. CONTOUR INTERVAL: 1'

REFERENCES:

-BEING A PORTION OF LOT 1 AS SHOWN ON A MAP ENTITLED "MAP OF 48 LOTS SITUATE IN THE VILLAGE OF HUNTINGTON", FILED IN THE SUFFOLK COUNTY CLERK'S OFFICE ON FEBRUARY 25, 1892 AS MAP NO. 485

-MAP ENTITLED "MAP OF WOODBURY CREST", FILED IN THE SUFFOLK COUNTY CLERK'S OFFICE ON AUGUST 15, 1974 AS MAP NO. 6135

-DEEDS AS NOTED

SIGN KEY

A= STOP SIGN
B= ONE WAY SIGN
C= NO STOPPING SIGN
D= WEST 25A SIGN
E= NO LEFT TURN SIGN
F= 25 MPH SIGN
G= NO STANDING SIGN
H= NO TURN ON RED SIGN
I= EAST 25A SIGN
J= YELLOW ARROW SIGN
K= 30 MPH SIGN
L= NO PARKING SIGN
M= STREET SIGN
N= DO NOT ENTER SIGN
O= HANDICAP PARKING SIGN

WELL ELEVATION TABLE

WELL I.D.	GROUND	CASING	RISER
MW-1	103.89	103.89	103.50
MW-1D	120.10	120.10	119.99
MW-1S	119.79	119.79	119.59
MW-2	100.67	100.67	100.26
MW-2D	99.11	99.11	98.94
MW-3D	102.13	102.13	101.92
MW-3S	102.44	102.44	102.11
MW-4D	110.44	110.44	110.34
MW-4S	110.42	110.42	110.27
MW-5D	87.95	87.95	87.59
MW-5S	87.94	87.94	87.69
MW-8D	85.02	85.02	84.89
MW-8S	84.67	84.67	84.51
PZ-1	110.98	110.98	110.65
PZ-2	110.54	110.54	110.20
PZ-3	110.05	110.05	109.68
IW	110.83	110.83	110.47

I HEREBY CERTIFY TO THE PARTIES LISTED BELOW THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPETED ON MAY 19, 2015 AND WAS PREPARED IN ACCORDANCE WITH THE CURENT EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC.

-NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DONALD R. STEDGE, P.L.S., NYS LIC. NO. 49759
112 MURRAY AVENUE
GOSHEN, NY 10924
(845) 325-9734

RECORD METES AND BOUNDS DESCRIPTION

ALL THAT CERTAIN PLOT, piece or parcel of land situate, lying and being in the Village of Huntington, County of Suffolk, and State of New York, known and designated as a portion of Lot 18 as shown on a certain map entitled "Map of 78 Lots situate in the Village of Huntington", filed in the Westchester County Clerk's Office on February 25, 1892 as Map No. 485; being more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the southerly side of South Main Street with the easterly side of Hillside Avenue:

Running thence along the southerly side of West Main Street, North 70°- 43'- 50" East, 50.00 feet; thence

Running thence through Lot 18, South 27°- 04'- 00" East, 73.85 feet;

Running thence along the westerly side of Lot 17 on said map, South 19°- 17'- 00" East, 73.15 feet to the northerly side of Lot 19 on said map;

Running thence along the northerly side of said Lot 19, South 78°- 55'- 40" West, 80.26 feet to the easterly side of Hillside Avenue;

Running thence along the easterly side of Hillside Avenue, North 11°- 04'- 20" West, 136.25 feet to the corner aforesaid at the place or point of beginning.

Containing 9,493 square feet of land more or less

NEW METES AND BOUNDS DESCRIPTION

ALL THAT CERTAIN PLOT, piece or parcel of land situate, lying and being in the Village of Huntington, County of Suffolk, and State of New York, known and designated as a portion of Lot 18 as shown on a certain map entitled "Map of 78 Lots situate in the Village of Huntington", filed in the Westchester County Clerk's Office on February 25, 1892 as Map No. 485; being more particularly bounded and described as follows:

BEGINNING at the corner formed by the intersection of the southerly side of South Main Street with the easterly side of Hillside Avenue:

Running thence along the southerly side of West Main Street, North 61°- 05'- 53" East, 50.00 feet; thence

Running thence through Lot 18, South 36°- 41'- 28" East, 73.85 feet;

Running thence along the westerly side of Lot 17 on said map, South 28°- 54'- 28" East, 73.15 feet to the northerly side of Lot 19 on said map;

Running thence along the northerly side of said Lot 19, South 69°- 18'- 12" West, 80.28 feet to the easterly side of Hillside Avenue;

Running thence along the easterly side of Hillside Avenue, North 20°- 41'- 48" West, 136.25 feet to the corner aforesaid at the place or point of beginning.

Containing 9,493 square feet of land more or less.

Bearing System based on New York State Plane Coordinate System, Long Island Zone, NAD 83

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW. THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY, 12233 OR AT derweb@dec.ny.gov.

LEGEND

- PROPERTY LINE
- LOT LINE
- (14) LOT NUMBER
- GUIDE RAIL
- BOLLARDS
- CHAIN LINK FENCE
- STOCKADE FENCE
- WROUGHT IRON FENCE
- RETAINING WALL (CONC BLOCK OR RR TIE)
- EDGE OF GRAVEL
- CONCRETE CURB
- TSP TRAFFIC SIGNAL POLE
- TSB TRAFFIC SIGNAL BOX
- TRAFFIC SIGN AND LABEL (REFER TO SIGN KEY)
- LP LIGHT POLE
- MW, PZ, IW MONITORING WELL (REFER TO WELL ELEVATION TABLE)
- OHW OVERHEAD WIRE
- POWER POLE
- ANCHOR POLE AND WIRE
- W UNDERGROUND WATER LINE
- WV WATER VALVE
- HYDRANT
- G UNDERGROUND GAS LINE
- SMH SANITARY SEWER MANHOLE
- BELL MH TELECOMMUNICATION MANHOLE
- DMH DRAINAGE MANHOLE
- DW DRYWELL
- CB DRAINAGE CATCH BASIN
- EMH ELECTRIC MANHOLE
- MH MANHOLE (UNDETERMINED TYPE)
- 90 CONTOURS (1' INTERVAL)

SCALE
10 5 0 10 METERS
20 10 0 20 FEET

REVISIONS	YEC, INC.
	WEST NYACK — NEW YORK
	COUNTRY CLEANERS SITE ENVIRONMENTAL EASEMENT SURVEY
	HUNTINGTON, SUFFOLK COUNTY, NEW YORK

DATE:	SCALE:	DRAWN BY:	CHECKED BY:	JOB NO.
MAY 2015	1" = 20'	MBW	DRS	A0496

Appendix D

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Date: 18-Nov-2014
Weather: 30F, Clear

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: MW-1S
Wel Permit #: _____
Well Depth: 74.60
Well Diameter: 2 Inches

Screened/Open Interval: 65-75

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap: _____

Pump Intake Depth: 73.5 Ft Below TOC
Depth to Water Before Pump Installation: 70.55 Ft below TOC
Make/Model of Pump: grundfos rediflow

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1426	X			NA		NA		NA		NA		NA		NA	370	70.56
1435	X		5.67	5.7	0.331		181	181.0	7.58		889		12.75		370	70.56
1440	X		5.91	0.2	0.304	-8	261	80.0	6.62	-13	183	-79	17.17	35	466	70.56
1445	X		5.94	0.0	0.298	-2	292	31.0	6.71	1	57	-69	16.93	-1	466	70.56
1450	X		5.95	0.0	0.296	-1	292	0.0	6.66	-1	20	-65	17.04	1	466	70.56
1455	X		5.96	0.0	0.296	0	281	-11.0	6.61	-1	17	-15	17.3	2	466	70.56
1500	X		5.96	0.0	0.294	-1	278	-3.0	6.61	0	13	-24	17.87	3	466	70.56
1505	X		5.96	0.0	0.293	0	280	2.0	6.65	1	9	-31	17.74	-1	466	70.56
1510	X		5.97	0.0	0.293	0	279	-1.0	6.59	-1	8	-11	17.82	0	466	70.56
1515	X		5.97	0.0	0.291	-1	287	8.0	6.58	0	8	0	17.97	1	466	70.56
1520		X														

Comments:

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Date: 18-Nov-2014
Weather: 30F Clear

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: MW-1D
Wel Permit #: _____
Well Depth: 107
Well Diameter: 2 Inches
Screened/Open Interval: _____ 97-107

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap: _____

Pump Intake Depth: 103 Ft Below TOC
Depth to Water Before Pump Installation: 69.88 Ft below TOC
Make/Model of Pump: grundfos rediflow

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1500	X			NA		NA		NA		NA		NA		NA		
1507	X		5.53	5.5	0.375	#DIV/0!	244	244.0	6.29	#DIV/0!	181	#DIV/0!	11.68	#DIV/0!	466	69.93
1512	X		6.06	0.5	0.334	-11	199	-45.0	6.48	3	342	89	13.62	17	466	69.93
1517	X		6.23	0.2	0.329	-1	192	-7.0	6.32	-2	173	-49	14.54	7	466	69.93
1522	X		6.3	0.1	0.328	0	190	-2.0	6.24	-1	140	-19	14.82	2	466	69.93
1527	X		6.34	0.0	0.327	0	193	3.0	6.19	-1	104	-26	15.03	1	466	69.93
1532	X		6.61	0.3	0.327	0	183	-10.0	6.09	-2	69	-34	15.21	1	466	69.93
1537	X		6.51	-0.1	0.327	0	193	10.0	6.09	0	59	-14	15.34	1	466	69.93
1545	X		6.53	0.0	0.326	0	197	4.0	6.01	-1	36	-39	15.31	0	466	69.93
1550	X		6.55	0.0	0.326	0	198	1.0	5.94	-1	27	-25	15.34	0	466	69.93
1555	X		6.57	0.0	0.326	0	196	-2.0	5.95	0	21	-22	15.43	1	466	69.93
1600		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Date: 20-Nov-2014
Weather:

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: 2D
Wel Permit #:
Well Depth: 91
Well Diameter: 2
Screened/Open Interval: 84-94

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 89
Depth to Water Before Pump Installation: 50.15
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
0720	X			NA		NA		NA		NA		NA		NA	380	50.24
0724	X		5.16	5.2	0.304	#DIV/0!	355	355.0	5.41	#DIV/0!	14.8	#DIV/0!	13.35	#DIV/0!	380	50.24
0729	X		5.57	0.4	0.342	13	273	-82.0	4.95	-9	63.7	330	13.79	3	380	50.24
0734	X		5.78	0.2	0.328	-4	291	18.0	4.88	-1	114	79	14.26	3	380	50.24
0739	X		5.8	0.0	0.321	-2	289	-2.0	4.87	0	96	-16	14.4	1	380	50.24
0744	X		5.75	0.0	0.319	-1	283	-6.0	4.95	2	87.3	-9	14.5	1	380	50.24
0751	X		5.8	0.0	0.319	0	271	-12.0	4.89	-1	77.6	-11	14.65	1	380	50.24
0756	X		5.8	0.0	0.319	0	257	-14.0	4.91	0	69.9	-10	14.53	-1	380	50.24
0801	X		5.73	-0.1	0.33	3	275	18.0	5.73	17	88.4	26	13.39	-8	380	50.24
0806	X		5.63	-0.1	0.322	-2	255	-20.0	5.27	-8	69.5	-21	14.15	6	380	50.24
0811	X		5.6	0.0	0.321	0	248	-7.0	5.18	-2	59.7	-14	14.22	0	380	50.24
0817	X		5.58	0.0	0.321	0	254	6.0	4.98	-4	57.7	-3	14.42	1	380	50.24
0822	X		5.59	0.0	0.321	0	254	0.0	4.96	0	59.6	3	14.57	1	380	50.24
0827	X		5.64	0.0	0.321	0	269	15.0	4.93	-1	63.6	7	14.67	1	380	50.24
0832	X		5.69	0.1	0.321	0	271	2.0	4.95	0	60.9	-4	14.68	0	380	50.24
0840	X		5.68	0.0	0.321	0	274	3.0	4.88	-1	55.7	-9	14.82	1	380	50.24
0845		X														

Comments:

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Date: 20-Nov-2014
Weather:

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: MW2
Wel Permit #:
Well Depth: 64.021
Well Diameter: 2
Screened/Open Interval: 97-107

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 62
Depth to Water Before Pump Installation: 51.76
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
9:20	X														180	
9:22	X														375	51.82
9:25	X		5.65	5.7	0.32	#DIV/0!	305	305.0	8.33	#DIV/0!	0	#DIV/0!	12.31	#DIV/0!	375	51.82
9:30	X		5.59	-0.1	0.323	1	208	-97.0	7.32	-12	0	#DIV/0!	15.06	22	375	51.82
9:35	X		5.94	0.4	0.321	-1	267	59.0	7.15	-2	674	#DIV/0!	17.01	13	375	51.82
9:40	X		5.95	0.0	0.319	-1	293	26.0	6.91	-3	319	-53	16.96	0	375	51.82
9:45	X		5.95	0.0	0.319	0	295	2.0	6.72	-3	201	-37	17.16	1	375	51.82
9:54	X		5.96	0.0	0.323	1	271	-24.0	6.69	0	178	-11	17.44	2	375	51.82
9:59	X		5.95	0.0	0.323	0	271	0.0	6.72	0	135	-24	17.76	2	375	51.82
10:04	X		5.95	0.0	0.323	0	283	12.0	6.63	-1	89.7	-34	17.93	1	375	51.82
10:09	X		5.95	0.0	0.323	0	290	7.0	6.62	0	64.4	-28	17.91	0	375	51.82
10:16	X		5.95	0.0	0.323	0	296	6.0	6.5	-2	31.7	-51	18.35	2	375	51.82
10:21	X		5.95	0.0	0.324	0	299	3.0	6.57	1	22.9	-28	18.01	-2	375	51.82
10:26	X		5.95	0.0	0.324	0	303	4.0	6.58	0	18.5	-19	17.82	-1	375	51.82
10:30		X														

Comments:

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 20-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: 3D
Well Depth: 93.1
Screened/Open Interval: 84-94
Wel Permit #:
Well Diameter: 2

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 88 **Ft Below TOC**
Depth to Water Before Pump Installation: 53.02
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
11:25	X			NA		NA		NA		NA		NA		NA	320	53.1
11:32	X		4.45	4.5	0.465	#DIV/0!	256	256.0	8.85	#DIV/0!	29.7	#DIV/0!	9.37	#DIV/0!	320	53.1
11:37	X		5.45	1.0	0.342	-26	197	-59.0	7.58	-14	50	68	11.65	24	320	53.1
11:42	X		5.53	0.1	0.324	-5	147	-50.0	7.72	2	172	244	13.06	12	320	53.1
11:47	X		5.55	0.0	0.322	-1	151	4.0	7.73	0	202	17	13.62	4	320	53.1
11:52	X		5.56	0.0	0.321	0	158	7.0	7.65	-1	254	26	13.73	1	320	53.1
11:57	X		5.59	0.0	0.32	0	164	6.0	7.58	-1	216	-15	13.85	1	320	53.1
12:02	X		5.58	0.0	0.32	0	169	5.0	7.52	-1	174	-19	13.91	0	320	53.1
12:07	X		5.57	0.0	0.325	2	174	5.0	7.66	2	395	127	13.59	-2	320	53.1
12:12	X		5.59	0.0	0.316	-3	170	-4.0	7.16	-7	236	-40	14.39	6	320	53.1
12:20	X		5.59	0.0	0.312	-1	170	0.0	6.48	-9	27.1	-89	14.13	-2	320	53.1
12:25	X		5.59	0.0	0.312	0	170	0.0	6.6	2	13.3	-51	14.63	4	320	53.1
12:30	X		5.6	0.0	0.313	0	170	0.0	6.55	-1	17.5	32	14.9	2	320	53.1
12:40		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Date: 20-Nov-2014
Weather:

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: 3S
Wel Permit #:
Well Depth: 93.1
Well Diameter: 2
Screened/Open Interval: 50-60

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 55 Ft Below TOC
Depth to Water Before Pump Installation: 53.08
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
11:48:02	x		6.11	NA	0.145	NA	285	NA	11.91	NA	526	NA	9.15	NA	130	
11:53:02			5.44	-0.7	0.278	92	280	-5.0	8.23	-31	0	-100	11.82	29		
11:58:02			5.45	0.0	0.277	0	291	11.0	7.53	-9	540	#DIV/0!	13.36	13		
12:03:02			5.75	0.3	0.295	6	275	-16.0	5.94	-21	999	85	15.53	16	120	
12:08:02			5.93	0.2	0.297	1	282	7.0	6.48	9	799	-20	20.06	29		
12:13:02			5.95	0.0	0.295	-1	316	34.0	6.34	-2	432	-46	17.66	-12		
12:18:02			5.95	0.0	0.296	0	315	-1.0	6.17	-3	307	-29	16.78	-5		
12:23:02			5.96	0.0	0.296	0	313	-2.0	5.61	-9	257	-16	16.41	-2		
12:28:02			6.17	0.2	0.076	-74	301	-12.0	9.62	71	366	42	15.7	-4		
12:40:01			6.14	0.0	0.297	291	270	-31.0	6.98	-27	0	-100	13.95	-11		
12:45:01			6	-0.1	0.305	3	214	-56.0	6.35	-9	0	#DIV/0!	14.66	5		stop to assess pump problem; clean pump
12:50:01			5.95	0.0	0.308	1	227	13.0	6.51	3	0	#DIV/0!	15.59	6		
12:55:01			6.07	0.1	0.301	-2	264	37.0	6.68	3	0	#DIV/0!	18.4	18		
13:00:01			5.94	-0.1	0.297	-1	218	-46.0	5.62	-16	0	#DIV/0!	19.94	8		
13:05:01			6.3	0.4	0	-100	317	99.0	9.62	71	17.1	#DIV/0!	17.06	-14		
13:10:01			5.95	-0.4	0.294	#DIV/0!	215	-102.0	5.39	-44	1000	5748	21.05	23		
13:25:37			6.08	0.1	0.29	-1	320	105.0	8.38	55	0	-100	14.57	-31		
13:30:37			5.88	-0.2	0.292	1	277	-43.0	7.22	-14	0	#DIV/0!	16.24	11		
13:35:37			5.93	0.0	0.294	1	237	-40.0	6.37	-12	1000	#DIV/0!	18.31	13		
13:40:37			5.93	0.0	0.299	2	190	-47.0	5.63	-12	0	-100	19.68	7		
13:45:37			5.95	0.0	0.288	-4	260	70.0	5.92	5	0	#DIV/0!	17.51	-11		
13:50:37			6.05	0.1	0	-100	271	11.0	9.48	60	7.71	#DIV/0!	14.5	-17		
13:55:37			6.11	0.1	0	#DIV/0!	365	94.0	8.54	-10	9.93	29	14.6	1		
14:00:37			6.09	0.0	0	#DIV/0!	382	17.0	8.65	1	8.69	-12	14.09	-3		

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Date: 20-Nov-2014
Weather:

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: 3S
Well Depth: 93.1
Wel Permit #:
Well Diameter: 2
Screened/Open Interval: 50-60

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 55 Ft Below TOC
Depth to Water Before Pump Installation: 53.08
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
14:00:37			6.09	NA	0	NA	382	NA	8.65	NA	8.69	NA	14.09	NA	130	
14:05:37			6.12	0.0	0	#DIV/0!	387	5.0	8.79	2	4.87	-44	13.62	-3		
14:10:37			5.85	-0.3	0.309	#DIV/0!	212	-175.0	5.44	-38	0	-100	16.29	20		
14:15:37			6.17	0.3	0	-100	329	117.0	9.7	78	2.27	#DIV/0!	15.22	-7	120	
14:35				-6.2		#DIV/0!		-329.0		-100		-100		-100		

Comments:
Chems on Hand form - Will Update.

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 21-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: 4D **Well Depth:** 104 **Screened/Open Interval:** 94-104
Wel Permit #: _____ **Well Diameter:** _____ **Inches**

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap:

Pump Intake Depth: 99 **Ft Below TOC**
Depth to Water Before Pump Installation: 61.25 **Ft below TOC**
Make/Model of Pump: _____

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
7:49	X			NA		NA		NA		NA		NA		NA		
7:56	X			NA		NA		NA		NA		NA		NA	310	
7:52	X		4.09	4.1	0	#DIV/0!	416	416.0	11.19	#DIV/0!	0	#DIV/0!	7.99	#DIV/0!		
7:57	X		4.8	0.7	0.311	#DIV/0!	230	-186.0	6.87	-39	0	#DIV/0!	12.27	54		
8:02	X		4.92	0.1	0.307	-1	237	7.0	6.72	-2	704	#DIV/0!	13.22	8		
8:07	X		4.99	0.1	0.305	-1	245	8.0	6.62	-1	437	-38	13.54	2		
8:12	X		5.06	0.1	0.306	0	255	10.0	6.53	-1	182	-58	14.1	4		
8:17	X		5.29	0.2	0.307	0	279	24.0	6.5	0	109	-40	14.49	3		
8:22	X		5.55	0.3	0.306	0	289	10.0	6.46	-1	71	-35	14.75	2		
8:34	X		5.65	0.1	0.324	6	296	7.0	7.13	10	57.4	-19	12.65	-14		
8:39	X		5.58	-0.1	0.318	-2	302	6.0	7.05	-1	10.5	-82	13.06	3		
8:48	X		5.68	0.1	0.318	0	294	-8.0	7.03	0	0	-100	13.18	1		
8:51	X		5.68	0.0	0.318	0	296	2.0	7	0	0	#DIV/0!	13.57	3		
8:56	X		5.69	0.0	0.318	0	309	13.0	6.99	0	0	#DIV/0!	13.41	-1		
9:00		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 21-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: 4S **Well Depth:** 71.10 **Screened/Open Interval:** 60-70
Wel Permit #: **Well Diameter:** **Inches**

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 66 **Ft Below TOC**
Depth to Water Before Pump Installation: 61.53 **Ft below TOC**
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
7:38	X			NA		NA		NA		NA		NA		NA	320	
7:43	X		4.43	4.4	0.376	#DIV/0!	273	273.0	8.4	#DIV/0!	1000	#DIV/0!	10.71	#DIV/0!	320	61.58
7:48	X		4.92	0.5	0.286	-24	233	-40.0	8.04	-4	1000	0	10.81	1	320	61.58
7:53	X		5.7	0.8	0.28	-2	104	-129.0	7.49	-7	0	-100	15.27	41	320	61.58
7:58	X		5.78	0.1	0.274	-2	102	-2.0	7.58	1	0	#DIV/0!	17.49	15	320	61.58
8:03	X		5.79	0.0	0.274	0	99	-3.0	7.62	1	0	#DIV/0!	17.09	-2	320	61.58
8:08	X		5.81	0.0	0.268	-2	134	35.0	8.34	9	0	#DIV/0!	16.05	-6	320	61.58
8:13	X		5.79	0.0	0.275	3	141	7.0	8.52	2	844	#DIV/0!	17.82	11	320	61.58
8:18	X		5.78	0.0	0.275	0	144	3.0	8.64	1	362	-57	17.13	-4	320	61.58
8:23	X		5.78	0.0	0.273	-1	144	0.0	8.56	-1	177	-51	17.05	0	320	61.58
8:28	X		5.77	0.0	0.273	0	146	2.0	8.31	-3	103	-42	17.19	1	320	61.58
8:33	X		5.76	0.0	0.274	0	149	3.0	8.5	2	58.5	-43	17.23	0	320	61.58
8:43	X		5.74	0.0	0.274	0	153	4.0	8.4	-1	25.6	-56	17.44	1	320	61.58
8:48	X		5.75	0.0	0.273	0	155	2.0	8.27	-2	19.9	-22	17.37	0	320	61.58
8:53	X		5.78	0.0	0.274	0	155	0.0	7.9	-4	12.4	-38	17.23	-1	320	61.58
8:58	X		5.75	0.0	0.275	0	160	5.0	7.26	-8	8.82	-29	16.96	-2	320	61.58
9:03	X		5.64	-0.1	0.276	0	166	6.0	6.44	-11	6.44	-27	15.88	-6	320	61.58
9:10		X														

Comments:
VERY TURBD AT START

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Date: 19-Nov-2014
Weather: 25F Clear
Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: MW-5S
Wel Permit #: _____
Well Depth: _____
Well Diameter: 2 Inches
Screened/Open Interval: _____ 40-50

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap:

Pump Intake Depth: _____ Ft Below TOC
Depth to Water Before Pump Installation: _____ Ft below TOC
Make/Model of Pump: grundfos rediflow

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
	X			NA		NA		NA		NA		NA		NA	420	39.29
10:55	X		3.97	4.0	0.003	#DIV/0!	255	255.0	10.79	#DIV/0!	0	#DIV/0!	4.11	#DIV/0!	420	39.29
11:00	X		5.4	1.4	0.418	13833	168	-87.0	6.77	-37	1000	#DIV/0!	15.04	266	420	39.29
12:14	X		5.49	0.1	0.386	-8	144	-24.0	6.95	3	796	-20	16.54	10	420	39.29
11:10	X		5.51	0.0	0.374	-3	144	0.0	7.17	3	515	-35	16.53	0	420	39.29
11:15	X		5.51	0.0	0.364	-3	140	-4.0	7	-2	275	-47	16.62	1	420	39.29
11:24	X		5.65	0.1	0.356	-2	156	16.0	6.99	0	51.7	-81	16.35	-2	420	39.29
11:29	X		5.75	0.1	0.353	-1	158	2.0	6.89	-1	17.2	-67	16.16	-1	420	39.29
11:34	X		5.79	0.0	0.353	0	160	2.0	6.88	0	0	-100	16.06	-1	420	39.29
11:39	X		5.83	0.0	0.352	0	163	3.0	6.85	0	0	#DIV/0!	16.03	0	420	39.29
11:55		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Date: 19-Nov-2014
Weather: 25F Clear
Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: MW-5D
Wel Permit #: _____
Well Depth: _____
Well Diameter: 2 Inches
Screened/Open Interval: _____ 60-70

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap:

Pump Intake Depth: _____ Ft Below TOC
Depth to Water Before Pump Installation: 39.25 Ft below TOC
Make/Model of Pump: grundfos rediflow

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
	X			NA		NA		NA		NA		NA		NA		
11:53	X		5.71	5.7	0.329	#DIV/0!	330	330.0	9.66	#DIV/0!	121	#DIV/0!	8.73	#DIV/0!	196	39.33
11:55	X		5.59	-0.1	0.333	1	272	-58.0	8.22	-15	104	-14	11.09	27	196	39.33
12:05	X		5.93	0.3	0.345	4	259	-13.0	7.21	-12	73.1	-30	13.07	18	196	39.33
12:15	X		5.92	0.0	0.341	-1	273	14.0	6.74	-7	114	56	14.27	9	196	39.33
12:29	X		5.91	0.0	0.341	0	287	14.0	6.55	-3	90.2	-21	14.55	2	196	39.33
12:39	X		5.9	0.0	0.34	0	292	5.0	6.46	-1	102	13	14.72	1	196	39.33
12:43	X		5.9	0.0	0.341	0	288	-4.0	6.45	0	90.4	-11	14.59	-1	196	39.33
12:53	X		5.89	0.0	0.343	1	281	-7.0	6.49	1	80.6	-11	14.6	0	196	39.33
13:03	X		5.86	0.0	0.343	0	279	-2.0	6.46	0	80.8	0	14.49	-1	196	39.33
13:13	X		5.85	0.0	0.342	0	280	1.0	6.5	1	129	60	14.34	-1	196	39.33
13:23	X		5.88	0.0	0.342	0	271	-9.0	6.16	-5	92.4	-28	13.74	-4	196	39.33
13:32	X		5.85	0.0	0.34	-1	246	-25.0	6.43	4	79	-15	13.55	-1	196	39.33
13:34	a			-5.9		-100		-246.0		-100		-100		-100	196	39.33
13:45	X		5.9	5.9	0.332	#DIV/0!	280	280.0	8.33	#DIV/0!	30.1	#DIV/0!	16.33	#DIV/0!	196	39.33
13:50	X		5.91	0.0	0.333	0	288	8.0	8.32	0	20.1	-33	15.95	-2	196	39.33
13:55	X		5.91	0.0	0.331	-1	289	1.0	8.18	-2	15.9	-21	15.97	0	196	39.33
14:00		X														

Comments:
a- Silt/sediment build up was removed from Horiba unit.

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date:
Field Personnel: EB, KH
Weather:

Monitor Well #: 6S **Well Depth:** 86.2 **Screened/Open Interval:** 74-84
Wel Permit #: **Well Diameter:** **Inches**

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 80 **Ft Below TOC**
Depth to Water Before Pump Installation: 76.22 **Ft below TOC**
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
16:49	X			NA		NA		NA		NA		NA		NA	420	76.2
16:54	X		5.68	5.7	0.232	#DIV/0!	288	288.0	8.41	#DIV/0!	888	#DIV/0!	10.97	#DIV/0!	420	76.3
16:59	X		5.53	-0.1	0.234	1	123	-165.0	6.92	-18	736	-17	14.93	36	420	76.3
17:04	X		5.73	0.2	0	-100	219	96.0	9.05	31	0	-100	12.08	-19	420	76.3
17:09	X		5.87	0.1	0.234	#DIV/0!	211	-8.0	6.14	-32	646	#DIV/0!	16.3	35	420	76.3
17:14	X		5.97	0.1	0.234	0	250	39.0	7.35	20	313	-52	14.25	-13	420	76.3
17:19	X		6.02	0.0	0	-100	274	24.0	8.21	12	329	5	13.92	-2	420	76.3
17:24	X		6.01	0.0	0.236	#DIV/0!	200	-74.0	6.31	-23	272	-17	17.73	27	420	76.3
17:29	X		5.98	0.0	0.234	-1	211	11.0	6.59	4	249	-8	18.68	5	420	76.3
17:34	X		5.98	0.0	0.235	0	242	31.0	6.55	-1	126	-49	18.24	-2	420	76.3
17:39	X		6	0.0	0.235	0	254	12.0	6.68	2	115	-9	16.48	-10	420	76.3
17:44	X		6.05	0.0	0.256	9	287	33.0	6.58	-1	179	56	17.78	8	420	76.3
17:56	X		5.99	-0.1	0.238	-7	209	-78.0	6.29	-4	487	172	20.25	14	420	76.3
18:01	X		5.99	0.0	0.237	0	256	47.0	6.85	9	114	-77	18.39	-9	420	76.3
18:06	X		5.98	0.0	0.237	0	276	20.0	6.7	-2	56.5	-50	18.73	2	420	76.3
18:11	X		5.97	0.0	0.237	0	310	34.0	6.67	0	1.24	-98	18.16	-3	420	76.3
18:17	X		5.96	0.0	0.236	0	313	3.0	6.65	0	0	-100	18.15	0	420	76.3
18:22	X		5.95	0.0	0.237	0	341	28.0	6.81	2	0	#DIV/0!	17.71	-2	420	76.3
18:27	X		5.94	0.0	0.238	0	357	16.0	6.81	0	0	#DIV/0!	17.57	-1	420	76.3
18:32	X		5.94	0.0	0.238	0	370	13.0	6.83	0	0	#DIV/0!	17.31	-1	420	76.3
18:38	X		5.93	0.0	0.239	0	377	7.0	6.86	0	0	#DIV/0!	17.11	-1	420	76.3
18:39	X		5.92	0.0	0.24	0	360	-17.0	6.92	1	0	#DIV/0!	17.07	0	420	76.3
18:42	X		5.92	0.0	0.241	0	375	15.0	7	1	0	#DIV/0!	16.92	-1	420	76.3
18:45	X		5.92	0.0	0.241	0	384	9.0	6.98	0	0	#DIV/0!	16.88	0	420	76.3
18:48	X		5.91	0.0	0.242	0	387	3.0	7.09	2	0	#DIV/0!	16.54	-2	420	76.3
0:00	X		5.91	0.0	0.244	1	390	3.0	7.14	1	0	#DIV/0!	16.31	-1	420	76.3
1856	X		5.91	0.0	0.241	-1	394	4.0	6.94	-3	0	#DIV/0!	17.03	4	420	76.3
1900		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 20-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: 7D **Well Depth:** 92.50 **Screened/Open Interval:** 85-95
Wel Permit #: **Well Diameter:** Inches

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 88 **Ft Below TOC**
Depth to Water Before Pump Installation: 56.35 **Ft below TOC**
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
16:10	X			NA		NA		NA		NA		NA		NA	380	56.35
16:16	X		5.95	6.0	0.318	#DIV/0!	327	327.0	8	#DIV/0!	515	#DIV/0!	10.77	#DIV/0!	380	56.43
16:21	X		5.5	-0.5	0.33	4	306	-21.0	7.8	-3	332	-36	13.28	23	380	56.43
16:26	X		5.63	0.1	0.328	-1	332	26.0	7.27	-7	99.2	-70	14.68	11	380	56.43
16:31	X		5.67	0.0	0.328	0	349	17.0	6.92	-5	46.8	-53	15	2	380	56.43
16:36	X		5.68	0.0	0.328	0	362	13.0	6.81	-2	26.8	-43	15.13	1	380	56.43
16:41	X		5.68	0.0	0.327	0	370	8.0	6.71	-1	6.61	-75	15.34	1	380	56.43
16:46	X		5.68	0.0	0.328	0	377	7.0	6.49	-3	3.69	-44	15.29	0	380	56.43
16:51	X		5.68	0.0	0.328	0	251	-126.0	6.51	0	0	-100	15.17	-1	380	56.43
17:00		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 20-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: 7S **Well Depth:** 59.68 **Screened/Open Interval:** 50-60
Wel Permit #: **Well Diameter:** Inches

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 55 Ft Below TOC
Depth to Water Before Pump Installation: 56.62 Ft below TOC
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
16:03	x			NA		NA		NA		NA		NA		NA	340	56.89
16:07	x		5.55	5.6	1.48	#DIV/0!	185	185.0	8.23	#DIV/0!	0	#DIV/0!	12.73	#DIV/0!	190	56.89
16:12	x		5.43	-0.1	1.4	-5	96	-89.0	6.4	-22	0	#DIV/0!	15.71	23	190	56.89
16:17	x		5.45	0.0	1.41	1	124	28.0	6.4	0	0	#DIV/0!	17.8	13	190	56.89
16:22	x		5.63	0.2	0.001	-100	141	17.0	9.76	53	0	#DIV/0!	15.66	-12	190	56.89
16:27	x		5.53	-0.1	1.42	141900	144	3.0	6.68	-32	0	#DIV/0!	16.76	7	190	56.89
16:32	x		6.08	0.6	0.0076	-99	125	-19.0	12.47	87	0	#DIV/0!	14.16	-16	190	56.89
16:37	x		5.57	-0.5	1.27	16611	168	43.0	6.84	-45	0	#DIV/0!	16.87	19	190	56.89
16:42	x		5.58	0.0	1.28	1	164	-4.0	6.68	-2	0	#DIV/0!	18.21	8	190	56.89
17:01	x		5.61	0.0	1.4	9	167	3.0	7.22	8	39.7	#DIV/0!	17.63	-3	190	56.89
17:05	x		5.62	0.0	1.4	0	169	2.0	7.15	-1	29.2	-26	17.54	-1	190	56.89
17:10	x		5.62	0.0	1.4	0	171	2.0	7.18	0	24.4	-16	17.45	-1	190	56.89
17:10		x														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date:
Field Personnel: EB, KH
Weather:

Monitor Well #: 8S **Well Depth:** 49.5 **Screened/Open Interval:** 40-50
Wel Permit #: **Well Diameter:** 2

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 45
Depth to Water Before Pump Installation: 37.31
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
15:03	X			NA		NA		NA		NA		NA		NA		
15:08	X			#VALUE!		#VALUE!		#VALUE!		#VALUE!		#VALUE!		#VALUE!	480	37.42
15:08	X		5.79	5.8	0.322	#DIV/0!	177	177.0	5.56	#DIV/0!	312	#DIV/0!	12.75	#DIV/0!	480	37.42
15:13	X		5.63	-0.2	0.32	A	131	-46.0	4.85	-13	56.2	-82	14.97	17	480	37.42
15:18	X		5.67	0.0	0.319	0	130	-1.0	5.07	5	16.3	-71	15.9	6	480	37.42
15:23	X		5.72	0.0	0.319	0	136	6.0	4.79	-6	0	-100	16.11	1	480	37.42
15:28	X		5.76	0.0	0.319	0	141	5.0	4.39	-8	0	#DIV/0!	16.22	1	480	37.42
15:33	X		5.75	0.0	0.319	0	143	2.0	4.82	10	0	#DIV/0!	16.14	0	480	37.42
15:43		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: Nov-14
Field Personnel: EB, KH
Weather:

Monitor Well #: 8D
Well Depth: 82.6
Screened/Open Interval: 75-85
Wel Permit #:
Well Diameter: 2

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 80
Depth to Water Before Pump Installation: 37.01
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
14:57				NA		NA		NA		NA		NA		NA		
15:02	X		6.41	6.4	0.168	#DIV/0!	331	331.0	8.9	#DIV/0!	37	#DIV/0!	10.08	#DIV/0!	240	37.1
15:07	X		6.66	0.3	0.225	34	325	-6.0	6.36	-29	35	-5	10.94	9	240	37.1
15:12	X		6.76	0.1	0.231	3	250	-75.0	6.03	-5	43	23	11.42	4	240	37.1
15:17	X		6.83	0.1	0.229	-1	206	-44.0	5.83	-3	45	5	11.63	2	240	37.1
15:22	X		6.88	0.0	0.227	-1	203	-3.0	5.38	-8	55	22	11.89	2	240	37.1
15:27	X		6.93	0.0	0.223	-2	210	7.0	5.4	0	54	-2	12.15	2	240	37.1
15:32	X		6.96	0.0	0.225	1	215	5.0	5.54	3	62	15	12.49	3	240	37.1
15:38	X		7	0.0	0.223	-1	239	24.0	5.24	-5	35	-44	12.88	3	240	37.1
15:43	X		7.02	0.0	0.224	0	260	21.0	4.97	-5	26.8	-23	12.96	1	240	37.1
15:48	X		7.03	0.0	0.224	0	271	11.0	4.95	0	23.6	-12	12.87	-1	240	37.1
15:53	X		7.03	0.0	0.223	0	279	8.0	4.95	0	19.7	-17	12.83	0	240	37.1
15:58	X		7.02	0.0	0.223	0	282	3.0	4.92	-1	15.9	-19	12.85	0	240	37.1
16:04		X														

Comments:

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 21-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: IW-1 **Well Depth:** 69.11
Screened/Open Interval: 59-69
Wel Permit #: **Well Diameter:** Inches

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 66 Ft Below TOC
Depth to Water Before Pump Installation: 61.73 Ft below TOC
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
10:55	X			NA		NA		NA		NA		NA		NA	360	61.8
10:58	X		5.87	5.9	0.317	#DIV/0!	337	337.0	10.82	#DIV/0!	998	#DIV/0!	8.6	#DIV/0!	360	61.82
11:03	X		5.68	-0.2	0.301	-5	220	-117.0	7.89	-27	1000	0	13.94	62	360	61.82
11:08	X		5.74	0.1	0.304	1	257	37.0	7.15	-9	564	-44	16.5	18	360	61.82
11:13	X		5.83	0.1	0.307	1	280	23.0	6.95	-3	285	-49	16.73	1	360	61.82
11:23	X		6.12	0.3	0.309	1	289	9.0	7.76	12	76.1	-73	16.72	0	360	61.82
11:28	X		6.12	0.0	0.309	0	290	1.0	6.95	-10	43.8	-42	16.63	-1	360	61.82
11:33	X		6.12	0.0	0.31	0	300	10.0	6.86	-1	19	-57	16.75	1	360	61.82
11:40	X		6.12	0.0	0.31	0	310	10.0	6.83	0	0.1	-99	16.72	0	360	61.82
11:45	X		6.11	0.0	0.31	0	321	11.0	6.81	0	0	-100	16.56	-1	360	61.82
11:50	X		6.12	0.0	0.31	0	325	4.0	6.86	1	0	#DIV/0!	16.37	-1	360	61.82
11:55	X		6.1	0.0	0.31	0	332	7.0	6.84	0	0	#DIV/0!	16.24	-1	360	61.82
12:00	X		6.1	0.0	0.31	0	336	4.0	6.84	0	0	#DIV/0!	16.26	0	360	61.82
12:05	X		6.09	0.0	0.311	0	341	5.0	6.78	-1	0	#DIV/0!	16.04	-1	360	61.82
12:10		X														

Comments:
VERY TURBD AT START

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 21-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: PZ-1 **Well Depth:** 69.55
Screened/Open Interval: 60-70
Wel Permit #: _____ **Well Diameter:** 2 **Inches**

PID Readings (ppm):
Background: _____
Beneath Outer Cap: _____
Beneath Inner Cap:

Pump Intake Depth: 66 **Ft Below TOC**
Depth to Water Before Pump Installation: 61.75 **Ft below TOC**
Make/Model of Pump: _____

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
11:00	X			NA		NA		NA		NA		NA		NA	360	61.84
11:07	X		5.78	5.8	0.336	#DIV/0!	180	180.0	6.82	#DIV/0!	0	#DIV/0!	8.11	#DIV/0!	360	61.85
11:12	X		5.68	-0.1	0.328	-2	100	-80.0	5.8	-15	844	#DIV/0!	11.11	37	360	61.85
11:17	X		5.65	0.0	0.321	-2	90	-10.0	6.45	11	636	-25	13.09	18	360	61.85
11:22	X		5.64	0.0	0.324	1	82	-8.0	6.43	0	563	-11	16.36	25	360	61.85
11:27	X		5.68	0.0	0.325	0	93	11.0	6.69	4	443	-21	17.94	10	360	61.85
11:32	X		5.69	0.0	0.327	1	105	12.0	6.93	4	340	-23	18.33	2	360	61.85
11:37	X		6.01	0.3	0.328	0	97	-8.0	7.06	2	209	-39	18.33	0	360	61.85
11:42	X		5.99	0.0	0.328	0	107	10.0	7.23	2	263	26	18.38	0	360	61.85
11:47	X		6.02	0.0	0.328	0	115	8.0	7.22	0	125	-52	17.02	-7	360	61.85
11:52	X		6.02	0.0	0.33	1	119	4.0	7.3	1	87.6	-30	17.47	3	360	61.85
12:03	X		6.03	0.0	0.327	-1	131	12.0	7.55	3	24.7	-72	17.87	2	360	61.85
12:08	X		6.02	0.0	0.327	0	137	6.0	7.41	-2	0.65	-97	17.75	-1	360	61.85
12:13	X		6.02	0.0	0.326	0	142	5.0	7.41	0	0	-100	17.68	0	360	61.85
12:18	X		6.01	0.0	0.326	0	147	5.0	7.48	1	0	#DIV/0!	17.55	-1	360	61.85
12:23	X		6.01	0.0	0.326	0	151	4.0	7.49	0	0	#DIV/0!	17.68	1	360	61.85
12:25		X														

Comments:
VERY TURBD AT START

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Site: NYSDEC Country Cleaners
Consulting Firm: HDR
Date: 21-Nov-2014
Field Personnel: EB, KH
Weather:

Monitor Well #: PZ-1 **Well Depth:** 71.43 **Screened/Open Interval:** 60-70
Wel Permit #: **Well Diameter:** 2 Inches

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 66 Ft Below TOC
Depth to Water Before Pump Installation: 61.40 Ft below TOC
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity Change*	Redox Potential (mv) Reading	Redox Potential Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen Change*	Turbidity (NTU) Reading	Turbidity Change*	Temperature (degrees C) Reading	Temperature Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
13:52	X			NA		NA		NA		NA		NA		NA	300	61.42
14:03	X		5.98	6.0	0.349	#DIV/0!	304	304.0	12.09	#DIV/0!	1000	#DIV/0!	6.66	#DIV/0!	300	61.42
14:08	X		5.65	-0.3	0.336	-4	325	21.0	8.91	-26	775	-23	12.08	81	300	61.42
14:13	X		5.65	0.0	0.332	-1	291	-34.0	8.06	-10	441	-43	12.64	5	300	61.42
14:18	X		5.64	0.0	0.333	0	219	-72.0	7.69	-5	313	-29	13.29	5	300	61.42
14:23	X		5.64	0.0	0.332	0	222	3.0	7.4	-4	160	-49	14.52	9	300	61.42
14:28	X		5.65	0.0	0.328	-1	248	26.0	7.27	-2	78.1	-51	14.8	2	300	61.42
14:33	X		5.65	0.0	0.328	0	258	10.0	7.21	-1	33.9	-57	14.92	1	300	61.42
14:38	X		5.66	0.0	0.327	0	264	6.0	7.16	-1	14.3	-58	15.06	1	300	61.42
14:47	X		5.7	0.0	0.321	-2	228	-36.0	6.81	-5	0	-100	15.59	4	300	61.42
14:52	X		5.73	0.0	0.32	0	260	32.0	6.78	0	0	#DIV/0!	15.73	1	300	61.42
14:58	X		5.76	0.0	0.319	0	282	22.0	6.7	-1	0	#DIV/0!	15.67	0	300	61.42
15:03	X		5.79	0.0	0.319	0	287	5.0	6.66	-1	0	#DIV/0!	15.69	0	300	61.42
15:08	X		5.81	0.0	0.32	0	259	-28.0	6.64	0	0	#DIV/0!	16.02	2	300	61.42
15:13	X		5.84	0.0	0.319	0	292	33.0	6.65	0	0	#DIV/0!	15.94	0	300	61.42
15:18	X		5.87	0.0	0.319	0	303	11.0	6.72	1	0	#DIV/0!	15.78	-1	300	61.42
15:23	X		5.88	0.0	0.319	0	290	-13.0	6.69	0	0	#DIV/0!	15.77	0	300	61.42
15:28	X		5.9	0.0	0.32	0	293	3.0	6.61	-1	0	#DIV/0!	15.3	-3	300	61.42
15:33	X		5.91	0.0	0.317	-1	260	-33.0	6.58	0	0	#DIV/0!	16.09	5	300	61.42
15:39	X		5.92	0.0	0.316	0	295	35.0	6.56	0	0	#DIV/0!	15.43	-4	300	61.42
15:44	X		5.93	0.0	0.317	0	264	-31.0	6.59	0	0	#DIV/0!	14.31	-7	300	61.42
15:49	X		5.89	0.0	0.318	0	232	-32.0	6.51	-1	0	#DIV/0!	16.67	16	300	61.42
15:54	X		5.89	0.0	0.317	0	256	24.0	6.58	1	0	#DIV/0!	16.11	-3	300	61.42
16:05		x														

Comments:
VERY TURBD AT START

*** INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.**

Low Flow Sampling
Data Sheet

Sheet 1 of 1

Site: NYSDEC Country Cleaners
Date: 21-Nov-2014
Weather:

Consulting Firm: HDR
Field Personnel: EB, KH

Monitor Well #: PZ-1 Well Depth: 70.02
Wel Permit #: Well Diameter: 2 Inches

Screened/Open Interval: 60-70

PID Readings (ppm):
Background:
Beneath Outer Cap:
Beneath Inner Cap:

Pump Intake Depth: 66 Ft Below TOC
Depth to Water Before Pump Installation: 61.02 Ft below TOC
Make/Model of Pump:

TIME	Purging	Sampling	pH (pH Units) Reading	pH (pH Units) Change*	Specific Conductivity (mS/cm) Reading	Specific Conductivity (mS/cm) Change*	Redox Potential (mv) Reading	Redox Potential (mv) Change*	Dissolved Oxygen (mg/L) Reading	Dissolved Oxygen (mg/L) Change*	Turbidity (NTU) Reading	Turbidity (NTU) Change*	Temperature (degrees C) Reading	Temperature (degrees C) Change*	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
14:04	X			NA		NA		NA		NA		NA		NA	400	61.04
14:22	X		6.1	6.1	0.336	#DIV/0!	109	109.0	7.99	#DIV/0!	638	#DIV/0!	14.44	#DIV/0!	360	61.07
14:27	X		6.07	0.0	0.329	-2	111	2.0	8.03	1	342	-46	15.56	8	360	61.07
14:32	X		6.04	0.0	0.326	-1	117	6.0	8.18	2	198	-42	16.23	4	360	61.07
14:37	X		6.02	0.0	0.323	-1	124	7.0	8.31	2	117	-41	16.5	2	360	61.07
14:42	X		6.01	0.0	0.319	-1	129	5.0	8.11	-2	75.9	-35	16.77	2	360	61.07
14:47	X		6.01	0.0	0.317	-1	133	4.0	8.18	1	50.8	-33	16.61	-1	360	61.07
14:55	X		6	0.0	0.315	-1	134	1.0	8.17	0	26	-49	16.74	1	360	61.07
15:00	X		5.99	0.0	0.314	0	136	2.0	8.19	0	18.9	-27	16.76	0	360	61.07
15:05	X		5.98	0.0	0.313	0	138	2.0	8.26	1	5.4	-71	16.97	1	360	61.07
15:12	X		5.97	0.0	0.311	-1	141	3.0	8.23	0	0	-100	16.89	0	360	61.07
15:15		X														

Comments:
VERY TURBD AT START
DUPE COLLECTED AS ID: PZ-99-66-GW-20141121

* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.

Chain of Custody

Page: 1 Of: 1

Client/Originator Information		Project Information	
Name:	HDR	Project Name:	NYSDEC Country Cleaners
Address:	One International Blvd, FL 10 Mahwah, NJ 07495	Project Manager:	Demetrios Kleirides
		Project #:	
Phone:	201-335-5400	Sample Location:	Huntington, NY
Email:	Demetrios.Kleirides@hdrinc.com	Turn Around Time:	Standard.

Number of Containers	Sample ID	Collection Date	Collection Time	Matrix	Sampler	Filtered	Grab/Composite	Sieve Analysis	Bulk Density ASTM D854	Porosity				Sample Comments
1	NYSDEC CountryCleaners 60'	10/30/14	1600	Soil				1	1	1	1			Shelby tube.
2	NYSDEC CountryCleaners 68	↓	1630	↓				1		1	1			Ziploc Bags

Preservative Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Report Types

Comments:

Please PM w/any questions.

Analytical Lab Information	
Name:	Ackenheil Engineers.
Contact:	
Address:	1000 Banksville Road. Pittsburgh, PA 15216
Phone:	412-531-7111
e-mail:	
Job Number:	
Fax:	

Sample Handling	
Hazardous?:	N
Sample Disposal:	Y
Custody Seals intact:	

Sample Condition Upon Receipt

Temp:	
Other:	

Relinquished By:	Date/Time	Received By:
	10/31/14 1700	
	2014.10.31 16:40	

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DEMETRIOS KLEKIDES	F. BRANDT & K. HAYDEN	NYSDEC COUNTRY CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC CAT B/B&S as cited PM
Address: 1 INTERNATIONAL BLVD, FLOOR 10	Analysis Turnaround Time: Standard ☒	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260	TAL Metals									LAB USE ONLY Project No: / Job No: / Sample Numbers
~~MW-1S~~ MW-1S-73-GW-20141118	11/18/14	1520	GW	4	X	X									
MW-1D-103-GW-20141118	11/18/14	1600	GW	4	X	X									
MW-55-45-GW-20141119	11/19/14	1200	GW	4	X	X									
TB-20141119	11/19/14	1205	GW	4	X	X									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:															
6 = Other _____, 7 = Other _____ — Water:					2	4									

Special Instructions please call PM w/ any questions.

Water Metals Filtered (Yes/No)? call PM

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/19/14 1215	1)	TA
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DENTSPLY KLORIDS	E. BLANDT + K. HAIDER	NYSDEC CANNON CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC, EQUIS, PDF, call PM
Address: 1 INTERNATIONAL BLVD floor 10	Analysis Turnaround Time: Standard ☒	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260 (TCL + MTBE)	8270 (TCL + MTBE)									LAB USE ONLY Sample Numbers
MW-5D-65-GW-20141119	11/19/14	1400	GW	4	X	X									
MW-8S-45-GW-20141119		1543		4	X	X									
MW-8D-80-GW-20141119		1604		4	X	X									
MW-2D-89-GW-20141120	11/20/14	0845		4	X	X									
MW-2-62-GW-20141120	11/20/14	1030		4	X	X									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:															
6 = Other _____, 7 = Other _____ — Water:					3	4									

Job No:

Special Instructions call PM w/ any Questions.

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	HDR	11/20/14 1200	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DEMETRIOS KIDRIDES	E. BRANDT + K. HAYDEN	NYSDEC COUNTRY CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☑ Other:
		Regulatory Program: NYSDEC, SDWTC.
Address: 1 INTERNATIONAL BLVD, FL 10	Analysis Turnaround Time: Standard ☑	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	6010C METALS	PCL	TDS	TSS	CHLORIDE (SM4500)						LAB USE ONLY Sample Numbers
MW-1-66-GW-20141121	11/21/14	1210	GW	8	X	X	X	X	X	X						
PZ-1-66-GW-20141121	11/21/14	1225	GW	8	X	X	X	X	X	X						
MW-3S-54-GW-20141120	11/20/14	1435	GW	8	X	X	X	X	X	X						
MW-3D-88-GW-20141120	11/20/14	1240	GW	4	X	X										
MW-4S-66-GW-20141121	11/21/14	0940	GW	8	X	X	X	X	X	X						
MW-7D-88-GW-20141120	11/20/14	1300	GW	4	X	X										
MW-9D-90-GW-20141121	11/21/14	0900	GW	4	X	X										
MW-3S-59-GW-20141120	11/20/14	1310	GW	8	X	X	X	X	X	X						
TB-20141121	11/21/14	1245	GW	3	X											

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:														
Water:	2	4	3											

Special Instructions Call Pm w/ any questions. Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/21/14 1230	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) DEMETRIOS KLERIDES	Samplers Name (Printed) E. BRANDT & K. HAMDEN	Site/Project Identification NYSDEC COUNTRY CLEANERS
Company HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC, EQUIS
Address 1 INTERNATIONAL BLVD 10TH FL	Analysis Turnaround Time: Standard ☒	
City MAHWAH State NJ	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone 201.335.9300 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	6010C	CHROMIUM (DISSOLVED)	TSS	TDS	TPH					LAB USE ONLY Sample Numbers
MW-GS-80-GW-20141121	11/21/14	1900	GW	8	X	X	X	X	X	X					
PZ-2-66-GW-20141121	11/21/14	1605	GW	8	X	X	X	X	X	X					
PZ-3-66-GW-20141121	11/21/14	1515	GW	8	X	X	X	X	X	X					
PZ-99-66-GW-20141121	11/21/14	1515	GW	8	X	X	X	X	X	X					

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

	8260C	6010C	CHROMIUM (DISSOLVED)	TSS	TDS	TPH					
Soil:											
Water:	2	4				3					

Special Instructions Please call PM w/ any questions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/21/14 2145	1) HDR lab	HDR
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Jennifer Becker	Jennifer Becker	NYSDEC Canton Cleaners
Company: HDR Inc	P. O. # 147-228506	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address: One International Blvd	Analysis Turnaround Time: Standard ☒	
City: Mahwah State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845-664-5218 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride / Sulfate	TAL Metals (filtered)	TOC	TCL 8260 VOCs	TSS	TDS + Alkalinity	LAB USE ONLY Project No: / Job No: / Sample Numbers
MW-1	02/13/15	0810	WG	8	1	1	1	3	1	1	
PZ-1	02/13/15	0840	WG	8	1	1	1	3	1	1	
PZ-2	02/13/15	0900	WG	8	1	1	1	3	1	1	
PZ-3	02/13/15	0930	WG	8	1	1	1	3	1	1	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:
6 = Other _____, 7 = Other _____ — Water: — 4 3 2 — —

Special Instructions Sodium Permanganate in samples* Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
Jennifer Becker	HDR Inc.	02/13/15	1) Test America	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

HamptonClarke-Veritech Laboratories

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

HC·V HamptonClarke Veritech WBE/DBE/SBE 800.426.9992

A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only)

Page 1 of 1

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	Excel - NY Regulatory
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	Full / Category B	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other: Standard		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: HDR Inc.
Address: One International Blvd
Mahwah, NJ 07495
1b) Email/Cell/Fax/Ph: demetrios.klerides@hdrinc.com
1c) Send Invoice to: "
1d) Send Report to: "

Project Information

2a) Project: NMSDSC Laundry Cleaners
2b) Project Mgr: Demetrios Klerides
2c) Project Location (City/State): Huntington, NY
2d) Quote/PO # (If Applicable): 147-27806

FOR LAB USE ONLY ↓

Batch #

Check If Contingent ===>

Matrix Codes

DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	Chloride/ Sulfate	TAL for Metals + Hg	TOX	TCL for VOCs	TSS	TDS + Alkalinity	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
	PZ-1	WG	2/19/15	0915		G	1	1	1	3	1	1	3				3	1	1		Sodium permanganate
	PZ-3	WG	2/19/15	0941		G	1	1	1	3	1	1	3				3	1	1		may be present in samples

10) Relinquished by:	Accepted by:	Date	Time
Jennifer Becker		2/20/15	900

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:

- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:

- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.

A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

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Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Becker	Samplers Name (Printed) Jennifer Becker	Site/Project Identification NYSDEC Canty Cleaners
Company HDR Inc.	P. O. # 147-228526	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address One International Blvd	Analysis Turnaround Time: Standard ☒	LAB USE ONLY Project No:
City Mahwah State NY	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No:
Phone 845-664-5718 Fax		

ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride / Sulfate	TAL Metals w/o Hg	TOC	TCL for VOCs	TSS	TDS+Alkalinity						Sample Numbers
IW-1	02/26/15	1050	WG	8	1	1	1	3	1	1						
PZ-3	02/26/15	1135	WG	8	1	1	1	3	1	1						

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

Soil:													
Water:	—	4	3	2	—	—							

Special Instructions Sodium Permanganate may be present in samples*

Water Metals Filtered (Yes/No)? —

Relinquished by	Company	Date / Time	Received by	Company
Jennifer Becker	HDR Inc	2/26/15 | 1430	1)	
Relinquished by 2)	Company	Date / Time |	Received by 2)	Company
Relinquished by 3)	Company	Date / Time |	Received by 3)	Company
Relinquished by 4)	Company	Date / Time |	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

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Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Jennifer Becker	Jen Becker	NYSDEC Century Cleaners
Company: HDR Inc.	P. O. # 147-278506-003	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address: One International Blvd	Analysis Turnaround Time: Standard ☒	
City: Mahwah State: NY	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845-664-5218 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride/ Sulfate	TAL Metals w/o Hg	TOC	Tot. Cr VOCs	TSS	TDS + Alkalinity						LAB USE ONLY Sample Numbers
					ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)											
IW-1	3/6/15	1030	WG	8	1	1	1	3	1	1						
PZ-1	3/6/15	1055	WG	8	1	1	1	3	1	1						
PZ-2	3/6/15	1130	WG	8	1	1	1	3	1	1						
PZ-3	3/6/15	1210	WG	8	1	1	1	3	1	1						

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:																
Water:	-	4	3	3	-	-										

Special Instructions * May Contain Sodium Permanganate

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) Jen Becker	HDR Inc.	3/6/15 1500	1)	
2)			2)	
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTOD

460-93827 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice) Jennifer Beeker/Demetrios Kleides *	Samplers Name (Printed) Jennifer Beeker	Site/Project Identification County Cleaners
Company HDR	P. O. # 147-278506	State (Location of site): NJ: ☐ NY: ☑ Other:
Address 1 International Blvd. Floor 10	Analysis Turnaround Time: Standard ☑	Regulatory Program:
City Mahwah State NJ	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 201-335-9663 Fax		Job No: 93827

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TSS	TDS	TAL Metals w/o Hg	Alkalinity	TOC	Chloride/Sulfate	TCL for VOCs					Sample Numbers
IW-1	4/23/15	0730	WG		1	1	1	1	1	1	3					-1
PZ-1		0900	WG		1	1	1	1	1	1	3					-2
PZ-2		0930	WG		1	1	1	1	1	1	3					-3
PZ-3		1000	WG		1	1	1	1	1	1	3					-4
MW-4S		1050	WG		1	1	1	1	1	1	3					-5
MW-2S		1110	WG		1	1	1	1	1	1	3					-6
MW-3S		1210	WG		1	1	1	1	1	1	3					-7
TB-20150423	4/23/15	—	WQ		0	—	—	—	—	—	2					Trip Blank -8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

Soil:																
Water:	X	X	4	X	3	X	2									

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by 1) Jen Beeker	Company HDR	Date / Time 1515 / 4/23/15	Received by 1) Albert Kennedy	Company FTS
Relinquished by 2) Albert Kennedy	Company FTS	Date / Time 4/24/15 / 1718	Received by 2) Jim Lowe (Fedex)	Company FTS 4/25/15 1100
Relinquished by 3)	Company	Date / Time	Received by 3) Cs# 125846 125847	Company IRS 2.1/4.1 °C 3.2/5.2 °C
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0408)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039949

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausamann	Site Contact: Ed Brandt	Date: 9/12/14	COC No:
Company Name: NYSDEC Division of Env. Remediation 12J	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address:	Analysis Turnaround Time			Sampler: E. Brandt
City/State/Zip: Albany, NY 12233 Broadway 12th Floor	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 518-402-9814	TAT if different from Below ☑ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — standard TAT			Walk-in Client:
Fax:				Lab Sampling:
Project Name: NYSDEC AFPSI				Job / SDG No.:
Site: AFPSI, Greece, NY				
P O #				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOC	SVOC	TAL METALS	PCBs	Sample Specific Notes:
HDR-TP002-10-13-20140910	9/10/14	1500	G	S	4			1		1		
HDR-TP-002-14-20140910	9/10/14	1510	G	S	4			1		1		
HDR-TP-004-2-20140911	9/11/14	1350	G	S	3				1	1	1	
HDR-TP-002-1-3-20140912	9/12/14	0900	G	S	1						1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
Please CC Mike Musso with Sample Results: michael.musso@hdrinc.com

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: 314738 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company: HDR	Date/Time: 9/12/14 1415	Received by:	Company: TAB	Date/Time: 9/12/14 @ 1415
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039988

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausamann	Site Contact: E. Brandt	Date: 9/18/14	COC No:
Company Name: NYSDEC Div. of Env. Rem	Tel/Fax:	Lab Contact:	Carrier:	1 of 2 COCs
Address: 625 Broadway, FL 12.	Analysis Turnaround Time			Sampler:
City/State/Zip: Albany, NY 12233	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 518-408-9814	TAT if different from Below Std.			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NYSDEC AFP51	☐ 1 week			
Site: AFP51, Sterce, NY	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	VOC Select TAL	SVOC 8270 TAL	TAL METALS Diss	PCB PEST.	Sample Specific Notes:
HDR-GP011-0-3-20140918	9/18/14	0810	G	S	5	N	N	1	1	1	1	1	
HDR-DUPE2-20140918		0810	G	S	4	N	N	1	1	1	1	1	
HDR-GP01-5-20140918		0835	G	S	4	N	N	1	1	1	1	1	
HDR-GP011-10-20140918		0855	G	S	4	N	N	1	1	1	1	1	
HDR-GP011-15-20140918		0910		S	4	N	N	1	1	1	1	1	
HDR-GP011-GW-20140918		0935		GW	13	N	Y	1	1	1	1	1	MS/MSD VOC ONLY. Low vol
HDR-GP012-7-20140918		1045		S	1	N	N	1					
HDR-GP012-10-20140918		1050		S	1	N	N	1					
HDR-GP012-GW-20140918		1220		GW	5	N	N	1	1	1			Low Volume.
HDR-GP013-6-20140918		1255		S	4	N	N	1	1	1	1	1	
HDR-GP013-GW-20140918		1340		GW	5	N		1	1	1			Low Volume
HDR-GP014-2-20140918	↓	1425	↓	S	1	N	N	1					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Please cc Mike Musso on Results: michael.musso@hdrinc.com. Low Sample Volume at most locations.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	9/19/14 1045	[signature]	TA	9-19-14 1045
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039989

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausamann	Site Contact: E. Brandt	Date: 9/18/14	COC No:
Company Name: NYSDEC Div. of Env. Rem	Tel/Fax:	Lab Contact:	Carrier:	2 of 2 COCs
Address: 625 Broadway, 12th Floor	Analysis Turnaround Time			Sampler:
City/State/Zip: Albany, NY 12233	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 518-402-9814	TAT if different from Below Std.			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NYSDEC AFPS1	☐ 1 week			Job / SDG No.:
Site: AFPS1, Greece, NY	☐ 2 days			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260 VOC TAL	8270 SVOC TAL	TAL Metals - Dissolved	PCB	PEST	Sample Specific Notes:
HDR-GP014-GW-20140918	9/18/14	1500	G	GW	3	N	N	1					
HDR-GP013-GW-20140918		1515			7	N	Y		1	1	1	1	MS/MSD volume included
HDR-GP013-GW-20140918MS		1515			7	N	N		1	1	1	1	
HDR-GP013-GW-20140918MSD		1515			7	N	N		1	1	1	1	
HDR-GP011-GW-20140919	9/19/14	0825	G	GW	3	N	N	1					
HDR-SS02-0-1-20140919		0925	G	S	6	N	Y	1	1	1	1	1	MS/MSD VOC only.
HDR-SS01-0-1-20140919		1000	G	S	4	N	N	1	1	1	1	1	
HDR-DUPE3-20140919		1000	G	S	1	N	N	1					

VOC
5-19-14

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Please cc Mike Musso on Sample Results: michael.musso@hdrinc.com.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	HDR	9/19/14 1645		TA	9-19-14 1645
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039985

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausamann	Site Contact: E. Bronckt	Date: 9/16/14	COC No: 3
Company Name: NYSDEC DIV. of Env. Rem	Tel/Fax:	Lab Contact:	Carrier:	1 of 3 COCs
Address: 625 Broadway, 12th Floor	Analysis Turnaround Time			Sampler:
City/State/Zip: Albany, NY 12233	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 518-402-9814	TAT if different from Below STD			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NYSDEC - AFP51	☐ 1 week			
Site: AFP51, Greece, NY	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOC	SVOC	TAL METALS	PCB	Pest/Arost (TCL)	Pest	Sample Specific Notes:
HDR-B001-18-19-20140915	9/15/14	1230	G	S	4	N	N	1	1	1	1			
HDR-GP001-GW-20140915		1405	G	GW	3	N	N	1						
HDR-GP002-20-20140915		1510	G	S	1	N	N	1						
HDR-GP002-GW-20140915		1570	G	GW	3	N	N	1						
HDR-GP003-27-20140915		1615	G	S	1	N	N	1						
HDR-GP003-GW-20140916	9/16/14	0815	G	GW	10	N	N	1	1	1	1		1	
HDR-DUPE1-GW-20140916		0815	G	GW	10	N	N	1	1	1	1		1	
HDR-GP004-7-20140916		0905	G	S	1	N	N	1						
HDR-GP004-25-20140916		0955	G	S	1	N	N	1						
HDR-GP004-GW-20140916		1005	G	GW	3	N	N	1						
HDR-GP005-13-20140916		1100	G	S	3	N	Y	1						MS/MSD volume
HDR-GP005-25-20140916		1130	G	S	1	N	N	1						

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Please CC Mike Musso w/ Results: michael.musso@hdrinc.com

Custody Seals Intact: ☑ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	9/17/14 1515	[signature]	TAB	9/17/14 1515
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039986

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausmann	Site Contact: E. Brandt	Date: 9/16/14	COC No:
Company Name: NYSDEC Div. of Env. Rem.	Tel/Fax:	Lab Contact:	Carrier:	2 of 3 COCs
Address: 625 Broadway, 12TH Floor	Analysis Turnaround Time			Sampler:
City/State/Zip: Albany, NY 12233	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 518-402-9814	TAT if different from Below STD			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NYSDEC AFPS1	☐ 1 week			
Site: AFPS1, Greece, NY	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOC	SVOC	TAL Metals	PCB	PEST	Sample Specific Notes:
HDR-GP005-GW-20140916	9/16/14	1135	G	GW	3	N	N	1					
HDR-GP006-12-20140916		1315		S	1	N	Y	1					MS/MSD (2)
HDR-GP006-25-20140916		1340		S	1	N	N	1					
HDR-GP006-GW-20140916		1345		GW	3	N	Y	1					
HDR-GP007-2-20140916		1415		S	12	N	Y	1	1	1	1		MS/MSD (NO VOA)
HDR-GP007-12-20140916		1445		S	1	N	N	1					
HDR-GP007-26-20140916		1515		S	1	N	N	1					
HDR-GP007-GW-20140916		1520		GW	3	N	N	1					
HDR-GP008-23-20140917	9/17/14	0845		S	1	N	N	1					
HDR-GP008-GW-20140917		0915		GW	18	N	Y	1	1	1	1	1	
HDR-GP009-9-20140917		1000		S	1	N	N	1					
HDR-GP009-18-20140917		1015		S	1	N	N	1					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Please Cc. Mike Musso w/Sample Results: michael.musso@hdrinc.com.

Custody Seals Intact: ☑ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	9/17/14 1515	[signature]	TAB	9/17/14 @ 1515
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

039987

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Eric Hausenauer	Site Contact: Ed Brandt	Date: 9/17/14	COC No: 2 of 3 COCs
Company Name: NYSDEC Div. Env. Rem	Tel/Fax:	Lab Contact:	Carrier:	Sampler:
Address: 625 Broadway, 42nd floor	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: Albany, NY 12233	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 518-402-9814	TAT if different from Below ____			Lab Sampling:
Fax:	☐ 2 weeks			Job / SDG No.:
Project Name: NYSDEC AFPS1	☐ 1 week			
Site: AFPS1, Greece, NY	☐ 2 days			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOC	SVOC	TAL Metals	PCB	Pest	Sample Specific Notes:
HDR-GP009-GW-20140917	9/17/14	1105	G	GW	3	N	N	1					
HDR-GP010-2-20140917	"	1200	G	S	4	N	N	1	1	1	1		
HDR-GP010-10-20140917		1210		S	1	N	N	1					
HDR-GP010-15-20140917		1225		S	1	N	N	1					
HDR-GP010-GW-20140917	↓	1240	↓	GW	10	N	N	1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Please cc Mike Musso w/ Results: michael.musso@hdrinc.com

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	HDR	9/17/14 1515	[signature]	TEB	9/17/14 1515
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DEMETRIOS KLEKIDES	F. BRANDT & K. HAYDEN	NYSDEC COUNTRY CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC CAT B/B&S as cited PM
Address: 1 INTERNATIONAL BLVD, FLOOR 10	Analysis Turnaround Time: Standard ☒	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260	TAL Metals									LAB USE ONLY Project No: / Job No: / Sample Numbers
~~MW-1S~~ MW-1S-73-GW-20141118	11/18/14	1520	GW	4	X	X									
MW-1D-103-GW-20141118	11/18/14	1600	GW	4	X	X									
MW-55-45-GW-20141119	11/19/14	1200	GW	4	X	X									
TB-20141119	11/19/14	1205	GW	4	X	X									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:															
6 = Other _____, 7 = Other _____ — Water:					2	4									

Special Instructions please call PM w/ any questions.

Water Metals Filtered (Yes/No)? call PM

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/19/14 1215	1)	TA
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DENTSPLY KLORIDS	E. BLANDT + K. HAIDER	NYSDEC CANNON CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC, EQUIS, PDF, call PM
Address: 1 INTERNATIONAL BLVD floor 10	Analysis Turnaround Time: Standard ☒	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260 (TCL + MTBE)	8270 (TCL + MTBE)									LAB USE ONLY Sample Numbers
MW-5D-65-GW-20141119	11/19/14	1400	GW	4	X	X									
MW-8S-45-GW-20141119		1543		4	X	X									
MW-8D-80-GW-20141119		1604		4	X	X									
MW-2D-89-GW-20141120	11/20/14	0845		4	X	X									
MW-2-62-GW-20141120	11/20/14	1030		4	X	X									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:															
6 = Other _____, 7 = Other _____ — Water:					3	4									

Job No:

Special Instructions call PM w/ any Questions.

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	HDR	11/20/14 1200	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
DEMETRIOS KIDRIDES	E. BRANDT + K. HAYDEN	NYSDEC COUNTRY CLEANERS
Company: HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☑ Other:
		Regulatory Program: NYSDEC, SDWTC.
Address: 1 INTERNATIONAL BLVD, FL 10	Analysis Turnaround Time: Standard ☑	
City: MAHWAH State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 201.335.9300 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	6010C METALS	PCL	TDS	TSS	CHLORIDE (SM4500)						LAB USE ONLY Sample Numbers
MW-1-66-GW-20141121	11/21/14	1210	GW	8	X	X	X	X	X	X						
PZ-1-66-GW-20141121	11/21/14	1225	GW	8	X	X	X	X	X	X						
MW-3S-54-GW-20141120	11/20/14	1435	GW	8	X	X	X	X	X	X						
MW-3D-88-GW-20141120	11/20/14	1240	GW	4	X	X										
MW-4S-66-GW-20141121	11/21/14	0940	GW	8	X	X	X	X	X	X						
MW-7D-88-GW-20141120	11/20/14	1300	GW	4	X	X										
MW-9D-90-GW-20141121	11/21/14	0900	GW	4	X	X										
MW-3S-59-GW-20141120	11/20/14	1310	GW	8	X	X	X	X	X	X						
TB-20141121	11/21/14	1245	GW	3	X											

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:														
Water:	2	4	3											

Special Instructions Call Pm w/ any questions. Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/21/14 1230	1)	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) DEMETRIOS KLERIDES	Samplers Name (Printed) E. BRANDT & K. HAMDEN	Site/Project Identification NYSDEC COUNTRY CLEANERS
Company HDR, INC.	P. O. #	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC, EQUIS
Address 1 INTERNATIONAL BLVD 10TH FL	Analysis Turnaround Time: Standard ☒	
City MAHWAH State NJ	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone 201.335.9300 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	6010C	CHROMIUM (DISSOLVED)	TSS	TDS	TPH					LAB USE ONLY Sample Numbers
MW-GS-80-GW-20141121	11/21/14	1900	GW	8	X	X	X	X	X	X					
PZ-2-66-GW-20141121	11/21/14	1605	GW	8	X	X	X	X	X	X					
PZ-3-66-GW-20141121	11/21/14	1515	GW	8	X	X	X	X	X	X					
PZ-99-66-GW-20141121	11/21/14	1515	GW	8	X	X	X	X	X	X					

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

	8260C	6010C	CHROMIUM (DISSOLVED)	TSS	TDS	TPH					
Soil:											
Water:	2	4				3					

Special Instructions Please call PM w/ any questions

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
	HDR	11/21/14 2145	1) HDR lab	HDR
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Jennifer Becker	Jennifer Becker	NYSDEC Canton Cleaners
Company: HDR Inc	P. O. # 147-228506	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address: One International Blvd	Analysis Turnaround Time: Standard ☒	
City: Mahwah State: NJ	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845-664-5218 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride / Sulfate	TAL Metals (filtered)	TOC	TCL 8260 VOCs	TSS	TDS + Alkalinity	LAB USE ONLY Project No: / Job No: / Sample Numbers
MW-1	02/13/15	0810	WG	8	1	1	1	3	1	1	
PZ-1	02/13/15	0840	WG	8	1	1	1	3	1	1	
PZ-2	02/13/15	0900	WG	8	1	1	1	3	1	1	
PZ-3	02/13/15	0930	WG	8	1	1	1	3	1	1	

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil:
6 = Other _____, 7 = Other _____ — Water: — 4 3 2 — —

Special Instructions Sodium Permanganate in samples* Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
Jennifer Becker	HDR Inc.	02/13/15	1) Test America	
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

HamptonClarke-Veritech Laboratories

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

HC·V HamptonClarke Veritech WBE/DBE/SBE 800.426.9992

A Women-Owned, Disadvantaged, Small Business Enterprise

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

CHAIN OF CUSTODY RECORD

Project # (Lab Use Only)

Page 1 of 1

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	Excel - NY Regulatory
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	Full / Category B	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other: Standard		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: HDR Inc.
Address: One International Blvd
Mahwah, NJ 07495
1b) Email/Cell/Fax/Ph: demetrios.klerides@hdrinc.com
1c) Send Invoice to: "
1d) Send Report to: "

Project Information

2a) Project: NMSDSC Laundry Cleaners
2b) Project Mgr: Demetrios Klerides
2c) Project Location (City/State): Huntington, NY
2d) Quote/PO # (If Applicable): 147-27806

FOR LAB USE ONLY ↓

Batch #

Check If Contingent ===>

Matrix Codes

DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	Chloride/ Sulfate	TAL for Metals + Hg	TOX	TCL for VOCs	TSS	TDS + Alkalinity	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
	PZ-1	WG	2/19/15	0915		G	1	1	1	3	1	1	3				3	1	1		Sodium permanganate
	PZ-3	WG	2/19/15	0941		G	1	1	1	3	1	1	3				3	1	1		may be present in samples

10) Relinquished by:	Accepted by:	Date	Time
Jennifer Becker		2/20/15	900

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:

- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:

- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.

A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Jennifer Becker	Samplers Name (Printed) Jennifer Becker	Site/Project Identification NYSDEC Canty Cleaners
Company HDR Inc.	P. O. # 147-228526	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address One International Blvd	Analysis Turnaround Time: Standard ☒	LAB USE ONLY Project No:
City Mahwah State NY	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	Job No:
Phone 845-664-5718 Fax		

ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride / Sulfate	TAL Metals w/o Hg	TOC	TCL for VOCs	TSS	TDS+Alkalinity						Sample Numbers
IW-1	02/26/15	1050	WG	8	1	1	1	3	1	1						
PZ-3	02/26/15	1135	WG	8	1	1	1	3	1	1						

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

Soil:													
Water:	—	4	3	2	—	—							

Special Instructions Sodium Permanganate may be present in samples*

Water Metals Filtered (Yes/No)? —

Relinquished by	Company	Date / Time	Received by	Company
Jennifer Becker	HDR Inc	2/26/15 | 1430	1)	
Relinquished by 2)	Company	Date / Time |	Received by 2)	Company
Relinquished by 3)	Company	Date / Time |	Received by 3)	Company
Relinquished by 4)	Company	Date / Time |	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Jennifer Becker	Jen Becker	NYSDEC Century Cleaners
Company: HDR Inc.	P. O. # 147-278506-003	State (Location of site): NJ: ☐ NY: ☒ Other:
		Regulatory Program: NYSDEC
Address: One International Blvd	Analysis Turnaround Time: Standard ☒	
City: Mahwah State: NY	Rush Chrages Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845-664-5218 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	Chloride/ Sulfate	TAL Metals w/o Hg	TOC	Tot. Cr VOCs	TSS	TDS + Alkalinity						LAB USE ONLY Sample Numbers
					ANALYSIS REQUESTED (ENTER "X: BELOW TO INDICATE REQUEST)											
IW-1	3/6/15	1030	WG	8	1	1	1	3	1	1						
PZ-1	3/6/15	1055	WG	8	1	1	1	3	1	1						
PZ-2	3/6/15	1130	WG	8	1	1	1	3	1	1						
PZ-3	3/6/15	1210	WG	8	1	1	1	3	1	1						

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:																
Water:	-	4	3	3	-	-										

Special Instructions * May Contain Sodium Permanganate

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1) Jen Becker	HDR Inc.	3/6/15 1500	1)	
2)			2)	
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0408)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTOD

460-93827 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice) Jennifer Beeker/Demetrios Kleides *	Samplers Name (Printed) Jennifer Beeker	Site/Project Identification County Cleaners
Company HDR	P. O. # 147-278506	State (Location of site): NJ: ☐ NY: ☑ Other:
Address 1 International Blvd. Floor 10	Analysis Turnaround Time: Standard ☑	Regulatory Program:
City Mahwah State NJ	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone 201-335-9663 Fax		Job No: 93827

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TSS	TDS	TAL Metals w/o Hg	Alkalinity	TOC	Chloride/Sulfate	TCL for VOCs					Sample Numbers
IW-1	4/23/15	0730	WG		1	1	1	1	1	1	3					-1
PZ-1		0900	WG		1	1	1	1	1	1	3					-2
PZ-2		0930	WG		1	1	1	1	1	1	3					-3
PZ-3		1000	WG		1	1	1	1	1	1	3					-4
MW-4S		1050	WG		1	1	1	1	1	1	3					-5
MW-2S		1110	WG		1	1	1	1	1	1	3					-6
MW-3S		1210	WG		1	1	1	1	1	1	3					-7
TB-20150423	4/23/15	—	WQ		0	—	—	—	—	—	2					Trip Blank -8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____

Soil:																
Water:	X	X	4	X	3	X	2									

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by 1) Jen Beeker	Company HDR	Date / Time 1515 / 4/23/15	Received by 1) Albert Kennedy	Company FTS
Relinquished by 2) Albert Kennedy	Company FTS	Date / Time 4/24/15 / 1718	Received by 2) Jim Lowe (Fedex)	Company FTS 4/25/15 1100
Relinquished by 3)	Company	Date / Time	Received by 3) Cs# 125846 125847	Company IRS 2.1/4.1 °C 3.2/5.2 °C
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0408)

Massachusetts (M-NJ312), North Carolina (No. 578)

Appendix E

INTEX
Environmental Group, Inc.

February 10, 2015

INTEX Project # 1460

HDR
500 Seventh Avenue
New York, NY 10018

RE: Summary Report, ISCO Site remediation
Country Cleaner Site, Facility ID 1-52-187

Attn. Demetrios Klerides, P.E.

DESCRIPTION OF ACTIVITIES

This report describes the In-Situ Chemical Oxidation Pilot Study (ISCO) at the Former Country Cleaners Site State Superfund Site, 410 West Main St., Huntington, NY (Figure 1). INTEX Environmental Group, Inc., (INTEX) conducted an ISCO Pilot Study, utilizing sodium permanganate as the principal oxidant for in-situ chemical oxidation at the site. The volume of oxidant injected was 3,000 gallons of 10% sodium permanganate (NaMnO4). Figure 2 provides a site diagram showing the existing site conditions, location of the injection well and the observation and monitoring wells. The location of the staging area, decontamination area and support zone were within the area designated as " area available for performing the work" in Figure 2. The spill containment area and chemical storage area were staged in a lined, steel storage container. 40% NaMnO4 was diluted on site with potable water to provide the 10% solution. A Class V Underground Injection Control Remediation Well Permit was issued by USEPA, Region II and is presented in Appendix 1.

The primary equipment for this project consisted of the injection manifold and injection pumps, the mixing tanks and pumps and the power supplies. The equipment for the mixing of the ISCO solutions and subsurface injection consisted of the following:

1. Two 250 gallon cross-linked polyethylene chemical resistant mixing tank
2. chemical-resistant distribution manifold and hoses
3. spill containment skid
4. air powered chemical-resistant double diaphragm pump
5. stainless steel injection point manifold
6. 165 cfm air compressor
7. Electric Generator, 8 kw.

The chemically resistant distribution manifold and air operated double diaphragm pump were mounted on the spill containment skid. All components of the mixing and injection system were compatible with NaMnO4 in the concentration being used in this project. Volummetric markings on the mixing containers were used to measure and record the injected volumes. From the spill containment skid location all pumping and distribution of ISCO solutions was controlled through the use of manual ball valves and an air pressure regulator.

SUMMARY OF RESULTS

The chemical storage container was received on-site by INTEX on 1/30/2015, lined with an impermeable membrane, and the stock solution of 40% NaMnO4 was recieved and securely stored in the placarded containment enclosure. INTEX mobilized to the site and injections were conducted from 2/2/2015 through 2/5/2015 on a 10 hour day work schedule. Final site conditions were assessed on 2/6/2015 and the storage container was removed from the site. It was not necessary to pressure-inject into the 60-foot deep injection well as the static head in the well casing provided adequate pressure to move the chemical oxidant into the subsurface formation. There was no evidence of breakout in the area of the injection well or any down gradient locations. The rate of injection was initially 0.5 gallons per minute and was gradually increased to the target pumping rate of 2.5 gallons per minute. The injection head pressure and temperature were monitored continuously during injection.

The summary of injection volume and schedules is provided in Table 1. Field data sheets are provided in Appendix 2. All groundwater monitoring was conducted and recorded by HDR oversight personnel.

If you have any questions or comments, please contact us.

Sincerely,
INTEX Environmental Group, Inc.



Daniel J. FitzGerald, V.P.

Enclosures
c: Joseph T. Jacobsen, Ph.D.

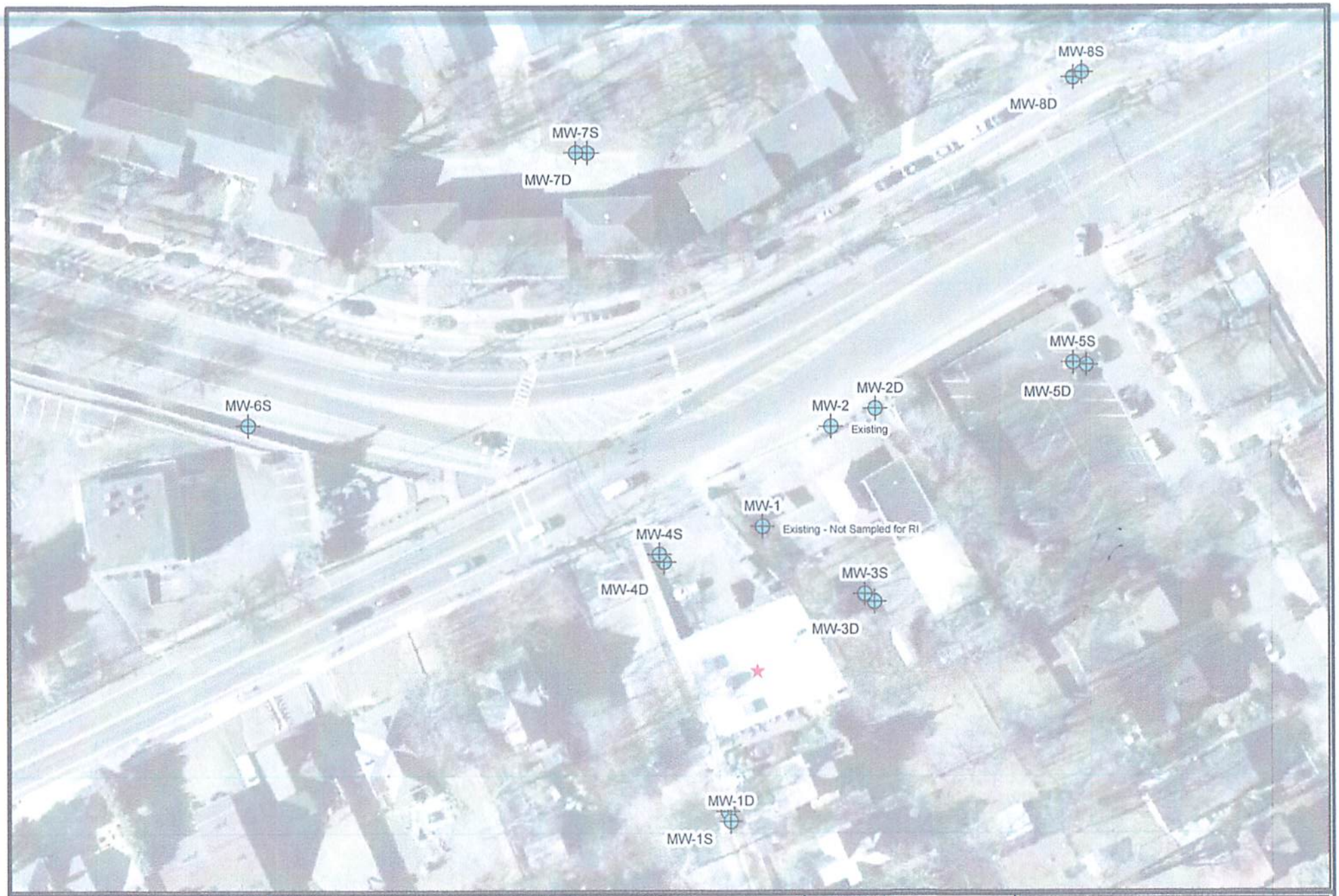
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TABLE 1
SUMMARY OF INJECTIONS - 15 MINUTE INTERVALS

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HUNTINGTON, NY MIX/INJECTION TREATMENT OF IW-1									
Date	Start	End	Injection Pressure	Temp	Total Volume (L)	40%NaMnO4 (L)	H_20 (L)	10% NaMnO4 (L)	Inject/Mix
2/2/2015	10:30	11:30		Ambient		194	806	1000	Mix
	11:18	11:33	0	Ambient	450			1000	Inject
	11:34	11:49		Ambient	550				Inject
	12:40	13:20		Ambient		194	806	1000	Mix
	14:03	14:18	0	Ambient	350			1000	Inject
2/3/2015	14:19	14:34		Ambient	420				Inject
	14:35	14:50		Ambient	230				Inject
	14:49	15:50		Ambient		194	806	1000	Mix
	15:51	16:06	0	Ambient	330			1000	Inject
	16:07	16:22		Ambient	400				Inject
	16:23	16:38		Ambient	270				Inject
	8:30	9:10		Ambient		194	806	1000	Mix
	12:01	12:16	0	Ambient	500			1000	Inject
	12:17	12:32		Ambient	500				Inject
	9:10	9:55		Ambient		194	806	1000	Mix
	11:20	11:35	0	Ambient	500			1000	Inject
	11:36	11:51		Ambient	410				Inject
	11:52	12:07		Ambient	90				Inject
	10:00	11:35		Ambient		194	806	1000	Mix
2/4/2015	10:42	10:57	0	Ambient	500			1000	Inject
	10:57	11:12		Ambient	500				Inject
	12:35	13:07		Ambient		194	806	1000	Mix
	14:07	14:22	0	Ambient	550			1000	Inject
	14:23	14:38		Ambient	450				Inject
	13:07	13:37		Ambient		194	806	1000	Mix
	14:55	15:10	0	Ambient	625			1000	Inject
	15:11	15:26		Ambient	375				Inject
	13:37	14:07		Ambient		194	806	1000	Mix
	15:30	15:45	0	Ambient	500			1000	Inject
	15:45	16:00		Ambient	500				Inject
	8:42	9:15		Ambient		194	806	1000	Mix
	9:40	9:55	0	Ambient	450			1000	Inject
	9:56	10:11		Ambient	550				Inject
	9:15	9:40		Ambient		194	806	1000	Mix
2/5/2015	10:17	10:32	0	Ambient	500			1000	Inject
	10:33	10:48		Ambient	500				Inject
	11:40	12:09		Ambient		74	307	381	Mix
	12:09	12:45	0	Ambient	381			381	Inject
	LAST TANKS WASHED ON TOP OF MIX = 500 LITERS AROUND 800 LITERS TOTAL								

11,381.00 liters
3,004.58 gallons



NYSDEC Site No. 152187
Country Cleaners
Huntington, New York

0 17.5 35 70
Feet

Permanent Monitoring Well

Site

Prepared for:

Prepared by:
AECOM

Figure 1
Site Diagram

(Drawing provided by others)



NYSDEC Site No. 152187
Country Cleaners
Huntington, New York
0 7.5 15 30 Feet

Treatment System
Extraction Wells
Injection Wells
Approximate Groundwater Flow Direction
Pipes
Site

Design assumes the Town of Huntington will permit a connection to the nearest stormwater catch basin. Approval is required during pre-design.

Prepared for:

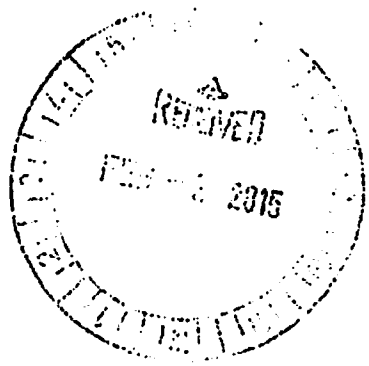
Prepared by:
AECOM

Figure 2
Staging, Work and Decontamination Areas
(Drawing provided by others)

APPENDIX I
USEPA Well Permit

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JAN 2 9 2015



Daniel FitzGerald
INTEX Environmental Group, Inc.
6907A Easton Road
Pipersville, PA 18947

Re: Underground Injection Control (UIC) Program Regulation
former County Cleaners **(Reference UICID: 15NY10399010)**
410 West Main Street
Huntington, NY 11743
Suffolk County
Authorization to Inject

Dear Mr. FitzGerald:

This letter serves to inform you that the U.S. Environmental Protection Agency is in receipt of inventory information addressing wells authorized by rule located at the above-referenced facility in accordance with 40 Code of Federal Regulations (CFR) §144.26. The operation of one (1) Underground Injection Control aquifer remediation well to inject 3,000 gallons of a 40% sodium persulfate solution to remediate soil and groundwater contaminated with volitile organic chemicals at NYSDEC Spill Site #152187, is authorized by rule, pursuant to 40 CFR §144.24.

Should any conditions change in the operation of any of the wells listed above (such as injectate composition, closure of the well, injection of cooling water greater than 150 degrees Fahrenheit, construction of additional wells, etc.) you are required to notify this office within five (5) days. Any accidental spills into a well should be reported within twenty-four (24) hours after the event. Change in operation information should be addressed to:

Nicole Foley Kraft, Chief
Ground Water Compliance Section
United States Environmental Protection Agency
290 Broadway, 20th Floor
New York, NY 10007-1866
Re: 15NY10399010
Attn: Robert Ferri

Should you own or operate <u>other</u> facilities using underground injection wells, please use the enclosed inventory form (EPA Form 7520-16) and instructions, copy for multiple facilities, and submit them to the address listed above. These documents can also be found on the internet at:

http://www.epa.gov/safewater/uic/pdfs/7520-16.pdf
http://www.epa.gov/region02/water/compliance/supplemental_instructions_inventory.pdf
http://www.epa.gov/region02/water/compliance/wellclasstypetable_inventoryc_form

Failure to respond to this letter truthfully and accurately within the time provided may subject you to sanctions authorized by federal law. Please also note that all information submitted by you may be used in an administrative, civil judicial, or criminal action. In addition, making a knowing submission of materially false information to the U.S. Government may be a criminal offense.

Should you have any questions, please contact Robert Ferri of my staff at (212) 637-4227 or ferri.robert@epa.gov.

Sincerely,

Nicole Foley Kraft, Chief
Ground Water Compliance Section

Enclosure

cc: Bill Spitz,
NYSDEC, Region 1
SUNY Stony Brook, 50 Circle Rd
Stony Brook, NY 11790

Robert D. DeCandia
NYSDEC
625 Broadway
Albany, NY 12233

Walter Dawydiak, P.E.
Division of Environmental Quality,
Office of Pollution Control Suffolk County Dept. of Health
15 Horseblock Place
Farmingville, NY 11738

INSTRUCTIONS FOR COMPLETING
INVENTORY OF INJECTION WELLS
EPA FORM 7520-16 (Rev. 8-01)

SECTION 2. FACILITY ID NUMBER: Leave blank. EPA will assign an ID number.

SECTION 3. TRANSACTION TYPE: Check either First Time Entry or Entry Change. If this is the first time you have submitted this form for your injection wells(s), check First Time Entry and fill in all the appropriate information. If you are modifying information you sent in before, check Entry Change, fill in the Facility Name and Location and fill in the information that has changed. (Note: If the facility name has changed, in the blank space in the upper left hand corner write the prior facility name under which the form was first submitted, and the date it was submitted.)

SECTION 4. FACILITY NAME AND LOCATION: If you know the latitude and longitude of your facility, fill in line 4C and 4D. You do <u>not</u> need to fill in 4E, Township/Range. If you know the Numeric County Code, fill in line 4I, otherwise just write in the name of the County.

SECTION 5. LEGAL CONTACT: Under 5A, if the Legal Contact you are identifying owns the land, check Owner. If the Legal Contact owns and/or operates the business but someone else owns the land, check Operator. Under 5I, "Private" means privately owned. "Public" means owned by local/municipal government. "State" and Federal" mean owned by state/federal government.

SECTION 6. WELL INFORMATION: Under 6A CLASS AND TYPE, use the attached table "USEPA Region II List of Class V Injection Well Types" to determine the CLASS V "TYPE". Enter the appropriate Type Code in 6A (the Type Code does <u>not</u> have to fit within the two boxes on the Inventory Form). Select the Class V well type(s) that most accurately fit the well(s) at your facility. When reviewing the attached table and making your determination, be sure to consider all of the fluids entering the well or having the potential to enter the well. For example, Storm Water Drainage Wells located in industrial areas which are susceptible to spills, leaks or other chemical discharges are inventoried as Industrial Drainage Wells. If Cesspools and Septic Systems are receiving fluids other than sanitary waste (human excreta), that should be noted in the Additional Information below.

IMPORTANT: ADDITIONAL INFORMATION

In order to ensure that the Class V Well(s) at your facility are accurately inventoried you must also submit on a separate piece of paper: (1) a brief description characterizing your facility and the types of activities conducted; (2) a brief description of what you use each of your injection well(s) for; (3) a brief description of the types of fluids that enter, or have the potential to enter, each of your injection well(s). (Note: wells with the same information may be grouped).

If you require assistance, please contact EPA Region II at (212) 637-3093.

USEPA REGION II LIST OF
CLASS V INJECTION WELL TYPES

TYPE CODE	NAME	DESCRIPTION
	INDUSTRIAL/COMMERCIAL/UTILITY DISPOSAL WELLS	
5X28	MOTOR VEHICLE WASTE DISPOSAL WELLS	- wells that receive or have received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.
5W20	INDUSTRIAL PROCESS WATER & WASTE DISPOSAL WELLS	- used to dispose of a wide variety of wastes and wastewater from industrial, commercial, or utility processes. Industries include refineries, chemical plants, smelters, pharmaceutical plants, laundromats and dry cleaners, tanneries, carwashes, laboratories, funeral homes, etc. Specify industry and waste stream.
5A19	COOLING WATER RETURN FLOW WELLS	- used to inject water which was used in a cooling process.
	DRAINAGE WELLS	
5D4	INDUSTRIAL DRAINAGE WELL	- wells located in industrial areas which primarily receive storm water runoff but are susceptible to spills, leaks, or other chemical discharges.
5D2	STORM WATER DRAINAGE WELLS	- receive storm water runoff from paved areas, including parking lots, streets, residential subdivisions, building roofs, highways, etc.
5F1	AGRICULTURAL DRAINAGE WELLS	- receive irrigation tailwaters, other field drainage, animal yard, feedlot, or dairy runoff, etc.
5D3	IMPROVED SINKHOLES	- receive storm water runoff from developments located in karst topographic areas.
5G30	SPECIAL DRAINAGE WELLS	- used for disposing water from sources other than direct precipitation–such as landslide control drainage wells, potable water tank overflow drainage wells, swimming pool drainage wells, and lake level control drainage wells.

DOMESTIC WASTEWATER DISPOSAL WELLS		
5W9	UNTREATED SEWAGE WASTE DISPOSAL	- receive raw sewage wastes from pumping trucks or other vehicles which collect such wastes from single or multiple sources. (No treatment)
5W10	LARGE CAPACITY CESSPOOLS	- large capacity cesspools including multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes, containing human excreta, which have an open bottom and sometimes perforated sides. Includes non-residential cesspools which receive solely sanitary waste and have the capacity to serve greater than or equal to 20 persons a day. DOES NOT apply to single family residential cesspools.
5W11	SEPTIC SYSTEM (UNDIFFERENTIAT-ED DISPOSAL METHOD)	- used to inject the waste or effluent from a multiple dwelling, business establishment, community or regional business establishment septic tank to an undetermined final discharge point. Includes non-residential septic systems which receive solely sanitary waste and have the capacity to serve greater than or equal to 20 persons a day. DOES NOT apply to single family residential septic systems. (Primary Treatment)
5W31	SEPTIC SYSTEMS (WELL DISPOSAL METHOD)	- used to inject the waste or effluent from a multiple dwelling, business establishment, community or regional business establishment septic tank to a well-- examples of wells include dry wells, seepage pits, cavitettes, etc. The largest surface dimension is less than or equal to the depth dimension. Includes non-residential septic systems which receive solely sanitary waste and have the capacity to serve greater than or equal to 20 persons a day. DOES NOT apply to single family residential septic systems. (Primary Treatment)
5W32	SEPTIC SYSTEMS (DRAIN FIELD DISPOSAL METHOD)	- used to inject the waste or effluent from a multiple dwelling, business establishment , community or regional business establishment septic tank to a drainfield--examples of drainfields include drain or tile lines, and trenches. Includes non-residential septic systems which receive solely sanitary waste and have the capacity to serve greater than or equal to 20 persons a day. DOES NOT apply to single family residential septic systems. (Primary Treatment)
5W12	DOMESTIC WASTEWATER TREATMENT PLANT EFFLUENT DISPOSAL	- dispose of treated sewage or domestic effluent from small package plants up to large municipal treatment plants. Final discharge points may include drywells or leachfields. (Secondary or further treatment)

GEOTHERMAL REINJECTION WELLS		
5A5	ELECTRIC POWER REINJECTION WELLS	- reinject geothermal fluids used to generate electric power.
5A6	DIRECT HEAT REINJECTION WELLS	- reinject geothermal fluids used to provide heat for large buildings or developments.
5A7	HEAT/PUMP/AIR CONDITIONING RETURN FLOW WELLS	- reinject groundwater used to heat or cool a building in a heat pump system.
5A8	GROUNDWATER AQUACULTURE RETURN FLOW WELLS	- reinject groundwater or geothermal fluids used to support aquaculture. Non-geothermal aquaculture disposal wells are also included in this category (e.g., Marine aquariums in Hawaii use relatively cool sea water).
RECHARGE WELLS		
5R21	AQUIFER RECHARGE WELLS	- used to recharge depleted aquifers and may inject fluids from a variety of sources such as lakes, streams, domestic wastewater treatment plants, other aquifers, etc.
5B22	SALINE WATER INTRUSION BARRIER WELLS	- used to inject water into fresh water aquifers to prevent intrusion of salt water into fresh water aquifers.
5S23	SUBSIDENCE CONTROL WELLS	- used to inject fluids into a non-oil or gas producing zone to reduce or eliminate subsidence associated with overdraft of fresh water and not used for the purpose of oil or natural gas production.
OIL FIELD PRODUCTION WASTE DISPOSAL WELLS		
5X17	AIR SCRUBBER WASTE DISPOSAL WELLS	- inject waste from air scrubbers used to remove sulfur from crude oil which is burned in steam generation for thermal oil recovery projects. (If injection is used directly for enhanced recovery and not just disposal it is a Class II well.)
5X18	WATER SOFTENER REGENERATION BRINE DISPOSAL WELLS	- inject regeneration waste from water softeners which are used to improve the quality of brines used for enhanced recovery. (If injection is used directly for enhanced recovery and not just disposal it is a Class II well.)

MINERAL AND FOSSIL FUEL RECOVERY RELATED WELLS		
5X13	MINING, SAND, OR OTHER BACKFILL WELLS	- used to inject a mixture of water and sand, mill tailings, and other solids into mined out portions of subsurface mines whether what is injected is radioactive waste or not. Also includes special wells used to control mine fires and acid mine drainage wells.
5X14	SOLUTION MINING WELLS	- used for in situ solution mining in conventional mines, such as slopes leaching.
5X15	IN-SITU FOSSIL FUEL RECOVERY WELLS	- used for in situ recovery of coal, lignite, oil shale, and tar sands.
5X16	SPENT BRINE RETURN FLOW WELLS	- used to reinject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts.
MISCELLANEOUS WELLS		
5X25	EXPERIMENTAL TECHNOLOGY WELL	- wells used in experimental or unproven technologies such as pilot scale in situ solution mining wells in previously unmined areas.
5X26	AQUIFER REMEDIATION RELATED WELLS	- wells used to prevent, control, or remediate aquifer pollution, including but not limited to Superfund sites.
5X29	ABANDONED DRINKING WATER WELLS	- used for disposal of fluids. Specify well purpose and injected fluids.
5X27	OTHER WELLS	- any other unspecified Class V wells. Specify well type/purpose and injected fluids.

SOURCE: Prepared by EPA Region II. Based on 1987 *Report to Congress* on Class V Wells; and 40 C.F.R. §144.81.

May 11, 2004 (3:47pm)G:/Users/Share/DECADIV\DECA-WCB\GWCS\Well Class Type Table for Inventory Form6.wpd

Type or print all information. See reverse for instructions.

OMB No. 2040-0042 Approval Expires 11/30/2014

INVENTORY OF INJECTION WELLS

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF GROUND WATER AND DRINKING WATER

(This information is collected under the authority of the Safe Drinking Water Act)

1. DATE PREPARED (Year, Month, Day)	2. FACILITY ID NUMBER

PAPERWORK REDUCTION ACT NOTICE

The public reporting burden for this collection of information is estimated at about 0.5 hour per response including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, includingsuggestions for reducing this burden, Director, Collection Strategies Division (2822), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Management and Budget, Paperwork Reduction Project, Washington, DC20503.

3. TRANSACTION TYPE *(Please mark one of the following)*

☐ Deletion ☐ First Time Entry

☐ Entry Change ☐ Replacement

4. FACILITY NAME AND LOCATION

A. NAME (last, first, and middle initial)	C. LATITUDE	DEG	MIN	SEC

B. STREET ADDRESS/ROUTE NUMBER	D. LONGITUDE	DEG	MIN	SEC

E. TOWNSHIP/RANGE

TOWNSHIP	RANGE	SECT	1/4 SECT

F. CITY/TOWN	G. STATE	H. ZIP CODE	I. NUMERIC COUNTY CODE	J. INDIAN LAND (mark "x")
				☐ Yes ☐ No

5. LEGAL CONTACT:

A. TYPE (mark "x")	B. NAME (last, first, and middle initial)	C. PHONE (area code and number)
☐ Owner ☐ Operator		

D. ORGANIZATION	E. STREET/P.O. BOX	I. OWNERSHIP (mark "x")
		☐ PRIVATE ☐ PUBLIC ☐ SPECIFY OTHER

F. CITY/TOWN	G. STATE	H. ZIP CODE	
			☐ STATE ☐ FEDERAL _____

6. WELL INFORMATION:

A. CLASS AND TYPE	B. NUMBER OF WELLS		C. TOTAL NUMBER OF WELLS	D. WELL OPERATION STATUS				
	COMM	NON-COMM		UC	AC	TA	PA	AN
			0					
			0					
			0					
			0					
			0					
			0					
			0					

COMMENTS *(Optional)*:

KEY:

DEG = Degree
MIN = Minute
SEC = Second

SECT = Section
1/4 SECT = Quarter Section

COMM = Commercial
NON-COMM = Non-Commercial

AC = Active
UC = Under Construction
TA = Temporarily Abandoned
PA = Permanently Abandoned and Approved by State
AN = Permanently Abandoned and not Approved by State

SECTION 1. DATE PREPARED: Enter date in order of year, month, and day

SECTION 2. FACILITY ID NUMBER: In the first two spaces, insert the appropriate U.S. Postal Service State Code. In the third space, insert one of the following one letter alphabetic identifiers:

D - DUNS Number,
G - GSA Number, or
S - State Facility Number.

In the remaining spaces, insert the appropriate nine digit DUNS, GSA, or State Facility Number. For example, A Federal facility (GSA - 123456789) located in Virginia would be entered as : VAG123456789.

SECTION 3. TRANSACTION TYPE: Place an "x" in the applicable box. See below for further instructions.

Deletion. Fill in the Facility ID Number.
First Time Entry. Fill in all the appropriate information.
Entry Change. Fill in the Facility ID Number and the information that has changed.
Replacement.

SECTION 4. FACILITY NAME AND LOCATION:

A. **Name.** Fill in the facility's official or legal name.
B. **Street Address.** Self Explanatory.
C. **Latitude.** Enter the facility's latitude (all latitudes assume North Except for American Samoa)
D. **Longitude.** Enter the facility's longitude (all longitudes assume West except Guam).
E. **Township/Range.** Fill in the complete township and range. The first 3 spaces are numerical and the fourth is a letter (N,S,E,W) specifying a compass direction. A township is North or South of the baseline, and a range is East or West of the principal meridian (e.g., 132N, 343W).
F. **City/Town.** Self Explanatory.
G. **State.** Insert the U.S. Postal Service State abbreviation.
H. **Zip Code.** Insert the five digit zip code plus any extension.

SECTION 4. FACILITY NAME & LOCATION (CONT'D.):

I. **Numeric County Code.** Insert the numeric county code from the Federal Information Processing Standards Publication (FIPS Pub 6-1) June 15, 1970, U.S. Department of Commerce, National Bureau of Standards. For Alaska, use the Census Division Code developed by the U.S. Census Bureau.
J. **Indian Land.** Mark an "x" in the appropriate box (Yes or No) to indicate if the facility is located on Indian land.

SECTION 5. LEGAL CONTACT:

A. **Type.** Mark an "x" in the appropriate box to indicate the type of legal contact (Owner or Operator). For wells operated by lease, the operator is the legal contact.
B. **Name.** Self Explanatory.
C. **Phone.** Self Explanatory.
D. **Organization.** If the legal contact is an individual, give the name of the business organization to expedite mail distribution.
E. **Street/P.O. Box.** Self Explanatory.
F. **City/Town.** Self Explanatory.
G. **State.** Insert the U.S. Postal Service State abbreviation.
H. **Zip Code.** Insert the five digit zip code plus any extension.
I. **Ownership.** Place an "x" in the appropriate box to indicate ownership status.

SECTION 6. WELL INFORMATION:

A. **Class and Type.** Fill in the Class and Type of injection wells located at the listed facility. Use the most pertinent code (specified below) to accurately describe each type of injection well. For example, 2R for a Class II Enhanced Recovery Well, or 3M for a Class III Solution Mining Well, etc.
B. **Number of Commercial and Non-Commercial Wells.** Enter the total number of commercial and non-commercial wells for each Class/Type, as applicable.
C. **Total Number of Wells.** Enter the total number of injection wells for each specified Class/Type.
D. **Well Operation Status.** Enter the number of wells for each Class/Type under each operation status (see key on other side).

CLASS I Industrial, Municipal, and Radioactive Waste Disposal Wells used to inject waste below the lowermost Underground Source of Drinking Water (USDW).

TYPE	1I	Non-Hazardous Industrial Disposal Well.
	1M	Non-Hazardous Municipal Disposal Well.
	1H	Hazardous Waste Disposal Well injecting below the lowermost USDW.
	1R	Radioactive Waste Disposal Well
	1X	Other Class I Wells.

CLASS II Oil and Gas Production and Storage Related Injection Wells.

TYPE	2A	Annular Disposal Well.
	2D	Produced Fluid Disposal Well.
	2H	Hydrocarbon Storage Well.
	2R	Enhanced Recovery Well.
	2X	Other Class II Wells.

CLASS III Special Process Injection Wells.

TYPE	3G	*In Situ* Gasification Well
	3M	Solution Mining Well.

CLASS III (CONT'D.)

TYPE	3S	Sulfur Mining Well by Frasch Process.
	3T	Geothermal Well.
	3U	Uranium Mining Well.
	3X	Other Class III Wells.

CLASS IV Wells that inject hazardous waste into/above USDWs.

TYPE	4H	Hazardous Facility Injection Well.
	4R	Remediation Well at RCRA or CERCLA site.

CLASS V Any Underground Injection Well not included in Classes I through IV.

TYPE	5A	Industrial Well.
	5B	Beneficial Use Well.
	5C	Fluid Return Well.
	5D	Sewage Treatment Effluent Well.
	5E	Cesspools (non-domestic).
	5F	Septic Systems.
	5G	Experimental Technology Well.
	5H	Drainage Well.
	5I	Mine Backfill Well.
	5J	Waste Discharge Well.

APPENDIX II
Field Data Sheets

FIELD DATA SHEET

Site Name / Location: Huntington N.Y. L.I Date: 2/2/15 2/3/15

	Injection Points	Start Time	End Time	Injection Pressure	Temp.	Total Volume	40% NaMnO4 (gal.)	H2O (gal.)	10% NaMnO4 (gal.)	Depth	Comments
2/2/15		~~10:30~~	~~11:30~~			1000 Hrs	194	806	1000 Hrs	D.T.W. 61.40	INJECTION PIPE LOST
Mix		2:30	3:30								
2/3/15	IW-1	11:18		D	AMBIENT	1000 Hrs			500 Hrs		
			11:50						500 Hrs		
		12:40	13:20			1000 Hrs	194	SOL	1000 Hrs		
3/15	IW-1	14:03	14:49	D	Ambient				1000 Hrs		PL-1 color
		14:49	15:50	D		1000 Hrs	194	806	1000 Hrs		
2/3/15	IW-1	15:51	16:33	D	Ambient				1000 Hrs		

2 " WELL PURGE: 0.1632 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

4 " WELL PURGE: 0.6528 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

INTEX Environmental Group, Inc.

FIELD DATA SHEET

Site Name / Location: Huntington N.Y. LI. Date: 2/4/15

Injection Points	Start Time	End Time	Injection Pressure	Temp.	Total Volume	40% NaMnO4 (gal.)	H2O (gal.)	10% NaMnO4 (gal.)	Depth	Comments
	12:35	13:07			1000 Ltrs	194	806	1000 Ltrs		
IW-1	14:07	14:43	0	Ambient				1000 Ltrs		
	13:07	13:37			1000 Ltr	194	806 Ltr	1000 Ltrs		
IW-1	14:55	15:30	0	Ambient				1000 Ltrs		
	13:37	14:07			1000 Ltrs	194 Ltrs	806 Ltrs	1000 Ltrs		
IW-1	15:30	16:07	0	Ambient				1000 Ltrs		

2 " WELL PURGE: 0.1632 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

4 " WELL PURGE: 0.6528 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

INTEX Environmental Group, Inc.

FIELD DATA SHEET

Site Name / Location: Huntington NY L.I Date: 2/4/15

Injection Points	Start Time	End Time	Injection Pressure	Temp.	Total Volume	40% NaMnO4 (gal.)	H2O (gal.)	10% NaMnO4 (gal.)	Depth	Comments
	8:30	9:10			1000 Hrs	194	806	1000 Hrs		
IW-1	12:01	12:35	0	Ambient				1000 Hrs		
	9:10	9:55			1000 Hrs	194	806	1000 Hrs		
IW-1	11:20	12:00	0	Ambient				1000 Hrs		
IW-1	10:00	11:35			1000 Hrs	194	806	1000 Hrs		
IW-1	10:42	11:19	0	Ambient				1000 Hrs		

2 " WELL PURGE: 0.1632 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

4 " WELL PURGE: 0.6528 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

INTEX Environmental Group, Inc.

FIELD DATA SHEET

Site Name / Location: Huntington NY L.I Date: 2/5/15

Injection Points	Start Time	End Time	Injection Pressure	Temp.	Total Volume	40% NaMnO4 (gal.)	H2O (gal.)	10% NaMnO4 (gal.)	Depth	Comments
	8:42	9:15			1000 Ltrs	194 Ltrs	806 Ltrs	1000 Ltrs		
	9:40	10:16	0	Ambient						
	9:15	9 40			1000 Ltrs	194	806 Ltrs	1000 Ltrs		
	10:17	12:55	0	Ambient						
	11:40	12:09			351 Ltrs	74	307 Ltrs	381 Ltrs		
	12.09	12:45								
		LAST	TANK	WASHED	INTO	ON	TOP	OF	MW	≈ 500 Ltrs

2 " WELL PURGE: 0.1632 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

4 " WELL PURGE: 0.6528 X WATER COLUMN X 3 CASINGVOLUMES = PURGE VOL.

INTEX Environmental Group, Inc.

Appendix F

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: October 27, 2014

Day of Week: S [X] M T W T F S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	61	° F	66	° F

CONTRACTOR WORK HOURS: 0800 TO 1415

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Monday 27 October 2014, Associated Environmental Services, Inc. (AES) had a two man crew onsite to hand clear the four boring locations.

AES used a jackhammer, air compressor, air-knife, and portable Utili-Vac vacuum unit to clear the borings to a total of five feet below grade.

Four attempts were made at the PZ-2 Location to get to 5 feet below grade due to fill materials. During hand clearing, a remnant foundation wall was encountered approximately three feet below grade. Along side the foundation wall, a concrete boulder was encountered to the west, and a clay tile pipe was noted to the east.

The PZ borings are located in a radial pattern from IW-1.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON	1				Work Van		1			
LABORER	1				IR Air Compressor		1			
EQUIP. OPERATOR					Jackhammer		1			
TRUCK DRIVERS					Utili-Vac Unit		1			
IRONWORKERS					Air-Knife		1			
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1: AES	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: October 29, 2014

Day of Week: S | M | T | W | T | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Cloudy	
Temperature	60	° F	63	° F

CONTRACTOR WORK HOURS: 0800 TO 1720

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Wednesday 29 October 2014, Associated Environmental Services, Inc. (AES) had a two man crew onsite to Resume drilling and installation of IW and PZ wells.

AES used a Diedrich D120 Drill Rig for the drilling and installation of wells. AE delivered an additional 8 open top drums; currently, a total of 14 have been supplied by AE.

Resuming at the PZ-3 location, AES installed the PZ-3 well to a depth of 71 feet below grade. the well was constructed with a 10' long, 2 inch diameter, 0.020 inch slot Stainless Steel Well Screen, and 2 inch sch40 PVC riser pipe. #0 sand was added to make the sand pack to 59 feet below grade. A 2 foot seal of Bentonite Chips was added after the sand pack was installed. The remaining boring was backfilled with the cuttings from the drilling.

Drilling moved to the PZ-2 location - 10 feet north of IW-1. At the end of the day, the screen and riser was installed along with the sand pack and seal; construction of PZ-2 will resume in the morning of 10/30. The Screen was set at 70 feet below grade, construction consistent with IW-1 and PZ-3.

During the drilling, 3 additional Drums of cuttings have been generated and staged for disposal behind the Jim Dandy Cleaners Building. Currently, 10 Drums are staged for disposal.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON	1				Rack Truck		1			
LABORER	1				Diedrich D120 Drill Rig		1			
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1: AES	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: October 30, 2014

Day of Week: S | M | T | W | [X] | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	50	° F	55	° F

CONTRACTOR WORK HOURS: 0800 TO 1700

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Thursday 30 October 2014, Associated Environmental Services, Inc. (AES) had a two man crew onsite to Resume drilling and installation of IW and PZ wells.

AES used a Diedrich D120 Drill Rig for the drilling and installation of wells. AE delivered an additional 8 open top drums; currently, a total of 22 have been supplied by AE.

Resuming at the PZ-2 location, AES completed the backfilling of the remaining boring with the cuttings from the drilling.

Drilling moved to the PZ-1 location - 5 feet west of IW-1. At the end of the day, the screen and riser were installed and the sand pack and seal completed. Construction of PZ-3 will resume in the morning of 10/30. The Screen was set at 69.5 feet below grade, construction consistent with IW-1, PZ-2, and PZ-3. The boring has been backfilled to grade. Surface wellheads will be constructed at all three PZ locations on Friday, 31 Oct 2014.

During the drilling of PZ-1, a Shelby tube was advanced at 60 feet below grade. The tube was pushed 7 Inches, and recovered 6 Inches of material; a rock was noted in the bottom of the sample tube. Attempts to collect a Shelby Tube sample at 67 and 68 feet below grade were unsuccessful. Cuttings from the 65-70 foot zone were collected for sieve analysis. (Next Page)

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

Samples will be shipped via next day FedEx on Friday, 31 Oct 2014 to Ackenheil Engineers, Inc. in Pittsburgh, PA for analysis.

A third laborer was dropped off by AES at 1400, and remained onsite to help with progress.

The D120 Drill Rig was de-mobed from the site after the drill was completed.

Well-Head flushmount manholes, pavement restoration, and well development will all take place on Friday, 31 Oct 2014.

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON	1				Rack Truck		1			
LABORER	2				Diedrich D120 Drill Rig		1			
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1: AES	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: October 31, 2014

Day of Week: S M T W T [X] S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	50	° F	55	° F

CONTRACTOR WORK HOURS: 0800 TO 1700

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Friday 31 October 2014, Associated Environmental Services, Inc. (AES) had a two man crew onsite for development of the IW and PZ wells.

Beginning at the PZ-3 location, AES began development of the wells using a Proactive Waterspout 2 Pump and Poly Tubing. The pump was used to surge the well to stir up any sediment that may have been in the screen.

HDR staff used a LaMotte 2020WE Turbidimeter to collect turbidity readings, and a Myron 6P Ultrameter to collect pH, Conductivity, and Temperature Readings every 10 minutes. Each well was purged with the pump at max discharge until the water from the well had consistent turbidity readings below 50NTU. Approximately 110 to 120 gallons of water was pumped form each well. Depth to water and Depth to Bottom measurements were collected before and after development.

AES constructed the remaining three manholes at PZ-1, PZ-2, and PZ-3. AES cut the asphalt square at the hand clearing location, and installed a concrete pad in the place of the asphalt cold-patch that was placed prior to drilling.

All drums are staged in the back of the building for disposal; 8 Water Drums, 15 Soil Drums: 23 Total Drums. AE to collect Waste class samples on Monday 11/3.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON	1				Work Van		1			
LABORER	1				Proactive Waterspout 2 Pump		1			
EQUIP. OPERATOR					Poly Tubing (roll)		1			
TRUCK DRIVERS					Demo Saw		1			
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1: AES	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: November 03, 2014

Day of Week: S [X] M T W T F S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	50	° F	60	° F

CONTRACTOR WORK HOURS: 0800 TO 1700

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Monday 3 November 2014, HDR met Dan Rivers of American Environmental (AE) onsite to collect a Waste Class Sample of IDW. Soil and Water samples were collected for VOC, SVOC, Metals, and PCBs.

Turn around time will be approximately one week.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON	1									
LABORER										
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1: **American Environ.**	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: November 18, 2014

Day of Week: S | M | X | W | T | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	30	° F	30	° F

CONTRACTOR WORK HOURS: _____ TO _____

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Tuesday 18 November 2014, HDR mobed to the site to begin a round of groundwater sampling.

Upon arrival at the site, HDR personal checked in with Nick of Jim Dandy Cleaners and Mike of the Auto Repair shop to discuss schedule, and to let them know we are onsite.

A round of DTW, DTB, and Head-space readings was collected, followed by set up for GW Sampling at MW-1S and MW-1D.

At the end of the day, ~15 gallons of purge water was generated, and samples for VOC and TAL Metals were collected for analysis from wells MW-1S, and MW-1D.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON										
LABORER										
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1:	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: November 19, 2014

Day of Week: S | M | T | W | T | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	25	° F	32	° F

CONTRACTOR WORK HOURS: _____ TO _____

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Wednesday 19 November 2014, HDR continued the round of groundwater sampling.

Upon arrival at the site, HDR personal set up for GW Sampling at MW-5S and MW-5D. During the decon of the pumps, it was noted the ground wire had disconnected from the pump of one of the GrundFos Redi-Flow pumps. Sampling of two wells simultaneously was temporally halted until repairs were made to the pump. After pumps repairs complete, simultaneous sampling resumed at MW-8S,D.

At the end of the day, a total of 6 wells have been sampled. A total of ~60 gallons of purge water has been generated.

Samples for VOC and TAL Metals were collected for analysis from wells MW-1S, MW-1D, and MW-5S were picked up by Test America (TA) currier at 1215. HDR has VOC and TAL Metals Samples held from wells MW-5D, MW-8S, and MW-8D for pickup tomorrow, 11/20 by TA.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON										
LABORER										
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1:	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: November 20, 2014

Day of Week: S | M | T | W | X | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	35	° F	42	° F

CONTRACTOR WORK HOURS: _____ TO _____

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Thursday 20 November 2014, HDR continued the round of groundwater sampling.

Upon arrival at the site, HDR personal set up for GW Sampling at MW-2D followed by MW-2. After MW-2 was sampled, simultaneous sampling resumed at MW-3S,D. Turbidity was noted to be very high in MW-3S, sampling took extra time. After MW-3S,D, sampling moved to MW-7S, D.

At the end of the day, a total of 6 wells have been sampled. A total of ~105 gallons of purge water has been generated.

Samples for VOC and TAL Metals were collected for analysis from wells MW-2, MW-2D, MW-5D, MW-8S and MW-8D were picked up by Test America (TA) currier at 1220. HDR has VOC and TAL Metals, and Geochemical Samples held from wells MW-3D, MW-3S, MW-7S and MW-7D for pickup tomorrow, 11/21 by TA.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON										
LABORER										
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1:	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP

Date: November 21, 2014

Day of Week: S M T W T [X] S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	31	° F	28	° F

CONTRACTOR WORK HOURS: _____ TO _____

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

During the day, Friday 21 November 2014, HDR completed the round of groundwater sampling.

Upon arrival at the site, HDR personal set up for GW Sampling at MW-4S,D followed by simultaneous sampling at IW-1 and PZ-1. After IW-1 and PZ-1 was sampled, simultaneous sampling resumed at PZ-2 and PZ-3. After PZ-2 and PZ-3, sampling moved to MW-6S.

At the end of the day, a total of 7 wells have been sampled. A total of ~180 gallons of purge water has been generated. A total of 4 Drums are staged for disposal at the site.

Samples for VOC and TAL Metals were collected for analysis from wells MW-3D, MW-3S, MW-7D, MW-7S, MW-4D, MW-4S, IW-1, and PZ-1 were picked up by Test America (TA) currier at 1250. HDR has VOC and TAL Metals, and Geochemical Samples held from remaining wells for pickup Monday, 11/24 by TA at the HDR Nanuet Laboratory.

All equipment was staged for pickup by Eco-Rentals at the Nanuet Laboratory, and a call was placed to take the equipment off rental.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1 REVERSE
(06/08)

LABOR					EQUIPMENT					
CLASSIFICATION	OP 1	OP 2	OP 3	OP 4	TYPE	ID #	OP 1	OP 2	OP 3	OP 4
FOREPERSON										
LABORER										
EQUIP. OPERATOR										
TRUCK DRIVERS										
IRONWORKERS										
CARPENTERS										
MASONS										
OWN./OPERATORS										

OP 1:	OP 2:	OP 3:	OP 4:

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: **February 02, 2015**

Day of Week: S [X] T W T F S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Freezing Rain		Snow	
Temperature	30	° F	28	° F

CONTRACTOR WORK HOURS: 1230 TO 1530

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR (JB) onsite at 1325. Intex onsite at Jim Dandy Cleaners demobilizing equipment and potable water into storage container. Begin mixing the 40% sodium permagnate with water to dilute it to the 10% solution for injection. One batch of approximately 1,000 Liters (264 gallons) generated. Approximately three inches of snow and ice accumulating on roadways. Intex and HDR offsite 1530. Wil begin injection 2/3/2012

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 03, 2015

Day of Week: S | M | [X] | W | T | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	13	° F	15	° F

CONTRACTOR WORK HOURS: 0800 TO 1700

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR and Intex onsite 0730. Calibrate both PID, and U-52 meters (see separate sheet). Begin injection of 10% sodium permaganate solution mixed 2/2/15 into IW-1. Throughout the day PZ-1, PZ-2, and PZ-3 were monitored and chemistries were collected. Approximately 800 gallons of fluid was injected into IW-1. In the afternoon PZ-1 had purple sodium permaganate solution in sample bailer.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 04, 2015

Day of Week: S | M | T | W | T | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Cloudy		Snow	
Temperature	34	° F	30	° F

CONTRACTOR WORK HOURS: 0800 TO 1630

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR and Intex onsite 0800. Calibrate both PID, and U-52 meters (see separate sheet). Contiune mixing 40% sodium permaganate with potable water to dilute fluid to 10% solution, the injecting into IW-1. Throughout the day PZ-1, PZ-2, and PZ-3 were monitored and chemistries were collected. Approximately 1600 gallons of fluid was injected into IW-1. In the afternoon PZ-2 had light purple sodium permaganate solution in sample bailer.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 05, 2015

Day of Week: S | M | T | W | [X] | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Snow		Clear	
Temperature	32	° F	34	° F

CONTRACTOR WORK HOURS: 0800 TO 1500

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR and Intex onsite 0800. Calibrate both PID, and U-52 meters (see separate sheet). Continue mixing 40% sodium permaganate with potable water to dilute fluid to 10% solution, the injecting into IW-1. Throughout the day PZ-1, PZ-2, and PZ-3 were monitored and chemistries were collected. Approximately 700 gallons of fluid was injected into IW-1. In the morning PZ-2 had dark purple solution present, and PZ-3 had light purple sodium permaganate solution in sample bailer in the afternoon. Approximately a total of 3,000 gallons were injected into IW-1. All onsite mixing tanks were rinsed, and cleaned. Intex broke down equipment and cleaned out container to be picked up 2/6/2015.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 13, 2015

Day of Week: S M T W T [X] S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	4	° F	6	° F

CONTRACTOR WORK HOURS: 0730 TO 1215

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR onsite at Former Country Cleaners 0730 to perform post injection groundwater sampling. Calibrate the U-52 meter (see separate sheet).

HDR personal sampled and collected field parameters on wells IW-1, PZ-1, PZ-2, and PZ-3. Wells were sampled with a bailer; no purge water was generated post sampling. Field parameters were also collected from adjacent wells MW-2S, and MW-4S.

Samples for VOC, Chloride/ Sulfate, TAL Metals, TOC, TSS, TDS,and Alkalinity, were collected for analysis from wells and were picked up by Test America (TA) currier at 1215.

All equipment was staged for pickup by Pine at the Nanuet Laboratory, after onsite use.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 19, 2015

Day of Week: S | M | T | W | [X] | F | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	2	° F	8	° F

CONTRACTOR WORK HOURS: 0810 TO 1000

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR onsite at Former Country Cleaners 0810 to perform post injection groundwater sampling. Calibrate the U-52 meter (see separate sheet).

HDR personal sampled and collected field parameters on wells PZ-1, and PZ-3. Wells were sampled with a bailer; no purge water was generated post sampling. Demetrios (HDR) called and requested due to the field conditions and cold weather no additional surrounding wells be gauged or field parameters to be collected.

Samples for VOC, Chloride/ Sulfate, TAL Metals, TOC, TSS, TDS,and Alkalinity, were collected for analysis from wells and were dropped off at the Nanuet Laboratory around 1130. A courier from Test America was scheduled for a pick up on Friday 2/20/15.

All equipment was staged for pickup by Pine at the Nanuet Laboratory, after onsite use.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: February 26, 2015

Day of Week: S M T W [X] F S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	22	° F	22	° F

CONTRACTOR WORK HOURS: 0915 TO 1240

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR onsite at Former Country Cleaners 0915 to perform post injection groundwater sampling. Calibrate the U-52 meter (see separate sheet).

HDR personal sampled and collected field parameters on wells IW-1, and PZ-3. Wells were sampled with a bailer; no purge water was generated post sampling. Field parameters were also collected from adjacent wells MW-2S, and MW-4S.

Samples for VOC, Chloride/ Sulfate, TAL Metals, TOC, TSS, TDS, and Alkalinity, were collected for analysis from wells and were dropped off at the Nanuet Laboratory around 1400. A courier from Test America was scheduled for a pick up on Friday 2/27/15.

All equipment was staged for pickup by Pine at the Nanuet Laboratory, after onsite use.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: March 06, 2015

Day of Week: S | M | T | W | T | X | S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	20	° F	20	° F

CONTRACTOR WORK HOURS: 0830 TO 1400

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR onsite at Former Country Cleaners 0830 to perform post injection groundwater sampling. Calibrate the U-52 meter (see separate sheet). Dig out wells IW-1, PZ-1, PZ-2 from large ice/ snow mound.

HDR personal sampled and collected field parameters on wells IW-1, PZ-1, PZ-2, and PZ-3. Wells were sampled with a bailer; no purge water was generated post sampling. Field parameters were also collected from adjacent wells MW-2S, and MW-4S.

Samples for VOC, Chloride/ Sulfate, TAL Metals, TOC, TSS, TDS,and Alkalinity, were collected for analysis from wells were picked up by a courier from Test America onsite at 1300. Samples were packed with ice.

All equipment was staged for pickup by Pine at the Nanuet Laboratory, after onsite use.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

MURK 1
(06/08)

DAILY WORK REPORT

JOB STAMP
NYSDEC Country Cleaners
Huntington, NY

Date: **April 23, 2015**

Day of Week: S M T W [X] F S

Sheet No. 1 of 1 DWR No. _____

	AM		PM	
Weather	Clear		Clear	
Temperature	55	° F	55	° F

CONTRACTOR WORK HOURS: _____ TO _____

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

HDR onsite at Former Country Cleaners 0745 to perform post injection groundwater sampling. Calibrate the U-52 meter (see separate sheet).

HDR personal sampled and collected field parameters on wells IW-1, PZ-1, PZ-2, PZ-3, MW-4S, MW-2S, and MW-3S. Wells were sampled with a bailer; no purge water was generated post sampling.

Samples for VOC, Chloride/ Sulfate, TAL Metals, TOC, TSS, TDS,and Alkalinity, were collected for analysis from wells were dropped off at the Nanuet Lab for pick up Friday April 24, 2015. Samples were packed in fridge 2 and COC ontop of samples for Test America pick up.

All equipment was staged for pickup by Pine at the Nanuet Laboratory, after onsite use.

CONTRACT PAY ITEM NO	FS	ES	INTERIM QUANTITY	UNITS	FINAL QUANTITY	QTY CHK	LOCATION OF WORK	CEES ENT	CEES CHK

I certify that the work described in this report was incorporated into this contract on the date of this DWR, unless otherwise noted.

Inspector's Signature: _____ Date Prepared: _____

Reviewed by: _____ ☐ Engineer-in-Charge ☐ Resident Engineer Date Reviewed: _____

☐ MURK 1-1 CONTINUATION attached for additional narrative. ☐ MURK 1-2 CONTINUATION attached for additional pay items & quantities.

Appendix G

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-86599-1

Job Description: NYSDEC Country Cleaners

For:
HDR Engineering, Inc.
1200 MacArthur Boulevard
First Floor
Mahwah, NJ 07430

Attention: Mr. Demetrios Klerides

Approved for release.
Shalini Isaac
Project Management Assistant II
12/3/2014 11:23 AM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
12/03/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

CASE NARRATIVE

Client: HDR Engineering, Inc.

Project: NYSDEC Country Cleaners

Report Number: 460-86599-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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 11/19/2014 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5º C.

Except:

The Chain-of-Custody (COC) was incomplete. Received Trip Blank only. Metals analysis was listed on Trip Blank

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANICS

Samples MW-1S-73-GW-20141118 (460-86599-1), MW-1D-103-GW-20141118 (460-86599-2), MW-5S-45-GW-20141119 (460-86599-3) and TB-20141119 (460-86599-4) were analyzed for Volatile organics in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 12/01/2014.

The continuing calibration verification (CCV) associated with batch 266163 recovered outside control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the Volatile organics analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples MW-1S-73-GW-20141118 (460-86599-1), MW-1D-103-GW-20141118 (460-86599-2) and MW-5S-45-GW-20141119 (460-86599-3) were analyzed for Metals in accordance with EPA SW-846 6010C. The samples were prepared on 11/22/2014 and 11/29/2014 and analyzed on 11/23/2014 and 11/30/2014.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-86599-1	MW-1S-73-GW-20141118	Water	11/18/2014 1520	11/19/2014 1700
460-86599-2	MW-1D-103-GW-20141118	Water	11/18/2014 1600	11/19/2014 1700
460-86599-3	MW-5S-45-GW-20141119	Water	11/19/2014 1200	11/19/2014 1700
460-86599-4TB	TB-20141119	Water	11/19/2014 1205	11/19/2014 1700

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86599-1	**MW-1S-73-GW-20141118**					
Chloroform		1.4		1.0	ug/L	8260C
Dichlorobromomethane		0.20	J	1.0	ug/L	8260C
Tetrachloroethene		0.44	J	1.0	ug/L	8260C
Aluminum		128	J	200	ug/L	6010C
Barium		44.4	J	200	ug/L	6010C
Calcium		20400		5000	ug/L	6010C
Chromium		10.5		10.0	ug/L	6010C
Iron		146	J	150	ug/L	6010C
Potassium		2030	J	5000	ug/L	6010C
Magnesium		5430		5000	ug/L	6010C
Manganese		11.2	J	15.0	ug/L	6010C
Sodium		22100		5000	ug/L	6010C
460-86599-2	**MW-1D-103-GW-20141118**					
Chloroform		0.69	J	1.0	ug/L	8260C
Aluminum		144	J	200	ug/L	6010C
Barium		66.5	J	200	ug/L	6010C
Calcium		21500		5000	ug/L	6010C
Chromium		6.3	J	10.0	ug/L	6010C
Iron		196		150	ug/L	6010C
Potassium		2160	J	5000	ug/L	6010C
Magnesium		7220		5000	ug/L	6010C
Manganese		16.4		15.0	ug/L	6010C
Sodium		23000		5000	ug/L	6010C
460-86599-3	**MW-5S-45-GW-20141119**					
Chloroform		1.3		1.0	ug/L	8260C
Dichlorobromomethane		0.22	J	1.0	ug/L	8260C
Aluminum		241		200	ug/L	6010C
Barium		46.3	J	200	ug/L	6010C
Calcium		26100		5000	ug/L	6010C
Iron		310		150	ug/L	6010C
Potassium		2180	J	5000	ug/L	6010C
Magnesium		7300		5000	ug/L	6010C
Manganese		22.2		15.0	ug/L	6010C
Sodium		25600		5000	ug/L	6010C
Zinc		25.9	J	30.0	ug/L	6010C
460-86599-4TB	**TB-20141119**					
Chloroform		0.89	J	1.0	ug/L	8260C
Dichlorobromomethane		0.22	J	1.0	ug/L	8260C

METHOD SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Total Metals	TAL EDI		SW846 3010A

Lab References:

TAL EDI = TestAmerica Edison

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Method	Analyst	Analyst ID
SW846 8260C	Desai, Saurab	SZD
SW846 6010C	Chang, Churn Der	CDC

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1S-73-GW-20141118**

Lab Sample ID: 460-86599-1 Date Sampled: 11/18/2014 1520
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23607.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1018			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1018				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.4		0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	0.20	J	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	0.44	J	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1S-73-GW-20141118**

Lab Sample ID: 460-86599-1 Date Sampled: 11/18/2014 1520
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23607.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1018			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1018				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene	101		64 - 135
Dibromofluoromethane (Surr)	105		72 - 137
Toluene-d8 (Surr)	101		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1S-73-GW-20141118**

Lab Sample ID: 460-86599-1 Date Sampled: 11/18/2014 1520
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23607.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1018			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1018				

Tentatively Identified Compounds **Number TIC's Found:** **3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.54	540	J
	Unknown	12.33	11	J
	Unknown	14.32	9.5	J

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1D-103-GW-20141118**

Lab Sample ID: 460-86599-2 Date Sampled: 11/18/2014 1600
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23608.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1048			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1048				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.69	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1D-103-GW-20141118**

Lab Sample ID: 460-86599-2 Date Sampled: 11/18/2014 1600
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23608.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1048			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1048				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	104		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1D-103-GW-20141118**

Lab Sample ID: 460-86599-2 Date Sampled: 11/18/2014 1600
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23608.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1048			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1048				

Tentatively Identified Compounds **Number TIC's Found:** **2**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.39	460	J
	Unknown	14.39	18	J

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-5S-45-GW-20141119**

Lab Sample ID: 460-86599-3 Date Sampled: 11/19/2014 1200
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23609.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1114			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1114				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.3		0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	0.22	J	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-5S-45-GW-20141119**

Lab Sample ID: 460-86599-3 Date Sampled: 11/19/2014 1200
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23609.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1114			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1114				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene	102		64 - 135
Dibromofluoromethane (Surr)	101		72 - 137
Toluene-d8 (Surr)	101		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-5S-45-GW-20141119**

Lab Sample ID: 460-86599-3 Date Sampled: 11/19/2014 1200
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23609.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1114			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1114				

Tentatively Identified Compounds **Number TIC's Found:** **2**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.52	560	J
	Unknown	13.03	9.6	J

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **TB-20141119**

Lab Sample ID: 460-86599-4TB Date Sampled: 11/19/2014 1205
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23606.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0953			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0953				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.89	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	0.22	J	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **TB-20141119**

Lab Sample ID: 460-86599-4TB Date Sampled: 11/19/2014 1205
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23606.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0953			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0953				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	102		72 - 137
Toluene-d8 (Surr)	101		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **TB-20141119**

Lab Sample ID: 460-86599-4TB Date Sampled: 11/19/2014 1205
Client Matrix: Water Date Received: 11/19/2014 1700

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	R23606.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0953			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0953				

Tentatively Identified Compounds **Number TIC's Found:** **4**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.40	470	J
	Unknown	12.20	6.5	J
	Unknown	13.40	10	J
	Unknown	14.68	8.6	J

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1S-73-GW-20141118**

Lab Sample ID: 460-86599-1 Date Sampled: 11/18/2014 1520
Client Matrix: Water Date Received: 11/19/2014 1700

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-264743	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1226			Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	128	J	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	44.4	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	20400		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.5		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	146	J	51.4	150
Potassium	2030	J	281	5000
Magnesium	5430		355	5000
Manganese	11.2	J	4.3	15.0
Sodium	22100		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-1D-103-GW-20141118**

Lab Sample ID: 460-86599-2 Date Sampled: 11/18/2014 1600
Client Matrix: Water Date Received: 11/19/2014 1700

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-264743	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1230			Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	144	J	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	66.5	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	21500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	6.3	J	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	196		51.4	150
Potassium	2160	J	281	5000
Magnesium	7220		355	5000
Manganese	16.4		4.3	15.0
Sodium	23000		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Client Sample ID: **MW-5S-45-GW-20141119**

Lab Sample ID: 460-86599-3 Date Sampled: 11/19/2014 1200
Client Matrix: Water Date Received: 11/19/2014 1700

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-266112	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1751			Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	241		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	46.3	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	26100		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	310		51.4	150
Potassium	2180	J	281	5000
Magnesium	7300		355	5000
Manganese	22.2		4.3	15.0
Sodium	25600		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	25.9	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
460-86599-1	MW-1S-73-GW-20141118	105	103	101	101
460-86599-2	MW-1D-103-GW-20141118	104	100	100	99
460-86599-3	MW-5S-45-GW-20141119	101	103	101	102
460-86599-4	TB-20141119	102	102	101	100
MB 460-266163/6		103	103	101	103
LCS 460-266163/3		100	100	101	104
460-86599-1 MS	MW-1S-73-GW-20141118 MS	96	100	101	97
460-86599-1 MSD	MW-1S-73-GW-20141118 MSD	96	97	102	97

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	72-137
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	64-135

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Method Blank - Batch: 460-266163

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266163/6	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0927	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0927				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Method Blank - Batch: 460-266163

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266163/6	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0927	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0927				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	70 - 130
4-Bromofluorobenzene	103	64 - 135
Dibromofluoromethane (Surr)	103	72 - 137
Toluene-d8 (Surr)	101	70 - 130

Method Blank TICs- Batch: 460-266163

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Control Sample - Batch: 460-266163

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266163/3	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0810	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0810				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	20.0	19.2	96	73 - 134	
1,1,2,2-Tetrachloroethane	20.0	18.6	93	55 - 133	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.9	105	60 - 144	
1,1,2-Trichloroethane	20.0	18.3	91	68 - 121	
1,1-Dichloroethane	20.0	18.6	93	75 - 126	
1,1-Dichloroethene	20.0	18.4	92	71 - 123	
1,2,3-Trichlorobenzene	20.0	21.5	107	72 - 135	
1,2,4-Trichlorobenzene	20.0	20.8	104	76 - 129	
1,2-Dichloropropane	20.0	18.5	92	70 - 120	
1,3-Dichlorobenzene	20.0	21.1	106	75 - 120	
1,4-Dichlorobenzene	20.0	19.7	99	75 - 120	
1,4-Dioxane	400	334	84	46 - 150	
2-Butanone (MEK)	100	92.7	93	52 - 140	
2-Hexanone	100	112	112	49 - 131	
4-Methyl-2-pentanone (MIBK)	100	117	117	56 - 132	
Acetone	100	80.5	81	26 - 150	
Benzene	20.0	18.4	92	69 - 125	
Bromoform	20.0	18.3	92	50 - 134	
Bromomethane	20.0	13.9	70	27 - 150	
Carbon disulfide	20.0	17.3	86	61 - 126	
Carbon tetrachloride	20.0	19.7	99	58 - 150	
Chlorobenzene	20.0	19.4	97	77 - 120	
Chlorobromomethane	20.0	18.8	94	70 - 134	
Chlorodibromomethane	20.0	18.6	93	63 - 131	
Chloroethane	20.0	21.9	110	58 - 145	
Chloroform	20.0	19.7	98	81 - 122	
Chloromethane	20.0	18.4	92	43 - 145	
cis-1,2-Dichloroethene	20.0	18.6	93	78 - 121	
cis-1,3-Dichloropropene	20.0	18.9	94	71 - 120	
Cyclohexane	20.0	19.9	100	62 - 135	
Dichlorobromomethane	20.0	18.5	93	72 - 123	
Dichlorodifluoromethane	20.0	19.2	96	40 - 150	
Ethylbenzene	20.0	20.2	101	74 - 120	
Ethylene Dibromide	20.0	19.0	95	77 - 117	
Isopropylbenzene	20.0	20.5	103	74 - 127	
Methyl acetate	100	104	104	62 - 140	
Methyl tert-butyl ether	20.0	18.6	93	73 - 125	
Methylcyclohexane	20.0	18.3	92	64 - 136	
Methylene Chloride	20.0	18.5	92	76 - 123	
m-Xylene & p-Xylene	20.0	19.2	96	78 - 119	
o-Xylene	20.0	20.2	101	79 - 120	
Styrene	20.0	20.2	101	76 - 120	
Tetrachloroethene	20.0	20.5	102	70 - 136	
Toluene	20.0	19.3	96	78 - 120	
trans-1,2-Dichloroethene	20.0	18.7	93	79 - 120	
trans-1,3-Dichloropropene	20.0	18.0	90	71 - 123	

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Control Sample - Batch: 460-266163

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266163/3	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0810	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0810				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Trichloroethene	20.0	18.3	92	74 - 120	
Trichlorofluoromethane	20.0	21.8	109	65 - 142	
Vinyl chloride	20.0	20.9	104	56 - 137	
1,2-Dichloroethane	20.0	18.5	93	75 - 127	
1,2-Dichlorobenzene	20.0	20.6	103	81 - 120	
1,2-Dibromo-3-Chloropropane	20.0	19.8	99	53 - 136	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	70 - 130
4-Bromofluorobenzene	104	64 - 135
Dibromofluoromethane (Surr)	100	72 - 137
Toluene-d8 (Surr)	101	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266163

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86599-1	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23621.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1622			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1622				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86599-1	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23622.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1647			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1647				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	94	89	73 - 134	5	30		
1,1,2,2-Tetrachloroethane	103	105	55 - 133	2	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	91	87	60 - 144	5	30		
1,1,2-Trichloroethane	95	92	68 - 121	4	30		
1,1-Dichloroethane	91	88	75 - 126	3	30		
1,1-Dichloroethene	90	85	71 - 123	5	30		
1,2,3-Trichlorobenzene	106	106	72 - 135	1	30		
1,2,4-Trichlorobenzene	107	106	76 - 129	1	30		
1,2-Dichloropropane	95	92	70 - 120	3	30		
1,3-Dichlorobenzene	99	99	75 - 120	1	30		
1,4-Dichlorobenzene	95	94	75 - 120	0	30		
1,4-Dioxane	76	67	46 - 150	14	30		
2-Butanone (MEK)	89	88	52 - 140	2	30		
2-Hexanone	128	128	49 - 131	0	30		
4-Methyl-2-pentanone (MIBK)	132	130	56 - 132	2	30		
Acetone	65	67	26 - 150	2	30		
Benzene	93	93	69 - 125	0	30		
Bromoform	85	81	50 - 134	5	30		
Bromomethane	82	82	27 - 150	0	30		
Carbon disulfide	83	81	61 - 126	3	30		
Carbon tetrachloride	90	88	58 - 150	2	30		
Chlorobenzene	92	91	77 - 120	1	30		
Chlorobromomethane	89	85	70 - 134	5	30		
Chlorodibromomethane	92	88	63 - 131	4	30		
Chloroethane	96	90	58 - 145	6	30		
Chloroform	93	86	81 - 122	7	30		
Chloromethane	71	71	43 - 145	0	30		
cis-1,2-Dichloroethene	90	87	78 - 121	3	30		
cis-1,3-Dichloropropene	90	91	71 - 120	1	30		
Cyclohexane	95	92	62 - 135	3	30		
Dichlorobromomethane	90	88	72 - 123	2	30		
Dichlorodifluoromethane	71	69	40 - 150	2	30		
Ethylbenzene	101	97	74 - 120	5	30		

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266163

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86599-1	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23621.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1622			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1622				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86599-1	Analysis Batch:	460-266163	Instrument ID:	CVOAMS10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	R23622.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1647			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1647				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ethylene Dibromide	98	94	77 - 117	4	30		
Isopropylbenzene	102	102	74 - 127	0	30		
Methyl acetate	107	105	62 - 140	1	30		
Methyl tert-butyl ether	97	94	73 - 125	3	30		
Methylcyclohexane	83	82	64 - 136	2	30		
Methylene Chloride	92	86	76 - 123	6	30		
m-Xylene & p-Xylene	103	94	78 - 119	9	30		
o-Xylene	100	97	79 - 120	3	30		
Styrene	100	98	76 - 120	2	30		
Tetrachloroethene	91	91	70 - 136	1	30		
Toluene	100	95	78 - 120	6	30		
trans-1,2-Dichloroethene	90	86	79 - 120	4	30		
trans-1,3-Dichloropropene	86	84	71 - 123	2	30		
Trichloroethene	89	85	74 - 120	5	30		
Trichlorofluoromethane	88	86	65 - 142	3	30		
Vinyl chloride	89	89	56 - 137	0	30		
1,2-Dichloroethane	90	87	75 - 127	3	30		
1,2-Dichlorobenzene	98	98	81 - 120	0	30		
1,2-Dibromo-3-Chloropropane	107	107	53 - 136	1	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	97	70 - 130
4-Bromofluorobenzene	97	97	64 - 135
Dibromofluoromethane (Surr)	96	96	72 - 137
Toluene-d8 (Surr)	101	102	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266163

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86599-1	Units: ug/L		MSD Lab Sample ID:	460-86599-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	12/01/2014 1622			Analysis Date:	12/01/2014 1647
Prep Date:	12/01/2014 1622			Prep Date:	12/01/2014 1647
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1,1-Trichloroethane	1.0	U	200	200	188	178
1,1,2,2-Tetrachloroethane	1.0	U	200	200	206	209
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	200	182	173
1,1,2-Trichloroethane	1.0	U	200	200	191	184
1,1-Dichloroethane	1.0	U	200	200	181	176
1,1-Dichloroethene	1.0	U	200	200	179	171
1,2,3-Trichlorobenzene	1.0	U	200	200	211	213
1,2,4-Trichlorobenzene	1.0	U	200	200	214	212
1,2-Dichloropropane	1.0	U	200	200	189	184
1,3-Dichlorobenzene	1.0	U	200	200	198	199
1,4-Dichlorobenzene	1.0	U	200	200	189	189
1,4-Dioxane	50	U	4000	4000	3060	2670
2-Butanone (MEK)	5.0	U	1000	1000	892	878
2-Hexanone	5.0	U	1000	1000	1280	1280
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	1000	1320	1300
Acetone	5.0	U	1000	1000	653	667
Benzene	1.0	U	200	200	186	186
Bromoform	1.0	U	200	200	170	162
Bromomethane	1.0	U	200	200	165	164
Carbon disulfide	1.0	U	200	200	167	161
Carbon tetrachloride	1.0	U	200	200	179	176
Chlorobenzene	1.0	U	200	200	184	182
Chlorobromomethane	1.0	U	200	200	178	169
Chlorodibromomethane	1.0	U	200	200	184	177
Chloroethane	1.0	U	200	200	193	181
Chloroform	1.4		200	200	187	174
Chloromethane	1.0	U	200	200	142	142
cis-1,2-Dichloroethene	1.0	U	200	200	179	174
cis-1,3-Dichloropropene	1.0	U	200	200	180	182
Cyclohexane	1.0	U	200	200	190	183
Dichlorobromomethane	0.20	J	200	200	181	177
Dichlorodifluoromethane	1.0	U	200	200	142	139
Ethylbenzene	1.0	U	200	200	203	193
Ethylene Dibromide	1.0	U	200	200	196	188
Isopropylbenzene	1.0	U	200	200	204	203
Methyl acetate	5.0	U	1000	1000	1070	1050
Methyl tert-butyl ether	1.0	U	200	200	194	188
Methylcyclohexane	1.0	U	200	200	167	164
Methylene Chloride	1.0	U	200	200	183	173
m-Xylene & p-Xylene	1.0	U	200	200	205	188
o-Xylene	1.0	U	200	200	200	195
Styrene	1.0	U	200	200	200	196
Tetrachloroethene	0.44	J	200	200	183	182

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266163

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86599-1	Units:	ug/L	MSD Lab Sample ID:	460-86599-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	12/01/2014 1622			Analysis Date:	12/01/2014 1647
Prep Date:	12/01/2014 1622			Prep Date:	12/01/2014 1647
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Toluene	1.0	U	200	200	201	190
trans-1,2-Dichloroethene	1.0	U	200	200	180	173
trans-1,3-Dichloropropene	1.0	U	200	200	173	169
Trichloroethene	1.0	U	200	200	177	169
Trichlorofluoromethane	1.0	U	200	200	176	172
Vinyl chloride	1.0	U	200	200	178	178
1,2-Dichloroethane	1.0	U	200	200	179	175
1,2-Dichlorobenzene	1.0	U	200	200	196	196
1,2-Dibromo-3-Chloropropane	1.0	U	200	200	215	213

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Method Blank - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-264663/1-A	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1111	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Control Sample - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-264663/2-A	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1115	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	46.82	94	80 - 120	
Aluminum	2000	1896	95	80 - 120	
Arsenic	2000	1861	93	80 - 120	
Barium	2000	2045	102	80 - 120	
Beryllium	50.0	49.35	99	80 - 120	
Calcium	20000	19320	97	80 - 120	
Cadmium	50.0	50.17	100	80 - 120	
Cobalt	500	505.4	101	80 - 120	
Chromium	200	201.6	101	80 - 120	
Copper	250	244.2	98	80 - 120	
Iron	1000	1029	103	80 - 120	
Potassium	20000	18630	93	80 - 120	
Magnesium	20000	19160	96	80 - 120	
Manganese	500	510.9	102	80 - 120	
Sodium	20000	19050	95	80 - 120	
Nickel	500	518.3	104	80 - 120	
Lead	500	518.0	104	80 - 120	
Antimony	500	450.8	90	80 - 120	
Selenium	2000	1859	93	80 - 120	
Thallium	2000	2135	107	80 - 120	
Vanadium	500	497.0	99	80 - 120	
Zinc	500	510.8	102	80 - 120	

Matrix Spike - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-E-2-B MS	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1045	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	46.85	94	75 - 125	
Aluminum	715		2000	2772	103	75 - 125	
Arsenic	15.0	U	2000	1861	93	75 - 125	
Barium	36.3	J	2000	2056	101	75 - 125	
Beryllium	2.0	U	50.0	49.16	98	75 - 125	
Calcium	18200		20000	37150	95	75 - 125	
Cadmium	4.0	U	50.0	49.62	99	75 - 125	
Cobalt	50.0	U	500	500.5	100	75 - 125	
Chromium	115		200	302.6	94	75 - 125	
Copper	25.0	U	250	245.8	98	75 - 125	
Iron	961		1000	1924	96	75 - 125	
Potassium	2010	J	20000	20370	92	75 - 125	
Magnesium	3480	J	20000	22370	94	75 - 125	
Manganese	52.9		500	558.7	101	75 - 125	
Sodium	7180		20000	25990	94	75 - 125	
Nickel	16.7	J	500	520.0	101	75 - 125	
Lead	10.0	U	500	508.2	102	75 - 125	
Antimony	20.0	U	500	452.0	90	75 - 125	
Selenium	20.0	U	2000	1852	93	75 - 125	
Thallium	20.0	U	2000	2092	105	75 - 125	
Vanadium	50.0	U	500	497.9	100	75 - 125	
Zinc	30.0	U	500	501.6	100	75 - 125	

Post Digestion Spike - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-E-2-A PDS	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1049	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	42.84	86	80 - 120	
Aluminum	715		2000	2640	96	80 - 120	
Arsenic	15.0	U	2000	1858	93	80 - 120	
Barium	36.3	J	2000	2051	101	80 - 120	
Beryllium	2.0	U	50.0	48.75	98	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Post Digestion Spike - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-E-2-A PDS	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1049	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	18200		20000	37070	95	80 - 120	
Cadmium	4.0	U	50.0	48.96	98	80 - 120	
Cobalt	50.0	U	500	498.2	100	80 - 120	
Chromium	115		200	308.1	97	80 - 120	
Copper	25.0	U	250	241.9	97	80 - 120	
Iron	961		1000	1915	95	80 - 120	
Potassium	2010	J	20000	20690	93	80 - 120	
Magnesium	3480	J	20000	22640	96	80 - 120	
Manganese	52.9		500	555.7	101	80 - 120	
Sodium	7180		20000	26270	95	80 - 120	
Nickel	16.7	J	500	520.6	101	80 - 120	
Lead	10.0	U	500	504.6	101	80 - 120	
Antimony	20.0	U	500	443.6	89	80 - 120	
Selenium	20.0	U	2000	1840	92	80 - 120	
Thallium	20.0	U	2000	2085	104	80 - 120	
Vanadium	50.0	U	500	494.0	99	80 - 120	
Zinc	30.0	U	500	498.4	100	80 - 120	

Duplicate - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-A-2-A DU	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1034	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	715		703.0	2	20	
Arsenic	15.0	U	15.0	NC	20	U
Barium	36.3	J	35.86	1	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	18200		17970	1	20	
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	50.0	U	50.0	NC	20	U
Chromium	115		112.4	2	20	
Copper	25.0	U	25.0	NC	20	U
Iron	961		945.2	2	20	
Potassium	2010	J	1997	0.8	20	J
Magnesium	3480	J	3433	1	20	J
Manganese	52.9		52.40	0.9	20	
Sodium	7180		7125	0.7	20	
Nickel	16.7	J	16.40	2	20	J
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	30.0	U	30.0	NC	20	U

Serial Dilution - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-E-2-A SD ^5	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1042	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	715		700.0	NC	10	J
Arsenic	15.0	U	75.0	NC	10	U
Barium	36.3	J	36.14	NC	10	J
Beryllium	2.0	U	10.0	NC	10	U
Calcium	18200		18380	NC	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Serial Dilution - Batch: 460-264663

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86098-E-2-A SD ^5	Analysis Batch:	460-264743	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-264663	Lab File ID:	11232014.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/23/2014 1042	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/22/2014 1517				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	50.0	U	250	NC	10	U
Chromium	115		113.4	NC	10	
Copper	25.0	U	125	NC	10	U
Iron	961		976.0	NC	10	
Potassium	2010	J	1900	NC	10	J
Magnesium	3480	J	3458	NC	10	J
Manganese	52.9		52.60	NC	10	J
Sodium	7180		7105	NC	10	J
Nickel	16.7	J	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	30.0	U	150	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Method Blank - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-266009/1-A	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1726	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Control Sample - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-266009/2-A	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1730	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	46.68	93	80 - 120	
Aluminum	2000	1948	97	80 - 120	
Arsenic	2000	1883	94	80 - 120	
Barium	2000	2035	102	80 - 120	
Beryllium	50.0	50.39	101	80 - 120	
Calcium	20000	18850	94	80 - 120	
Cadmium	50.0	49.86	100	80 - 120	
Cobalt	500	505.4	101	80 - 120	
Chromium	200	199.7	100	80 - 120	
Copper	250	245.0	98	80 - 120	
Iron	1000	996.4	100	80 - 120	
Potassium	20000	19170	96	80 - 120	
Magnesium	20000	19240	96	80 - 120	
Manganese	500	516.1	103	80 - 120	
Sodium	20000	19470	97	80 - 120	
Nickel	500	509.4	102	80 - 120	
Lead	500	503.8	101	80 - 120	
Antimony	500	452.8	91	80 - 120	
Selenium	2000	1896	95	80 - 120	
Thallium	2000	2068	103	80 - 120	
Vanadium	500	500.6	100	80 - 120	
Zinc	500	501.8	100	80 - 120	

Matrix Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-A-1-B MS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1744	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	46.61	93	75 - 125	
Aluminum	200	U	2000	1980	99	75 - 125	
Arsenic	15.0	U	2000	1927	96	75 - 125	
Barium	85.5	J	2000	2115	101	75 - 125	
Beryllium	2.0	U	50.0	50.94	102	75 - 125	
Calcium	23300		20000	41690	92	75 - 125	
Cadmium	4.0	U	50.0	49.80	100	75 - 125	
Cobalt	11.7	J	500	515.0	101	75 - 125	
Chromium	10.0	U	200	197.5	99	75 - 125	
Copper	7.3	J	250	252.3	98	75 - 125	
Iron	340		1000	1327	99	75 - 125	
Potassium	10500		20000	29820	96	75 - 125	
Magnesium	6520		20000	25490	95	75 - 125	
Manganese	387		500	889.2	100	75 - 125	
Sodium	99200		20000	117200	90	75 - 125	4
Nickel	40.0	U	500	511.1	102	75 - 125	
Lead	10.0	U	500	500.8	100	75 - 125	
Antimony	20.0	U	500	455.8	91	75 - 125	
Selenium	20.0	U	2000	1924	96	75 - 125	
Thallium	20.0	U	2000	2034	102	75 - 125	
Vanadium	50.0	U	500	499.1	100	75 - 125	
Zinc	100		500	595.9	99	75 - 125	

Post Digestion Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A PDS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1748	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	41.92	84	80 - 120	
Aluminum	200	U	2000	2044	102	80 - 120	
Arsenic	15.0	U	2000	1931	97	80 - 120	
Barium	85.5	J	2000	2128	102	80 - 120	
Beryllium	2.0	U	50.0	51.27	103	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Post Digestion Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A PDS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1748	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	23300		20000	41830	93	80 - 120	
Cadmium	4.0	U	50.0	49.79	100	80 - 120	
Cobalt	11.7	J	500	517.4	101	80 - 120	
Chromium	10.0	U	200	200.8	100	80 - 120	
Copper	7.3	J	250	257.2	100	80 - 120	
Iron	340		1000	1344	100	80 - 120	
Potassium	10500		20000	30310	99	80 - 120	
Magnesium	6520		20000	26050	98	80 - 120	
Manganese	387		500	894.3	101	80 - 120	
Sodium	99200		20000	117100	90	80 - 120	
Nickel	40.0	U	500	512.1	102	80 - 120	
Lead	10.0	U	500	503.3	101	80 - 120	
Antimony	20.0	U	500	455.3	91	80 - 120	
Selenium	20.0	U	2000	1934	97	80 - 120	
Thallium	20.0	U	2000	2045	102	80 - 120	
Vanadium	50.0	U	500	508.8	102	80 - 120	
Zinc	100		500	598.2	100	80 - 120	

Duplicate - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-A-1-A DU	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1733	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	200	U	200	NC	20	U
Arsenic	15.0	U	15.0	NC	20	U
Barium	85.5	J	84.55	1	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	23300		22870	2	20	
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	11.7	J	11.48	2	20	J
Chromium	10.0	U	10.0	NC	20	U
Copper	7.3	J	7.58	4	20	J
Iron	340		335.1	2	20	
Potassium	10500		10410	1	20	
Magnesium	6520		6465	0.9	20	
Manganese	387		382.5	1	20	
Sodium	99200		97880	1	20	
Nickel	40.0	U	40.0	NC	20	U
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	100		98.29	2	20	

Serial Dilution - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A SD ^5	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1741	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	200	U	1000	NC	10	U
Arsenic	15.0	U	75.0	NC	10	U
Barium	85.5	J	83.25	NC	10	J
Beryllium	2.0	U	10.0	NC	10	U
Calcium	23300		23300	0.09	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Serial Dilution - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A SD ^5	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1741	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	11.7	J	250	NC	10	U
Chromium	10.0	U	50.0	NC	10	U
Copper	7.3	J	125	NC	10	U
Iron	340		270.8	NC	10	J
Potassium	10500		10170	NC	10	J
Magnesium	6520		6360	NC	10	J
Manganese	387		389.1	0.53	10	
Sodium	99200		96600	2.6	10	
Nickel	40.0	U	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	100		101.0	NC	10	J

DATA REPORTING QUALIFIERS

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
Metals		
	U	Indicates analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Sample result is greater than the MDL but below the CRDL

Client: HDR Engineering, Inc. Job Number: 460-86599-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-266163					
LCS 460-266163/3	Lab Control Sample	T	Water	8260C	
MB 460-266163/6	Method Blank	T	Water	8260C	
460-86599-1	MW-1S-73-GW-20141118	T	Water	8260C	
460-86599-1MS	Matrix Spike	T	Water	8260C	
460-86599-1MSD	Matrix Spike Duplicate	T	Water	8260C	
460-86599-2	MW-1D-103-GW-20141118	T	Water	8260C	
460-86599-3	MW-5S-45-GW-20141119	T	Water	8260C	
460-86599-4TB	TB-20141119	T	Water	8260C	

Report Basis
T = Total

Metals					
Prep Batch: 460-264663					
LCS 460-264663/2-A	Lab Control Sample	T	Water	3010A	
MB 460-264663/1-A	Method Blank	T	Water	3010A	
460-86098-A-2-A DU	Duplicate	T	Water	3010A	
460-86098-E-2-B MS	Matrix Spike	T	Water	3010A	
460-86599-1	MW-1S-73-GW-20141118	T	Water	3010A	
460-86599-2	MW-1D-103-GW-20141118	T	Water	3010A	
Analysis Batch:460-264743					
LCS 460-264663/2-A	Lab Control Sample	T	Water	6010C	460-264663
MB 460-264663/1-A	Method Blank	T	Water	6010C	460-264663
460-86098-A-2-A DU	Duplicate	T	Water	6010C	460-264663
460-86098-E-2-B MS	Matrix Spike	T	Water	6010C	460-264663
460-86599-1	MW-1S-73-GW-20141118	T	Water	6010C	460-264663
460-86599-2	MW-1D-103-GW-20141118	T	Water	6010C	460-264663
Prep Batch: 460-266009					
LCS 460-266009/2-A	Lab Control Sample	T	Water	3010A	
MB 460-266009/1-A	Method Blank	T	Water	3010A	
460-86580-A-1-A DU	Duplicate	T	Water	3010A	
460-86580-A-1-B MS	Matrix Spike	T	Water	3010A	
460-86599-3	MW-5S-45-GW-20141119	T	Water	3010A	
Analysis Batch:460-266112					
LCS 460-266009/2-A	Lab Control Sample	T	Water	6010C	460-266009
MB 460-266009/1-A	Method Blank	T	Water	6010C	460-266009
460-86580-A-1-A DU	Duplicate	T	Water	6010C	460-266009
460-86580-A-1-B MS	Matrix Spike	T	Water	6010C	460-266009
460-86599-3	MW-5S-45-GW-20141119	T	Water	6010C	460-266009

Client: HDR Engineering, Inc. Job Number: 460-86599-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Laboratory Chronicle

Lab ID: 460-86599-1 **Client ID:** MW-1S-73-GW-20141118

Sample Date/Time: 11/18/2014 15:20 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-1		460-266163		12/01/2014 10:18	1	TAL EDI	SZD
A:8260C	460-86599-C-1		460-266163		12/01/2014 10:18	1	TAL EDI	SZD
P:3010A	460-86599-D-1-A		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	460-86599-D-1-A		460-264743	460-264663	11/23/2014 12:26	1	TAL EDI	CDC

Lab ID: 460-86599-1 MS **Client ID:** MW-1S-73-GW-20141118

Sample Date/Time: 11/18/2014 15:20 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-1 MS		460-266163		12/01/2014 16:22	10	TAL EDI	SZD
A:8260C	460-86599-C-1 MS		460-266163		12/01/2014 16:22	10	TAL EDI	SZD

Lab ID: 460-86599-1 MSD **Client ID:** MW-1S-73-GW-20141118

Sample Date/Time: 11/18/2014 15:20 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-1 MSD		460-266163		12/01/2014 16:47	10	TAL EDI	SZD
A:8260C	460-86599-C-1 MSD		460-266163		12/01/2014 16:47	10	TAL EDI	SZD

Lab ID: 460-86599-2 **Client ID:** MW-1D-103-GW-20141118

Sample Date/Time: 11/18/2014 16:00 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-2		460-266163		12/01/2014 10:48	1	TAL EDI	SZD
A:8260C	460-86599-C-2		460-266163		12/01/2014 10:48	1	TAL EDI	SZD
P:3010A	460-86599-D-2-A		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	460-86599-D-2-A		460-264743	460-264663	11/23/2014 12:30	1	TAL EDI	CDC

Lab ID: 460-86599-3 **Client ID:** MW-5S-45-GW-20141119

Sample Date/Time: 11/19/2014 12:00 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-3		460-266163		12/01/2014 11:14	1	TAL EDI	SZD
A:8260C	460-86599-C-3		460-266163		12/01/2014 11:14	1	TAL EDI	SZD
P:3010A	460-86599-D-3-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86599-D-3-A		460-266112	460-266009	11/30/2014 17:51	1	TAL EDI	CDC

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Laboratory Chronicle

Lab ID: 460-86599-4 **Client ID:** TB-20141119

Sample Date/Time: 11/19/2014 12:05 Received Date/Time: 11/19/2014 17:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86599-C-4		460-266163		12/01/2014 09:53	1	TAL EDI	SZD
A:8260C	460-86599-C-4		460-266163		12/01/2014 09:53	1	TAL EDI	SZD

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:5030C	MB 460-266163/6		460-266163		12/01/2014 09:27	1	TAL EDI	SZD
A:8260C	MB 460-266163/6		460-266163		12/01/2014 09:27	1	TAL EDI	SZD
P:3010A	MB 460-264663/1-A		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	MB 460-264663/1-A		460-264743	460-264663	11/23/2014 11:11	1	TAL EDI	CDC
P:3010A	MB 460-266009/1-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	MB 460-266009/1-A		460-266112	460-266009	11/30/2014 17:26	1	TAL EDI	CDC

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:5030C	LCS 460-266163/3		460-266163		12/01/2014 08:10	1	TAL EDI	SZD
A:8260C	LCS 460-266163/3		460-266163		12/01/2014 08:10	1	TAL EDI	SZD
P:3010A	LCS 460-264663/2-A		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	LCS 460-264663/2-A		460-264743	460-264663	11/23/2014 11:15	1	TAL EDI	CDC
P:3010A	LCS 460-266009/2-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	LCS 460-266009/2-A		460-266112	460-266009	11/30/2014 17:30	1	TAL EDI	CDC

Lab ID: MS **Client ID:** N/A

Sample Date/Time: 11/12/2014 12:05 Received Date/Time: 11/12/2014 18:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86098-E-2-B MS		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	460-86098-E-2-B MS		460-264743	460-264663	11/23/2014 10:45	1	TAL EDI	CDC
P:3010A	460-86580-A-1-B MS		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-A-1-B MS		460-266112	460-266009	11/30/2014 17:44	1	TAL EDI	CDC

Client: HDR Engineering, Inc. Job Number: 460-86599-1

Laboratory Chronicle

Lab ID: DU **Client ID: N/A**

Sample Date/Time: 11/12/2014 12:05 Received Date/Time: 11/12/2014 18:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86098-A-2-A DU		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	460-86098-A-2-A DU		460-264743	460-264663	11/23/2014 10:34	1	TAL EDI	CDC
P:3010A	460-86580-A-1-A DU		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-A-1-A DU		460-266112	460-266009	11/30/2014 17:33	1	TAL EDI	CDC

Lab ID: SD **Client ID: N/A**

Sample Date/Time: 11/12/2014 12:05 Received Date/Time: 11/12/2014 18:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86098-E-2-A SD ^5		460-264743	460-264663	11/22/2014 15:17	5	TAL EDI	EAE
A:6010C	460-86098-E-2-A SD ^5		460-264743	460-264663	11/23/2014 10:42	5	TAL EDI	CDC
P:3010A	460-86098-E-2-A PDS		460-264743	460-264663	11/22/2014 15:17	1	TAL EDI	EAE
A:6010C	460-86098-E-2-A PDS		460-264743	460-264663	11/23/2014 10:49	1	TAL EDI	CDC
P:3010A	460-86580-D-1-A SD ^5		460-266112	460-266009	11/29/2014 17:27	5	TAL EDI	EAE
A:6010C	460-86580-D-1-A SD ^5		460-266112	460-266009	11/30/2014 17:41	5	TAL EDI	CDC
P:3010A	460-86580-D-1-A PDS		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-D-1-A PDS		460-266112	460-266009	11/30/2014 17:48	1	TAL EDI	CDC

Lab References:
TAL EDI = TestAmerica Edison

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-86694-1

Job Description: NYSDEC Country Cleaners

For:
HDR Engineering, Inc.
1200 MacArthur Boulevard
First Floor
Mahwah, NJ 07430

Attention: Mr. Demetrios Klerides

Approved for release.
Shalini Isaac
Project Management Assistant II
12/5/2014 9:49 AM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
12/05/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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CASE NARRATIVE

Client: HDR Engineering, Inc.

Project: NYSDEC Country Cleaners

Report Number: 460-86694-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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 11/20/2014 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANICS

Samples MW-5D-65-GW-20141119 (460-86694-1), MW-8S-45-GW-20141119 (460-86694-2), MW-8D-80-GW-20141119 (460-86694-3), MW-2D-89-GW-20141120 (460-86694-4) and MW-2-62-GW-20141120 (460-86694-5) were analyzed for Volatile organics in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 12/01/2014.

The continuing calibration verification (CCV) associated with batch 266173 recovered outside control limit for Chlorodibromomethane, Bromoform and Methylcyclohexane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported

No other difficulties were encountered during the Volatile organics analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples MW-5D-65-GW-20141119 (460-86694-1), MW-8S-45-GW-20141119 (460-86694-2), MW-8D-80-GW-20141119 (460-86694-3), MW-2D-89-GW-20141120 (460-86694-4) and MW-2-62-GW-20141120 (460-86694-5) were analyzed for Metals in accordance with EPA SW-846 6010C. The samples were prepared on 11/29/2014 and 12/03/2014 and analyzed on 11/30/2014 and 12/04/2014.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-86694-1	MW-5D-65-GW-20141119	Water	11/19/2014 1400	11/20/2014 1630
460-86694-2	MW-8S-45-GW-20141119	Water	11/19/2014 1543	11/20/2014 1630
460-86694-3	MW-8D-80-GW-20141119	Water	11/19/2014 1604	11/20/2014 1630
460-86694-4	MW-2D-89-GW-20141120	Water	11/20/2014 0845	11/20/2014 1630
460-86694-5	MW-2-62-GW-20141120	Water	11/20/2014 1030	11/20/2014 1630

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86694-1	**MW-5D-65-GW-20141119**					
Chloroform		0.27	J	1.0	ug/L	8260C
Aluminum		165	J	200	ug/L	6010C
Barium		48.9	J	200	ug/L	6010C
Calcium		21100		5000	ug/L	6010C
Chromium		17.9		10.0	ug/L	6010C
Iron		291		150	ug/L	6010C
Potassium		2740	J	5000	ug/L	6010C
Magnesium		6270		5000	ug/L	6010C
Manganese		15.5		15.0	ug/L	6010C
Sodium		26600		5000	ug/L	6010C
Nickel		13.2	J	40.0	ug/L	6010C
Zinc		12.8	J	30.0	ug/L	6010C
460-86694-2	**MW-8S-45-GW-20141119**					
Chloroform		0.24	J	1.0	ug/L	8260C
Tetrachloroethene		6.1		1.0	ug/L	8260C
Barium		47.3	J	200	ug/L	6010C
Calcium		22500		5000	ug/L	6010C
Chromium		9.6	J	10.0	ug/L	6010C
Iron		71.4	J	150	ug/L	6010C
Potassium		1990	J	5000	ug/L	6010C
Magnesium		5960		5000	ug/L	6010C
Sodium		23600		5000	ug/L	6010C
460-86694-3	**MW-8D-80-GW-20141119**					
Chloroform		0.096	J	1.0	ug/L	8260C
Aluminum		103	J	200	ug/L	6010C
Barium		22.4	J	200	ug/L	6010C
Calcium		16400		5000	ug/L	6010C
Chromium		14.8		10.0	ug/L	6010C
Iron		172		150	ug/L	6010C
Potassium		1030	J	5000	ug/L	6010C
Magnesium		8380		5000	ug/L	6010C
Manganese		10.3	J	15.0	ug/L	6010C
Sodium		10800		5000	ug/L	6010C
Nickel		8.4	J	40.0	ug/L	6010C

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86694-4	**MW-2D-89-GW-20141120**					
Chloroform		0.14	J	1.0	ug/L	8260C
Methyl tert-butyl ether		0.34	J	1.0	ug/L	8260C
Tetrachloroethene		0.14	J	1.0	ug/L	8260C
Aluminum		910		200	ug/L	6010C
Barium		63.8	J	200	ug/L	6010C
Calcium		20900		5000	ug/L	6010C
Chromium		22.5		10.0	ug/L	6010C
Iron		1670		150	ug/L	6010C
Potassium		1600	J	5000	ug/L	6010C
Magnesium		8300		5000	ug/L	6010C
Manganese		168		15.0	ug/L	6010C
Sodium		19400		5000	ug/L	6010C
Nickel		18.2	J	40.0	ug/L	6010C
Zinc		17.9	J	30.0	ug/L	6010C
460-86694-5	**MW-2-62-GW-20141120**					
Chloroform		0.18	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.5		1.0	ug/L	8260C
Tetrachloroethene		230		1.0	ug/L	8260C
Trichloroethene		1.8		1.0	ug/L	8260C
Aluminum		2740		200	ug/L	6010C
Barium		61.0	J	200	ug/L	6010C
Calcium		21500		5000	ug/L	6010C
Chromium		25.9		10.0	ug/L	6010C
Iron		2490		150	ug/L	6010C
Potassium		2240	J	5000	ug/L	6010C
Magnesium		5940		5000	ug/L	6010C
Manganese		76.0		15.0	ug/L	6010C
Sodium		22400		5000	ug/L	6010C
Nickel		16.7	J	40.0	ug/L	6010C
Zinc		10.9	J	30.0	ug/L	6010C

METHOD SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Total Metals	TAL EDI		SW846 3010A

Lab References:

TAL EDI = TestAmerica Edison

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Method	Analyst	Analyst ID
SW846 8260C	Desai, Saurab	SZD
SW846 6010C	Chang, Churn Der	CDC

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-5D-65-GW-20141119**

Lab Sample ID: 460-86694-1 Date Sampled: 11/19/2014 1400
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2845.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1317			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1317				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.27	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-5D-65-GW-20141119**

Lab Sample ID: 460-86694-1 Date Sampled: 11/19/2014 1400
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2845.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1317			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1317				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	97		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-5D-65-GW-20141119**

Lab Sample ID: 460-86694-1 Date Sampled: 11/19/2014 1400
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2845.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1317			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1317				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8S-45-GW-20141119**

Lab Sample ID: 460-86694-2 Date Sampled: 11/19/2014 1543
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2846.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1343			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1343				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.24	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	6.1		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8S-45-GW-20141119**

Lab Sample ID: 460-86694-2 Date Sampled: 11/19/2014 1543
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2846.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1343			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1343				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene	101		64 - 135
Dibromofluoromethane (Surr)	100		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8S-45-GW-20141119**

Lab Sample ID: 460-86694-2 Date Sampled: 11/19/2014 1543
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2846.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1343			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1343				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8D-80-GW-20141119**

Lab Sample ID: 460-86694-3 Date Sampled: 11/19/2014 1604
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2847.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1409			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1409				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.096	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8D-80-GW-20141119**

Lab Sample ID: 460-86694-3 Date Sampled: 11/19/2014 1604
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2847.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1409			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1409				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	97		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8D-80-GW-20141119**

Lab Sample ID: 460-86694-3 Date Sampled: 11/19/2014 1604
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2847.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1409			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1409				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2D-89-GW-20141120**

Lab Sample ID: 460-86694-4 Date Sampled: 11/20/2014 0845
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2848.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1435			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1435				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.14	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	0.34	J	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	0.14	J	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2D-89-GW-20141120**

Lab Sample ID: 460-86694-4 Date Sampled: 11/20/2014 0845
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2848.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1435			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1435				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	98		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2D-89-GW-20141120**

Lab Sample ID: 460-86694-4 Date Sampled: 11/20/2014 0845
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2848.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1435			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1435				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2-62-GW-20141120**

Lab Sample ID: 460-86694-5 Date Sampled: 11/20/2014 1030
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2849.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1501			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1501				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.18	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	2.5		0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	230		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2-62-GW-20141120**

Lab Sample ID: 460-86694-5 Date Sampled: 11/20/2014 1030
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2849.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1501			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1501				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.8		0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	98		72 - 137
Toluene-d8 (Surr)	98		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2-62-GW-20141120**

Lab Sample ID: 460-86694-5 Date Sampled: 11/20/2014 1030
Client Matrix: Water Date Received: 11/20/2014 1630

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2849.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1501			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1501				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-5D-65-GW-20141119**

Lab Sample ID: 460-86694-1 Date Sampled: 11/19/2014 1400
Client Matrix: Water Date Received: 11/20/2014 1630

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-266112	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1906			Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	165	J	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	48.9	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	21100		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	17.9		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	291		51.4	150
Potassium	2740	J	281	5000
Magnesium	6270		355	5000
Manganese	15.5		4.3	15.0
Sodium	26600		514	5000
Nickel	13.2	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	12.8	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8S-45-GW-20141119**

Lab Sample ID: 460-86694-2 Date Sampled: 11/19/2014 1543
Client Matrix: Water Date Received: 11/20/2014 1630

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-266112	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1910			Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	47.3	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	22500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	9.6	J	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	71.4	J	51.4	150
Potassium	1990	J	281	5000
Magnesium	5960		355	5000
Manganese	15.0	U	4.3	15.0
Sodium	23600		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-8D-80-GW-20141119**

Lab Sample ID: 460-86694-3 Date Sampled: 11/19/2014 1604
Client Matrix: Water Date Received: 11/20/2014 1630

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-266112	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1913			Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	103	J	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	22.4	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	16400		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	14.8		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	172		51.4	150
Potassium	1030	J	281	5000
Magnesium	8380		355	5000
Manganese	10.3	J	4.3	15.0
Sodium	10800		514	5000
Nickel	8.4	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2D-89-GW-20141120**

Lab Sample ID: 460-86694-4 Date Sampled: 11/20/2014 0845
Client Matrix: Water Date Received: 11/20/2014 1630

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-266112	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1917			Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	910		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	63.8	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	20900		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	22.5		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	1670		51.4	150
Potassium	1600	J	281	5000
Magnesium	8300		355	5000
Manganese	168		4.3	15.0
Sodium	19400		514	5000
Nickel	18.2	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	17.9	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Client Sample ID: **MW-2-62-GW-20141120**

Lab Sample ID: 460-86694-5 Date Sampled: 11/20/2014 1030
Client Matrix: Water Date Received: 11/20/2014 1630

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1629			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	2740		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	61.0	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	21500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	25.9		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	2490		51.4	150
Potassium	2240	J	281	5000
Magnesium	5940		355	5000
Manganese	76.0		4.3	15.0
Sodium	22400		514	5000
Nickel	16.7	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	10.9	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
460-86694-1	MW-5D-65-GW-20141119	97	100	100	99
460-86694-2	MW-8S-45-GW-20141119	100	100	100	101
460-86694-3	MW-8D-80-GW-20141119	97	97	100	99
460-86694-4	MW-2D-89-GW-20141120	98	103	99	100
460-86694-5	MW-2-62-GW-20141120	98	101	98	100
MB 460-266173/6		97	97	100	101
LCS 460-266173/3		102	99	99	99
460-86699-A-1 MS		104	103	100	99
460-86699-A-1 MSD		102	100	99	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	72-137
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	64-135

Method Blank - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266173/6	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2837.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0949	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0949				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Method Blank - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266173/6	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2837.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0949	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0949				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 130
4-Bromofluorobenzene	101	64 - 135
Dibromofluoromethane (Surr)	97	72 - 137
Toluene-d8 (Surr)	100	70 - 130

Method Blank TICs- Batch: 460-266173

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Control Sample - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266173/3	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2834.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0831	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0831				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	20.0	18.3	91	73 - 134	
1,1,2,2-Tetrachloroethane	20.0	17.1	85	55 - 133	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.3	92	60 - 144	
1,1,2-Trichloroethane	20.0	17.1	85	68 - 121	
1,1-Dichloroethane	20.0	17.4	87	75 - 126	
1,1-Dichloroethene	20.0	17.3	86	71 - 123	
1,2,3-Trichlorobenzene	20.0	18.8	94	72 - 135	
1,2,4-Trichlorobenzene	20.0	19.3	97	76 - 129	
1,2-Dichloropropane	20.0	17.5	88	70 - 120	
1,3-Dichlorobenzene	20.0	19.2	96	75 - 120	
1,4-Dichlorobenzene	20.0	18.5	93	75 - 120	
1,4-Dioxane	400	364	91	46 - 150	
2-Butanone (MEK)	100	96.0	96	52 - 140	
2-Hexanone	100	96.7	97	49 - 131	
4-Methyl-2-pentanone (MIBK)	100	99.0	99	56 - 132	
Acetone	100	80.6	81	26 - 150	
Benzene	20.0	18.0	90	69 - 125	
Bromoform	20.0	13.4	67	50 - 134	
Bromomethane	20.0	20.4	102	27 - 150	
Carbon disulfide	20.0	18.4	92	61 - 126	
Carbon tetrachloride	20.0	18.3	91	58 - 150	
Chlorobenzene	20.0	18.6	93	77 - 120	
Chlorobromomethane	20.0	16.4	82	70 - 134	
Chlorodibromomethane	20.0	14.1	71	63 - 131	
Chloroethane	20.0	18.3	92	58 - 145	
Chloroform	20.0	17.3	86	81 - 122	
Chloromethane	20.0	18.9	95	43 - 145	
cis-1,2-Dichloroethene	20.0	17.2	86	78 - 121	
cis-1,3-Dichloropropene	20.0	18.6	93	71 - 120	
Cyclohexane	20.0	15.5	77	62 - 135	
Dichlorobromomethane	20.0	17.7	88	72 - 123	
Dichlorodifluoromethane	20.0	17.4	87	40 - 150	
Ethylbenzene	20.0	18.8	94	74 - 120	
Ethylene Dibromide	20.0	17.5	87	77 - 117	
Isopropylbenzene	20.0	21.8	109	74 - 127	
Methyl acetate	100	92.9	93	62 - 140	
Methyl tert-butyl ether	20.0	17.6	88	73 - 125	
Methylcyclohexane	20.0	15.0	75	64 - 136	
Methylene Chloride	20.0	16.5	82	76 - 123	
m-Xylene & p-Xylene	20.0	19.4	97	78 - 119	
o-Xylene	20.0	19.1	96	79 - 120	
Styrene	20.0	20.1	100	76 - 120	
Tetrachloroethene	20.0	18.6	93	70 - 136	
Toluene	20.0	18.9	94	78 - 120	
trans-1,2-Dichloroethene	20.0	16.8	84	79 - 120	
trans-1,3-Dichloropropene	20.0	18.0	90	71 - 123	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Control Sample - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266173/3	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2834.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0831	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0831				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Trichloroethene	20.0	17.8	89	74 - 120	
Trichlorofluoromethane	20.0	18.4	92	65 - 142	
Vinyl chloride	20.0	17.8	89	56 - 137	
1,2-Dichloroethane	20.0	17.0	85	75 - 127	
1,2-Dichlorobenzene	20.0	18.8	94	81 - 120	
1,2-Dibromo-3-Chloropropane	20.0	16.0	80	53 - 136	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	70 - 130
4-Bromofluorobenzene	99	64 - 135
Dibromofluoromethane (Surr)	102	72 - 137
Toluene-d8 (Surr)	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2858.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1857			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1857				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86699-A-1 MSD	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2859.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1923			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1923				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	87	101	73 - 134	15	30		
1,1,2,2-Tetrachloroethane	86	104	55 - 133	18	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	91	97	60 - 144	6	30		
1,1,2-Trichloroethane	87	97	68 - 121	11	30		
1,1-Dichloroethane	84	96	75 - 126	14	30		
1,1-Dichloroethene	80	93	71 - 123	14	30		
1,2,3-Trichlorobenzene	89	109	72 - 135	20	30		
1,2,4-Trichlorobenzene	89	106	76 - 129	18	30		
1,2-Dichloropropane	86	96	70 - 120	11	30		
1,3-Dichlorobenzene	90	106	75 - 120	16	30		
1,4-Dichlorobenzene	88	104	75 - 120	16	30		
1,4-Dioxane	79	94	46 - 150	17	30		
2-Butanone (MEK)	92	104	52 - 140	13	30		
2-Hexanone	103	123	49 - 131	17	30		
4-Methyl-2-pentanone (MIBK)	106	125	56 - 132	17	30		
Acetone	86	99	26 - 150	15	30		
Benzene	86	100	69 - 125	15	30		
Bromoform	66	78	50 - 134	17	30		
Bromomethane	83	111	27 - 150	28	30		
Carbon disulfide	81	93	61 - 126	14	30		
Carbon tetrachloride	87	100	58 - 150	14	30		
Chlorobenzene	90	103	77 - 120	13	30		
Chlorobromomethane	78	90	70 - 134	14	30		
Chlorodibromomethane	67	80	63 - 131	18	30		
Chloroethane	86	106	58 - 145	20	30		
Chloroform	86	97	81 - 122	12	30		
Chloromethane	74	95	43 - 145	25	30		
cis-1,2-Dichloroethene	82	94	78 - 121	13	30		
cis-1,3-Dichloropropene	84	97	71 - 120	15	30		
Cyclohexane	71	79	62 - 135	11	30		
Dichlorobromomethane	85	97	72 - 123	13	30		
Dichlorodifluoromethane	64	74	40 - 150	15	30		
Ethylbenzene	89	106	74 - 120	17	30		

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2858.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1857			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1857				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86699-A-1 MSD	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2859.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1923			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1923				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ethylene Dibromide	85	98	77 - 117	15	30		
Isopropylbenzene	103	120	74 - 127	16	30		
Methyl acetate	90	104	62 - 140	14	30		
Methyl tert-butyl ether	86	99	73 - 125	14	30		
Methylcyclohexane	69	74	64 - 136	7	30		
Methylene Chloride	81	91	76 - 123	12	30		
m-Xylene & p-Xylene	91	107	78 - 119	16	30		
o-Xylene	91	104	79 - 120	13	30		
Styrene	95	110	76 - 120	15	30		
Tetrachloroethene	88	100	70 - 136	13	30		
Toluene	90	105	78 - 120	15	30		
trans-1,2-Dichloroethene	83	92	79 - 120	11	30		
trans-1,3-Dichloropropene	82	97	71 - 123	17	30		
Trichloroethene	79	90	74 - 120	12	30		
Trichlorofluoromethane	84	102	65 - 142	19	30		
Vinyl chloride	82	103	56 - 137	23	30		
1,2-Dichloroethane	85	96	75 - 127	12	30		
1,2-Dichlorobenzene	89	106	81 - 120	17	30		
1,2-Dibromo-3-Chloropropane	81	99	53 - 136	20	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	100	70 - 130
4-Bromofluorobenzene	99	101	64 - 135
Dibromofluoromethane (Surr)	104	102	72 - 137
Toluene-d8 (Surr)	100	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Units:	ug/L	MSD Lab Sample ID:	460-86699-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	12/01/2014 1857			Analysis Date:	12/01/2014 1923
Prep Date:	12/01/2014 1857			Prep Date:	12/01/2014 1923
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1,1-Trichloroethane	0.55	J	200	200	174	202
1,1,2,2-Tetrachloroethane	1.0	U	200	200	172	207
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	200	183	194
1,1,2-Trichloroethane	1.0	U	200	200	174	193
1,1-Dichloroethane	1.0	U	200	200	168	193
1,1-Dichloroethene	0.80	J	200	200	162	186
1,2,3-Trichlorobenzene	1.0	U	200	200	179	218
1,2,4-Trichlorobenzene	1.0	U	200	200	177	212
1,2-Dichloropropane	1.0	U	200	200	171	191
1,3-Dichlorobenzene	1.0	U	200	200	181	213
1,4-Dichlorobenzene	1.0	U	200	200	177	208
1,4-Dioxane	50	U	4000	4000	3180	3770
2-Butanone (MEK)	5.0	U	1000	1000	919	1040
2-Hexanone	5.0	U	1000	1000	1030	1230
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	1000	1060	1250
Acetone	5.0	U	1000	1000	856	994
Benzene	1.0	U	200	200	171	200
Bromoform	1.0	U	200	200	131	155
Bromomethane	1.0	U	200	200	167	222
Carbon disulfide	1.0	U	200	200	162	186
Carbon tetrachloride	1.0	U	200	200	174	201
Chlorobenzene	1.0	U	200	200	181	207
Chlorobromomethane	1.0	U	200	200	156	179
Chlorodibromomethane	1.0	U	200	200	134	159
Chloroethane	1.0	U	200	200	173	211
Chloroform	1.0	U	200	200	172	194
Chloromethane	1.0	U	200	200	148	190
cis-1,2-Dichloroethene	2.5		200	200	167	191
cis-1,3-Dichloropropene	1.0	U	200	200	168	194
Cyclohexane	1.0	U	200	200	143	159
Dichlorobromomethane	1.0	U	200	200	170	194
Dichlorodifluoromethane	1.0	U	200	200	128	148
Ethylbenzene	1.0	U	200	200	178	211
Ethylene Dibromide	1.0	U	200	200	170	197
Isopropylbenzene	1.0	U	200	200	206	240
Methyl acetate	5.0	U	1000	1000	902	1040
Methyl tert-butyl ether	0.35	J	200	200	172	198
Methylcyclohexane	1.0	U	200	200	138	149
Methylene Chloride	1.0	U	200	200	162	182
m-Xylene & p-Xylene	1.0	U	200	200	182	214
o-Xylene	1.0	U	200	200	182	209
Styrene	1.0	U	200	200	190	221
Tetrachloroethene	2.5		200	200	178	202

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Units:	ug/L	MSD Lab Sample ID:	460-86699-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	12/01/2014 1857			Analysis Date:	12/01/2014 1923
Prep Date:	12/01/2014 1857			Prep Date:	12/01/2014 1923
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Toluene	1.0	U	200	200	180	209
trans-1,2-Dichloroethene	1.0	U	200	200	165	185
trans-1,3-Dichloropropene	1.0	U	200	200	164	194
Trichloroethene	26		200	200	184	206
Trichlorofluoromethane	1.0	U	200	200	168	203
Vinyl chloride	1.0	U	200	200	164	206
1,2-Dichloroethane	1.0	U	200	200	171	193
1,2-Dichlorobenzene	1.0	U	200	200	178	212
1,2-Dibromo-3-Chloropropane	1.0	U	200	200	163	198

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Method Blank - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-266009/1-A	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1726	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Control Sample - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-266009/2-A	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1730	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	46.68	93	80 - 120	
Aluminum	2000	1948	97	80 - 120	
Arsenic	2000	1883	94	80 - 120	
Barium	2000	2035	102	80 - 120	
Beryllium	50.0	50.39	101	80 - 120	
Calcium	20000	18850	94	80 - 120	
Cadmium	50.0	49.86	100	80 - 120	
Cobalt	500	505.4	101	80 - 120	
Chromium	200	199.7	100	80 - 120	
Copper	250	245.0	98	80 - 120	
Iron	1000	996.4	100	80 - 120	
Potassium	20000	19170	96	80 - 120	
Magnesium	20000	19240	96	80 - 120	
Manganese	500	516.1	103	80 - 120	
Sodium	20000	19470	97	80 - 120	
Nickel	500	509.4	102	80 - 120	
Lead	500	503.8	101	80 - 120	
Antimony	500	452.8	91	80 - 120	
Selenium	2000	1896	95	80 - 120	
Thallium	2000	2068	103	80 - 120	
Vanadium	500	500.6	100	80 - 120	
Zinc	500	501.8	100	80 - 120	

Matrix Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-A-1-B MS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1744	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	46.61	93	75 - 125	
Aluminum	200	U	2000	1980	99	75 - 125	
Arsenic	15.0	U	2000	1927	96	75 - 125	
Barium	85.5	J	2000	2115	101	75 - 125	
Beryllium	2.0	U	50.0	50.94	102	75 - 125	
Calcium	23300		20000	41690	92	75 - 125	
Cadmium	4.0	U	50.0	49.80	100	75 - 125	
Cobalt	11.7	J	500	515.0	101	75 - 125	
Chromium	10.0	U	200	197.5	99	75 - 125	
Copper	7.3	J	250	252.3	98	75 - 125	
Iron	340		1000	1327	99	75 - 125	
Potassium	10500		20000	29820	96	75 - 125	
Magnesium	6520		20000	25490	95	75 - 125	
Manganese	387		500	889.2	100	75 - 125	
Sodium	99200		20000	117200	90	75 - 125	4
Nickel	40.0	U	500	511.1	102	75 - 125	
Lead	10.0	U	500	500.8	100	75 - 125	
Antimony	20.0	U	500	455.8	91	75 - 125	
Selenium	20.0	U	2000	1924	96	75 - 125	
Thallium	20.0	U	2000	2034	102	75 - 125	
Vanadium	50.0	U	500	499.1	100	75 - 125	
Zinc	100		500	595.9	99	75 - 125	

Post Digestion Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A PDS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1748	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	41.92	84	80 - 120	
Aluminum	200	U	2000	2044	102	80 - 120	
Arsenic	15.0	U	2000	1931	97	80 - 120	
Barium	85.5	J	2000	2128	102	80 - 120	
Beryllium	2.0	U	50.0	51.27	103	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Post Digestion Spike - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A PDS	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1748	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	23300		20000	41830	93	80 - 120	
Cadmium	4.0	U	50.0	49.79	100	80 - 120	
Cobalt	11.7	J	500	517.4	101	80 - 120	
Chromium	10.0	U	200	200.8	100	80 - 120	
Copper	7.3	J	250	257.2	100	80 - 120	
Iron	340		1000	1344	100	80 - 120	
Potassium	10500		20000	30310	99	80 - 120	
Magnesium	6520		20000	26050	98	80 - 120	
Manganese	387		500	894.3	101	80 - 120	
Sodium	99200		20000	117100	90	80 - 120	
Nickel	40.0	U	500	512.1	102	80 - 120	
Lead	10.0	U	500	503.3	101	80 - 120	
Antimony	20.0	U	500	455.3	91	80 - 120	
Selenium	20.0	U	2000	1934	97	80 - 120	
Thallium	20.0	U	2000	2045	102	80 - 120	
Vanadium	50.0	U	500	508.8	102	80 - 120	
Zinc	100		500	598.2	100	80 - 120	

Duplicate - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-A-1-A DU	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1733	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	200	U	200	NC	20	U
Arsenic	15.0	U	15.0	NC	20	U
Barium	85.5	J	84.55	1	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	23300		22870	2	20	
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	11.7	J	11.48	2	20	J
Chromium	10.0	U	10.0	NC	20	U
Copper	7.3	J	7.58	4	20	J
Iron	340		335.1	2	20	
Potassium	10500		10410	1	20	
Magnesium	6520		6465	0.9	20	
Manganese	387		382.5	1	20	
Sodium	99200		97880	1	20	
Nickel	40.0	U	40.0	NC	20	U
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	100		98.29	2	20	

Serial Dilution - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A SD ^5	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1741	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	200	U	1000	NC	10	U
Arsenic	15.0	U	75.0	NC	10	U
Barium	85.5	J	83.25	NC	10	J
Beryllium	2.0	U	10.0	NC	10	U
Calcium	23300		23300	0.09	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Serial Dilution - Batch: 460-266009

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86580-D-1-A SD ^5	Analysis Batch:	460-266112	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266009	Lab File ID:	11302014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/30/2014 1741	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	11/29/2014 1727				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	11.7	J	250	NC	10	U
Chromium	10.0	U	50.0	NC	10	U
Copper	7.3	J	125	NC	10	U
Iron	340		270.8	NC	10	J
Potassium	10500		10170	NC	10	J
Magnesium	6520		6360	NC	10	J
Manganese	387		389.1	0.53	10	
Sodium	99200		96600	2.6	10	
Nickel	40.0	U	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	100		101.0	NC	10	J

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Method Blank - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-266759/1-A	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1648	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Control Sample - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-266759/2-A	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1652	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	46.11	92	80 - 120	
Aluminum	2000	2008	100	80 - 120	
Arsenic	2000	1894	95	80 - 120	
Barium	2000	2044	102	80 - 120	
Beryllium	50.0	51.49	103	80 - 120	
Calcium	20000	19370	97	80 - 120	
Cadmium	50.0	50.30	101	80 - 120	
Cobalt	500	514.8	103	80 - 120	
Chromium	200	199.0	100	80 - 120	
Copper	250	243.7	97	80 - 120	
Iron	1000	993.2	99	80 - 120	
Potassium	20000	19340	97	80 - 120	
Magnesium	20000	19200	96	80 - 120	
Manganese	500	509.3	102	80 - 120	
Sodium	20000	19920	100	80 - 120	
Nickel	500	517.6	104	80 - 120	
Lead	500	520.3	104	80 - 120	
Antimony	500	482.5	97	80 - 120	
Selenium	2000	1931	97	80 - 120	
Thallium	2000	2073	104	80 - 120	
Vanadium	500	503.0	101	80 - 120	
Zinc	500	512.1	102	80 - 120	

Matrix Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-D MS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1622	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	48.87	98	75 - 125	
Aluminum	225		2000	2304	104	75 - 125	
Arsenic	15.0	U	2000	1943	97	75 - 125	
Barium	32.4	J	2000	2105	104	75 - 125	
Beryllium	2.0	U	50.0	51.85	104	75 - 125	
Calcium	2220	J	20000	22100	99	75 - 125	
Cadmium	4.0	U	50.0	51.22	102	75 - 125	
Cobalt	50.0	U	500	515.9	103	75 - 125	
Chromium	352		200	552.0	100	75 - 125	
Copper	25.0	U	250	251.6	101	75 - 125	
Iron	243		1000	1310	107	75 - 125	
Potassium	1220	J	20000	20740	98	75 - 125	
Magnesium	2580	J	20000	22320	99	75 - 125	
Manganese	16.1		500	539.6	105	75 - 125	
Sodium	18000		20000	37930	100	75 - 125	
Nickel	40.0	U	500	524.4	105	75 - 125	
Lead	10.0	U	500	520.9	104	75 - 125	
Antimony	20.0	U	500	493.7	99	75 - 125	
Selenium	20.0	U	2000	1950	98	75 - 125	
Thallium	20.0	U	2000	2109	105	75 - 125	
Vanadium	50.0	U	500	518.0	104	75 - 125	
Zinc	30.0	U	500	525.2	105	75 - 125	

Post Digestion Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B PDS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1626	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	51.68	103	80 - 120	
Aluminum	225		2000	2182	98	80 - 120	
Arsenic	15.0	U	2000	1910	96	80 - 120	
Barium	32.4	J	2000	2070	102	80 - 120	
Beryllium	2.0	U	50.0	50.50	101	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Post Digestion Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B PDS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1626	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	2220	J	20000	21540	97	80 - 120	
Cadmium	4.0	U	50.0	50.20	100	80 - 120	
Cobalt	50.0	U	500	506.2	101	80 - 120	
Chromium	352		200	542.5	95	80 - 120	
Copper	25.0	U	250	243.8	98	80 - 120	
Iron	243		1000	1264	102	80 - 120	
Potassium	1220	J	20000	20210	95	80 - 120	
Magnesium	2580	J	20000	21760	96	80 - 120	
Manganese	16.1		500	526.4	102	80 - 120	
Sodium	18000		20000	37220	96	80 - 120	
Nickel	40.0	U	500	518.0	104	80 - 120	
Lead	10.0	U	500	513.7	103	80 - 120	
Antimony	20.0	U	500	476.8	95	80 - 120	
Selenium	20.0	U	2000	1914	96	80 - 120	
Thallium	20.0	U	2000	2077	104	80 - 120	
Vanadium	50.0	U	500	505.1	101	80 - 120	
Zinc	30.0	U	500	519.0	104	80 - 120	

Duplicate - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-C DU	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1611	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	225		217.5	3	20	
Arsenic	15.0	U	15.0	NC	20	U
Barium	32.4	J	32.32	0.2	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	2220	J	2223	0.09	20	J
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	50.0	U	50.0	NC	20	U
Chromium	352		355.3	0.8	20	
Copper	25.0	U	25.0	NC	20	U
Iron	243		257.7	6	20	
Potassium	1220	J	1226	0.3	20	J
Magnesium	2580	J	2612	1	20	J
Manganese	16.1		16.48	2	20	
Sodium	18000		17910	0.2	20	
Nickel	40.0	U	40.0	NC	20	U
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	30.0	U	30.0	NC	20	U

Serial Dilution - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B SD ^5	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1619	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	225		1000	NC	10	U
Arsenic	15.0	U	75.0	NC	10	U
Barium	32.4	J	1000	NC	10	U
Beryllium	2.0	U	10.0	NC	10	U
Calcium	2220	J	2210	NC	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Serial Dilution - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B SD ^5	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1619	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	50.0	U	250	NC	10	U
Chromium	352		349.5	0.82	10	
Copper	25.0	U	125	NC	10	U
Iron	243		272.1	NC	10	J
Potassium	1220	J	25000	NC	10	U
Magnesium	2580	J	2567	NC	10	J
Manganese	16.1		75.0	NC	10	U
Sodium	18000		17940	NC	10	J
Nickel	40.0	U	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	30.0	U	150	NC	10	U

DATA REPORTING QUALIFIERS

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
Metals		
	U	Indicates analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Sample result is greater than the MDL but below the CRDL

Client: HDR Engineering, Inc. Job Number: 460-86694-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-266173					
LCS 460-266173/3	Lab Control Sample	T	Water	8260C	
MB 460-266173/6	Method Blank	T	Water	8260C	
460-86694-1	MW-5D-65-GW-20141119	T	Water	8260C	
460-86694-2	MW-8S-45-GW-20141119	T	Water	8260C	
460-86694-3	MW-8D-80-GW-20141119	T	Water	8260C	
460-86694-4	MW-2D-89-GW-20141120	T	Water	8260C	
460-86694-5	MW-2-62-GW-20141120	T	Water	8260C	
460-86699-A-1 MS	Matrix Spike	T	Water	8260C	
460-86699-A-1 MSD	Matrix Spike Duplicate	T	Water	8260C	

Report Basis
T = Total

Metals					
Prep Batch: 460-266009					
LCS 460-266009/2-A	Lab Control Sample	T	Water	3010A	
MB 460-266009/1-A	Method Blank	T	Water	3010A	
460-86580-A-1-A DU	Duplicate	T	Water	3010A	
460-86580-A-1-B MS	Matrix Spike	T	Water	3010A	
460-86694-1	MW-5D-65-GW-20141119	T	Water	3010A	
460-86694-2	MW-8S-45-GW-20141119	T	Water	3010A	
460-86694-3	MW-8D-80-GW-20141119	T	Water	3010A	
460-86694-4	MW-2D-89-GW-20141120	T	Water	3010A	
Analysis Batch:460-266112					
LCS 460-266009/2-A	Lab Control Sample	T	Water	6010C	460-266009
MB 460-266009/1-A	Method Blank	T	Water	6010C	460-266009
460-86580-A-1-A DU	Duplicate	T	Water	6010C	460-266009
460-86580-A-1-B MS	Matrix Spike	T	Water	6010C	460-266009
460-86694-1	MW-5D-65-GW-20141119	T	Water	6010C	460-266009
460-86694-2	MW-8S-45-GW-20141119	T	Water	6010C	460-266009
460-86694-3	MW-8D-80-GW-20141119	T	Water	6010C	460-266009
460-86694-4	MW-2D-89-GW-20141120	T	Water	6010C	460-266009
Prep Batch: 460-266759					
LCS 460-266759/2-A	Lab Control Sample	T	Water	3010A	
MB 460-266759/1-A	Method Blank	T	Water	3010A	
460-86304-E-2-C DU	Duplicate	T	Water	3010A	
460-86304-E-2-D MS	Matrix Spike	T	Water	3010A	
460-86694-5	MW-2-62-GW-20141120	T	Water	3010A	
Analysis Batch:460-267189					
LCS 460-266759/2-A	Lab Control Sample	T	Water	6010C	460-266759
MB 460-266759/1-A	Method Blank	T	Water	6010C	460-266759
460-86304-E-2-C DU	Duplicate	T	Water	6010C	460-266759

Client: HDR Engineering, Inc. Job Number: 460-86694-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-267189					
460-86304-E-2-D MS	Matrix Spike	T	Water	6010C	460-266759
460-86694-5	MW-2-62-GW-20141120	T	Water	6010C	460-266759

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Laboratory Chronicle

Lab ID: 460-86694-1 **Client ID: MW-5D-65-GW-20141119**

Sample Date/Time: 11/19/2014 14:00 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86694-B-1		460-266173		12/01/2014 13:17	1	TAL EDI	SZD
A:8260C	460-86694-B-1		460-266173		12/01/2014 13:17	1	TAL EDI	SZD
P:3010A	460-86694-D-1-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86694-D-1-A		460-266112	460-266009	11/30/2014 19:06	1	TAL EDI	CDC

Lab ID: 460-86694-2 **Client ID: MW-8S-45-GW-20141119**

Sample Date/Time: 11/19/2014 15:43 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86694-B-2		460-266173		12/01/2014 13:43	1	TAL EDI	SZD
A:8260C	460-86694-B-2		460-266173		12/01/2014 13:43	1	TAL EDI	SZD
P:3010A	460-86694-D-2-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86694-D-2-A		460-266112	460-266009	11/30/2014 19:10	1	TAL EDI	CDC

Lab ID: 460-86694-3 **Client ID: MW-8D-80-GW-20141119**

Sample Date/Time: 11/19/2014 16:04 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86694-B-3		460-266173		12/01/2014 14:09	1	TAL EDI	SZD
A:8260C	460-86694-B-3		460-266173		12/01/2014 14:09	1	TAL EDI	SZD
P:3010A	460-86694-D-3-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86694-D-3-A		460-266112	460-266009	11/30/2014 19:13	1	TAL EDI	CDC

Lab ID: 460-86694-4 **Client ID: MW-2D-89-GW-20141120**

Sample Date/Time: 11/20/2014 08:45 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86694-B-4		460-266173		12/01/2014 14:35	1	TAL EDI	SZD
A:8260C	460-86694-B-4		460-266173		12/01/2014 14:35	1	TAL EDI	SZD
P:3010A	460-86694-D-4-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86694-D-4-A		460-266112	460-266009	11/30/2014 19:17	1	TAL EDI	CDC

Lab ID: 460-86694-5 **Client ID: MW-2-62-GW-20141120**

Sample Date/Time: 11/20/2014 10:30 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86694-B-5		460-266173		12/01/2014 15:01	1	TAL EDI	SZD
A:8260C	460-86694-B-5		460-266173		12/01/2014 15:01	1	TAL EDI	SZD
P:3010A	460-86694-D-5-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86694-D-5-A		460-267189	460-266759	12/04/2014 16:29	1	TAL EDI	CDC

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Laboratory Chronicle

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:5030C	MB 460-266173/6		460-266173		12/01/2014 09:49	1	TAL EDI	SZD
A:8260C	MB 460-266173/6		460-266173		12/01/2014 09:49	1	TAL EDI	SZD
P:3010A	MB 460-266009/1-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	MB 460-266009/1-A		460-266112	460-266009	11/30/2014 17:26	1	TAL EDI	CDC
P:3010A	MB 460-266759/1-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	MB 460-266759/1-A		460-267189	460-266759	12/04/2014 16:48	1	TAL EDI	CDC

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:5030C	LCS 460-266173/3		460-266173		12/01/2014 08:31	1	TAL EDI	SZD
A:8260C	LCS 460-266173/3		460-266173		12/01/2014 08:31	1	TAL EDI	SZD
P:3010A	LCS 460-266009/2-A		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	LCS 460-266009/2-A		460-266112	460-266009	11/30/2014 17:30	1	TAL EDI	CDC
P:3010A	LCS 460-266759/2-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	LCS 460-266759/2-A		460-267189	460-266759	12/04/2014 16:52	1	TAL EDI	CDC

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 11/20/2014 07:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86699-A-1 MS		460-266173		12/01/2014 18:57	10	TAL EDI	SZD
A:8260C	460-86699-A-1 MS		460-266173		12/01/2014 18:57	10	TAL EDI	SZD
P:3010A	460-86580-A-1-B MS		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-A-1-B MS		460-266112	460-266009	11/30/2014 17:44	1	TAL EDI	CDC
P:3010A	460-86304-E-2-D MS		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-D MS		460-267189	460-266759	12/04/2014 16:22	1	TAL EDI	CDC

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 11/20/2014 07:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86699-A-1 MSD		460-266173		12/01/2014 19:23	10	TAL EDI	SZD
A:8260C	460-86699-A-1 MSD		460-266173		12/01/2014 19:23	10	TAL EDI	SZD

Client: HDR Engineering, Inc. Job Number: 460-86694-1

Laboratory Chronicle

Lab ID: DU **Client ID:** N/A

Sample Date/Time: 11/18/2014 08:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86580-A-1-A DU		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-A-1-A DU		460-266112	460-266009	11/30/2014 17:33	1	TAL EDI	CDC
P:3010A	460-86304-E-2-C DU		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-C DU		460-267189	460-266759	12/04/2014 16:11	1	TAL EDI	CDC

Lab ID: SD **Client ID:** N/A

Sample Date/Time: 11/18/2014 08:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86580-D-1-A SD ^5		460-266112	460-266009	11/29/2014 17:27	5	TAL EDI	EAE
A:6010C	460-86580-D-1-A SD ^5		460-266112	460-266009	11/30/2014 17:41	5	TAL EDI	CDC
P:3010A	460-86580-D-1-A PDS		460-266112	460-266009	11/29/2014 17:27	1	TAL EDI	EAE
A:6010C	460-86580-D-1-A PDS		460-266112	460-266009	11/30/2014 17:48	1	TAL EDI	CDC
P:3010A	460-86304-E-2-B SD ^5		460-267189	460-266759	12/03/2014 09:32	5	TAL EDI	QZY
A:6010C	460-86304-E-2-B SD ^5		460-267189	460-266759	12/04/2014 16:19	5	TAL EDI	CDC
P:3010A	460-86304-E-2-B PDS		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-B PDS		460-267189	460-266759	12/04/2014 16:26	1	TAL EDI	CDC

Lab References:
TAL EDI = TestAmerica Edison

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-86700-1

Job Description: NYSDEC Country Cleaners

For:
HDR Engineering, Inc.
1200 MacArthur Boulevard
First Floor
Mahwah, NJ 07430

Attention: Mr. Demetrios Klerides



Approved for release.
Sarah E Brown
Project Management Assistant II
12/8/2014 2:35 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
12/08/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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Job Number: 460-86700-1

Job Description: NYSDEC Country Cleaners

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Sarah E Brown
Project Management Assistant II
12/8/2014 2:35 PM

Designee for
Melissa Haas

CASE NARRATIVE

Client: HDR Engineering, Inc.

Project: NYSDEC Country Cleaners

Report Number: 460-86700-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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 11/21/2014 5:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7º C.

Except:

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Alkalinity was not listed on the COC, but it is a required analysis for the following samples: 460-86700-1, 460-86700-2, 460-86700-3, 460-86700-5, 460-86700-8.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANICS

Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-3D-88-GW-20141120 (460-86700-4), MW-4S-66-GW-20141121 (460-86700-5), MW-7D-88-GW-20141120 (460-86700-6), MW-4D-99-GW-20141121 (460-86700-7), MW-7S-59-GW-20141120 (460-86700-8) and TB-20141121 (460-86700-9) were analyzed for Volatile organics in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 12/01/2014 and 12/03/2014.

The continuing calibration verification (CCV) associated with batch 266173 recovered outside control limits for the following analytes: Chlorodibromomethane, Bromoform, Methylcyclohexane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 266626 recovered outside control limits for the following analytes: Chlorodibromomethane, Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the Volatile organics analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-3D-88-GW-20141120 (460-86700-4), MW-4S-66-GW-20141121 (460-86700-5), MW-7D-88-GW-20141120 (460-86700-6), MW-4D-99-GW-20141121 (460-86700-7) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for Metals in accordance with EPA SW-846 6010C. The samples were prepared on 12/03/2014 and analyzed on 12/04/2014.

No difficulties were encountered during the Metals analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY
Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-4S-66-GW-20141121 (460-86700-5) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 11/24/2014.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS
Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-4S-66-GW-20141121 (460-86700-5) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 11/25/2014 and 11/28/2014.

Total Dissolved Solids exceeded the RPD limit for the duplicate of sample 460-86649-12.

Refer to the QC report for details.

No other difficulties were encountered during the TDS analysis.

All other quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS
Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-4S-66-GW-20141121 (460-86700-5) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/25/2014 and 11/28/2014.

Total Suspended Solids exceeded the RPD limit for the duplicate of sample 460-86514-1.

Total Suspended Solids exceeded the RPD limit for the duplicate of sample 460-86691-1.

Refer to the QC report for details.

No other difficulties were encountered during the TSS analysis.

All other quality control parameters were within the acceptance limits.

ANIONS
Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-4S-66-GW-20141121 (460-86700-5) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for anions in accordance with EPA Method 300_ORGFM_28D Anions by Ion Chromatograph. The samples were analyzed on 11/24/2014 and 11/25/2014.

Chloride failed the recovery criteria high for the MS of sample 460-86700-8 in batch 460-265032.

Refer to the QC report for details.

Samples IW-1-66-GW-20141121 (460-86700-1)[10X], PZ-1-66-GW-20141121 (460-86700-2)[10X], MW-3S-54-GW-20141120 (460-86700-3)[10X], MW-4S-66-GW-20141121 (460-86700-5)[10X], MW-7S-59-GW-20141120 (460-86700-8)[10X] and MW-7S-59-GW-20141120 (460-86700-8)[100X] required dilution prior to analysis to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON
Samples IW-1-66-GW-20141121 (460-86700-1), PZ-1-66-GW-20141121 (460-86700-2), MW-3S-54-GW-20141120 (460-86700-3), MW-4S-66-GW-20141121 (460-86700-5) and MW-7S-59-GW-20141120 (460-86700-8) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 12/05/2014.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-86700-1	IW-1-66-GW-20141121	Water	11/21/2014 1210	11/21/2014 1730
460-86700-2	PZ-1-66-GW-20141121	Water	11/21/2014 1225	11/21/2014 1730
460-86700-3	MW-3S-54-GW-20141120	Water	11/20/2014 1435	11/21/2014 1730
460-86700-4	MW-3D-88-GW-20141120	Water	11/20/2014 1240	11/21/2014 1730
460-86700-5	MW-4S-66-GW-20141121	Water	11/21/2014 0910	11/21/2014 1730
460-86700-6	MW-7D-88-GW-20141120	Water	11/20/2014 1700	11/21/2014 1730
460-86700-7	MW-4D-99-GW-20141121	Water	11/21/2014 0900	11/21/2014 1730
460-86700-8	MW-7S-59-GW-20141120	Water	11/20/2014 1710	11/21/2014 1730
460-86700-9TB	TB-20141121	Water	11/21/2014 1245	11/21/2014 1730

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86700-1	**IW-1-66-GW-20141121**					
Chloroform		0.23	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.9		1.0	ug/L	8260C
Tetrachloroethene		340		1.0	ug/L	8260C
Trichloroethene		2.2		1.0	ug/L	8260C
Aluminum		599		200	ug/L	6010C
Barium		55.8	J	200	ug/L	6010C
Calcium		21100		5000	ug/L	6010C
Chromium		15.3		10.0	ug/L	6010C
Iron		513		150	ug/L	6010C
Potassium		2450	J	5000	ug/L	6010C
Magnesium		6460		5000	ug/L	6010C
Manganese		178		15.0	ug/L	6010C
Sodium		24700		5000	ug/L	6010C
Nickel		13.4	J	40.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		34.2		5.0	mg/L	SM 2320B
Alkalinity		34.2		5.0	mg/L	SM 2320B
Total Dissolved Solids		169		10.0	mg/L	SM 2540C
Total Suspended Solids		9.9		1.1	mg/L	SM 2540D
Total Organic Carbon		0.40	J	1.0	mg/L	SM 5310B
Chloride		45.1		1.20	mg/L	300.0
Sulfate		21.1		6.00	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86700-2	**PZ-1-66-GW-20141121**					
Chloroform		0.25	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.2		1.0	ug/L	8260C
Tetrachloroethene		300		1.0	ug/L	8260C
Trichloroethene		1.8		1.0	ug/L	8260C
Aluminum		1040		200	ug/L	6010C
Barium		47.9	J	200	ug/L	6010C
Calcium		19500		5000	ug/L	6010C
Chromium		16.4		10.0	ug/L	6010C
Iron		918		150	ug/L	6010C
Potassium		2130	J	5000	ug/L	6010C
Magnesium		6190		5000	ug/L	6010C
Manganese		69.7		15.0	ug/L	6010C
Sodium		24100		5000	ug/L	6010C
Nickel		12.6	J	40.0	ug/L	6010C
Zinc		6.7	J	30.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		35.3		5.0	mg/L	SM 2320B
Alkalinity		35.3		5.0	mg/L	SM 2320B
Total Dissolved Solids		165		10.0	mg/L	SM 2540C
Total Suspended Solids		16.7		1.1	mg/L	SM 2540D
Total Organic Carbon		0.41	J	1.0	mg/L	SM 5310B
Chloride		43.4		1.20	mg/L	300.0
Sulfate		24.3		6.00	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86700-3	**MW-3S-54-GW-20141120**					
Chloroform		0.28	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		0.96	J	1.0	ug/L	8260C
Tetrachloroethene		250		1.0	ug/L	8260C
Trichloroethene		1.4		1.0	ug/L	8260C
Aluminum		14700		200	ug/L	6010C
Barium		81.7	J	200	ug/L	6010C
Calcium		18200		5000	ug/L	6010C
Cobalt		7.8	J	50.0	ug/L	6010C
Chromium		295		10.0	ug/L	6010C
Copper		14.4	J	25.0	ug/L	6010C
Iron		12000		150	ug/L	6010C
Potassium		2620	J	5000	ug/L	6010C
Magnesium		6180		5000	ug/L	6010C
Manganese		380		15.0	ug/L	6010C
Sodium		21600		5000	ug/L	6010C
Nickel		206		40.0	ug/L	6010C
Lead		4.7	J	10.0	ug/L	6010C
Vanadium		14.1	J	50.0	ug/L	6010C
Zinc		17.2	J	30.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		31.5		5.0	mg/L	SM 2320B
Alkalinity		31.5		5.0	mg/L	SM 2320B
Total Dissolved Solids		167		10.0	mg/L	SM 2540C
Total Suspended Solids		239		10.0	mg/L	SM 2540D
Total Organic Carbon		0.55	J	1.0	mg/L	SM 5310B
Chloride		38.3		1.20	mg/L	300.0
Sulfate		22.3		6.00	mg/L	300.0
460-86700-4	**MW-3D-88-GW-20141120**					
Chloroform		0.28	J	1.0	ug/L	8260C
Methyl tert-butyl ether		0.22	J	1.0	ug/L	8260C
Tetrachloroethene		1.8		1.0	ug/L	8260C
Aluminum		816		200	ug/L	6010C
Barium		58.2	J	200	ug/L	6010C
Calcium		17800		5000	ug/L	6010C
Chromium		19.2		10.0	ug/L	6010C
Iron		1020		150	ug/L	6010C
Potassium		2070	J	5000	ug/L	6010C
Magnesium		7690		5000	ug/L	6010C
Manganese		38.1		15.0	ug/L	6010C
Sodium		23000		5000	ug/L	6010C
Nickel		12.8	J	40.0	ug/L	6010C

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86700-5	**MW-4S-66-GW-20141121**					
Chloroform		0.61	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.3		1.0	ug/L	8260C
Tetrachloroethene		160		1.0	ug/L	8260C
trans-1,2-Dichloroethene		0.18	J	1.0	ug/L	8260C
Trichloroethene		1.7		1.0	ug/L	8260C
Aluminum		16200		200	ug/L	6010C
Barium		86.6	J	200	ug/L	6010C
Calcium		16200		5000	ug/L	6010C
Cobalt		11.7	J	50.0	ug/L	6010C
Chromium		365		10.0	ug/L	6010C
Copper		16.2	J	25.0	ug/L	6010C
Iron		10000		150	ug/L	6010C
Potassium		3120	J	5000	ug/L	6010C
Magnesium		6310		5000	ug/L	6010C
Manganese		972		15.0	ug/L	6010C
Sodium		19800		5000	ug/L	6010C
Nickel		256		40.0	ug/L	6010C
Lead		5.4	J	10.0	ug/L	6010C
Vanadium		11.3	J	50.0	ug/L	6010C
Zinc		13.0	J	30.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		22.9		5.0	mg/L	SM 2320B
Alkalinity		22.9		5.0	mg/L	SM 2320B
Total Dissolved Solids		162		10.0	mg/L	SM 2540C
Total Suspended Solids		267		10.0	mg/L	SM 2540D
Total Organic Carbon		0.54	J	1.0	mg/L	SM 5310B
Chloride		40.0		1.20	mg/L	300.0
Sulfate		21.7		6.00	mg/L	300.0
460-86700-6	**MW-7D-88-GW-20141120**					
Chloroform		0.50	J	1.0	ug/L	8260C
Tetrachloroethene		0.25	J	1.0	ug/L	8260C
Aluminum		261		200	ug/L	6010C
Barium		69.8	J	200	ug/L	6010C
Calcium		20800		5000	ug/L	6010C
Chromium		19.2		10.0	ug/L	6010C
Iron		328		150	ug/L	6010C
Potassium		3370	J	5000	ug/L	6010C
Magnesium		6470		5000	ug/L	6010C
Manganese		14.5	J	15.0	ug/L	6010C
Sodium		25200		5000	ug/L	6010C
Nickel		14.0	J	40.0	ug/L	6010C

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86700-7	**MW-4D-99-GW-20141121**					
Chloroform		0.29	J	1.0	ug/L	8260C
Aluminum		473		200	ug/L	6010C
Barium		55.2	J	200	ug/L	6010C
Calcium		19000		5000	ug/L	6010C
Chromium		25.3		10.0	ug/L	6010C
Iron		602		150	ug/L	6010C
Potassium		2070	J	5000	ug/L	6010C
Magnesium		7910		5000	ug/L	6010C
Manganese		22.2		15.0	ug/L	6010C
Sodium		22800		5000	ug/L	6010C
Nickel		15.7	J	40.0	ug/L	6010C
460-86700-8	**MW-7S-59-GW-20141120**					
Chloroform		0.32	J	1.0	ug/L	8260C
Tetrachloroethene		17		1.0	ug/L	8260C
Trichloroethene		0.18	J	1.0	ug/L	8260C
Vinyl chloride		0.15	J	1.0	ug/L	8260C
Aluminum		759		200	ug/L	6010C
Barium		190	J	200	ug/L	6010C
Calcium		60600		5000	ug/L	6010C
Chromium		9.7	J	10.0	ug/L	6010C
Iron		595		150	ug/L	6010C
Potassium		3090	J	5000	ug/L	6010C
Magnesium		25100		5000	ug/L	6010C
Manganese		11.3	J	15.0	ug/L	6010C
Sodium		154000		5000	ug/L	6010C
Nickel		8.3	J	40.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		29.9		5.0	mg/L	SM 2320B
Alkalinity		29.9		5.0	mg/L	SM 2320B
Total Dissolved Solids		842		20.0	mg/L	SM 2540C
Total Suspended Solids		21.8		1.3	mg/L	SM 2540D
Total Organic Carbon		0.62	J	1.0	mg/L	SM 5310B
Chloride		350		12.0	mg/L	300.0
Sulfate		36.8		6.00	mg/L	300.0

METHOD SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Description	Lab Location	Method	Preparation Method
Matrix:			
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Anions, Ion Chromatography	TAL EDI	MCAWW 300.0	
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Total Metals	TAL EDI		SW846 3010A
Alkalinity	TAL EDI	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL EDI	SM SM 2540C	
Solids, Total Suspended (TSS)	TAL EDI	SM SM 2540D	
Organic Carbon, Total (TOC)	TAL EDI	SM SM 5310B	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method	Analyst	Analyst ID
SW846 8260C	Boykin, Kenneth	KLB
SW846 8260C	Desai, Saurab	SZD
SW846 6010C	Chang, Churn Der	CDC
SM SM 2320B	Cabanganan, Maria	MCC
SM SM 2540C	Staib, Patricia L	PLS
SM SM 2540D	Staib, Patricia L	PLS
SM SM 5310B	Vu, Huan	HTV
MCAWW 300.0	Boykin, Carol B	CBB

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2913.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0717			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0717				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.23	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	2.9		0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	340		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2913.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0717			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0717				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	2.2		0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	99		72 - 137
Toluene-d8 (Surr)	98		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2913.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0717			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0717				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2910.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0600			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0600				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.25	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	2.2		0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	300		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2910.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0600			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0600				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.8		0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene	102		64 - 135
Dibromofluoromethane (Surr)	97		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2910.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0600			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0600				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2911.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0625			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0625				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.28	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	0.96	J	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	250		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2911.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0625			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0625				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.4		0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	96		72 - 137
Toluene-d8 (Surr)	98		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2911.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0625			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0625				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3D-88-GW-20141120**

Lab Sample ID: 460-86700-4 Date Sampled: 11/20/2014 1240
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2850.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1527			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1527				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.28	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	0.22	J	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.8		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3D-88-GW-20141120**

Lab Sample ID: 460-86700-4 Date Sampled: 11/20/2014 1240
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2850.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1527			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1527				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	99		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3D-88-GW-20141120**

Lab Sample ID: 460-86700-4 Date Sampled: 11/20/2014 1240
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2850.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1527			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1527				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2912.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0651			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0651				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.61	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	2.3		0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	160		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	0.18	J	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2912.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0651			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0651				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.7		0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	99		72 - 137
Toluene-d8 (Surr)	97		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2912.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0651			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0651				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7D-88-GW-20141120**

Lab Sample ID: 460-86700-6 Date Sampled: 11/20/2014 1700
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2909.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0534			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0534				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.50	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	0.25	J	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7D-88-GW-20141120**

Lab Sample ID: 460-86700-6 Date Sampled: 11/20/2014 1700
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2909.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0534			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0534				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	98		72 - 137
Toluene-d8 (Surr)	98		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7D-88-GW-20141120**

Lab Sample ID: 460-86700-6 Date Sampled: 11/20/2014 1700
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2909.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0534			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0534				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4D-99-GW-20141121**

Lab Sample ID: 460-86700-7 Date Sampled: 11/21/2014 0900
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2852.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1620			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1620				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.29	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4D-99-GW-20141121**

Lab Sample ID: 460-86700-7 Date Sampled: 11/21/2014 0900
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2852.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1620			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1620				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	100		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4D-99-GW-20141121**

Lab Sample ID: 460-86700-7 Date Sampled: 11/21/2014 0900
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2852.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1620			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1620				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2853.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1646			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1646				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.32	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	17		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2853.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1646			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1646				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	0.18	J	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	0.15	J	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene	100		64 - 135
Dibromofluoromethane (Surr)	98		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2853.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1646			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1646				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **TB-20141121**

Lab Sample ID: 460-86700-9TB Date Sampled: 11/21/2014 1245
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2838.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1015			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1015				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **TB-20141121**

Lab Sample ID: 460-86700-9TB Date Sampled: 11/21/2014 1245
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2838.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1015			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1015				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene	101		64 - 135
Dibromofluoromethane (Surr)	98		72 - 137
Toluene-d8 (Surr)	100		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **TB-20141121**

Lab Sample ID: 460-86700-9TB Date Sampled: 11/21/2014 1245
Client Matrix: Water Date Received: 11/21/2014 1730

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2838.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1015			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1015				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb242136.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2136	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	45.1		0.72	1.20
Sulfate	21.1		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb242159.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2159	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	43.4		0.72	1.20
Sulfate	24.3		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb242222.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2222	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	38.3		0.72	1.20
Sulfate	22.3		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	ya242244.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2244	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	40.0		0.72	1.20
Sulfate	21.7		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb242307.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2307	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sulfate	36.8		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265032	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb250101.d
Dilution:	100			Initial Weight/Volume:	10 mL
Analysis Date:	11/25/2014 0101	Run Type:	DL2	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	350		7.20	12.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1707			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	599		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	55.8	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	21100		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	15.3		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	513		51.4	150
Potassium	2450	J	281	5000
Magnesium	6460		355	5000
Manganese	178		4.3	15.0
Sodium	24700		514	5000
Nickel	13.4	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1711			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	1040		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	47.9	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	19500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	16.4		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	918		51.4	150
Potassium	2130	J	281	5000
Magnesium	6190		355	5000
Manganese	69.7		4.3	15.0
Sodium	24100		514	5000
Nickel	12.6	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	6.7	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1714			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	14700		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	81.7	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	18200		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	7.8	J	3.8	50.0
Chromium	295		4.6	10.0
Copper	14.4	J	6.2	25.0
Iron	12000		51.4	150
Potassium	2620	J	281	5000
Magnesium	6180		355	5000
Manganese	380		4.3	15.0
Sodium	21600		514	5000
Nickel	206		7.8	40.0
Lead	4.7	J	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	14.1	J	4.2	50.0
Zinc	17.2	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-3D-88-GW-20141120**

Lab Sample ID: 460-86700-4 Date Sampled: 11/20/2014 1240
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1718			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	816		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	58.2	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	17800		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	19.2		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	1020		51.4	150
Potassium	2070	J	281	5000
Magnesium	7690		355	5000
Manganese	38.1		4.3	15.0
Sodium	23000		514	5000
Nickel	12.8	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1722			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	16200		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	86.6	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	16200		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	11.7	J	3.8	50.0
Chromium	365		4.6	10.0
Copper	16.2	J	6.2	25.0
Iron	10000		51.4	150
Potassium	3120	J	281	5000
Magnesium	6310		355	5000
Manganese	972		4.3	15.0
Sodium	19800		514	5000
Nickel	256		7.8	40.0
Lead	5.4	J	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	11.3	J	4.2	50.0
Zinc	13.0	J	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7D-88-GW-20141120**

Lab Sample ID: 460-86700-6 Date Sampled: 11/20/2014 1700
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1737			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	261		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	69.8	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	20800		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	19.2		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	328		51.4	150
Potassium	3370	J	281	5000
Magnesium	6470		355	5000
Manganese	14.5	J	4.3	15.0
Sodium	25200		514	5000
Nickel	14.0	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-4D-99-GW-20141121**

Lab Sample ID: 460-86700-7 Date Sampled: 11/21/2014 0900
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1741			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	473		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	55.2	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	19000		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	25.3		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	602		51.4	150
Potassium	2070	J	281	5000
Magnesium	7910		355	5000
Manganese	22.2		4.3	15.0
Sodium	22800		514	5000
Nickel	15.7	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267189	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1744			Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	759		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	190	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	60600		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	9.7	J	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	595		51.4	150
Potassium	3090	J	281	5000
Magnesium	25100		355	5000
Manganese	11.3	J	4.3	15.0
Sodium	154000		514	5000
Nickel	8.3	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

General Chemistry

Client Sample ID: **IW-1-66-GW-20141121**

Lab Sample ID: 460-86700-1 Date Sampled: 11/21/2014 1210
Client Matrix: Water Date Received: 11/21/2014 1730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	169		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	0.40	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-267752	Analysis Date: 12/05/2014 1300						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	34.2		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1924						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1924						
Alkalinity	34.2		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1924						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1924						
Total Suspended Solids	9.9		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **PZ-1-66-GW-20141121**

Lab Sample ID: 460-86700-2 Date Sampled: 11/21/2014 1225
Client Matrix: Water Date Received: 11/21/2014 1730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	165		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	0.41	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-267752	Analysis Date: 12/05/2014 1407						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	35.3		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1931						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1931						
Alkalinity	35.3		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1931						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1931						
Total Suspended Solids	16.7		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **MW-3S-54-GW-20141120**

Lab Sample ID: 460-86700-3 Date Sampled: 11/20/2014 1435
Client Matrix: Water Date Received: 11/21/2014 1730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	167		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265214	Analysis Date: 11/25/2014 1332						
Total Organic Carbon	0.55	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-267752	Analysis Date: 12/05/2014 1428						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	31.5		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1939						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1939						
Alkalinity	31.5		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1939						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1939						
Total Suspended Solids	239		mg/L	10.0	10.0	1.0	SM 2540D
Analysis Batch: 460-265155	Analysis Date: 11/25/2014 0913						

General Chemistry

Client Sample ID: **MW-4S-66-GW-20141121**

Lab Sample ID: 460-86700-5 Date Sampled: 11/21/2014 0910
Client Matrix: Water Date Received: 11/21/2014 1730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	162		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	0.54	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-267752	Analysis Date: 12/05/2014 1448						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	22.9		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1945						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1945						
Alkalinity	22.9		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1945						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1945						
Total Suspended Solids	267		mg/L	10.0	10.0	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **MW-7S-59-GW-20141120**

Lab Sample ID: 460-86700-8 Date Sampled: 11/20/2014 1710
Client Matrix: Water Date Received: 11/21/2014 1730

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	842		mg/L	20.0	20.0	1.0	SM 2540C
Analysis Batch: 460-265214	Analysis Date: 11/25/2014 1332						
Total Organic Carbon	0.62	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-267752	Analysis Date: 12/05/2014 1509						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	29.9		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1951						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1951						
Alkalinity	29.9		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1951						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-265126	Analysis Date: 11/24/2014 1951						
Total Suspended Solids	21.8		mg/L	1.3	1.3	1.0	SM 2540D
Analysis Batch: 460-265155	Analysis Date: 11/25/2014 0913						

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
460-86700-1	IW-1-66-GW-20141121	99	102	98	99
460-86700-2	PZ-1-66-GW-20141121	97	98	99	102
460-86700-3	MW-3S-54-GW-20141120	96	99	98	100
460-86700-4	MW-3D-88-GW-20141120	99	101	100	100
460-86700-5	MW-4S-66-GW-20141121	99	101	97	99
460-86700-6	MW-7D-88-GW-20141120	98	97	98	100
460-86700-7	MW-4D-99-GW-20141121	100	101	99	99
460-86700-8	MW-7S-59-GW-20141120	98	100	99	100
460-86700-9	TB-20141121	98	98	100	101
MB 460-266173/6		97	97	100	101
MB 460-266626/6		97	97	99	98
LCS 460-266173/3		102	99	99	99
LCS 460-266626/3		103	98	99	100
LCSD 460-266626/4		103	100	99	100
460-86699-A-1 MS		104	103	100	99
460-86699-A-1 MSD		102	100	99	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	72-137
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	64-135

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266173/6	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2837.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0949	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0949				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266173/6	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2837.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0949	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0949				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 130
4-Bromofluorobenzene	101	64 - 135
Dibromofluoromethane (Surr)	97	72 - 137
Toluene-d8 (Surr)	100	70 - 130

Method Blank TICs- Batch: 460-266173

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Control Sample - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266173/3	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2834.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0831	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0831				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	20.0	18.3	91	73 - 134	
1,1,2,2-Tetrachloroethane	20.0	17.1	85	55 - 133	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.3	92	60 - 144	
1,1,2-Trichloroethane	20.0	17.1	85	68 - 121	
1,1-Dichloroethane	20.0	17.4	87	75 - 126	
1,1-Dichloroethene	20.0	17.3	86	71 - 123	
1,2,3-Trichlorobenzene	20.0	18.8	94	72 - 135	
1,2,4-Trichlorobenzene	20.0	19.3	97	76 - 129	
1,2-Dichloropropane	20.0	17.5	88	70 - 120	
1,3-Dichlorobenzene	20.0	19.2	96	75 - 120	
1,4-Dichlorobenzene	20.0	18.5	93	75 - 120	
1,4-Dioxane	400	364	91	46 - 150	
2-Butanone (MEK)	100	96.0	96	52 - 140	
2-Hexanone	100	96.7	97	49 - 131	
4-Methyl-2-pentanone (MIBK)	100	99.0	99	56 - 132	
Acetone	100	80.6	81	26 - 150	
Benzene	20.0	18.0	90	69 - 125	
Bromoform	20.0	13.4	67	50 - 134	
Bromomethane	20.0	20.4	102	27 - 150	
Carbon disulfide	20.0	18.4	92	61 - 126	
Carbon tetrachloride	20.0	18.3	91	58 - 150	
Chlorobenzene	20.0	18.6	93	77 - 120	
Chlorobromomethane	20.0	16.4	82	70 - 134	
Chlorodibromomethane	20.0	14.1	71	63 - 131	
Chloroethane	20.0	18.3	92	58 - 145	
Chloroform	20.0	17.3	86	81 - 122	
Chloromethane	20.0	18.9	95	43 - 145	
cis-1,2-Dichloroethene	20.0	17.2	86	78 - 121	
cis-1,3-Dichloropropene	20.0	18.6	93	71 - 120	
Cyclohexane	20.0	15.5	77	62 - 135	
Dichlorobromomethane	20.0	17.7	88	72 - 123	
Dichlorodifluoromethane	20.0	17.4	87	40 - 150	
Ethylbenzene	20.0	18.8	94	74 - 120	
Ethylene Dibromide	20.0	17.5	87	77 - 117	
Isopropylbenzene	20.0	21.8	109	74 - 127	
Methyl acetate	100	92.9	93	62 - 140	
Methyl tert-butyl ether	20.0	17.6	88	73 - 125	
Methylcyclohexane	20.0	15.0	75	64 - 136	
Methylene Chloride	20.0	16.5	82	76 - 123	
m-Xylene & p-Xylene	20.0	19.4	97	78 - 119	
o-Xylene	20.0	19.1	96	79 - 120	
Styrene	20.0	20.1	100	76 - 120	
Tetrachloroethene	20.0	18.6	93	70 - 136	
Toluene	20.0	18.9	94	78 - 120	
trans-1,2-Dichloroethene	20.0	16.8	84	79 - 120	
trans-1,3-Dichloropropene	20.0	18.0	90	71 - 123	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Control Sample - Batch: 460-266173

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 460-266173/3	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2834.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 0831	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 0831				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Trichloroethene	20.0	17.8	89	74 - 120	
Trichlorofluoromethane	20.0	18.4	92	65 - 142	
Vinyl chloride	20.0	17.8	89	56 - 137	
1,2-Dichloroethane	20.0	17.0	85	75 - 127	
1,2-Dichlorobenzene	20.0	18.8	94	81 - 120	
1,2-Dibromo-3-Chloropropane	20.0	16.0	80	53 - 136	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	70 - 130
4-Bromofluorobenzene	99	64 - 135
Dibromofluoromethane (Surr)	102	72 - 137
Toluene-d8 (Surr)	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2858.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1857			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1857				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86699-A-1 MSD	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2859.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1923			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1923				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	87	101	73 - 134	15	30		
1,1,2,2-Tetrachloroethane	86	104	55 - 133	18	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	91	97	60 - 144	6	30		
1,1,2-Trichloroethane	87	97	68 - 121	11	30		
1,1-Dichloroethane	84	96	75 - 126	14	30		
1,1-Dichloroethene	80	93	71 - 123	14	30		
1,2,3-Trichlorobenzene	89	109	72 - 135	20	30		
1,2,4-Trichlorobenzene	89	106	76 - 129	18	30		
1,2-Dichloropropane	86	96	70 - 120	11	30		
1,3-Dichlorobenzene	90	106	75 - 120	16	30		
1,4-Dichlorobenzene	88	104	75 - 120	16	30		
1,4-Dioxane	79	94	46 - 150	17	30		
2-Butanone (MEK)	92	104	52 - 140	13	30		
2-Hexanone	103	123	49 - 131	17	30		
4-Methyl-2-pentanone (MIBK)	106	125	56 - 132	17	30		
Acetone	86	99	26 - 150	15	30		
Benzene	86	100	69 - 125	15	30		
Bromoform	66	78	50 - 134	17	30		
Bromomethane	83	111	27 - 150	28	30		
Carbon disulfide	81	93	61 - 126	14	30		
Carbon tetrachloride	87	100	58 - 150	14	30		
Chlorobenzene	90	103	77 - 120	13	30		
Chlorobromomethane	78	90	70 - 134	14	30		
Chlorodibromomethane	67	80	63 - 131	18	30		
Chloroethane	86	106	58 - 145	20	30		
Chloroform	86	97	81 - 122	12	30		
Chloromethane	74	95	43 - 145	25	30		
cis-1,2-Dichloroethene	82	94	78 - 121	13	30		
cis-1,3-Dichloropropene	84	97	71 - 120	15	30		
Cyclohexane	71	79	62 - 135	11	30		
Dichlorobromomethane	85	97	72 - 123	13	30		
Dichlorodifluoromethane	64	74	40 - 150	15	30		
Ethylbenzene	89	106	74 - 120	17	30		

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2858.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1857			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1857				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	460-86699-A-1 MSD	Analysis Batch:	460-266173	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2859.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/01/2014 1923			Final Weight/Volume:	5 mL
Prep Date:	12/01/2014 1923				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ethylene Dibromide	85	98	77 - 117	15	30		
Isopropylbenzene	103	120	74 - 127	16	30		
Methyl acetate	90	104	62 - 140	14	30		
Methyl tert-butyl ether	86	99	73 - 125	14	30		
Methylcyclohexane	69	74	64 - 136	7	30		
Methylene Chloride	81	91	76 - 123	12	30		
m-Xylene & p-Xylene	91	107	78 - 119	16	30		
o-Xylene	91	104	79 - 120	13	30		
Styrene	95	110	76 - 120	15	30		
Tetrachloroethene	88	100	70 - 136	13	30		
Toluene	90	105	78 - 120	15	30		
trans-1,2-Dichloroethene	83	92	79 - 120	11	30		
trans-1,3-Dichloropropene	82	97	71 - 123	17	30		
Trichloroethene	79	90	74 - 120	12	30		
Trichlorofluoromethane	84	102	65 - 142	19	30		
Vinyl chloride	82	103	56 - 137	23	30		
1,2-Dichloroethane	85	96	75 - 127	12	30		
1,2-Dichlorobenzene	89	106	81 - 120	17	30		
1,2-Dibromo-3-Chloropropane	81	99	53 - 136	20	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	100	70 - 130
4-Bromofluorobenzene	99	101	64 - 135
Dibromofluoromethane (Surr)	104	102	72 - 137
Toluene-d8 (Surr)	100	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Units: ug/L	MSD Lab Sample ID:	460-86699-A-1 MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	10		Dilution:	10	
Analysis Date:	12/01/2014 1857		Analysis Date:	12/01/2014 1923	
Prep Date:	12/01/2014 1857		Prep Date:	12/01/2014 1923	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
1,1,1-Trichloroethane	0.55	J	200	200	174	202
1,1,2,2-Tetrachloroethane	1.0	U	200	200	172	207
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	200	200	183	194
1,1,2-Trichloroethane	1.0	U	200	200	174	193
1,1-Dichloroethane	1.0	U	200	200	168	193
1,1-Dichloroethene	0.80	J	200	200	162	186
1,2,3-Trichlorobenzene	1.0	U	200	200	179	218
1,2,4-Trichlorobenzene	1.0	U	200	200	177	212
1,2-Dichloropropane	1.0	U	200	200	171	191
1,3-Dichlorobenzene	1.0	U	200	200	181	213
1,4-Dichlorobenzene	1.0	U	200	200	177	208
1,4-Dioxane	50	U	4000	4000	3180	3770
2-Butanone (MEK)	5.0	U	1000	1000	919	1040
2-Hexanone	5.0	U	1000	1000	1030	1230
4-Methyl-2-pentanone (MIBK)	5.0	U	1000	1000	1060	1250
Acetone	5.0	U	1000	1000	856	994
Benzene	1.0	U	200	200	171	200
Bromoform	1.0	U	200	200	131	155
Bromomethane	1.0	U	200	200	167	222
Carbon disulfide	1.0	U	200	200	162	186
Carbon tetrachloride	1.0	U	200	200	174	201
Chlorobenzene	1.0	U	200	200	181	207
Chlorobromomethane	1.0	U	200	200	156	179
Chlorodibromomethane	1.0	U	200	200	134	159
Chloroethane	1.0	U	200	200	173	211
Chloroform	1.0	U	200	200	172	194
Chloromethane	1.0	U	200	200	148	190
cis-1,2-Dichloroethene	2.5		200	200	167	191
cis-1,3-Dichloropropene	1.0	U	200	200	168	194
Cyclohexane	1.0	U	200	200	143	159
Dichlorobromomethane	1.0	U	200	200	170	194
Dichlorodifluoromethane	1.0	U	200	200	128	148
Ethylbenzene	1.0	U	200	200	178	211
Ethylene Dibromide	1.0	U	200	200	170	197
Isopropylbenzene	1.0	U	200	200	206	240
Methyl acetate	5.0	U	1000	1000	902	1040
Methyl tert-butyl ether	0.35	J	200	200	172	198
Methylcyclohexane	1.0	U	200	200	138	149
Methylene Chloride	1.0	U	200	200	162	182
m-Xylene & p-Xylene	1.0	U	200	200	182	214
o-Xylene	1.0	U	200	200	182	209
Styrene	1.0	U	200	200	190	221
Tetrachloroethene	2.5		200	200	178	202

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-266173

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	460-86699-A-1 MS	Units:	ug/L	MSD Lab Sample ID:	460-86699-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	10			Dilution:	10
Analysis Date:	12/01/2014 1857			Analysis Date:	12/01/2014 1923
Prep Date:	12/01/2014 1857			Prep Date:	12/01/2014 1923
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Toluene	1.0	U	200	200	180	209
trans-1,2-Dichloroethene	1.0	U	200	200	165	185
trans-1,3-Dichloropropene	1.0	U	200	200	164	194
Trichloroethene	26		200	200	184	206
Trichlorofluoromethane	1.0	U	200	200	168	203
Vinyl chloride	1.0	U	200	200	164	206
1,2-Dichloroethane	1.0	U	200	200	171	193
1,2-Dichlorobenzene	1.0	U	200	200	178	212
1,2-Dibromo-3-Chloropropane	1.0	U	200	200	163	198

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-266626

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266626/6	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2897.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0020	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0020				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-266626

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266626/6	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2897.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0020	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0020				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 130
4-Bromofluorobenzene	98	64 - 135
Dibromofluoromethane (Surr)	97	72 - 137
Toluene-d8 (Surr)	99	70 - 130

Method Blank TICs- Batch: 460-266626

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2894.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2301	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2301				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-266626/4	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2895.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2327	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2327				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	95	95	73 - 134	0	30		
1,1,2,2-Tetrachloroethane	94	90	55 - 133	5	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	107	104	60 - 144	3	30		
1,1,2-Trichloroethane	91	86	68 - 121	6	30		
1,1-Dichloroethane	90	90	75 - 126	1	30		
1,1-Dichloroethene	89	89	71 - 123	0	30		
1,2,3-Trichlorobenzene	103	98	72 - 135	5	30		
1,2,4-Trichlorobenzene	103	98	76 - 129	5	30		
1,2-Dichloropropane	93	91	70 - 120	1	30		
1,3-Dichlorobenzene	100	97	75 - 120	4	30		
1,4-Dichlorobenzene	98	94	75 - 120	4	30		
1,4-Dioxane	86	83	46 - 150	4	30		
2-Butanone (MEK)	99	90	52 - 140	9	30		
2-Hexanone	111	105	49 - 131	5	30		
4-Methyl-2-pentanone (MIBK)	114	107	56 - 132	6	30		
Acetone	93	87	26 - 150	7	30		
Benzene	93	91	69 - 125	2	30		
Bromoform	72	69	50 - 134	4	30		
Bromomethane	99	100	27 - 150	1	30		
Carbon disulfide	86	88	61 - 126	3	30		
Carbon tetrachloride	95	94	58 - 150	1	30		
Chlorobenzene	97	96	77 - 120	2	30		
Chlorobromomethane	87	82	70 - 134	5	30		
Chlorodibromomethane	73	69	63 - 131	6	30		
Chloroethane	98	98	58 - 145	0	30		
Chloroform	90	88	81 - 122	1	30		
Chloromethane	97	98	43 - 145	1	30		
cis-1,2-Dichloroethene	91	89	78 - 121	2	30		
cis-1,3-Dichloropropene	97	94	71 - 120	3	30		
Cyclohexane	87	85	62 - 135	2	30		
Dichlorobromomethane	92	89	72 - 123	4	30		
Dichlorodifluoromethane	95	94	40 - 150	1	30		
Ethylbenzene	100	98	74 - 120	2	30		
Ethylene Dibromide	94	90	77 - 117	5	30		
Isopropylbenzene	113	112	74 - 127	1	30		
Methyl acetate	101	95	62 - 140	6	30		

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2894.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2301	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2301				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-266626/4	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2895.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2327	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2327				5 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	94	88	73 - 125	6	30		
Methylcyclohexane	84	83	64 - 136	2	30		
Methylene Chloride	85	83	76 - 123	2	30		
m-Xylene & p-Xylene	102	99	78 - 119	3	30		
o-Xylene	99	97	79 - 120	1	30		
Styrene	104	102	76 - 120	2	30		
Tetrachloroethene	99	97	70 - 136	2	30		
Toluene	99	97	78 - 120	2	30		
trans-1,2-Dichloroethene	87	85	79 - 120	3	30		
trans-1,3-Dichloropropene	97	92	71 - 123	6	30		
Trichloroethene	91	91	74 - 120	0	30		
Trichlorofluoromethane	102	101	65 - 142	1	30		
Vinyl chloride	101	101	56 - 137	0	30		
1,2-Dichloroethane	89	85	75 - 127	4	30		
1,2-Dichlorobenzene	98	95	81 - 120	3	30		
1,2-Dibromo-3-Chloropropane	91	88	53 - 136	4	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	100	70 - 130
4-Bromofluorobenzene	100	100	64 - 135
Dibromofluoromethane (Surr)	103	103	72 - 137
Toluene-d8 (Surr)	99	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Units:	ug/L	LCSD Lab Sample ID:	LCSD 460-266626/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/02/2014 2301			Analysis Date:	12/02/2014 2327
Prep Date:	12/02/2014 2301			Prep Date:	12/02/2014 2327
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,1,1-Trichloroethane	20.0	20.0	19.1	19.0
1,1,2,2-Tetrachloroethane	20.0	20.0	18.9	18.0
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	21.4	20.7
1,1,2-Trichloroethane	20.0	20.0	18.3	17.2
1,1-Dichloroethane	20.0	20.0	18.0	17.9
1,1-Dichloroethene	20.0	20.0	17.9	17.9
1,2,3-Trichlorobenzene	20.0	20.0	20.7	19.7
1,2,4-Trichlorobenzene	20.0	20.0	20.6	19.6
1,2-Dichloropropane	20.0	20.0	18.5	18.3
1,3-Dichlorobenzene	20.0	20.0	20.0	19.3
1,4-Dichlorobenzene	20.0	20.0	19.5	18.7
1,4-Dioxane	400	400	343	330
2-Butanone (MEK)	100	100	98.8	90.3
2-Hexanone	100	100	111	105
4-Methyl-2-pentanone (MIBK)	100	100	114	107
Acetone	100	100	93.0	86.8
Benzene	20.0	20.0	18.6	18.3
Bromoform	20.0	20.0	14.3	13.8
Bromomethane	20.0	20.0	19.8	20.0
Carbon disulfide	20.0	20.0	17.2	17.7
Carbon tetrachloride	20.0	20.0	19.0	18.8
Chlorobenzene	20.0	20.0	19.5	19.1
Chlorobromomethane	20.0	20.0	17.4	16.5
Chlorodibromomethane	20.0	20.0	14.6	13.8
Chloroethane	20.0	20.0	19.7	19.7
Chloroform	20.0	20.0	17.9	17.7
Chloromethane	20.0	20.0	19.4	19.6
cis-1,2-Dichloroethene	20.0	20.0	18.2	17.7
cis-1,3-Dichloropropene	20.0	20.0	19.5	18.9
Cyclohexane	20.0	20.0	17.4	17.0
Dichlorobromomethane	20.0	20.0	18.5	17.7
Dichlorodifluoromethane	20.0	20.0	18.9	18.8
Ethylbenzene	20.0	20.0	20.0	19.6
Ethylene Dibromide	20.0	20.0	18.8	17.9
Isopropylbenzene	20.0	20.0	22.6	22.4
Methyl acetate	100	100	101	95.4
Methyl tert-butyl ether	20.0	20.0	18.8	17.7
Methylcyclohexane	20.0	20.0	16.9	16.5
Methylene Chloride	20.0	20.0	17.1	16.7

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Units:	ug/L	LCSD Lab Sample ID:	LCSD 460-266626/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/02/2014 2301			Analysis Date:	12/02/2014 2327
Prep Date:	12/02/2014 2301			Prep Date:	12/02/2014 2327
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
m-Xylene & p-Xylene	20.0	20.0	20.4	19.8
o-Xylene	20.0	20.0	19.7	19.4
Styrene	20.0	20.0	20.9	20.4
Tetrachloroethene	20.0	20.0	19.7	19.4
Toluene	20.0	20.0	19.9	19.4
trans-1,2-Dichloroethene	20.0	20.0	17.5	16.9
trans-1,3-Dichloropropene	20.0	20.0	19.4	18.3
Trichloroethene	20.0	20.0	18.2	18.2
Trichlorofluoromethane	20.0	20.0	20.4	20.3
Vinyl chloride	20.0	20.0	20.2	20.1
1,2-Dichloroethane	20.0	20.0	17.8	17.0
1,2-Dichlorobenzene	20.0	20.0	19.7	19.1
1,2-Dibromo-3-Chloropropane	20.0	20.0	18.3	17.6

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265032

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 460-265032/4	Analysis Batch:	460-265032	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb242028.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2028	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloride	0.12	U	0.072	0.12
Sulfate	0.60	U	0.22	0.60

Lab Control Sample - Batch: 460-265032

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 460-265032/5	Analysis Batch:	460-265032	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb242051.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2051	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	1.50	1.414	94	90 - 110	
Sulfate	7.50	7.931	106	90 - 110	

Matrix Spike - Batch: 460-265032

Method: 300.0
Preparation: N/A

Lab Sample ID:	460-86700-8DL	Analysis Batch:	460-265032	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb242352.d
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/24/2014 2352	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A	Run Type:	DL	Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	436	15.0	466.1	203	90 - 110	E *
Sulfate	36.8	75.0	109.1	96	90 - 110	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-266759/1-A	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1648	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Control Sample - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-266759/2-A	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1652	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	46.11	92	80 - 120	
Aluminum	2000	2008	100	80 - 120	
Arsenic	2000	1894	95	80 - 120	
Barium	2000	2044	102	80 - 120	
Beryllium	50.0	51.49	103	80 - 120	
Calcium	20000	19370	97	80 - 120	
Cadmium	50.0	50.30	101	80 - 120	
Cobalt	500	514.8	103	80 - 120	
Chromium	200	199.0	100	80 - 120	
Copper	250	243.7	97	80 - 120	
Iron	1000	993.2	99	80 - 120	
Potassium	20000	19340	97	80 - 120	
Magnesium	20000	19200	96	80 - 120	
Manganese	500	509.3	102	80 - 120	
Sodium	20000	19920	100	80 - 120	
Nickel	500	517.6	104	80 - 120	
Lead	500	520.3	104	80 - 120	
Antimony	500	482.5	97	80 - 120	
Selenium	2000	1931	97	80 - 120	
Thallium	2000	2073	104	80 - 120	
Vanadium	500	503.0	101	80 - 120	
Zinc	500	512.1	102	80 - 120	

Matrix Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-D MS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1622	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	48.87	98	75 - 125	
Aluminum	225		2000	2304	104	75 - 125	
Arsenic	15.0	U	2000	1943	97	75 - 125	
Barium	32.4	J	2000	2105	104	75 - 125	
Beryllium	2.0	U	50.0	51.85	104	75 - 125	
Calcium	2220	J	20000	22100	99	75 - 125	
Cadmium	4.0	U	50.0	51.22	102	75 - 125	
Cobalt	50.0	U	500	515.9	103	75 - 125	
Chromium	352		200	552.0	100	75 - 125	
Copper	25.0	U	250	251.6	101	75 - 125	
Iron	243		1000	1310	107	75 - 125	
Potassium	1220	J	20000	20740	98	75 - 125	
Magnesium	2580	J	20000	22320	99	75 - 125	
Manganese	16.1		500	539.6	105	75 - 125	
Sodium	18000		20000	37930	100	75 - 125	
Nickel	40.0	U	500	524.4	105	75 - 125	
Lead	10.0	U	500	520.9	104	75 - 125	
Antimony	20.0	U	500	493.7	99	75 - 125	
Selenium	20.0	U	2000	1950	98	75 - 125	
Thallium	20.0	U	2000	2109	105	75 - 125	
Vanadium	50.0	U	500	518.0	104	75 - 125	
Zinc	30.0	U	500	525.2	105	75 - 125	

Post Digestion Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B PDS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1626	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	51.68	103	80 - 120	
Aluminum	225		2000	2182	98	80 - 120	
Arsenic	15.0	U	2000	1910	96	80 - 120	
Barium	32.4	J	2000	2070	102	80 - 120	
Beryllium	2.0	U	50.0	50.50	101	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Post Digestion Spike - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B PDS	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1626	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	2220	J	20000	21540	97	80 - 120	
Cadmium	4.0	U	50.0	50.20	100	80 - 120	
Cobalt	50.0	U	500	506.2	101	80 - 120	
Chromium	352		200	542.5	95	80 - 120	
Copper	25.0	U	250	243.8	98	80 - 120	
Iron	243		1000	1264	102	80 - 120	
Potassium	1220	J	20000	20210	95	80 - 120	
Magnesium	2580	J	20000	21760	96	80 - 120	
Manganese	16.1		500	526.4	102	80 - 120	
Sodium	18000		20000	37220	96	80 - 120	
Nickel	40.0	U	500	518.0	104	80 - 120	
Lead	10.0	U	500	513.7	103	80 - 120	
Antimony	20.0	U	500	476.8	95	80 - 120	
Selenium	20.0	U	2000	1914	96	80 - 120	
Thallium	20.0	U	2000	2077	104	80 - 120	
Vanadium	50.0	U	500	505.1	101	80 - 120	
Zinc	30.0	U	500	519.0	104	80 - 120	

Duplicate - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-C DU	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1611	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	225		217.5	3	20	
Arsenic	15.0	U	15.0	NC	20	U
Barium	32.4	J	32.32	0.2	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	2220	J	2223	0.09	20	J
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	50.0	U	50.0	NC	20	U
Chromium	352		355.3	0.8	20	
Copper	25.0	U	25.0	NC	20	U
Iron	243		257.7	6	20	
Potassium	1220	J	1226	0.3	20	J
Magnesium	2580	J	2612	1	20	J
Manganese	16.1		16.48	2	20	
Sodium	18000		17910	0.2	20	
Nickel	40.0	U	40.0	NC	20	U
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	30.0	U	30.0	NC	20	U

Serial Dilution - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B SD ^5	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1619	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	225		1000	NC	10	U
Arsenic	15.0	U	75.0	NC	10	U
Barium	32.4	J	1000	NC	10	U
Beryllium	2.0	U	10.0	NC	10	U
Calcium	2220	J	2210	NC	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Serial Dilution - Batch: 460-266759

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86304-E-2-B SD ^5	Analysis Batch:	460-267189	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-266759	Lab File ID:	12042014A.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/04/2014 1619	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/03/2014 0932				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	50.0	U	250	NC	10	U
Chromium	352		349.5	0.82	10	
Copper	25.0	U	125	NC	10	U
Iron	243		272.1	NC	10	J
Potassium	1220	J	25000	NC	10	U
Magnesium	2580	J	2567	NC	10	J
Manganese	16.1		75.0	NC	10	U
Sodium	18000		17940	NC	10	J
Nickel	40.0	U	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	30.0	U	150	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265126

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 460-265126/25	Analysis Batch:	460-265126	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112414alk.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	11/24/2014 1735	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Carbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Alkalinity	5.0	U	5.0	5.0
Hydroxide Alkalinity	5.0	U	5.0	5.0

LCS-Certified Reference Material - Batch: 460-265126

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265126/26	Analysis Batch:	460-265126	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112414alk.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	11/24/2014 1743	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	81.1	81.81	100.9	90.4 - 108.0	

Duplicate - Batch: 460-265126

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	460-86661-D-4 DU	Analysis Batch:	460-265126	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112414alk.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	11/24/2014 1758	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bicarbonate Alkalinity as CaCO3	172		173.3	0.6	27	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	27	U
Alkalinity	172		173.3	0.6	27	
Hydroxide Alkalinity	5.0	U	5.0	NC	27	U

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265214

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	MB 460-265214/1	Analysis Batch:	460-265214	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/25/2014 1332	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	10.0	U	10.0	10.0

LCS-Certified Reference Material - Batch: 460-265214

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265214/2	Analysis Batch:	460-265214	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/25/2014 1332	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	421	426.0	101.2	84.6 - 110.0	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Duplicate - Batch: 460-265214 **Method: SM 2540C**
Preparation: N/A

Lab Sample ID:	460-86646-B-1 DU	Analysis Batch:	460-265214	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	11/25/2014 1332	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	880	872.0	0.9	5	

Duplicate - Batch: 460-265214 **Method: SM 2540C**
Preparation: N/A

Lab Sample ID:	460-86649-C-4 DU	Analysis Batch:	460-265214	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/25/2014 1332	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	2590	2510	3	5	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265778

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	MB 460-265778/1	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	10.0	U	10.0	10.0

LCS-Certified Reference Material - Batch: 460-265778

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265778/2	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	421	378.0	89.8	84.6 - 110.0	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Duplicate - Batch: 460-265778 **Method: SM 2540C**
Preparation: N/A

Lab Sample ID:	460-86649-C-11 DU	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	1760	1688	4	5	

Duplicate - Batch: 460-265778 **Method: SM 2540C**
Preparation: N/A

Lab Sample ID:	460-86649-C-12 DU	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	1030	956.0	7	5	*

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265155

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-265155/1	Analysis Batch:	460-265155	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/25/2014 0913	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	1.0	U	1.0	1.0

LCS-Certified Reference Material - Batch: 460-265155

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265155/2	Analysis Batch:	460-265155	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/25/2014 0913	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	40.7	40.00	98.3	82.8 - 106.9	

Duplicate - Batch: 460-265155

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	460-86514-A-1 DU	Analysis Batch:	460-265155	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/25/2014 0913	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	436	412.0	6	5	*

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-265761

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-265761/1	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	1.0	U	1.0	1.0

LCS-Certified Reference Material - Batch: 460-265761

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265761/2	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	40.7	42.00	103.2	82.8 - 106.9	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Duplicate - Batch: 460-265761 **Method: SM 2540D**
Preparation: N/A

Lab Sample ID:	460-86676-A-4 DU	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	4500	4400	2	5	

Duplicate - Batch: 460-265761 **Method: SM 2540D**
Preparation: N/A

Lab Sample ID:	460-86691-I-1 DU	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	570	685.0	18	5	*

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Method Blank - Batch: 460-267752

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 460-267752/3	Analysis Batch:	460-267752	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141205.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/05/2014 1207	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.30	1.0

LCS-Certified Reference Material - Batch: 460-267752

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-267752/4	Analysis Batch:	460-267752	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141205.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/05/2014 1228	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	77.6	81.75	105.3	87.8 - 112.0	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-267752

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-86700-1	Analysis Batch:	460-267752	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141205.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/05/2014 1322			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-86700-1	Analysis Batch:	460-267752	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141205.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/05/2014 1345			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Total Organic Carbon	101	101	80 - 120	1	10		

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-267752

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-86700-1	Units:	mg/L	MSD Lab Sample ID:	460-86700-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/05/2014 1322			Analysis Date:	12/05/2014 1345
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Total Organic Carbon	0.40	J	50.0	50.0	51.14	50.86

DATA REPORTING QUALIFIERS

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
HPLC/IC		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	*	MS or MSD exceeds the control limits
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
General Chemistry		
	*	Duplicate analysis not within control limits.
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

Client: HDR Engineering, Inc. Job Number: 460-86700-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-266173					
LCS 460-266173/3	Lab Control Sample	T	Water	8260C	
MB 460-266173/6	Method Blank	T	Water	8260C	
460-86699-A-1 MS	Matrix Spike	T	Water	8260C	
460-86699-A-1 MSD	Matrix Spike Duplicate	T	Water	8260C	
460-86700-4	MW-3D-88-GW-20141120	T	Water	8260C	
460-86700-7	MW-4D-99-GW-20141121	T	Water	8260C	
460-86700-8	MW-7S-59-GW-20141120	T	Water	8260C	
460-86700-9TB	TB-20141121	T	Water	8260C	
Analysis Batch:460-266626					
LCS 460-266626/3	Lab Control Sample	T	Water	8260C	
LCSD 460-266626/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-266626/6	Method Blank	T	Water	8260C	
460-86700-1	IW-1-66-GW-20141121	T	Water	8260C	
460-86700-2	PZ-1-66-GW-20141121	T	Water	8260C	
460-86700-3	MW-3S-54-GW-20141120	T	Water	8260C	
460-86700-5	MW-4S-66-GW-20141121	T	Water	8260C	
460-86700-6	MW-7D-88-GW-20141120	T	Water	8260C	

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86700-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-266759					
LCS 460-266759/2-A	Lab Control Sample	T	Water	3010A	
MB 460-266759/1-A	Method Blank	T	Water	3010A	
460-86304-E-2-C DU	Duplicate	T	Water	3010A	
460-86304-E-2-D MS	Matrix Spike	T	Water	3010A	
460-86700-1	IW-1-66-GW-20141121	T	Water	3010A	
460-86700-2	PZ-1-66-GW-20141121	T	Water	3010A	
460-86700-3	MW-3S-54-GW-20141120	T	Water	3010A	
460-86700-4	MW-3D-88-GW-20141120	T	Water	3010A	
460-86700-5	MW-4S-66-GW-20141121	T	Water	3010A	
460-86700-6	MW-7D-88-GW-20141120	T	Water	3010A	
460-86700-7	MW-4D-99-GW-20141121	T	Water	3010A	
460-86700-8	MW-7S-59-GW-20141120	T	Water	3010A	
Analysis Batch:460-267189					
LCS 460-266759/2-A	Lab Control Sample	T	Water	6010C	460-266759
MB 460-266759/1-A	Method Blank	T	Water	6010C	460-266759
460-86304-E-2-C DU	Duplicate	T	Water	6010C	460-266759
460-86304-E-2-D MS	Matrix Spike	T	Water	6010C	460-266759
460-86700-1	IW-1-66-GW-20141121	T	Water	6010C	460-266759
460-86700-2	PZ-1-66-GW-20141121	T	Water	6010C	460-266759
460-86700-3	MW-3S-54-GW-20141120	T	Water	6010C	460-266759
460-86700-4	MW-3D-88-GW-20141120	T	Water	6010C	460-266759
460-86700-5	MW-4S-66-GW-20141121	T	Water	6010C	460-266759
460-86700-6	MW-7D-88-GW-20141120	T	Water	6010C	460-266759
460-86700-7	MW-4D-99-GW-20141121	T	Water	6010C	460-266759
460-86700-8	MW-7S-59-GW-20141120	T	Water	6010C	460-266759

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86700-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-265126					
LCSSRM 460-265126/26	LCS-Certified Reference Material	T	Water	SM 2320B	
MB 460-265126/25	Method Blank	T	Water	SM 2320B	
460-86661-D-4 DU	Duplicate	T	Water	SM 2320B	
460-86700-1	IW-1-66-GW-20141121	T	Water	SM 2320B	
460-86700-2	PZ-1-66-GW-20141121	T	Water	SM 2320B	
460-86700-3	MW-3S-54-GW-20141120	T	Water	SM 2320B	
460-86700-5	MW-4S-66-GW-20141121	T	Water	SM 2320B	
460-86700-8	MW-7S-59-GW-20141120	T	Water	SM 2320B	
Analysis Batch:460-265155					
LCSSRM 460-265155/2	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-265155/1	Method Blank	T	Water	SM 2540D	
460-86514-A-1 DU	Duplicate	T	Water	SM 2540D	
460-86700-3	MW-3S-54-GW-20141120	T	Water	SM 2540D	
460-86700-8	MW-7S-59-GW-20141120	T	Water	SM 2540D	
Analysis Batch:460-265214					
LCSSRM 460-265214/2	LCS-Certified Reference Material	T	Water	SM 2540C	
MB 460-265214/1	Method Blank	T	Water	SM 2540C	
460-86646-B-1 DU	Duplicate	T	Water	SM 2540C	
460-86649-C-4 DU	Duplicate	T	Water	SM 2540C	
460-86700-3	MW-3S-54-GW-20141120	T	Water	SM 2540C	
460-86700-8	MW-7S-59-GW-20141120	T	Water	SM 2540C	
Analysis Batch:460-265761					
LCSSRM 460-265761/2	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-265761/1	Method Blank	T	Water	SM 2540D	
460-86676-A-4 DU	Duplicate	T	Water	SM 2540D	
460-86691-I-1 DU	Duplicate	T	Water	SM 2540D	
460-86700-1	IW-1-66-GW-20141121	T	Water	SM 2540D	
460-86700-2	PZ-1-66-GW-20141121	T	Water	SM 2540D	
460-86700-5	MW-4S-66-GW-20141121	T	Water	SM 2540D	
Analysis Batch:460-265778					
LCSSRM 460-265778/2	LCS-Certified Reference Material	T	Water	SM 2540C	
MB 460-265778/1	Method Blank	T	Water	SM 2540C	
460-86649-C-11 DU	Duplicate	T	Water	SM 2540C	
460-86649-C-12 DU	Duplicate	T	Water	SM 2540C	
460-86700-1	IW-1-66-GW-20141121	T	Water	SM 2540C	
460-86700-2	PZ-1-66-GW-20141121	T	Water	SM 2540C	
460-86700-5	MW-4S-66-GW-20141121	T	Water	SM 2540C	

Client: HDR Engineering, Inc. Job Number: 460-86700-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-267752					
LCSSRM 460-267752/4	LCS-Certified Reference Material	T	Water	SM 5310B	
MB 460-267752/3	Method Blank	T	Water	SM 5310B	
460-86700-1	IW-1-66-GW-20141121	T	Water	SM 5310B	
460-86700-1MS	Matrix Spike	T	Water	SM 5310B	
460-86700-1MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
460-86700-2	PZ-1-66-GW-20141121	T	Water	SM 5310B	
460-86700-3	MW-3S-54-GW-20141120	T	Water	SM 5310B	
460-86700-5	MW-4S-66-GW-20141121	T	Water	SM 5310B	
460-86700-8	MW-7S-59-GW-20141120	T	Water	SM 5310B	

Report Basis
T = Total

HPLC/IC

Analysis Batch:460-261889					
				300.0	
				300.0	
				300.0	
				300.0	
				300.0	
				300.0	
Analysis Batch:460-265032					
LCS 460-265032/5	Lab Control Sample	T	Water	300.0	
MB 460-265032/4	Method Blank	T	Water	300.0	
460-86700-1DL	IW-1-66-GW-20141121	T	Water	300.0	
460-86700-2DL	PZ-1-66-GW-20141121	T	Water	300.0	
460-86700-3DL	MW-3S-54-GW-20141120	T	Water	300.0	
460-86700-5DL	MW-4S-66-GW-20141121	T	Water	300.0	
460-86700-8DL	MW-7S-59-GW-20141120	T	Water	300.0	
460-86700-8DL2	MW-7S-59-GW-20141120	T	Water	300.0	
460-86700-8MSDL	Matrix Spike	T	Water	300.0	

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: 460-86700-1 **Client ID: IW-1-66-GW-20141121**

Sample Date/Time: 11/21/2014 12:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-C-1		460-266626		12/03/2014 07:17	1	TAL EDI	KLB
A:8260C	460-86700-C-1		460-266626		12/03/2014 07:17	1	TAL EDI	KLB
A:300.0	460-86700-G-1	DL	460-265032		11/24/2014 21:36	10	TAL EDI	CBB
P:3010A	460-86700-E-1-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-E-1-A		460-267189	460-266759	12/04/2014 17:07	1	TAL EDI	CDC
A:SM 2320B	460-86700-F-1		460-265126		11/24/2014 19:24	1	TAL EDI	MCC
A:SM 2540C	460-86700-F-1		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86700-H-1		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86700-D-1		460-267752		12/05/2014 13:00	1	TAL EDI	HTV

Lab ID: 460-86700-1 MS **Client ID: IW-1-66-GW-20141121**

Sample Date/Time: 11/21/2014 12:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-86700-D-1 MS		460-267752		12/05/2014 13:22	1	TAL EDI	HTV

Lab ID: 460-86700-1 MSD **Client ID: IW-1-66-GW-20141121**

Sample Date/Time: 11/21/2014 12:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-86700-D-1 MSD		460-267752		12/05/2014 13:45	1	TAL EDI	HTV

Lab ID: 460-86700-2 **Client ID: PZ-1-66-GW-20141121**

Sample Date/Time: 11/21/2014 12:25 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-C-2		460-266626		12/03/2014 06:00	1	TAL EDI	KLB
A:8260C	460-86700-C-2		460-266626		12/03/2014 06:00	1	TAL EDI	KLB
A:300.0	460-86700-G-2	DL	460-265032		11/24/2014 21:59	10	TAL EDI	CBB
P:3010A	460-86700-E-2-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-E-2-A		460-267189	460-266759	12/04/2014 17:11	1	TAL EDI	CDC
A:SM 2320B	460-86700-F-2		460-265126		11/24/2014 19:31	1	TAL EDI	MCC
A:SM 2540C	460-86700-F-2		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86700-H-2		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86700-D-2		460-267752		12/05/2014 14:07	1	TAL EDI	HTV

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: 460-86700-3 **Client ID: MW-3S-54-GW-20141120**

Sample Date/Time: 11/20/2014 14:35 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-C-3		460-266626		12/03/2014 06:25	1	TAL EDI	KLB
A:8260C	460-86700-C-3		460-266626		12/03/2014 06:25	1	TAL EDI	KLB
A:300.0	460-86700-G-3	DL	460-265032		11/24/2014 22:22	10	TAL EDI	CBB
P:3010A	460-86700-E-3-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-E-3-A		460-267189	460-266759	12/04/2014 17:14	1	TAL EDI	CDC
A:SM 2320B	460-86700-F-3		460-265126		11/24/2014 19:39	1	TAL EDI	MCC
A:SM 2540C	460-86700-H-3		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540D	460-86700-H-3		460-265155		11/25/2014 09:13	1	TAL EDI	PLS
A:SM 5310B	460-86700-D-3		460-267752		12/05/2014 14:28	1	TAL EDI	HTV

Lab ID: 460-86700-4 **Client ID: MW-3D-88-GW-20141120**

Sample Date/Time: 11/20/2014 12:40 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-A-4		460-266173		12/01/2014 15:27	1	TAL EDI	SZD
A:8260C	460-86700-A-4		460-266173		12/01/2014 15:27	1	TAL EDI	SZD
P:3010A	460-86700-D-4-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-D-4-A		460-267189	460-266759	12/04/2014 17:18	1	TAL EDI	CDC

Lab ID: 460-86700-5 **Client ID: MW-4S-66-GW-20141121**

Sample Date/Time: 11/21/2014 09:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-C-5		460-266626		12/03/2014 06:51	1	TAL EDI	KLB
A:8260C	460-86700-C-5		460-266626		12/03/2014 06:51	1	TAL EDI	KLB
A:300.0	460-86700-G-5	DL	460-265032		11/24/2014 22:44	10	TAL EDI	CBB
P:3010A	460-86700-E-5-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-E-5-A		460-267189	460-266759	12/04/2014 17:22	1	TAL EDI	CDC
A:SM 2320B	460-86700-F-5		460-265126		11/24/2014 19:45	1	TAL EDI	MCC
A:SM 2540C	460-86700-F-5		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86700-H-5		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86700-D-5		460-267752		12/05/2014 14:48	1	TAL EDI	HTV

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: 460-86700-6 **Client ID: MW-7D-88-GW-20141120**

Sample Date/Time: 11/20/2014 17:00 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-C-6		460-266626		12/03/2014 05:34	1	TAL EDI	KLB
A:8260C	460-86700-C-6		460-266626		12/03/2014 05:34	1	TAL EDI	KLB
P:3010A	460-86700-D-6-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-D-6-A		460-267189	460-266759	12/04/2014 17:37	1	TAL EDI	CDC

Lab ID: 460-86700-7 **Client ID: MW-4D-99-GW-20141121**

Sample Date/Time: 11/21/2014 09:00 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-A-7		460-266173		12/01/2014 16:20	1	TAL EDI	SZD
A:8260C	460-86700-A-7		460-266173		12/01/2014 16:20	1	TAL EDI	SZD
P:3010A	460-86700-D-7-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-D-7-A		460-267189	460-266759	12/04/2014 17:41	1	TAL EDI	CDC

Lab ID: 460-86700-8 **Client ID: MW-7S-59-GW-20141120**

Sample Date/Time: 11/20/2014 17:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-A-8		460-266173		12/01/2014 16:46	1	TAL EDI	SZD
A:8260C	460-86700-A-8		460-266173		12/01/2014 16:46	1	TAL EDI	SZD
A:300.0	460-86700-G-8	DL	460-265032		11/24/2014 23:07	10	TAL EDI	CBB
A:300.0	460-86700-G-8	DL2	460-265032		11/25/2014 01:01	100	TAL EDI	CBB
P:3010A	460-86700-E-8-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86700-E-8-A		460-267189	460-266759	12/04/2014 17:44	1	TAL EDI	CDC
A:SM 2320B	460-86700-F-8		460-265126		11/24/2014 19:51	1	TAL EDI	MCC
A:SM 2540C	460-86700-H-8		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540D	460-86700-H-8		460-265155		11/25/2014 09:13	1	TAL EDI	PLS
A:SM 5310B	460-86700-D-8		460-267752		12/05/2014 15:09	1	TAL EDI	HTV

Lab ID: 460-86700-8 MS **Client ID: MW-7S-59-GW-20141120**

Sample Date/Time: 11/20/2014 17:10 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-86700-G-8 MS	DL	460-265032		11/24/2014 23:52	10	TAL EDI	CBB

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: 460-86700-9 **Client ID:** TB-20141121

Sample Date/Time: 11/21/2014 12:45 Received Date/Time: 11/21/2014 17:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86700-A-9		460-266173		12/01/2014 10:15	1	TAL EDI	SZD
A:8260C	460-86700-A-9		460-266173		12/01/2014 10:15	1	TAL EDI	SZD

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:5030C	MB 460-266173/6		460-266173		12/01/2014 09:49	1	TAL EDI	SZD
A:8260C	MB 460-266173/6		460-266173		12/01/2014 09:49	1	TAL EDI	SZD
P:5030C	MB 460-266626/6		460-266626		12/03/2014 00:20	1	TAL EDI	KLB
A:8260C	MB 460-266626/6		460-266626		12/03/2014 00:20	1	TAL EDI	KLB
A:300.0	MB 460-265032/4		460-265032		11/24/2014 20:28	1	TAL EDI	CBB
P:3010A	MB 460-266759/1-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	MB 460-266759/1-A		460-267189	460-266759	12/04/2014 16:48	1	TAL EDI	CDC
A:SM 2320B	MB 460-265126/25		460-265126		11/24/2014 17:35	1	TAL EDI	MCC
A:SM 2540C	MB 460-265214/1		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540C	MB 460-265778/1		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	MB 460-265155/1		460-265155		11/25/2014 09:13	1	TAL EDI	PLS
A:SM 2540D	MB 460-265761/1		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	MB 460-267752/3		460-267752		12/05/2014 12:07	1	TAL EDI	HTV

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:5030C	LCS 460-266173/3		460-266173		12/01/2014 08:31	1	TAL EDI	SZD
A:8260C	LCS 460-266173/3		460-266173		12/01/2014 08:31	1	TAL EDI	SZD
P:5030C	LCS 460-266626/3		460-266626		12/02/2014 23:01	1	TAL EDI	KLB
A:8260C	LCS 460-266626/3		460-266626		12/02/2014 23:01	1	TAL EDI	KLB
A:300.0	LCS 460-265032/5		460-265032		11/24/2014 20:51	1	TAL EDI	CBB
P:3010A	LCS 460-266759/2-A		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	LCS 460-266759/2-A		460-267189	460-266759	12/04/2014 16:52	1	TAL EDI	CDC

Lab ID: LCSD **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:5030C	LCSD 460-266626/4		460-266626		12/02/2014 23:27	1	TAL EDI	KLB
A:8260C	LCSD 460-266626/4		460-266626		12/02/2014 23:27	1	TAL EDI	KLB

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: LCSSRM **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
A:SM 2320B	LCSSRM 460-265126/26		460-265126		11/24/2014 17:43	1	TAL EDI	MCC
A:SM 2540C	LCSSRM 460-265214/2		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540C	LCSSRM 460-265778/2		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	LCSSRM 460-265155/2		460-265155		11/25/2014 09:13	1	TAL EDI	PLS
A:SM 2540D	LCSSRM 460-265761/2		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	LCSSRM 460-267752/4		460-267752		12/05/2014 12:28	1	TAL EDI	HTV

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 11/20/2014 07:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86699-A-1 MS		460-266173		12/01/2014 18:57	10	TAL EDI	SZD
A:8260C	460-86699-A-1 MS		460-266173		12/01/2014 18:57	10	TAL EDI	SZD
P:3010A	460-86304-E-2-D MS		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-D MS		460-267189	460-266759	12/04/2014 16:22	1	TAL EDI	CDC

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 11/20/2014 07:15 Received Date/Time: 11/20/2014 16:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86699-A-1 MSD		460-266173		12/01/2014 19:23	10	TAL EDI	SZD
A:8260C	460-86699-A-1 MSD		460-266173		12/01/2014 19:23	10	TAL EDI	SZD

Lab ID: DU **Client ID: N/A**

Sample Date/Time: 11/14/2014 12:56 Received Date/Time: 11/14/2014 18:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86304-E-2-C DU		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-C DU		460-267189	460-266759	12/04/2014 16:11	1	TAL EDI	CDC
A:SM 2320B	460-86661-D-4 DU		460-265126		11/24/2014 17:58	1	TAL EDI	MCC
A:SM 2540C	460-86646-B-1 DU		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540C	460-86649-C-4 DU		460-265214		11/25/2014 13:32	1	TAL EDI	PLS
A:SM 2540C	460-86649-C-11 DU		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540C	460-86649-C-12 DU		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86514-A-1 DU		460-265155		11/25/2014 09:13	1	TAL EDI	PLS
A:SM 2540D	460-86676-A-4 DU		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 2540D	460-86691-I-1 DU		460-265761		11/28/2014 09:41	1	TAL EDI	PLS

Client: HDR Engineering, Inc. Job Number: 460-86700-1

Laboratory Chronicle

Lab ID: SD **Client ID:** N/A

Sample Date/Time: 11/14/2014 12:56 Received Date/Time: 11/14/2014 18:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86304-E-2-B SD ^5		460-267189	460-266759	12/03/2014 09:32	5	TAL EDI	QZY
A:6010C	460-86304-E-2-B SD ^5		460-267189	460-266759	12/04/2014 16:19	5	TAL EDI	CDC
P:3010A	460-86304-E-2-B PDS		460-267189	460-266759	12/03/2014 09:32	1	TAL EDI	QZY
A:6010C	460-86304-E-2-B PDS		460-267189	460-266759	12/04/2014 16:26	1	TAL EDI	CDC

Lab References:
TAL EDI = TestAmerica Edison

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-86917-1

Job Description: NYSDEC Country Cleaners

For:
HDR Engineering, Inc.
1200 MacArthur Boulevard
First Floor
Mahwah, NJ 07430

Attention: Mr. Demetrios Klerides

Melissa Haas

Approved for release.
Melissa Haas
Project Manager I
12/12/2014 9:17 AM

Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
12/12/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

Job Number: 460-86917-1

Job Description: NYSDEC Country Cleaners

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Melissa Haas

Approved for release.
Melissa Haas
Project Manager I
12/12/2014 9:17 AM

Melissa Haas

CASE NARRATIVE

Client: HDR Engineering, Inc.

Project: NYSDEC Country Cleaners

Report Number: 460-86917-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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 11/25/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

Except:

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Alkalinity analysis was not indicated on the COC but is required by the client.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANICS

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for Volatile organics in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 12/03/2014 and 12/04/2014.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 266626 recovered outside control limit for Chlorodibromomethane and Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 267114 recovered outside control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: PZ-3-66-GW-20141121 (460-86917-3), PZ-99-66-GW-20141121 (460-86917-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for Metals in accordance with EPA SW-846 6010C. The samples were prepared on 12/05/2014 and analyzed on 12/06/2014.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

ALKALINITY

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 12/01/2014.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 11/28/2014.

Total Dissolved Solids exceeded the RPD limit for the duplicate of sample 460-86649-12. Refer to the QC report for details.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/28/2014.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

ANIONS

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for anions in accordance with EPA Method 300_ORGFM_28D Anions by Ion Chromatograph. The samples were analyzed on 11/27/2014.

Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: (460-86917-4 MD), (460-86917-4 MS), MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3), PZ-99-66-GW-20141121 (460-86917-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples MW-6S-80-GW-20141121 (460-86917-1), PZ-2-66-GW-20141121 (460-86917-2), PZ-3-66-GW-20141121 (460-86917-3) and PZ-99-66-GW-20141121 (460-86917-4) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 12/10/2014.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-86917-1	MW-6S-80-GW-20141121	Water	11/21/2014 1900	11/25/2014 0930
460-86917-2	PZ-2-66-GW-20141121	Water	11/21/2014 1605	11/25/2014 0930
460-86917-3	PZ-3-66-GW-20141121	Water	11/21/2014 1515	11/25/2014 0930
460-86917-4	PZ-99-66-GW-20141121	Water	11/21/2014 1515	11/25/2014 0930

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86917-1	**MW-6S-80-GW-20141121**					
Chloroform		1.1		1.0	ug/L	8260C
Barium		28.9	J	200	ug/L	6010C
Calcium		16500		5000	ug/L	6010C
Potassium		2050	J	5000	ug/L	6010C
Magnesium		6670		5000	ug/L	6010C
Manganese		13.9	J	15.0	ug/L	6010C
Sodium		13900		5000	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		20.4		5.0	mg/L	SM 2320B
Alkalinity		20.4		5.0	mg/L	SM 2320B
Total Dissolved Solids		175		10.0	mg/L	SM 2540C
Total Suspended Solids		2.6		1.1	mg/L	SM 2540D
Chloride		30.2		1.20	mg/L	300.0
Sulfate		22.1		6.00	mg/L	300.0
460-86917-2	**PZ-2-66-GW-20141121**					
Chloroform		0.31	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		0.69	J	1.0	ug/L	8260C
Tetrachloroethene		110		1.0	ug/L	8260C
Trichloroethene		0.59	J	1.0	ug/L	8260C
Aluminum		168	J	200	ug/L	6010C
Barium		50.3	J	200	ug/L	6010C
Calcium		21100		5000	ug/L	6010C
Copper		8.0	J	25.0	ug/L	6010C
Iron		251		150	ug/L	6010C
Potassium		2260	J	5000	ug/L	6010C
Magnesium		6100		5000	ug/L	6010C
Manganese		347		15.0	ug/L	6010C
Sodium		23900		5000	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		36.6		5.0	mg/L	SM 2320B
Alkalinity		36.6		5.0	mg/L	SM 2320B
Total Dissolved Solids		157		10.0	mg/L	SM 2540C
Total Suspended Solids		3.5		1.1	mg/L	SM 2540D
Chloride		42.3		1.20	mg/L	300.0
Sulfate		24.2		6.00	mg/L	300.0

EXECUTIVE SUMMARY - Detections

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-86917-3	**PZ-3-66-GW-20141121**					
cis-1,2-Dichloroethene		6.6		2.0	ug/L	8260C
Tetrachloroethene		480		2.0	ug/L	8260C
Trichloroethene		4.1		2.0	ug/L	8260C
Aluminum		369		200	ug/L	6010C
Barium		56.8	J	200	ug/L	6010C
Calcium		18700		5000	ug/L	6010C
Chromium		13.7		10.0	ug/L	6010C
Copper		7.8	J	25.0	ug/L	6010C
Iron		542		150	ug/L	6010C
Potassium		2140	J	5000	ug/L	6010C
Magnesium		6000		5000	ug/L	6010C
Manganese		308		15.0	ug/L	6010C
Sodium		22800		5000	ug/L	6010C
Nickel		13.3	J	40.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		28.8		5.0	mg/L	SM 2320B
Alkalinity		28.8		5.0	mg/L	SM 2320B
Total Dissolved Solids		159		10.0	mg/L	SM 2540C
Total Suspended Solids		17.9		1.1	mg/L	SM 2540D
Total Organic Carbon		0.31	J	1.0	mg/L	SM 5310B
Chloride		42.5		1.20	mg/L	300.0
Sulfate		21.2		6.00	mg/L	300.0
460-86917-4	**PZ-99-66-GW-20141121**					
cis-1,2-Dichloroethene		6.9		2.0	ug/L	8260C
Tetrachloroethene		500		2.0	ug/L	8260C
Trichloroethene		3.9		2.0	ug/L	8260C
Aluminum		281		200	ug/L	6010C
Barium		55.8	J	200	ug/L	6010C
Calcium		18500		5000	ug/L	6010C
Chromium		12.1		10.0	ug/L	6010C
Iron		401		150	ug/L	6010C
Potassium		2120	J	5000	ug/L	6010C
Magnesium		5920		5000	ug/L	6010C
Manganese		286		15.0	ug/L	6010C
Sodium		22900		5000	ug/L	6010C
Nickel		12.5	J	40.0	ug/L	6010C
Bicarbonate Alkalinity as CaCO3		28.7		5.0	mg/L	SM 2320B
Alkalinity		28.7		5.0	mg/L	SM 2320B
Total Dissolved Solids		172		10.0	mg/L	SM 2540C
Total Suspended Solids		25.4		1.1	mg/L	SM 2540D
Total Organic Carbon		0.46	J	1.0	mg/L	SM 5310B
Chloride		43.8		1.20	mg/L	300.0
Sulfate		21.7		6.00	mg/L	300.0

METHOD SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Description	Lab Location	Method	Preparation Method
Matrix:			
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Anions, Ion Chromatography	TAL EDI	MCAWW 300.0	
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Total Metals	TAL EDI		SW846 3010A
Alkalinity	TAL EDI	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL EDI	SM SM 2540C	
Solids, Total Suspended (TSS)	TAL EDI	SM SM 2540D	
Organic Carbon, Total (TOC)	TAL EDI	SM SM 5310B	

Lab References:

TAL EDI = TestAmerica Edison

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method	Analyst	Analyst ID
SW846 8260C	Boykin, Kenneth	KLB
SW846 8260C	Desai, Saurab	SZD
SW846 6010C	Chang, Churn Der	CDC
SM SM 2320B	Cabanganan, Maria	MCC
SM SM 2540C	Staib, Patricia L	PLS
SM SM 2540D	Staib, Patricia L	PLS
SM SM 5310B	Vu, Huan	HTV
MCAWW 300.0	Boykin, Carol B	CBB

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2901.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0204			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0204				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.1		0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2901.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0204			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0204				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	101		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2901.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0204			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0204				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2902.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0230			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	0.31	J	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	0.69	J	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	110		0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0
trans-1,3-Dichloropropene	1.0	U	0.24	1.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2902.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0230			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	0.59	J	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	99		72 - 137
Toluene-d8 (Surr)	99		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2902.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0230			Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0230				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2989.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1644			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1644				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	2.0	U	0.12	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.32	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	0.16	2.0
1,1,2-Trichloroethane	2.0	U	0.38	2.0
1,1-Dichloroethane	2.0	U	0.26	2.0
1,1-Dichloroethene	2.0	U	0.18	2.0
1,2,3-Trichlorobenzene	2.0	U	1.0	2.0
1,2,4-Trichlorobenzene	2.0	U	0.68	2.0
1,2-Dichloropropane	2.0	U	0.18	2.0
1,3-Dichlorobenzene	2.0	U	0.28	2.0
1,4-Dichlorobenzene	2.0	U	0.46	2.0
1,4-Dioxane	100	U	72	100
2-Butanone (MEK)	10	U	4.6	10
2-Hexanone	10	U	1.0	10
4-Methyl-2-pentanone (MIBK)	10	U	2.0	10
Acetone	10	U	5.4	10
Benzene	2.0	U	0.16	2.0
Bromoform	2.0	U	0.38	2.0
Bromomethane	2.0	U	0.36	2.0
Carbon disulfide	2.0	U	0.26	2.0
Carbon tetrachloride	2.0	U	0.12	2.0
Chlorobenzene	2.0	U	0.22	2.0
Chlorobromomethane	2.0	U	0.54	2.0
Chlorodibromomethane	2.0	U	0.40	2.0
Chloroethane	2.0	U	0.34	2.0
Chloroform	2.0	U	0.16	2.0
Chloromethane	2.0	U	0.20	2.0
cis-1,2-Dichloroethene	6.6		0.36	2.0
cis-1,3-Dichloropropene	2.0	U	0.36	2.0
Cyclohexane	2.0	U	0.32	2.0
Dichlorobromomethane	2.0	U	0.24	2.0
Dichlorodifluoromethane	2.0	U	0.44	2.0
Ethylbenzene	2.0	U	0.20	2.0
Ethylene Dibromide	2.0	U	0.56	2.0
Isopropylbenzene	2.0	U	0.16	2.0
Methyl acetate	10	U	0.68	10
Methyl tert-butyl ether	2.0	U	0.28	2.0
Methylcyclohexane	2.0	U	0.28	2.0
Methylene Chloride	2.0	U	0.36	2.0
m-Xylene & p-Xylene	2.0	U	0.50	2.0
o-Xylene	2.0	U	0.26	2.0
Styrene	2.0	U	0.24	2.0
Tetrachloroethene	480		0.20	2.0
Toluene	2.0	U	0.30	2.0
trans-1,2-Dichloroethene	2.0	U	0.26	2.0
trans-1,3-Dichloropropene	2.0	U	0.48	2.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2989.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1644			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1644				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	4.1		0.18	2.0
Trichlorofluoromethane	2.0	U	0.30	2.0
Vinyl chloride	2.0	U	0.28	2.0
1,2-Dichloroethane	2.0	U	0.38	2.0
1,2-Dichlorobenzene	2.0	U	0.42	2.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.80	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	100		72 - 137
Toluene-d8 (Surr)	95		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2989.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1644			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1644				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2990.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1710			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1710				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	2.0	U	0.12	2.0
1,1,2,2-Tetrachloroethane	2.0	U	0.32	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	0.16	2.0
1,1,2-Trichloroethane	2.0	U	0.38	2.0
1,1-Dichloroethane	2.0	U	0.26	2.0
1,1-Dichloroethene	2.0	U	0.18	2.0
1,2,3-Trichlorobenzene	2.0	U	1.0	2.0
1,2,4-Trichlorobenzene	2.0	U	0.68	2.0
1,2-Dichloropropane	2.0	U	0.18	2.0
1,3-Dichlorobenzene	2.0	U	0.28	2.0
1,4-Dichlorobenzene	2.0	U	0.46	2.0
1,4-Dioxane	100	U	72	100
2-Butanone (MEK)	10	U	4.6	10
2-Hexanone	10	U	1.0	10
4-Methyl-2-pentanone (MIBK)	10	U	2.0	10
Acetone	10	U	5.4	10
Benzene	2.0	U	0.16	2.0
Bromoform	2.0	U	0.38	2.0
Bromomethane	2.0	U	0.36	2.0
Carbon disulfide	2.0	U	0.26	2.0
Carbon tetrachloride	2.0	U	0.12	2.0
Chlorobenzene	2.0	U	0.22	2.0
Chlorobromomethane	2.0	U	0.54	2.0
Chlorodibromomethane	2.0	U	0.40	2.0
Chloroethane	2.0	U	0.34	2.0
Chloroform	2.0	U	0.16	2.0
Chloromethane	2.0	U	0.20	2.0
cis-1,2-Dichloroethene	6.9		0.36	2.0
cis-1,3-Dichloropropene	2.0	U	0.36	2.0
Cyclohexane	2.0	U	0.32	2.0
Dichlorobromomethane	2.0	U	0.24	2.0
Dichlorodifluoromethane	2.0	U	0.44	2.0
Ethylbenzene	2.0	U	0.20	2.0
Ethylene Dibromide	2.0	U	0.56	2.0
Isopropylbenzene	2.0	U	0.16	2.0
Methyl acetate	10	U	0.68	10
Methyl tert-butyl ether	2.0	U	0.28	2.0
Methylcyclohexane	2.0	U	0.28	2.0
Methylene Chloride	2.0	U	0.36	2.0
m-Xylene & p-Xylene	2.0	U	0.50	2.0
o-Xylene	2.0	U	0.26	2.0
Styrene	2.0	U	0.24	2.0
Tetrachloroethene	500		0.20	2.0
Toluene	2.0	U	0.30	2.0
trans-1,2-Dichloroethene	2.0	U	0.26	2.0
trans-1,3-Dichloropropene	2.0	U	0.48	2.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2990.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1710			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1710				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichloroethene	3.9		0.18	2.0
Trichlorofluoromethane	2.0	U	0.30	2.0
Vinyl chloride	2.0	U	0.28	2.0
1,2-Dichloroethane	2.0	U	0.38	2.0
1,2-Dichlorobenzene	2.0	U	0.42	2.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.80	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene	99		64 - 135
Dibromofluoromethane (Surr)	100		72 - 137
Toluene-d8 (Surr)	95		70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C2990.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1710			Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1710				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265639	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb270002.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/27/2014 0002	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	30.2		0.72	1.20
Sulfate	22.1		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265639	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb270025.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/27/2014 0025	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	42.3		0.72	1.20
Sulfate	24.2		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265639	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb270047.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/27/2014 0047	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	42.5		0.72	1.20
Sulfate	21.2		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	460-265639	Instrument ID:	IC B
	N/A	Prep Batch:	N/A	Lab File ID:	yb270110.d
Dilution:	10			Initial Weight/Volume:	10 mL
Analysis Date:	11/27/2014 0110	Run Type:	DL	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Chloride	43.8		0.72	1.20
Sulfate	21.7		2.22	6.00

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267567	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1825			Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	28.9	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	16500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	2050	J	281	5000
Magnesium	6670		355	5000
Manganese	13.9	J	4.3	15.0
Sodium	13900		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267567	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1829			Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	168	J	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	50.3	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	21100		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	8.0	J	6.2	25.0
Iron	251		51.4	150
Potassium	2260	J	281	5000
Magnesium	6100		355	5000
Manganese	347		4.3	15.0
Sodium	23900		514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267567	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1833			Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	369		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	56.8	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	18700		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	13.7		4.6	10.0
Copper	7.8	J	6.2	25.0
Iron	542		51.4	150
Potassium	2140	J	281	5000
Magnesium	6000		355	5000
Manganese	308		4.3	15.0
Sodium	22800		514	5000
Nickel	13.3	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	460-267567	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1837			Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	281		73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	55.8	J	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	18500		416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	12.1		4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	401		51.4	150
Potassium	2120	J	281	5000
Magnesium	5920		355	5000
Manganese	286		4.3	15.0
Sodium	22900		514	5000
Nickel	12.5	J	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

General Chemistry

Client Sample ID: **MW-6S-80-GW-20141121**

Lab Sample ID: 460-86917-1 Date Sampled: 11/21/2014 1900
Client Matrix: Water Date Received: 11/25/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	175		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	1.0	U	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-268540	Analysis Date: 12/10/2014 1656						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	20.4		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1938						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1938						
Alkalinity	20.4		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1938						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1938						
Total Suspended Solids	2.6		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **PZ-2-66-GW-20141121**

Lab Sample ID: 460-86917-2 Date Sampled: 11/21/2014 1605
Client Matrix: Water Date Received: 11/25/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	157		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	1.0	U	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-268540	Analysis Date: 12/10/2014 1802						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	36.6		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1945						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1945						
Alkalinity	36.6		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1945						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1945						
Total Suspended Solids	3.5		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **PZ-3-66-GW-20141121**

Lab Sample ID: 460-86917-3 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	159		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	0.31	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-268540	Analysis Date: 12/10/2014 1822						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	28.8		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1952						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1952						
Alkalinity	28.8		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1952						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1952						
Total Suspended Solids	17.9		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

General Chemistry

Client Sample ID: **PZ-99-66-GW-20141121**

Lab Sample ID: 460-86917-4 Date Sampled: 11/21/2014 1515
Client Matrix: Water Date Received: 11/25/2014 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Total Dissolved Solids	172		mg/L	10.0	10.0	1.0	SM 2540C
Analysis Batch: 460-265778	Analysis Date: 11/28/2014 1112						
Total Organic Carbon	0.46	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-268540	Analysis Date: 12/10/2014 1843						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Bicarbonate Alkalinity as CaCO3	28.7		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1959						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1959						
Alkalinity	28.7		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1959						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-266751	Analysis Date: 12/01/2014 1959						
Total Suspended Solids	25.4		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-265761	Analysis Date: 11/28/2014 0941						

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
460-86917-1	MW-6S-80-GW-20141121	101	97	99	99
460-86917-2	PZ-2-66-GW-20141121	99	100	99	99
460-86917-3	PZ-3-66-GW-20141121	100	103	95	99
460-86917-4	PZ-99-66-GW-20141121	100	103	95	99
MB 460-266626/6		97	97	99	98
MB 460-267114/6		100	102	96	98
LCS 460-266626/3		103	98	99	100
LCS 460-267114/3		104	101	97	99
LCSD 460-266626/4		103	100	99	100
LCSD 460-267114/4		105	101	96	100

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	72-137
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	64-135

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-266626

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266626/6	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2897.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0020	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0020				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-266626

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-266626/6	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2897.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/03/2014 0020	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/03/2014 0020				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	70 - 130
4-Bromofluorobenzene	98	64 - 135
Dibromofluoromethane (Surr)	97	72 - 137
Toluene-d8 (Surr)	99	70 - 130

Method Blank TICs- Batch: 460-266626

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2894.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2301	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2301				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-266626/4	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2895.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2327	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2327				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	95	95	73 - 134	0	30		
1,1,2,2-Tetrachloroethane	94	90	55 - 133	5	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	107	104	60 - 144	3	30		
1,1,2-Trichloroethane	91	86	68 - 121	6	30		
1,1-Dichloroethane	90	90	75 - 126	1	30		
1,1-Dichloroethene	89	89	71 - 123	0	30		
1,2,3-Trichlorobenzene	103	98	72 - 135	5	30		
1,2,4-Trichlorobenzene	103	98	76 - 129	5	30		
1,2-Dichloropropane	93	91	70 - 120	1	30		
1,3-Dichlorobenzene	100	97	75 - 120	4	30		
1,4-Dichlorobenzene	98	94	75 - 120	4	30		
1,4-Dioxane	86	83	46 - 150	4	30		
2-Butanone (MEK)	99	90	52 - 140	9	30		
2-Hexanone	111	105	49 - 131	5	30		
4-Methyl-2-pentanone (MIBK)	114	107	56 - 132	6	30		
Acetone	93	87	26 - 150	7	30		
Benzene	93	91	69 - 125	2	30		
Bromoform	72	69	50 - 134	4	30		
Bromomethane	99	100	27 - 150	1	30		
Carbon disulfide	86	88	61 - 126	3	30		
Carbon tetrachloride	95	94	58 - 150	1	30		
Chlorobenzene	97	96	77 - 120	2	30		
Chlorobromomethane	87	82	70 - 134	5	30		
Chlorodibromomethane	73	69	63 - 131	6	30		
Chloroethane	98	98	58 - 145	0	30		
Chloroform	90	88	81 - 122	1	30		
Chloromethane	97	98	43 - 145	1	30		
cis-1,2-Dichloroethene	91	89	78 - 121	2	30		
cis-1,3-Dichloropropene	97	94	71 - 120	3	30		
Cyclohexane	87	85	62 - 135	2	30		
Dichlorobromomethane	92	89	72 - 123	4	30		
Dichlorodifluoromethane	95	94	40 - 150	1	30		
Ethylbenzene	100	98	74 - 120	2	30		
Ethylene Dibromide	94	90	77 - 117	5	30		
Isopropylbenzene	113	112	74 - 127	1	30		
Methyl acetate	101	95	62 - 140	6	30		

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2894.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2301	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2301				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-266626/4	Analysis Batch:	460-266626	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2895.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/02/2014 2327	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/02/2014 2327				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	94	88	73 - 125	6	30		
Methylcyclohexane	84	83	64 - 136	2	30		
Methylene Chloride	85	83	76 - 123	2	30		
m-Xylene & p-Xylene	102	99	78 - 119	3	30		
o-Xylene	99	97	79 - 120	1	30		
Styrene	104	102	76 - 120	2	30		
Tetrachloroethene	99	97	70 - 136	2	30		
Toluene	99	97	78 - 120	2	30		
trans-1,2-Dichloroethene	87	85	79 - 120	3	30		
trans-1,3-Dichloropropene	97	92	71 - 123	6	30		
Trichloroethene	91	91	74 - 120	0	30		
Trichlorofluoromethane	102	101	65 - 142	1	30		
Vinyl chloride	101	101	56 - 137	0	30		
1,2-Dichloroethane	89	85	75 - 127	4	30		
1,2-Dichlorobenzene	98	95	81 - 120	3	30		
1,2-Dibromo-3-Chloropropane	91	88	53 - 136	4	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	100	70 - 130
4-Bromofluorobenzene	100	100	64 - 135
Dibromofluoromethane (Surr)	103	103	72 - 137
Toluene-d8 (Surr)	99	99	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Units:	ug/L	LCSD Lab Sample ID:	LCSD 460-266626/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/02/2014 2301			Analysis Date:	12/02/2014 2327
Prep Date:	12/02/2014 2301			Prep Date:	12/02/2014 2327
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,1,1-Trichloroethane	20.0	20.0	19.1	19.0
1,1,2,2-Tetrachloroethane	20.0	20.0	18.9	18.0
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	21.4	20.7
1,1,2-Trichloroethane	20.0	20.0	18.3	17.2
1,1-Dichloroethane	20.0	20.0	18.0	17.9
1,1-Dichloroethene	20.0	20.0	17.9	17.9
1,2,3-Trichlorobenzene	20.0	20.0	20.7	19.7
1,2,4-Trichlorobenzene	20.0	20.0	20.6	19.6
1,2-Dichloropropane	20.0	20.0	18.5	18.3
1,3-Dichlorobenzene	20.0	20.0	20.0	19.3
1,4-Dichlorobenzene	20.0	20.0	19.5	18.7
1,4-Dioxane	400	400	343	330
2-Butanone (MEK)	100	100	98.8	90.3
2-Hexanone	100	100	111	105
4-Methyl-2-pentanone (MIBK)	100	100	114	107
Acetone	100	100	93.0	86.8
Benzene	20.0	20.0	18.6	18.3
Bromoform	20.0	20.0	14.3	13.8
Bromomethane	20.0	20.0	19.8	20.0
Carbon disulfide	20.0	20.0	17.2	17.7
Carbon tetrachloride	20.0	20.0	19.0	18.8
Chlorobenzene	20.0	20.0	19.5	19.1
Chlorobromomethane	20.0	20.0	17.4	16.5
Chlorodibromomethane	20.0	20.0	14.6	13.8
Chloroethane	20.0	20.0	19.7	19.7
Chloroform	20.0	20.0	17.9	17.7
Chloromethane	20.0	20.0	19.4	19.6
cis-1,2-Dichloroethene	20.0	20.0	18.2	17.7
cis-1,3-Dichloropropene	20.0	20.0	19.5	18.9
Cyclohexane	20.0	20.0	17.4	17.0
Dichlorobromomethane	20.0	20.0	18.5	17.7
Dichlorodifluoromethane	20.0	20.0	18.9	18.8
Ethylbenzene	20.0	20.0	20.0	19.6
Ethylene Dibromide	20.0	20.0	18.8	17.9
Isopropylbenzene	20.0	20.0	22.6	22.4
Methyl acetate	100	100	101	95.4
Methyl tert-butyl ether	20.0	20.0	18.8	17.7
Methylcyclohexane	20.0	20.0	16.9	16.5
Methylene Chloride	20.0	20.0	17.1	16.7

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-266626

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-266626/3	Units:	ug/L	LCSD Lab Sample ID:	LCSD 460-266626/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/02/2014 2301			Analysis Date:	12/02/2014 2327
Prep Date:	12/02/2014 2301			Prep Date:	12/02/2014 2327
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
m-Xylene & p-Xylene	20.0	20.0	20.4	19.8
o-Xylene	20.0	20.0	19.7	19.4
Styrene	20.0	20.0	20.9	20.4
Tetrachloroethene	20.0	20.0	19.7	19.4
Toluene	20.0	20.0	19.9	19.4
trans-1,2-Dichloroethene	20.0	20.0	17.5	16.9
trans-1,3-Dichloropropene	20.0	20.0	19.4	18.3
Trichloroethene	20.0	20.0	18.2	18.2
Trichlorofluoromethane	20.0	20.0	20.4	20.3
Vinyl chloride	20.0	20.0	20.2	20.1
1,2-Dichloroethane	20.0	20.0	17.8	17.0
1,2-Dichlorobenzene	20.0	20.0	19.7	19.1
1,2-Dibromo-3-Chloropropane	20.0	20.0	18.3	17.6

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-267114

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-267114/6	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2981.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1319	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1319				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.060	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.16	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.080	1.0
1,1,2-Trichloroethane	1.0	U	0.19	1.0
1,1-Dichloroethane	1.0	U	0.13	1.0
1,1-Dichloroethene	1.0	U	0.090	1.0
1,2,3-Trichlorobenzene	1.0	U	0.51	1.0
1,2,4-Trichlorobenzene	1.0	U	0.34	1.0
1,2-Dichloropropane	1.0	U	0.090	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,4-Dichlorobenzene	1.0	U	0.23	1.0
1,4-Dioxane	50	U	36	50
2-Butanone (MEK)	5.0	U	2.3	5.0
2-Hexanone	5.0	U	0.50	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.99	5.0
Acetone	5.0	U	2.7	5.0
Benzene	1.0	U	0.080	1.0
Bromoform	1.0	U	0.19	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.060	1.0
Chlorobenzene	1.0	U	0.11	1.0
Chlorobromomethane	1.0	U	0.27	1.0
Chlorodibromomethane	1.0	U	0.20	1.0
Chloroethane	1.0	U	0.17	1.0
Chloroform	1.0	U	0.080	1.0
Chloromethane	1.0	U	0.10	1.0
cis-1,2-Dichloroethene	1.0	U	0.18	1.0
cis-1,3-Dichloropropene	1.0	U	0.18	1.0
Cyclohexane	1.0	U	0.16	1.0
Dichlorobromomethane	1.0	U	0.12	1.0
Dichlorodifluoromethane	1.0	U	0.22	1.0
Ethylbenzene	1.0	U	0.10	1.0
Ethylene Dibromide	1.0	U	0.28	1.0
Isopropylbenzene	1.0	U	0.080	1.0
Methyl acetate	5.0	U	0.34	5.0
Methyl tert-butyl ether	1.0	U	0.14	1.0
Methylcyclohexane	1.0	U	0.14	1.0
Methylene Chloride	1.0	U	0.18	1.0
m-Xylene & p-Xylene	1.0	U	0.25	1.0
o-Xylene	1.0	U	0.13	1.0
Styrene	1.0	U	0.12	1.0
Tetrachloroethene	1.0	U	0.10	1.0
Toluene	1.0	U	0.15	1.0
trans-1,2-Dichloroethene	1.0	U	0.13	1.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-267114

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-267114/6	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2981.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1319	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1319				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
trans-1,3-Dichloropropene	1.0	U	0.24	1.0
Trichloroethene	1.0	U	0.090	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.19	1.0
1,2-Dichlorobenzene	1.0	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.40	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	70 - 130
4-Bromofluorobenzene	98	64 - 135
Dibromofluoromethane (Surr)	100	72 - 137
Toluene-d8 (Surr)	96	70 - 130

Method Blank TICs- Batch: 460-267114

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-267114

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-267114/3	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2978.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1202	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1202				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-267114/4	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2979.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1227	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1227				5 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	96	95	73 - 134	0	30		
1,1,2,2-Tetrachloroethane	92	92	55 - 133	0	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	76	93	60 - 144	20	30		
1,1,2-Trichloroethane	96	88	68 - 121	8	30		
1,1-Dichloroethane	96	92	75 - 126	4	30		
1,1-Dichloroethene	77	92	71 - 123	19	30		
1,2,3-Trichlorobenzene	103	100	72 - 135	3	30		
1,2,4-Trichlorobenzene	102	98	76 - 129	4	30		
1,2-Dichloropropane	99	95	70 - 120	4	30		
1,3-Dichlorobenzene	102	97	75 - 120	5	30		
1,4-Dichlorobenzene	98	95	75 - 120	4	30		
1,4-Dioxane	97	89	46 - 150	9	30		
2-Butanone (MEK)	98	94	52 - 140	4	30		
2-Hexanone	119	112	49 - 131	6	30		
4-Methyl-2-pentanone (MIBK)	121	114	56 - 132	6	30		
Acetone	104	98	26 - 150	6	30		
Benzene	96	92	69 - 125	5	30		
Bromoform	74	70	50 - 134	5	30		
Bromomethane	101	82	27 - 150	20	30		
Carbon disulfide	87	91	61 - 126	4	30		
Carbon tetrachloride	93	94	58 - 150	2	30		
Chlorobenzene	100	96	77 - 120	4	30		
Chlorobromomethane	98	93	70 - 134	5	30		
Chlorodibromomethane	76	71	63 - 131	7	30		
Chloroethane	97	87	58 - 145	11	30		
Chloroform	97	94	81 - 122	3	30		
Chloromethane	105	95	43 - 145	10	30		
cis-1,2-Dichloroethene	96	94	78 - 121	2	30		
cis-1,3-Dichloropropene	97	93	71 - 120	4	30		
Cyclohexane	73	78	62 - 135	7	30		
Dichlorobromomethane	98	94	72 - 123	4	30		
Dichlorodifluoromethane	81	81	40 - 150	0	30		
Ethylbenzene	102	96	74 - 120	6	30		
Ethylene Dibromide	97	92	77 - 117	5	30		
Isopropylbenzene	113	110	74 - 127	3	30		
Methyl acetate	110	111	62 - 140	1	30		

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-267114

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-267114/3	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2978.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1202	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1202				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-267114/4	Analysis Batch:	460-267114	Instrument ID:	CVOAMS3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C2979.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2014 1227	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2014 1227				5 mL
Leach Date:	N/A				

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	100	98	73 - 125	2	30		
Methylcyclohexane	69	75	64 - 136	8	30		
Methylene Chloride	94	90	76 - 123	5	30		
m-Xylene & p-Xylene	103	98	78 - 119	6	30		
o-Xylene	102	97	79 - 120	5	30		
Styrene	108	102	76 - 120	6	30		
Tetrachloroethene	95	95	70 - 136	0	30		
Toluene	101	97	78 - 120	4	30		
trans-1,2-Dichloroethene	94	93	79 - 120	1	30		
trans-1,3-Dichloropropene	97	90	71 - 123	8	30		
Trichloroethene	99	95	74 - 120	4	30		
Trichlorofluoromethane	86	88	65 - 142	2	30		
Vinyl chloride	104	96	56 - 137	8	30		
1,2-Dichloroethane	97	93	75 - 127	4	30		
1,2-Dichlorobenzene	101	98	81 - 120	3	30		
1,2-Dibromo-3-Chloropropane	89	88	53 - 136	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101	101	70 - 130
4-Bromofluorobenzene	99	100	64 - 135
Dibromofluoromethane (Surr)	104	105	72 - 137
Toluene-d8 (Surr)	97	96	70 - 130

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-267114

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-267114/3	Units: ug/L		LCSD Lab Sample ID:	LCSD 460-267114/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/04/2014 1202			Analysis Date:	12/04/2014 1227
Prep Date:	12/04/2014 1202			Prep Date:	12/04/2014 1227
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,1,1-Trichloroethane	20.0	20.0	19.2	19.1
1,1,2,2-Tetrachloroethane	20.0	20.0	18.5	18.4
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0	15.2	18.6
1,1,2-Trichloroethane	20.0	20.0	19.2	17.7
1,1-Dichloroethane	20.0	20.0	19.2	18.5
1,1-Dichloroethene	20.0	20.0	15.3	18.5
1,2,3-Trichlorobenzene	20.0	20.0	20.5	20.0
1,2,4-Trichlorobenzene	20.0	20.0	20.4	19.6
1,2-Dichloropropane	20.0	20.0	19.9	19.0
1,3-Dichlorobenzene	20.0	20.0	20.3	19.3
1,4-Dichlorobenzene	20.0	20.0	19.7	19.0
1,4-Dioxane	400	400	388	356
2-Butanone (MEK)	100	100	98.0	93.7
2-Hexanone	100	100	119	112
4-Methyl-2-pentanone (MIBK)	100	100	121	114
Acetone	100	100	104	97.7
Benzene	20.0	20.0	19.3	18.3
Bromoform	20.0	20.0	14.7	14.0
Bromomethane	20.0	20.0	20.2	16.5
Carbon disulfide	20.0	20.0	17.5	18.1
Carbon tetrachloride	20.0	20.0	18.5	18.9
Chlorobenzene	20.0	20.0	20.1	19.2
Chlorobromomethane	20.0	20.0	19.7	18.7
Chlorodibromomethane	20.0	20.0	15.1	14.1
Chloroethane	20.0	20.0	19.3	17.4
Chloroform	20.0	20.0	19.4	18.7
Chloromethane	20.0	20.0	21.0	19.0
cis-1,2-Dichloroethene	20.0	20.0	19.1	18.7
cis-1,3-Dichloropropene	20.0	20.0	19.4	18.6
Cyclohexane	20.0	20.0	14.5	15.6
Dichlorobromomethane	20.0	20.0	19.7	18.9
Dichlorodifluoromethane	20.0	20.0	16.2	16.2
Ethylbenzene	20.0	20.0	20.4	19.2
Ethylene Dibromide	20.0	20.0	19.4	18.5
Isopropylbenzene	20.0	20.0	22.6	21.9
Methyl acetate	100	100	110	111
Methyl tert-butyl ether	20.0	20.0	19.9	19.5
Methylcyclohexane	20.0	20.0	13.8	15.0
Methylene Chloride	20.0	20.0	18.8	17.9

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 460-267114

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-267114/3	Units:	ug/L	LCSD Lab Sample ID:	LCSD 460-267114/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/04/2014 1202			Analysis Date:	12/04/2014 1227
Prep Date:	12/04/2014 1202			Prep Date:	12/04/2014 1227
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
m-Xylene & p-Xylene	20.0	20.0	20.7	19.5
o-Xylene	20.0	20.0	20.4	19.4
Styrene	20.0	20.0	21.6	20.3
Tetrachloroethene	20.0	20.0	19.0	19.0
Toluene	20.0	20.0	20.2	19.3
trans-1,2-Dichloroethene	20.0	20.0	18.7	18.5
trans-1,3-Dichloropropene	20.0	20.0	19.3	17.9
Trichloroethene	20.0	20.0	19.8	18.9
Trichlorofluoromethane	20.0	20.0	17.2	17.5
Vinyl chloride	20.0	20.0	20.7	19.2
1,2-Dichloroethane	20.0	20.0	19.4	18.7
1,2-Dichlorobenzene	20.0	20.0	20.2	19.5
1,2-Dibromo-3-Chloropropane	20.0	20.0	17.9	17.6

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-265639

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 460-265639/4	Analysis Batch:	460-265639	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb262254.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/26/2014 2254	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloride	0.12	U	0.072	0.12
Sulfate	0.60	U	0.22	0.60

Lab Control Sample - Batch: 460-265639

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 460-265639/5	Analysis Batch:	460-265639	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb262316.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/26/2014 2316	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	1.50	1.408	94	90 - 110	
Sulfate	7.50	7.939	106	90 - 110	

Matrix Spike - Batch: 460-265639

Method: 300.0
Preparation: N/A

Lab Sample ID:	460-86917-4DL	Analysis Batch:	460-265639	Instrument ID:	IC B
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	yb270155.d
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	11/27/2014 0155	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A	Run Type:	DL	Injection Volume:	10 uL
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	43.8	15.0	58.61	99	90 - 110	
Sulfate	21.7	75.0	88.90	90	90 - 110	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 460-267473/1-A	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1733	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Silver	10.0	U	1.9	10.0
Aluminum	200	U	73.6	200
Arsenic	15.0	U	4.3	15.0
Barium	200	U	6.5	200
Beryllium	2.0	U	1.1	2.0
Calcium	5000	U	416	5000
Cadmium	4.0	U	1.2	4.0
Cobalt	50.0	U	3.8	50.0
Chromium	10.0	U	4.6	10.0
Copper	25.0	U	6.2	25.0
Iron	150	U	51.4	150
Potassium	5000	U	281	5000
Magnesium	5000	U	355	5000
Manganese	15.0	U	4.3	15.0
Sodium	5000	U	514	5000
Nickel	40.0	U	7.8	40.0
Lead	10.0	U	4.6	10.0
Antimony	20.0	U	5.4	20.0
Selenium	20.0	U	6.7	20.0
Thallium	20.0	U	9.2	20.0
Vanadium	50.0	U	4.2	50.0
Zinc	30.0	U	5.9	30.0

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Control Sample - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 460-267473/2-A	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1718	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	50.0	50.67	101	80 - 120	
Aluminum	2000	2022	101	80 - 120	
Arsenic	2000	2024	101	80 - 120	
Barium	2000	2168	108	80 - 120	
Beryllium	50.0	52.46	105	80 - 120	
Calcium	20000	19520	98	80 - 120	
Cadmium	50.0	52.41	105	80 - 120	
Cobalt	500	531.3	106	80 - 120	
Chromium	200	208.6	104	80 - 120	
Copper	250	267.8	107	80 - 120	
Iron	1000	1088	109	80 - 120	
Potassium	20000	19620	98	80 - 120	
Magnesium	20000	19740	99	80 - 120	
Manganese	500	530.9	106	80 - 120	
Sodium	20000	20360	102	80 - 120	
Nickel	500	550.4	110	80 - 120	
Lead	500	539.5	108	80 - 120	
Antimony	500	514.4	103	80 - 120	
Selenium	2000	2030	102	80 - 120	
Thallium	2000	2272	114	80 - 120	
Vanadium	500	520.2	104	80 - 120	
Zinc	500	526.6	105	80 - 120	

Matrix Spike - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-F MS	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1737	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	50.31	101	75 - 125	
Aluminum	749		2000	2753	100	75 - 125	
Arsenic	8.9	J	2000	2016	100	75 - 125	
Barium	8.2	J	2000	2143	107	75 - 125	
Beryllium	2.0	U	50.0	51.81	104	75 - 125	
Calcium	14200		20000	32880	94	75 - 125	
Cadmium	4.0	U	50.0	51.55	103	75 - 125	
Cobalt	50.0	U	500	524.9	105	75 - 125	
Chromium	6.7	J	200	209.3	101	75 - 125	
Copper	7.3	J	250	269.9	105	75 - 125	
Iron	669		1000	1671	100	75 - 125	
Potassium	2510	J	20000	21790	96	75 - 125	
Magnesium	1100	J	20000	20400	97	75 - 125	
Manganese	12.4	J	500	535.1	105	75 - 125	
Sodium	3930	J	20000	23940	100	75 - 125	
Nickel	40.0	U	500	542.0	108	75 - 125	
Lead	10.0	U	500	533.3	107	75 - 125	
Antimony	20.0	U	500	509.8	102	75 - 125	
Selenium	20.0	U	2000	2000	100	75 - 125	
Thallium	20.0	U	2000	2211	111	75 - 125	
Vanadium	50.0	U	500	516.3	103	75 - 125	
Zinc	10.3	J	500	523.4	103	75 - 125	

Post Digestion Spike - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-D PDS	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1740	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	10.0	U	50.0	54.59	109	80 - 120	
Aluminum	749		2000	2710	98	80 - 120	
Arsenic	8.9	J	2000	1992	99	80 - 120	
Barium	8.2	J	2000	2119	106	80 - 120	
Beryllium	2.0	U	50.0	51.61	103	80 - 120	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Post Digestion Spike - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-D PDS	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1740	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	14200		20000	33130	95	80 - 120	
Cadmium	4.0	U	50.0	51.29	103	80 - 120	
Cobalt	50.0	U	500	522.1	104	80 - 120	
Chromium	6.7	J	200	207.8	101	80 - 120	
Copper	7.3	J	250	266.1	104	80 - 120	
Iron	669		1000	1697	103	80 - 120	
Potassium	2510	J	20000	21740	96	80 - 120	
Magnesium	1100	J	20000	20390	96	80 - 120	
Manganese	12.4	J	500	531.2	104	80 - 120	
Sodium	3930	J	20000	23850	100	80 - 120	
Nickel	40.0	U	500	536.5	107	80 - 120	
Lead	10.0	U	500	528.5	106	80 - 120	
Antimony	20.0	U	500	490.9	98	80 - 120	
Selenium	20.0	U	2000	1986	99	80 - 120	
Thallium	20.0	U	2000	2201	110	80 - 120	
Vanadium	50.0	U	500	512.4	102	80 - 120	
Zinc	10.3	J	500	522.6	102	80 - 120	

Duplicate - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-E DU	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1707	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	10.0	U	10.0	NC	20	U
Aluminum	749		718.9	4	20	
Arsenic	8.9	J	7.72	14	20	J
Barium	8.2	J	7.95	3	20	J
Beryllium	2.0	U	2.0	NC	20	U
Calcium	14200		14040	1	20	
Cadmium	4.0	U	4.0	NC	20	U
Cobalt	50.0	U	50.0	NC	20	U
Chromium	6.7	J	6.08	10	20	J
Copper	7.3	J	7.16	2	20	J
Iron	669		618.1	8	20	
Potassium	2510	J	2504	0.2	20	J
Magnesium	1100	J	1076	2	20	J
Manganese	12.4	J	11.97	3	20	J
Sodium	3930	J	3897	0.7	20	J
Nickel	40.0	U	40.0	NC	20	U
Lead	10.0	U	10.0	NC	20	U
Antimony	20.0	U	20.0	NC	20	U
Selenium	20.0	U	20.0	NC	20	U
Thallium	20.0	U	20.0	NC	20	U
Vanadium	50.0	U	50.0	NC	20	U
Zinc	10.3	J	10.25	0.8	20	J

Serial Dilution - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-D SD ^5	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1714	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	10.0	U	50.0	NC	10	U
Aluminum	749		734.5	NC	10	J
Arsenic	8.9	J	75.0	NC	10	U
Barium	8.2	J	1000	NC	10	U
Beryllium	2.0	U	10.0	NC	10	U
Calcium	14200		13850	NC	10	J
Cadmium	4.0	U	20.0	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Serial Dilution - Batch: 460-267473

Method: 6010C
Preparation: 3010A

Lab Sample ID:	460-86451-A-2-D SD ^5	Analysis Batch:	460-267567	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-267473	Lab File ID:	12062014.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	12/06/2014 1714	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	12/05/2014 2007				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Cobalt	50.0	U	250	NC	10	U
Chromium	6.7	J	50.0	NC	10	U
Copper	7.3	J	125	NC	10	U
Iron	669		662.5	NC	10	J
Potassium	2510	J	2339	NC	10	J
Magnesium	1100	J	25000	NC	10	U
Manganese	12.4	J	75.0	NC	10	U
Sodium	3930	J	3789	NC	10	J
Nickel	40.0	U	200	NC	10	U
Lead	10.0	U	50.0	NC	10	U
Antimony	20.0	U	100	NC	10	U
Selenium	20.0	U	100	NC	10	U
Thallium	20.0	U	100	NC	10	U
Vanadium	50.0	U	250	NC	10	U
Zinc	10.3	J	150	NC	10	U

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-266751

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 460-266751/2	Analysis Batch:	460-266751	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	120114co2.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/01/2014 1609	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Carbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Alkalinity	5.0	U	5.0	5.0
Hydroxide Alkalinity	5.0	U	5.0	5.0

LCS-Certified Reference Material - Batch: 460-266751

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-266751/3	Analysis Batch:	460-266751	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	120114co2.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/01/2014 1616	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	81.1	82.90	102.2	90.4 - 108.0	

Duplicate - Batch: 460-266751

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	460-86930-K-1 DU	Analysis Batch:	460-266751	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	120114co2.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/01/2014 1637	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bicarbonate Alkalinity as CaCO3	380		378.3	0.4	27	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	27	U
Alkalinity	380		378.3	0.4	27	
Hydroxide Alkalinity	5.0	U	5.0	NC	27	U

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-265778

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	MB 460-265778/1	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	10.0	U	10.0	10.0

LCS-Certified Reference Material - Batch: 460-265778

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265778/2	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	421	378.0	89.8	84.6 - 110.0	

Duplicate - Batch: 460-265778

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	460-86649-C-12 DU	Analysis Batch:	460-265778	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	11/28/2014 1112	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	1030	956.0	7	5	*

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-265761

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-265761/1	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Total Suspended Solids	1.0	U	1.0	1.0

LCS-Certified Reference Material - Batch: 460-265761

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-265761/2	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	40.7	42.00	103.2	82.8 - 106.9	

Duplicate - Batch: 460-265761

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	460-86676-A-4 DU	Analysis Batch:	460-265761	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	11/28/2014 0941	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	4500	4400	2	5	

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Method Blank - Batch: 460-268540

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 460-268540/3	Analysis Batch:	460-268540	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141210.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/10/2014 1524	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	1.0	U	0.30	1.0

LCS-Certified Reference Material - Batch: 460-268540

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-268540/4	Analysis Batch:	460-268540	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141210.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/10/2014 1545	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	77.6	78.49	101.1	87.8 - 112.0	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-268540

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-86917-1	Analysis Batch:	460-268540	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141210.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/10/2014 1718			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-86917-1	Analysis Batch:	460-268540	Instrument ID:	TOC_Shimadzu3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141210.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/10/2014 1740			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Total Organic Carbon	97	97	80 - 120	0	10		

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-268540

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-86917-1	Units:	mg/L	MSD Lab Sample ID:	460-86917-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/10/2014 1718			Analysis Date:	12/10/2014 1740
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Total Organic Carbon	1.0	U	50.0	50.0	48.31	48.30

DATA REPORTING QUALIFIERS

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
HPLC/IC		
	U	Analyzed for but not detected.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL
General Chemistry		
	*	Duplicate analysis not within control limits.
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

Client: HDR Engineering, Inc. Job Number: 460-86917-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-266626					
LCS 460-266626/3	Lab Control Sample	T	Water	8260C	
LCSD 460-266626/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-266626/6	Method Blank	T	Water	8260C	
460-86917-1	MW-6S-80-GW-20141121	T	Water	8260C	
460-86917-2	PZ-2-66-GW-20141121	T	Water	8260C	
Analysis Batch:460-267114					
LCS 460-267114/3	Lab Control Sample	T	Water	8260C	
LCSD 460-267114/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-267114/6	Method Blank	T	Water	8260C	
460-86917-3	PZ-3-66-GW-20141121	T	Water	8260C	
460-86917-4	PZ-99-66-GW-20141121	T	Water	8260C	

Report Basis
T = Total

Metals					
Prep Batch: 460-267473					
LCS 460-267473/2-A	Lab Control Sample	T	Water	3010A	
MB 460-267473/1-A	Method Blank	T	Water	3010A	
460-86451-A-2-E DU	Duplicate	T	Water	3010A	
460-86451-A-2-F MS	Matrix Spike	T	Water	3010A	
460-86917-1	MW-6S-80-GW-20141121	T	Water	3010A	
460-86917-2	PZ-2-66-GW-20141121	T	Water	3010A	
460-86917-3	PZ-3-66-GW-20141121	T	Water	3010A	
460-86917-4	PZ-99-66-GW-20141121	T	Water	3010A	
Analysis Batch:460-267567					
LCS 460-267473/2-A	Lab Control Sample	T	Water	6010C	460-267473
MB 460-267473/1-A	Method Blank	T	Water	6010C	460-267473
460-86451-A-2-E DU	Duplicate	T	Water	6010C	460-267473
460-86451-A-2-F MS	Matrix Spike	T	Water	6010C	460-267473
460-86917-1	MW-6S-80-GW-20141121	T	Water	6010C	460-267473
460-86917-2	PZ-2-66-GW-20141121	T	Water	6010C	460-267473
460-86917-3	PZ-3-66-GW-20141121	T	Water	6010C	460-267473
460-86917-4	PZ-99-66-GW-20141121	T	Water	6010C	460-267473

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86917-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-265761					
LCSSRM 460-265761/2	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-265761/1	Method Blank	T	Water	SM 2540D	
460-86676-A-4 DU	Duplicate	T	Water	SM 2540D	
460-86917-1	MW-6S-80-GW-20141121	T	Water	SM 2540D	
460-86917-2	PZ-2-66-GW-20141121	T	Water	SM 2540D	
460-86917-3	PZ-3-66-GW-20141121	T	Water	SM 2540D	
460-86917-4	PZ-99-66-GW-20141121	T	Water	SM 2540D	
Analysis Batch:460-265778					
LCSSRM 460-265778/2	LCS-Certified Reference Material	T	Water	SM 2540C	
MB 460-265778/1	Method Blank	T	Water	SM 2540C	
460-86649-C-12 DU	Duplicate	T	Water	SM 2540C	
460-86917-1	MW-6S-80-GW-20141121	T	Water	SM 2540C	
460-86917-2	PZ-2-66-GW-20141121	T	Water	SM 2540C	
460-86917-3	PZ-3-66-GW-20141121	T	Water	SM 2540C	
460-86917-4	PZ-99-66-GW-20141121	T	Water	SM 2540C	
Analysis Batch:460-266751					
LCSSRM 460-266751/3	LCS-Certified Reference Material	T	Water	SM 2320B	
MB 460-266751/2	Method Blank	T	Water	SM 2320B	
460-86917-1	MW-6S-80-GW-20141121	T	Water	SM 2320B	
460-86917-2	PZ-2-66-GW-20141121	T	Water	SM 2320B	
460-86917-3	PZ-3-66-GW-20141121	T	Water	SM 2320B	
460-86917-4	PZ-99-66-GW-20141121	T	Water	SM 2320B	
460-86930-K-1 DU	Duplicate	T	Water	SM 2320B	
Analysis Batch:460-268540					
LCSSRM 460-268540/4	LCS-Certified Reference Material	T	Water	SM 5310B	
MB 460-268540/3	Method Blank	T	Water	SM 5310B	
460-86917-1	MW-6S-80-GW-20141121	T	Water	SM 5310B	
460-86917-1MS	Matrix Spike	T	Water	SM 5310B	
460-86917-1MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
460-86917-2	PZ-2-66-GW-20141121	T	Water	SM 5310B	
460-86917-3	PZ-3-66-GW-20141121	T	Water	SM 5310B	
460-86917-4	PZ-99-66-GW-20141121	T	Water	SM 5310B	

Report Basis

T = Total

Client: HDR Engineering, Inc. Job Number: 460-86917-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Analysis Batch:460-261889					
				300.0	
				300.0	
				300.0	
				300.0	
				300.0	
				300.0	
Analysis Batch:460-265639					
LCS 460-265639/5	Lab Control Sample	T	Water	300.0	
MB 460-265639/4	Method Blank	T	Water	300.0	
460-86917-1DL	MW-6S-80-GW-20141121	T	Water	300.0	
460-86917-2DL	PZ-2-66-GW-20141121	T	Water	300.0	
460-86917-3DL	PZ-3-66-GW-20141121	T	Water	300.0	
460-86917-4DL	PZ-99-66-GW-20141121	T	Water	300.0	
460-86917-4MSDL	Matrix Spike	T	Water	300.0	

Report Basis
T = Total

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Chronicle

Lab ID: 460-86917-1 **Client ID: MW-6S-80-GW-20141121**

Sample Date/Time: 11/21/2014 19:00 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86917-B-1		460-266626		12/03/2014 02:04	1	TAL EDI	KLB
A:8260C	460-86917-B-1		460-266626		12/03/2014 02:04	1	TAL EDI	KLB
A:300.0	460-86917-E-1	DL	460-265639		11/27/2014 00:02	10	TAL EDI	CBB
P:3010A	460-86917-F-1-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86917-F-1-A		460-267567	460-267473	12/06/2014 18:25	1	TAL EDI	CDC
A:SM 2320B	460-86917-E-1		460-266751		12/01/2014 19:38	1	TAL EDI	MCC
A:SM 2540C	460-86917-G-1		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86917-H-1		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86917-D-1		460-268540		12/10/2014 16:56	1	TAL EDI	HTV

Lab ID: 460-86917-1 MS **Client ID: MW-6S-80-GW-20141121**

Sample Date/Time: 11/21/2014 19:00 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-86917-D-1 MS		460-268540		12/10/2014 17:18	1	TAL EDI	HTV

Lab ID: 460-86917-1 MSD **Client ID: MW-6S-80-GW-20141121**

Sample Date/Time: 11/21/2014 19:00 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-86917-D-1 MSD		460-268540		12/10/2014 17:40	1	TAL EDI	HTV

Lab ID: 460-86917-2 **Client ID: PZ-2-66-GW-20141121**

Sample Date/Time: 11/21/2014 16:05 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86917-B-2		460-266626		12/03/2014 02:30	1	TAL EDI	KLB
A:8260C	460-86917-B-2		460-266626		12/03/2014 02:30	1	TAL EDI	KLB
A:300.0	460-86917-E-2	DL	460-265639		11/27/2014 00:25	10	TAL EDI	CBB
P:3010A	460-86917-F-2-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86917-F-2-A		460-267567	460-267473	12/06/2014 18:29	1	TAL EDI	CDC
A:SM 2320B	460-86917-E-2		460-266751		12/01/2014 19:45	1	TAL EDI	MCC
A:SM 2540C	460-86917-G-2		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86917-H-2		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86917-D-2		460-268540		12/10/2014 18:02	1	TAL EDI	HTV

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Chronicle

Lab ID: 460-86917-3 **Client ID: PZ-3-66-GW-20141121**

Sample Date/Time: 11/21/2014 15:15 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86917-C-3		460-267114		12/04/2014 16:44	2	TAL EDI	SZD
A:8260C	460-86917-C-3		460-267114		12/04/2014 16:44	2	TAL EDI	SZD
A:300.0	460-86917-E-3	DL	460-265639		11/27/2014 00:47	10	TAL EDI	CBB
P:3010A	460-86917-F-3-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86917-F-3-A		460-267567	460-267473	12/06/2014 18:33	1	TAL EDI	CDC
A:SM 2320B	460-86917-E-3		460-266751		12/01/2014 19:52	1	TAL EDI	MCC
A:SM 2540C	460-86917-G-3		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86917-H-3		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86917-D-3		460-268540		12/10/2014 18:22	1	TAL EDI	HTV

Lab ID: 460-86917-4 **Client ID: PZ-99-66-GW-20141121**

Sample Date/Time: 11/21/2014 15:15 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	460-86917-C-4		460-267114		12/04/2014 17:10	2	TAL EDI	SZD
A:8260C	460-86917-C-4		460-267114		12/04/2014 17:10	2	TAL EDI	SZD
A:300.0	460-86917-E-4	DL	460-265639		11/27/2014 01:10	10	TAL EDI	CBB
P:3010A	460-86917-F-4-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86917-F-4-A		460-267567	460-267473	12/06/2014 18:37	1	TAL EDI	CDC
A:SM 2320B	460-86917-E-4		460-266751		12/01/2014 19:59	1	TAL EDI	MCC
A:SM 2540C	460-86917-G-4		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86917-H-4		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	460-86917-D-4		460-268540		12/10/2014 18:43	1	TAL EDI	HTV

Lab ID: 460-86917-4 MS **Client ID: PZ-99-66-GW-20141121**

Sample Date/Time: 11/21/2014 15:15 Received Date/Time: 11/25/2014 09:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-86917-E-4 MS	DL	460-265639		11/27/2014 01:55	10	TAL EDI	CBB

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Chronicle

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:5030C	MB 460-266626/6		460-266626		12/03/2014 00:20	1	TAL EDI	KLB
A:8260C	MB 460-266626/6		460-266626		12/03/2014 00:20	1	TAL EDI	KLB
P:5030C	MB 460-267114/6		460-267114		12/04/2014 13:19	1	TAL EDI	SZD
A:8260C	MB 460-267114/6		460-267114		12/04/2014 13:19	1	TAL EDI	SZD
A:300.0	MB 460-265639/4		460-265639		11/26/2014 22:54	1	TAL EDI	CBB
P:3010A	MB 460-267473/1-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	MB 460-267473/1-A		460-267567	460-267473	12/06/2014 17:33	1	TAL EDI	CDC
A:SM 2320B	MB 460-266751/2		460-266751		12/01/2014 16:09	1	TAL EDI	MCC
A:SM 2540C	MB 460-265778/1		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	MB 460-265761/1		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	MB 460-268540/3		460-268540		12/10/2014 15:24	1	TAL EDI	HTV

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:5030C	LCS 460-266626/3		460-266626		12/02/2014 23:01	1	TAL EDI	KLB
A:8260C	LCS 460-266626/3		460-266626		12/02/2014 23:01	1	TAL EDI	KLB
P:5030C	LCS 460-267114/3		460-267114		12/04/2014 12:02	1	TAL EDI	SZD
A:8260C	LCS 460-267114/3		460-267114		12/04/2014 12:02	1	TAL EDI	SZD
A:300.0	LCS 460-265639/5		460-265639		11/26/2014 23:16	1	TAL EDI	CBB
P:3010A	LCS 460-267473/2-A		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	LCS 460-267473/2-A		460-267567	460-267473	12/06/2014 17:18	1	TAL EDI	CDC

Lab ID: LCSD **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:5030C	LCSD 460-266626/4		460-266626		12/02/2014 23:27	1	TAL EDI	KLB
A:8260C	LCSD 460-266626/4		460-266626		12/02/2014 23:27	1	TAL EDI	KLB
P:5030C	LCSD 460-267114/4		460-267114		12/04/2014 12:27	1	TAL EDI	SZD
A:8260C	LCSD 460-267114/4		460-267114		12/04/2014 12:27	1	TAL EDI	SZD

Client: HDR Engineering, Inc. Job Number: 460-86917-1

Laboratory Chronicle

Lab ID: LCSSRM **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
A:SM 2320B	LCSSRM 460-266751/3		460-266751		12/01/2014 16:16	1	TAL EDI	MCC
A:SM 2540C	LCSSRM 460-265778/2		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	LCSSRM 460-265761/2		460-265761		11/28/2014 09:41	1	TAL EDI	PLS
A:SM 5310B	LCSSRM 460-268540/4		460-268540		12/10/2014 15:45	1	TAL EDI	HTV

Lab ID: MS **Client ID:** N/A

Sample Date/Time: 11/18/2014 15:14 Received Date/Time: 11/19/2014 07:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86451-A-2-F MS		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86451-A-2-F MS		460-267567	460-267473	12/06/2014 17:37	1	TAL EDI	CDC

Lab ID: DU **Client ID:** N/A

Sample Date/Time: 11/18/2014 15:14 Received Date/Time: 11/19/2014 07:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86451-A-2-E DU		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86451-A-2-E DU		460-267567	460-267473	12/06/2014 17:07	1	TAL EDI	CDC
A:SM 2320B	460-86930-K-1 DU		460-266751		12/01/2014 16:37	1	TAL EDI	MCC
A:SM 2540C	460-86649-C-12 DU		460-265778		11/28/2014 11:12	1	TAL EDI	PLS
A:SM 2540D	460-86676-A-4 DU		460-265761		11/28/2014 09:41	1	TAL EDI	PLS

Lab ID: SD **Client ID:** N/A

Sample Date/Time: 11/18/2014 15:14 Received Date/Time: 11/19/2014 07:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	460-86451-A-2-D SD ^5		460-267567	460-267473	12/05/2014 20:07	5	TAL EDI	EAE
A:6010C	460-86451-A-2-D SD ^5		460-267567	460-267473	12/06/2014 17:14	5	TAL EDI	CDC
P:3010A	460-86451-A-2-D PDS		460-267567	460-267473	12/05/2014 20:07	1	TAL EDI	EAE
A:6010C	460-86451-A-2-D PDS		460-267567	460-267473	12/06/2014 17:40	1	TAL EDI	CDC

Lab References:
TAL EDI = TestAmerica Edison

Post-ISCO Injection Chemistries
NYSDEC Country Cleaners Predesign
Site #152187

			Sample ID	IW-1-20150213	IW-1-20150226	IW-1-20150306	IW-1-20150423	MW-2-20150423	MW-3S-20150423	MW-4S-20150423	PZ-1-20150213	PZ-1-20150219	PZ-1-20150306
			Alternate ID	IW-1	IW-1	IW-1	IW-1	MW-2	MW-3S	MW-4S	PZ-1	PZ-1	PZ-1
			Sample Date	2/13/2015	2/26/2015	3/6/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	2/13/2015	2/19/2015	3/6/2015
			Depth	59 - 69 ft	59 - 69 ft	59 - 69 ft	59 - 69 ft	97 - 107 ft	50 - 60 ft	60 - 70 ft	0 ft	60 - 70 ft	59 - 69 ft
Analyte Class	**Analyte**	**CAS RN**	**Units**										
WETCHEM	Sulfate	14808-79-8	mg/l	17.1	49.8	29.2	17.1	23.7	21.4	22.7	21.9	22.1	24.3
WETCHEM	Total Alkalinity	ALK	mg/l	146	62	89	36	26.1	21.5	22.6	117	72.4	39.3
WETCHEM	Total Bicarbonate	ALKB	mg/l	146	62	89	36	26.1	21.5	22.6	117	72.4	39.3
WETCHEM	Total Dissolved Soilds	E-10173	mg/l	326	474	305	158	236	172	153	414	208	211
WETCHEM	Total Organic Carbon	TOC	mg/l	7.7	3.6	2.4	4.3 B	3.8 B	2 B	3.5 B	6.7	2.9	2.5
WETCHEM	Total Suspended Solids	TSS	mg/l	260	177	51.6	129	557	490	521	2170	500	58.6
VOC	1,1,1-Trichloroethane	71-55-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2-Trichloroethane	79-00-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1-Dichloroethane	75-34-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1-Dichloroethene	75-35-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2,3-Trichlorobenzene	87-61-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2,4-Trichlorobenzene	120-82-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dibromo-3-chloropropane	96-12-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dibromoethane	106-93-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichlorobenzene	95-50-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichloroethane	107-06-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichloropropane	78-87-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,3-Dichlorobenzene	541-73-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,4-Dichlorobenzene	106-46-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,4-Dioxane	123-91-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	2-Hexanone	591-78-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Acetone	67-64-1	ug/l	18	15	17	U	U	U	U	22	6.1	U
VOC	Benzene	71-43-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromochloromethane	74-97-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromodichloromethane	75-27-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromoform	75-25-2	ug/l	U	0.49 J	U	U	U	U	U	U	U	U
VOC	Bromomethane	74-83-9	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Carbon disulfide	75-15-0	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Carbon tetrachloride	56-23-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chlorobenzene	108-90-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chloroethane	75-00-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chloroform	67-66-3	ug/l	0.22 J	0.26 J	U	0.27 J	U	0.32 J	0.41 J	0.38 J	0.33 J	0.4 J
VOC	Chloromethane	74-87-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	cis-1,2-Dichloroethylene	156-59-2	ug/l	U	U	2.4	1.1	5	2.7	3.6	U	U	U
VOC	cis-1,3-Dichloropeopene	10061-01-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Cyclohexane	110-82-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Dibromochloromethane	124-48-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Dichlorodifluoromethane	75-71-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Ethylbenzene	100-41-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Isopropylbenzene (Cumene)	98-82-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	m,p-Xylene	179601-23-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl acetate	79-20-9	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl Ethyl Ketone (2-butanone)	78-93-3	ug/l	U	U	8.6 J	U	U	U	U	U	U	U
VOC	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl tert-butyl ether	1634-04-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methylcyclohexane	108-87-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methylene chloride	75-09-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	o-Xylene	95-47-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Styrene	100-42-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Tetrachloroethylene	127-18-4	ug/l	120	32	780	120	530	420	300	1	9.4	14
VOC	Toluene	108-88-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	trans-1,2-Dichloroethylene	156-60-5	ug/l	U	U	U	U	U	U	U	U	U	U

SEE FOOTNOTES PAGE FOR EXPLANATION OF DATA TABLE NOTES

Post-ISCO Injection Chemistries
NYSDEC Country Cleaners Predesign
Site #152187

			Sample ID	IW-1-20150213	IW-1-20150226	IW-1-20150306	IW-1-20150423	MW-2-20150423	MW-3S-20150423	MW-4S-20150423	PZ-1-20150213	PZ-1-20150219	PZ-1-20150306
			Alternate ID	IW-1	IW-1	IW-1	IW-1	MW-2	MW-3S	MW-4S	PZ-1	PZ-1	PZ-1
			Sample Date	2/13/2015	2/26/2015	3/6/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	2/13/2015	2/19/2015	3/6/2015
			Depth	59 - 69 ft	59 - 69 ft	59 - 69 ft	59 - 69 ft	97 - 107 ft	50 - 60 ft	60 - 70 ft	0 ft	60 - 70 ft	59 - 69 ft
Analyte Class	**Analyte**	**CAS RN**	**Units**										
VOC	trans-1,3-Dichloropropene	10061-02-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Trichloroethylene	79-01-6	ug/l	U	U	3.1	0.63 J	4.2	2.6	2.6	U	U	U
VOC	Trichlorofluoromethane	75-69-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Vinyl chloride	75-01-4	ug/l	U	U	U	U	U	U	U	U	U	U
INORGANIC	Aluminum	7429-90-5	ug/l	9000	4390	846	2540	117000	61400	347000	147000	86000	55900
INORGANIC	Antimony	7440-36-0	ug/l	31.5	U	16.3 J	U	U	U	U	53.3	35.9	17 J
INORGANIC	Arsenic	7440-38-2	ug/l	U	U	U	U	28.3	12.9 J	49.5 J	29.1	11.3 J	9.5 J
INORGANIC	Barium	7440-39-3	ug/l	424	318	80.5 J	189 J	422	212	765 J	554	412	290
INORGANIC	Beryllium	7440-41-7	ug/l	U	U	U	U	4.6	2.3	U	4.2	2.2	2
INORGANIC	Cadmium	7440-43-9	ug/l	U	U	U	U	U	U	U	U	U	U
INORGANIC	Calcium	7440-70-2	ug/l	42300	39200	26200	26700	21000	15800	18200 J	3280 J	3080 J	13800
INORGANIC	Chromium (Total)	7440-47-3	ug/l	2760	1520	1550	3690	72.4	47.7	113	4170	2450	1730
INORGANIC	Cobalt	7440-48-4	ug/l	23.4 J	6.1 J	8.3 J	32.6 J	31.9 J	12.2 J	130 J	53.4	24 J	14.5 J
INORGANIC	Copper	7440-50-8	ug/l	105	61	53.9	129	233	37	119 J	214	116	73.5
INORGANIC	Iron	7439-89-6	ug/l	18200	8150	6620	21100	67700	43900	158000	115000	64900	41800
INORGANIC	Lead	7439-92-1	ug/l	15.6	U	U	12.1	168	90.1	765	66	45.1	20.4
INORGANIC	Magnesium	7439-95-4	ug/l	15200	18900	10000	10900	11600	7860	15000 J	5560	4470 J	7770
INORGANIC	Manganese	7439-96-5	ug/l	123000	31400	10400	9600	4240	956	14500	44500	13900	4720
INORGANIC	Nickel	7440-02-0	ug/l	729	198	348	248	55.9	30.3 J	96.4 J	1330	725	74.4
INORGANIC	Potassium	7440-09-7	ug/l	8420	3640 J	3920 J	2590 J	5530	4160 J	8000 J	7030	5980	8590
INORGANIC	Selenium	7782-49-2	ug/l	93.8	U	8.4 J	U	U	U	U	30.9	13.5 J	U
INORGANIC	Silver	7440-22-4	ug/l	30.1	4.1 J	4.2 J	U	U	U	U	9 J	5.7 J	2.1 J
INORGANIC	Sodium	7440-23-5	ug/l	98700	121000	54200	21900	23700	16800	20500 J	89200	62200	29700
INORGANIC	Thallium	7440-28-0	ug/l	109	U	U	12.1 JN	UN	UN	UN	34.7	13.9 J	U
INORGANIC	Vanadium	7440-62-2	ug/l	U	5.2 J	U	U	88.1	51.2	186 J	119	70.8	46.9 J
INORGANIC	Zinc	7440-66-6	ug/l	47.1	87.1	148	129	271	83.5	270 J	138	115	116
GEOCHEM	Chloride	16887-00-6	mg/l	39.5	253	66	40	63	42.6	38.9	46.9	42.2	46.3

SEE FOOTNOTES PAGE FOR EXPLANATION OF DATA TABLE NOTES

Post-ISCO Injection Chemistries
NYSDEC Country Cleaners Predesign
Site #152187

			Sample ID	IW-1-20150213	PZ-1-20150423	PZ-2-20150213	PZ-2-20150306	PZ-2-20150423	PZ-3-20150213	PZ-3-20150219	PZ-3-20150226	PZ-3-20150306	PZ-3-20150423
			Alternate ID	IW-1	PZ-1	PZ-2	PZ-2	PZ-2	PZ-3	PZ-3	PZ-3	PZ-3	PZ-3
			Sample Date	2/13/2015	4/23/2015	2/13/2015	3/6/2015	4/23/2015	2/13/2015	2/19/2015	2/26/2015	3/6/2015	4/23/2015
			Depth	59 - 69 ft	59 - 69 ft	0 ft	60 - 70 ft	60 - 70 ft	0 ft	60 - 70 ft	60 - 70 ft	60 - 70 ft	60 - 70 ft
Analyte Class	**Analyte**	**CAS RN**	**Units**										
WETCHEM	Sulfate	14808-79-8	mg/l	17.1	23.3	27.1	28.6	25.7	20.3	21.4	52.6	23.9	23.9
WETCHEM	Total Alkalinity	ALK	mg/l	146	37.5	43.2	40.4	42.5	25.9	25.9	25.3	27.7	29.8
WETCHEM	Total Bicarbonate	ALKB	mg/l	146	37.5	43.2	40.4	42.5	25.9	25.9	25.3	27.7	29.8
WETCHEM	Total Dissolved Soilds	E-10173	mg/l	326	197	162	197	192	182	155	260	199	211
WETCHEM	Total Organic Carbon	TOC	mg/l	7.7	1.9 B	5.2	3.6	4.2 B	2.1	2.5	23	2.1	2.4 B
WETCHEM	Total Suspended Solids	TSS	mg/l	260	176	2400	673	38	2700	1250	1880	239	250
VOC	1,1,1-Trichloroethane	71-55-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1,2-Trichloroethane	79-00-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1-Dichloroethane	75-34-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,1-Dichloroethene	75-35-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2,3-Trichlorobenzene	87-61-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2,4-Trichlorobenzene	120-82-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dibromo-3-chloropropane	96-12-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dibromoethane	106-93-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichlorobenzene	95-50-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichloroethane	107-06-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,2-Dichloropropane	78-87-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,3-Dichlorobenzene	541-73-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,4-Dichlorobenzene	106-46-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	1,4-Dioxane	123-91-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	2-Hexanone	591-78-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Acetone	67-64-1	ug/l	18	U	U	U	U	U	U	U	U	U
VOC	Benzene	71-43-2	ug/l	U	U	U	U	U	U	0.14 J	U	U	U
VOC	Bromochloromethane	74-97-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromodichloromethane	75-27-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromoform	75-25-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Bromomethane	74-83-9	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Carbon disulfide	75-15-0	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Carbon tetrachloride	56-23-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chlorobenzene	108-90-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chloroethane	75-00-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Chloroform	67-66-3	ug/l	0.22 J	0.68 J	0.36 J	U	0.44 J	0.24 J	0.15 J	U	U	0.31 J
VOC	Chloromethane	74-87-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	cis-1,2-Dichloroethylene	156-59-2	ug/l	U	U	U	U	U	3.8	4.3	4.2	3.7	3.9
VOC	cis-1,3-Dichloropeopene	10061-01-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Cyclohexane	110-82-7	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Dibromochloromethane	124-48-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Dichlorodifluoromethane	75-71-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Ethylbenzene	100-41-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Isopropylbenzene (Cumene)	98-82-8	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	m,p-Xylene	179601-23-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl acetate	79-20-9	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl Ethyl Ketone (2-butanone)	78-93-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methyl tert-butyl ether	1634-04-4	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methylcyclohexane	108-87-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Methylene chloride	75-09-2	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	o-Xylene	95-47-6	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Styrene	100-42-5	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	Tetrachloroethylene	127-18-4	ug/l	120	20	0.68 J	5.1	13	460	310	360	340	380
VOC	Toluene	108-88-3	ug/l	U	U	U	U	U	U	U	U	U	U
VOC	trans-1,2-Dichloroethylene	156-60-5	ug/l	U	U	U	U	U	U	U	U	U	U

SEE FOOTNOTES PAGE FOR EXPLANATION OF DATA TABLE NOTES

Post-ISCO Injection Chemistries
NYSDEC Country Cleaners Predesign
Site #152187

				Sample ID	IW-1-20150213	PZ-1-20150423	PZ-2-20150213	PZ-2-20150306	PZ-2-20150423	PZ-3-20150213	PZ-3-20150219	PZ-3-20150226	PZ-3-20150306	PZ-3-20150423
				Alternate ID	IW-1	PZ-1	PZ-2	PZ-2	PZ-2	PZ-3	PZ-3	PZ-3	PZ-3	PZ-3
				Sample Date	2/13/2015	4/23/2015	2/13/2015	3/6/2015	4/23/2015	2/13/2015	2/19/2015	2/26/2015	3/6/2015	4/23/2015
				Depth	59 - 69 ft	59 - 69 ft	0 ft	60 - 70 ft	60 - 70 ft	0 ft	60 - 70 ft	60 - 70 ft	60 - 70 ft	60 - 70 ft
Analyte Class	**Analyte**	**CAS RN**	**Units**											
VOC	trans-1,3-Dichloropropene	10061-02-6	ug/l		U	U	U	U	U	U	U	U	U	U
VOC	Trichloroethylene	79-01-6	ug/l		U	U	U	U	U	2.4	2.2	2.4	2.2	2.6
VOC	Trichlorofluoromethane	75-69-4	ug/l		U	U	U	U	U	U	U	U	U	U
VOC	Vinyl chloride	75-01-4	ug/l		U	U	U	U	U	U	U	U	U	U
INORGANIC	Aluminum	7429-90-5	ug/l		9000	64700	351000	96900	82000	98300	114000	112000	59900	73100
INORGANIC	Antimony	7440-36-0	ug/l		31.5	U	18 J	U	U	6.9 J	7 J	U	U	U
INORGANIC	Arsenic	7440-38-2	ug/l		U	18.7	37.8	18.2	24	21	29.8	19.5	13.3 J	23.6
INORGANIC	Barium	7440-39-3	ug/l		424	221	682	285	261	295	378	349	221	272
INORGANIC	Beryllium	7440-41-7	ug/l		U	2.5	10.6 J	3.7	3.2	3.2	3.4	4.6	2.3	2.9
INORGANIC	Cadmium	7440-43-9	ug/l		U	U	U	U	U	U	2 J	U	U	U
INORGANIC	Calcium	7440-70-2	ug/l		42300	20600	17400	21900	22700	14900	15800	16600	18400	20000
INORGANIC	Chromium (Total)	7440-47-3	ug/l		2760	836	1280	280	516	375	158	145	59.3	90.5
INORGANIC	Cobalt	7440-48-4	ug/l		23.4 J	16.3 J	71.7	30.7 J	31 J	39.6 J	48.9 J	48.5 J	26.4 J	36.8 J
INORGANIC	Copper	7440-50-8	ug/l		105	76.5	265	101	97.1	94.4	96.9	92.3	56.6	65.9
INORGANIC	Iron	7439-89-6	ug/l		18200	48700	157000	70600	65200	70200	81500	86200	46100	56700
INORGANIC	Lead	7439-92-1	ug/l		15.6	93.2	106	33.8	118	49.1	64.2	63.9	25.5	121
INORGANIC	Magnesium	7439-95-4	ug/l		15200	8880	12200	9990	10100	8960	10400	10400	8940	9910
INORGANIC	Manganese	7439-96-5	ug/l		123000	6000	23800	3910	2860	3820	3900	3670	1920	2530
INORGANIC	Nickel	7440-02-0	ug/l		729	48.6	238	63.8	48.2	68	75.7	67.8	39.3 J	48
INORGANIC	Potassium	7440-09-7	ug/l		8420	4710 J	10600 J	6040	4960 J	5410	5480	5480	4590 J	4480 J
INORGANIC	Selenium	7782-49-2	ug/l		93.8	U	9.4 J	U	U	U	U	U	U	U
INORGANIC	Silver	7440-22-4	ug/l		30.1	3.4 J	U	U	U	U		U	U	U
INORGANIC	Sodium	7440-23-5	ug/l		98700	23500	27200 J	24500	22900	18300	19700	34400	26700	24400
INORGANIC	Thallium	7440-28-0	ug/l		109	UN	15.7 J	U	UN	U	U	U	U	UN
INORGANIC	Vanadium	7440-62-2	ug/l		U	54.5	186	82.1	73	89	104	107	57.7	70.4
INORGANIC	Zinc	7440-66-6	ug/l		47.1	96.7	206	98.3	133	98.4	130	133	192	150
GEOCHEM	Chloride	16887-00-6	mg/l		39.5	45.3	41	44.4	44.7	44.5	43.8	64.4	56.3	53.2

SEE FOOTNOTES PAGE FOR EXPLANATION OF DATA TABLE NOTES

Notes:

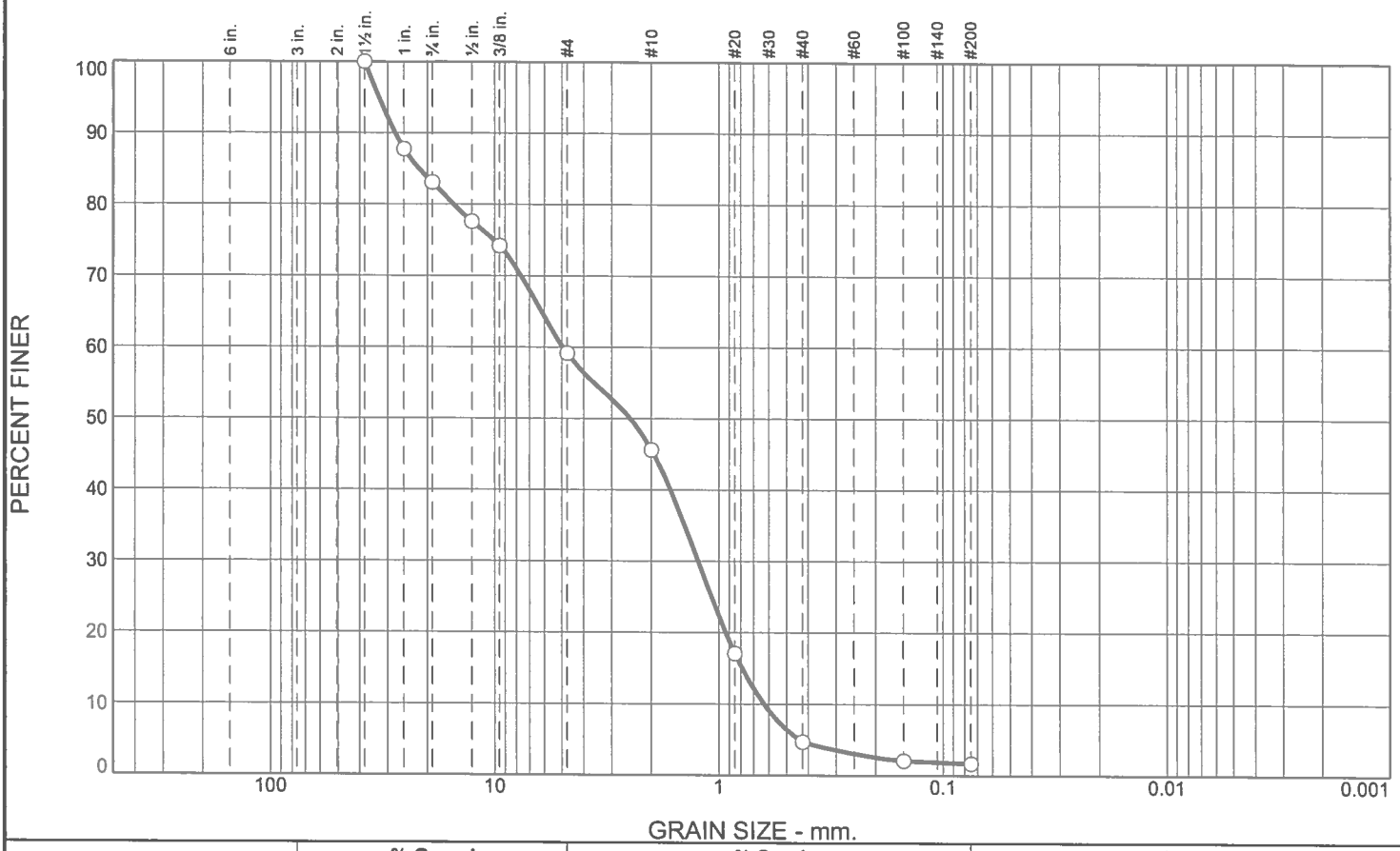
U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

JN The detection is tentative in identification and estimate in value.

Values that are bold and underlined exceed NYSDEC TOGS 1.1.1 Class Ga Groundwater Standards, example **10**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	16.9	24.0	13.5	41.0	3.0	1.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1 1/2	100.0		
1	87.7		
3/4	83.1		
1/2	77.6		
3/8	74.2		
#4	59.1		
#10	45.6		
#20	17.1		
#40	4.6		
#100	2.0		
#200	1.6		

* (no specification provided)

Soil Description

USCS Group Name: poorly graded sand with gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 27.8658 D_{85}= 21.8397 D_{60}= 4.9634
D_{50}= 2.4895 D_{30}= 1.2414 D_{15}= 0.7890
D_{10}= 0.6319 C_u= 7.86 C_c= 0.49

Classification

USCS= SP AASHTO=

Remarks

Moisture Content: 9.1%

Source of Sample: NYSDEC Country Cleaners 60'
Sample Number: Shelby Tube

Date: 11/12/14

ACKENHEIL ENGINEERS, INC.

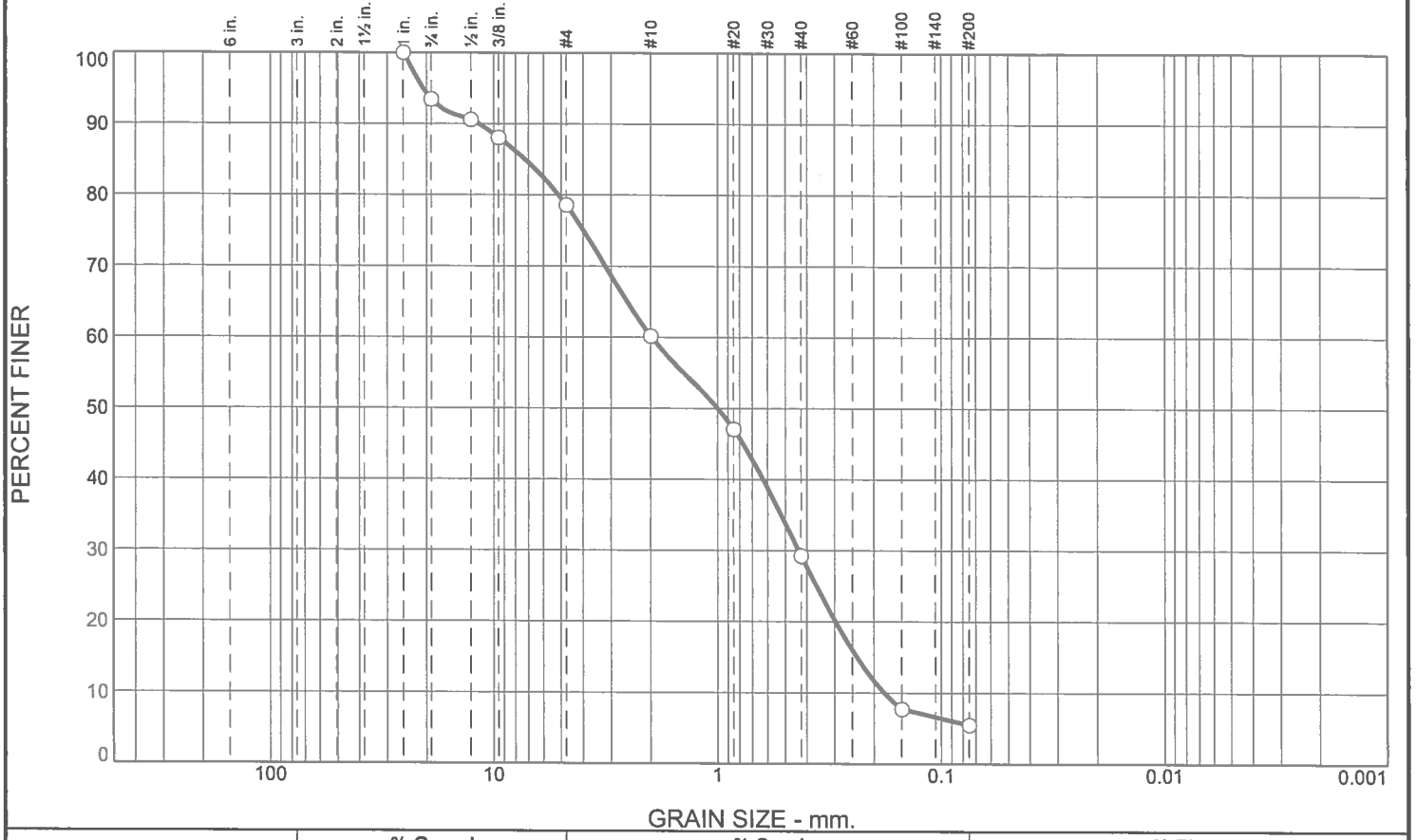
Pittsburgh, PA

Client: HDR
Project: NYSDEC Country Cleaners
Project No: 14303

Figure

Tested By: SDC **Checked By:** JTL

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	6.6	14.8	18.5	30.8	23.9	5.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
3/4	93.4		
1/2	90.6		
3/8	88.1		
#4	78.6		
#10	60.1		
#20	47.0		
#40	29.3		
#100	7.7		
#200	5.4		

* (no specification provided)

Soil Description

USCS Group Name: poorly graded sand with silt and gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 11.7096 D_{85}= 7.2585 D_{60}= 1.9883
D_{50}= 1.0036 D_{30}= 0.4366 D_{15}= 0.2390
D_{10}= 0.1809 C_u= 10.99 C_c= 0.53

Classification

USCS= AASHTO=

Remarks

Moisture Content: 11.9%

Source of Sample: NYSDEC Country Cleaners 68' **Depth:** 68.0' - 70.0'
Sample Number: Bags **Date:** 11/12/14

ACKENHEIL ENGINEERS, INC.

Pittsburgh, PA

Client: HDR
Project: NYSDEC Country Cleaners
Project No: 14303 **Figure**

Tested By: SDC **Checked By:** JTL

Ackenheil Engineers, Inc.
1000 Banksville Road, Pittsburgh, Pennsylvania 15216
Ph 412-531-7111 Fax 412-531-4334 www.ackenheil.com

Specific Gravity

(ASTM D 854)

Project:	NYSDEC Country Cleaners
Project No.:	14303
Client:	HDR
Date:	11/17/2014

Test Boring Number	Sample Number	Sample Depth	USCS	Percent Passing #4 Sieve	Method Used	Test Date	Test Temperature (°C)	Mass Measurements				G_t	G_{20}
								$M_{p\,(g)}$	$M_{pw\,(g)}$	$M_{s\,(g)}$	$M_{pws\,(g)}$		
NYSDEC CC	ST-1	60'	SP	59.1%	B	11/7/2014	19.9	107.84	356.91	55.10	391.14	2.654	2.654
NYSDEC CC	BS-1 & 2	68'	SP	78.6%	B	11/10/2014	19.2	107.84	356.91	51.21	388.85	2.657	2.658

Method A: Procedure for moist specimens

Method B: Procedure for oven-dried specimens

M_p: mass of dry pycnometer (g)

M_{pw}: mass of pycnometer and water (g)

M_s: mass of dry soil (g)

M_{pws}: mass of pycnometer, water, and soil (g)

G_t: specific gravity at test temperature

G_{20}: specific gravity at 20°C

ACKENHEIL ENGINEERS, INC.
1000 Banksville Road, Pittsburgh, Pennsylvania 15216
Ph 412-531-7111 Fax 412-531-4334 www.ackenheil.com

Denisty of Soil In-Place

(AASHTO T 233)

Project NYSDEC Country Cleaners

Project No.: 14303

Date: 11/17/2014

Test Boring Number	Sample Number	Depth (ft)	Moisture Content (%)	Moist Unit Weight (pcf)	Dry Unit Weight (pcf)
NYSDEC	ST-1	60'	9.1	115.4	105.8
NYSDEC	BS-1&2	68'	11.9	118.4	*105.8

* Dry Density is based on the shelby tube specimen.

Porosity of Soil

Test Boring Number	Sample Number	Depth (ft)	USCS	Specific Gravity	Porosity
NYSDEC	ST-1	60'	SP	2.654	36%
NYSDEC	BS-1&2	68'	SP	2.658	36%

Tested By: Jesse Lape

Checked By: Burton Holt

Appendix H

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
		(631) 588-2000	0603901

GENERATOR

5. Generator's Name and Mailing Address

NYSDEC-Fair Country Cleaners
410 West Main Street
Huntington, NY USA

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: AMERICAN ENVIRONMENTAL ASSESSMENT CORP.
U.S. EPA ID Number: NYR000044412

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Water of New York
3249 Richmond Terrace
Staten Island, NY 10303 USA
U.S. EPA ID Number

Facility's Phone: (718) 981-4021

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON RCRA, NON DOT REGULATED (Drill Cuttings)	x15	DM		P	
2.	Non RCRA, Non DOT Regulated (Water)	x8	DM		G	
3.						
4.						

13. Special Handling Instructions and Additional Information
1) 10005 (E)
2) 10005 (M)

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Peter Cayce
Signature
Month / Day / Year: 11 / 10 / 11

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Peter Cayce
Signature
Month / Day / Year: 11 / 10 / 11

Transporter 2 Printed/Typed Name
Signature
Month / Day / Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month / Day / Year: 11 / 10 / 11

169-BLC-O 6 10498 (Rev. 9/09)

COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			(631) 586-2000	0603920

GENERATOR

5. Generator's Name and Mailing Address

NYSDEC-Fmr Country Cleaners
410 West Main Street
Huntington, NY USA

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: AMERICAN ENVIRONMENTAL ASSESSMENT CORP.

U.S. EPA ID Number: NYR000044412

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Water of New York
3249 Richmond Terrace
Staten Island, NY 10303 USA

U.S. EPA ID Number

Facility's Phone: 718-981-4800

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON RCRA, NON DOT REGULATED (MW PURGE WATER)	002	DM	220	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
DISPOSAL TOXINS 002

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dan Lucas on the behalf | Signature | Month: 12 | Day: 05 | Year: 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Raymond Rivera | Signature | Month: 12 | Day: 05 | Year: 19

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month: 12 | Day: 11 | Year: 19

169-BLC-O 6 10498 (Rev. 9/09)

TRANSPORTER #2

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

November 10, 2014

Dan Rivers
American Environmental Assessment Corp.
188 Long Island Avenue
Wyandanch, NY 11798
TEL: (631) 586-2000
FAX (631) 586-9605

RE: HDR-Country Cleaners, W. Main Street, Hu Order No.: 1411006

Dear Dan Rivers:

American Analytical Laboratories, LLC. received 2 sample(s) on 11/3/2014 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1411006**

10-Nov-14

CLIENT: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1411006-001A	Drum Composite - Soil		11/3/2014 10:00:00 AM	11/3/2014 12:30:00 PM	Soil
1411006-001B	Drum Composite - Soil		11/3/2014 10:00:00 AM	11/3/2014 12:30:00 PM	Soil
1411006-002A	Drum Composite - Liquid		11/3/2014 10:00:00 AM	11/3/2014 12:30:00 PM	Liquid
1411006-002B	Drum Composite - Liquid		11/3/2014 10:00:00 AM	11/3/2014 12:30:00 PM	Liquid
1411006-002C	Drum Composite - Liquid		11/3/2014 10:00:00 AM	11/3/2014 12:30:00 PM	Liquid

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES

56 Toledo Street. Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information		Project Information	
Company Name	AEAC	Project Name	HDR - Country Cleaners
Address		Street	W. Main St
City / State / Zip		City / State / Zip	Huntington NY
Project Contact	Dan Rivers	Project #	
Phone #		Sampler's Name / Company	AEAC - Dan R.
E-mail		Sampler's Signature	

LAB SAMPLE # (LAB USE ONLY)	Sample Information: Client Sample ID	Sample Type	Matrix Code	Sample Collection: Date	Time	Glass / Plastic	Sample Containers: Total # of bottles	Number of Each Preserved Bottle: NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	Analytical Information: Tetra & Rcra	VOC	SVOC	PCB
1411006-001	Drum Composite - Soil	C	S	11/3/14	10:00	G	3									✓	✓	✓	✓
-002	Drum Composite - Liquid	C	L	11/3/14	↓	G	1									✓	✓	✓	✓

Turnaround Time (Business Days)

Standard
- [ ] 7-10 Business Days
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *RUSH*

SAMPLE TYPE

G = Grab
C = Composite
B = Blank

MATRIX CODES

L = Liquid
S = Soil
O = Oil
W = Wipe
PC = Paint Chip
SL = Sludge
SD = Solid
M = Miscellaneous

Comments / Remarks

Cooler Temp: 3.0 6

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	11/3/14 12:30	Dan Rivers		11/3/14 12:30	Lori Beyer
RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **AEAC** Work Order Number: **1411006** RcptNo: **1**

Logged by:	**Lori Beyer**	**11/3/2014**	Lori Beyer
Completed By:	**Lori Beyer**	**11/4/2014 6:37:52 AM**	Lori Beyer
Reviewed By:	**Karen Kelly**	**11/4/2014**	Karen Kelly

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
   Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☑
   No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:
    sample not collected per method 5035A

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Case Narrative

WO#: **1411006**
Date: **11/10/2014**

CLIENT: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results.

Soil sample results analyzed for Volatile Organics via preparation method SW846 Method 5035A by the Low Level procedures potentially may be estimated, "J" (biased low) since the samples for this test were not collected according to the 5035A Method. Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

PCB analysis (if applicable to this work order) are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Percent Moisture, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Nitrate-Nitrite, Nitrogen in non-potable water and Reactivity to Sulfide and Reactivity to Cyanide.

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Case Narrative

WO#: **1411006**
Date: **11/10/2014**

CLIENT: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

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Definition Only

WO#: **1411006**
Date: **11/10/2014**

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accurary.
m - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1,1-Trichloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1,2,2-Tetrachloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1,2-Trichloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1-Dichloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1-Dichloroethene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,1-Dichloropropene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2,3-Trichlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2,3-Trichloropropane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2,4,5-Tetramethylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2,4-Trichlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2,4-Trimethylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2-Dibromo-3-chloropropane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2-Dibromoethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2-Dichlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2-Dichloroethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,2-Dichloropropane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,3,5-Trimethylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,3-Dichlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,3-dichloropropane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,4-Dichlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
1,4-Dioxane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2,2-Dichloropropane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2-Butanone	ND	5.40	11	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2-Chloroethyl vinyl ether	ND	1.08	5.4	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2-Chlorotoluene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2-Hexanone	ND	5.40	11	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
2-Propanol	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
4-Chlorotoluene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
4-Isopropyltoluene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
4-Methyl-2-pentanone	ND	5.40	11	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Acetone	ND	5.40	11	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
Benzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Bromobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Bromochloromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Bromodichloromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Bromoform	ND	1.08	5.4	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Bromomethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Carbon disulfide	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Carbon tetrachloride	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Chlorobenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Chlorodifluoromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Chloroethane	ND	1.08	5.4	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Chloroform	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Chloromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
cis-1,2-Dichloroethene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
cis-1,3-Dichloropropene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Cyclohexane	ND	2.16	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Dibromochloromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Dibromomethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Dichlorodifluoromethane	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Diisopropyl ether	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Ethanol	ND	10.8	22	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Ethylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Freon-114	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Hexachlorobutadiene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Isopropylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
m,p-Xylene	ND	2.16	11	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Methyl Acetate	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Methyl tert-butyl ether	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Methylene chloride	ND	5.40	11	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM
n-Butylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
n-Propylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Naphthalene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
o-Xylene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5035A**		Analyst: **LA**
p-Diethylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
p-Ethyltoluene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
sec-Butylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Styrene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
t-Butyl alcohol	ND	2.70	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
tert-Butylbenzene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Tetrachloroethene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Toluene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
trans-1,2-Dichloroethene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
trans-1,3-Dichloropropene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Trichloroethene	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Trichlorofluoromethane	ND	1.08	5.4	U*	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Vinyl acetate	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Vinyl chloride	ND	1.08	5.4	U	µg/Kg-dry	1	11/4/2014 12:24:00 PM
Surr: 4-Bromofluorobenzene	97.6	0	50-139		%REC	1	11/4/2014 12:24:00 PM
Surr: Dibromofluoromethane	102	0	50-138		%REC	1	11/4/2014 12:24:00 PM
Surr: Toluene-d8	97.3	0	71-120		%REC	1	11/4/2014 12:24:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**SW7471B**		**SW7471B**		Analyst: **JP**
Mercury	0.0138	0.006	0.00945		mg/Kg-dry	1	11/7/2014 10:57:00 AM
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3546**		Analyst: **SB**
Aroclor 1016	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1221	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1232	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1242	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1248	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1254	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1260	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1262	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Aroclor 1268	ND	10.8	22	U	µg/Kg-dry	1	11/8/2014 4:38:00 AM
Surr: DCB	68.8	0	12-151		%REC	1	11/8/2014 4:38:00 AM
Surr: DCB	52.0	0	12-151		%REC	1	11/8/2014 4:38:00 AM
Surr: TCX	84.5	0	18-147		%REC	1	11/8/2014 4:38:00 AM
Surr: TCX	74.3	0	18-147		%REC	1	11/8/2014 4:38:00 AM
PERCENT MOISTURE			**D2216**				Analyst: **KK**
Percent Moisture	8.0	1	1.0		wt%	1	11/4/2014 3:27:39 PM
TOTAL METALS			**SW6010C**		**SW3050B**		Analyst: **JP**
Arsenic	1.47	0.21	0.531		mg/Kg-dry	1	11/6/2014 1:33:47 PM
Barium	15.2	0.21	0.425		mg/Kg-dry	1	11/6/2014 1:33:47 PM
Cadmium	ND	0.11	0.425	U	mg/Kg-dry	1	11/6/2014 1:33:47 PM
Chromium	8.50	0.11	0.425		mg/Kg-dry	1	11/6/2014 1:33:47 PM
Lead	3.40	0.21	0.425		mg/Kg-dry	1	11/6/2014 1:33:47 PM
Selenium	ND	0.21	0.531	U	mg/Kg-dry	1	11/6/2014 1:33:47 PM
Silver	ND	0.11	0.425	U	mg/Kg-dry	1	11/6/2014 1:33:47 PM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Biphenyl	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
1,2,4-Trichlorobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
1,2-Dichlorobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
1,3-Dichlorobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
1,4-Dichlorobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
2,4,5-Trichlorophenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2,4,6-Trichlorophenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2,4-Dichlorophenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2,4-Dimethylphenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2,4-Dinitrophenol	ND	53.9	540	U*	µg/Kg-dry	1	11/8/2014
2,4-Dinitrotoluene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2,6-Dinitrotoluene	ND	53.9	270	U	µg/Kg-dry	1	11/8/2014
2-Chloronaphthalene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2-Chlorophenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2-Methylnaphthalene	ND	26.9	270	Um	µg/Kg-dry	1	11/8/2014
2-Methylphenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2-Nitroaniline	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
2-Nitrophenol	ND	53.9	270	U	µg/Kg-dry	1	11/8/2014
3+4-Methylphenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
3,3´-Dichlorobenzidine	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
3-Nitroaniline	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4,6-Dinitro-2-methylphenol	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
4-Bromophenyl phenyl ether	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4-Chloro-3-methylphenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4-Chloroaniline	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4-Chlorophenyl phenyl ether	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4-Nitroaniline	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
4-Nitrophenol	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
Acenaphthene	120	26.9	270	J	µg/Kg-dry	1	11/8/2014
Acenaphthylene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Acetophenone	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Aniline	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Anthracene	220	26.9	270	Jm	µg/Kg-dry	1	11/8/2014
Atrazine	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Azobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Benzaldehyde	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
Benzidine	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
Benzo(a)anthracene	1500	26.9	270		µg/Kg-dry	1	11/8/2014

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Benzo(a)pyrene	1600	26.9	160		µg/Kg-dry	1	11/8/2014
Benzo(b)fluoranthene	2100	26.9	270		µg/Kg-dry	1	11/8/2014
Benzo(g,h,i)perylene	1300	26.9	270		µg/Kg-dry	1	11/8/2014
Benzo(k)fluoranthene	1600	26.9	270	m	µg/Kg-dry	1	11/8/2014
Benzoic acid	ND	53.9	540	U*	µg/Kg-dry	1	11/8/2014
Benzyl alcohol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Bis(2-chloroethoxy)methane	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Bis(2-chloroethyl)ether	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Bis(2-chloroisopropyl)ether	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Bis(2-ethylhexyl)phthalate	210	26.9	270	J	µg/Kg-dry	1	11/8/2014
Butyl benzyl phthalate	59	26.9	270	J	µg/Kg-dry	1	11/8/2014
Caprolactam	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Carbazole	600	26.9	270		µg/Kg-dry	1	11/8/2014
Chrysene	2700	26.9	270		µg/Kg-dry	1	11/8/2014
Di-n-butyl phthalate	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Di-n-octyl phthalate	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
Dibenzo(a,h)anthracene	320	26.9	160	m	µg/Kg-dry	1	11/8/2014
Dibenzofuran	83	26.9	270	J	µg/Kg-dry	1	11/8/2014
Diethyl phthalate	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Dimethyl phthalate	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Fluoranthene	4400	26.9	270		µg/Kg-dry	1	11/8/2014
Fluorene	180	26.9	270	J	µg/Kg-dry	1	11/8/2014
Hexachlorobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Hexachlorobutadiene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Hexachlorocyclopentadiene	ND	53.9	270	U*	µg/Kg-dry	1	11/8/2014
Hexachloroethane	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Indeno(1,2,3-c,d)pyrene	1400	26.9	270		µg/Kg-dry	1	11/8/2014
Isophorone	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
N-Nitrosodi-n-propylamine	ND	26.9	160	U	µg/Kg-dry	1	11/8/2014
N-Nitrosodimethylamine	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
N-Nitrosodiphenylamine	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Naphthalene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Nitrobenzene	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Soil
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	SOIL
Lab ID:	1411006-001B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3546**		Analyst: **MH**
Parathion	ND	53.9	540	U	µg/Kg-dry	1	11/8/2014
Pentachlorophenol	ND	53.9	540	U*	µg/Kg-dry	1	11/8/2014
Phenanthrene	2400	26.9	270		µg/Kg-dry	1	11/8/2014
Phenol	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Pyrene	3300	26.9	270		µg/Kg-dry	1	11/8/2014
Pyridine	ND	26.9	270	U	µg/Kg-dry	1	11/8/2014
Surr: 2,4,6-Tribromophenol	55.4	0	14-144		%REC	1	11/8/2014
Surr: 2-Fluorobiphenyl	63.3	0	17-129		%REC	1	11/8/2014
Surr: 2-Fluorophenol	60.4	0	21-149		%REC	1	11/8/2014
Surr: 4-Terphenyl-d14	72.3	0	18-134		%REC	1	11/8/2014
Surr: Nitrobenzene-d5	59.8	0	18-125		%REC	1	11/8/2014
Surr: Phenol-d6	60.6	0	20-147		%REC	1	11/8/2014

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
1,1,1,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1,1-Trichloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1,2,2-Tetrachloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1,2-Trichloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1-Dichloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1-Dichloroethene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,1-Dichloropropene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2,3-Trichlorobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2,3-Trichloropropane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
1,2,4-Trichlorobenzene	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
1,2,4-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2-Dibromo-3-chloropropane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2-Dibromoethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2-Dichloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,3,5-Trimethylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,3-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,3-dichloropropane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,4-Dichlorobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
1,4-Dioxane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
2,2-Dichloropropane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
2-Butanone	ND	1.25	5.0	U*	µg/L	1	11/4/2014 1:59:00 PM
2-Chloroethyl vinyl ether	ND	1	4.0	U*	µg/L	1	11/4/2014 1:59:00 PM
2-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
2-Hexanone	ND	1.25	5.0	U	µg/L	1	11/4/2014 1:59:00 PM
2-Propanol	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
4-Chlorotoluene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
4-Isopropyltoluene	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
4-Methyl-2-pentanone	ND	1.25	5.0	U	µg/L	1	11/4/2014 1:59:00 PM
Acetone	1.9	1.25	5.0	BJ*	µg/L	1	11/4/2014 1:59:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
Benzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Bromobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Bromochloromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Bromodichloromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Bromoform	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Bromomethane	ND	1	4.0	U	µg/L	1	11/4/2014 1:59:00 PM
Carbon disulfide	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Carbon tetrachloride	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Chlorobenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Chlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Chloroethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Chloroform	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Chloromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
cis-1,2-Dichloroethene	0.53	0.5	2.0	J	µg/L	1	11/4/2014 1:59:00 PM
cis-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Cyclohexane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Dibromochloromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Dibromomethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Dichlorodifluoromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Diisopropyl ether	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Ethanol	ND	2.5	10	U	µg/L	1	11/4/2014 1:59:00 PM
Ethylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Freon-114	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Hexachlorobutadiene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Isopropylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
m,p-Xylene	ND	1	4.0	U	µg/L	1	11/4/2014 1:59:00 PM
Methyl Acetate	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Methyl tert-butyl ether	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Methylene chloride	4.4	0.5	2.0	B*	µg/L	1	11/4/2014 1:59:00 PM
n-Butylbenzene	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
n-Propylbenzene	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
Naphthalene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
o-Xylene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260			**SW8260C**		**SW5030C**		Analyst: **LA**
p-Diethylbenzene	ND	0.5	2.0	Um	µg/L	1	11/4/2014 1:59:00 PM
p-Ethyltoluene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
sec-Butylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Styrene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
t-Butyl alcohol	ND	2.5	10	U	µg/L	1	11/4/2014 1:59:00 PM
tert-Butylbenzene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Tetrachloroethene	57	0.5	2.0		µg/L	1	11/4/2014 1:59:00 PM
Toluene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
trans-1,2-Dichloroethene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
trans-1,3-Dichloropropene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Trichloroethene	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Trichlorofluoromethane	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Vinyl acetate	ND	0.5	2.0	U*	µg/L	1	11/4/2014 1:59:00 PM
Vinyl chloride	ND	0.5	2.0	U	µg/L	1	11/4/2014 1:59:00 PM
Surr: 4-Bromofluorobenzene	98.2	0	80-120		%REC	1	11/4/2014 1:59:00 PM
Surr: Dibromofluoromethane	103	0	77-131		%REC	1	11/4/2014 1:59:00 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	11/4/2014 1:59:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
PCB'S AS AROCLORS SW-846 METHOD 8082			**SW8082A**		**SW3510C**		Analyst: **SB**
Aroclor 1016	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1221	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1232	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1242	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1248	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1254	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1260	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1262	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Aroclor 1268	ND	0.25	0.50	U	µg/L	1	11/7/2014 7:34:00 AM
Surr: DCB	78.2	0	12-147		%REC	1	11/7/2014 7:34:00 AM
Surr: TCX	88.9	0	12-147		%REC	1	11/7/2014 7:34:00 AM
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3510C**		Analyst: **MH**
Biphenyl	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
1,2,4-Trichlorobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
1,2-Dichlorobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
1,3-Dichlorobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
1,4-Dichlorobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2,4,5-Trichlorophenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2,4,6-Trichlorophenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2,4-Dichlorophenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2,4-Dimethylphenol	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
2,4-Dinitrophenol	ND	1	10	U*	µg/L	1	11/7/2014 11:54:00 PM
2,4-Dinitrotoluene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2,6-Dinitrotoluene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2-Chloronaphthalene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2-Chlorophenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2-Methylnaphthalene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2-Methylphenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
2-Nitroaniline	ND	0.5	5.0	U*	µg/L	1	11/7/2014 11:54:00 PM
2-Nitrophenol	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
3+4-Methylphenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
3,3´-Dichlorobenzidine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3510C**		Analyst: **MH**
3-Nitroaniline	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
4,6-Dinitro-2-methylphenol	ND	1	10	U*	µg/L	1	11/7/2014 11:54:00 PM
4-Bromophenyl phenyl ether	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
4-Chloro-3-methylphenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
4-Chloroaniline	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
4-Chlorophenyl phenyl ether	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
4-Nitroaniline	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
4-Nitrophenol	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Acenaphthene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Acenaphthylene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Acetophenone	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Aniline	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Anthracene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Atrazine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Azobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzaldehyde	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Benzidine	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Benzo(a)anthracene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzo(a)pyrene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzo(b)fluoranthene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzo(g,h,i)perylene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzo(k)fluoranthene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Benzoic acid	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Benzyl alcohol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Bis(2-chloroethoxy)methane	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Bis(2-chloroethyl)ether	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Bis(2-chloroisopropyl)ether	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Bis(2-ethylhexyl)phthalate	4.2	1	10	BJ	µg/L	1	11/7/2014 11:54:00 PM
Butyl benzyl phthalate	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Caprolactam	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Carbazole	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Chrysene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Di-n-butyl phthalate	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002B		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
SEMIVOLATILE SW-846 METHOD 8270			**SW8270D**		**SW3510C**		Analyst: **MH**
Di-n-octyl phthalate	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Dibenzo(a,h)anthracene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Dibenzofuran	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Diethyl phthalate	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Dimethyl phthalate	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Fluoranthene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Fluorene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Hexachlorobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Hexachlorobutadiene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Hexachlorocyclopentadiene	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Hexachloroethane	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Isophorone	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
N-Nitrosodi-n-propylamine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
N-Nitrosodimethylamine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
N-Nitrosodiphenylamine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Naphthalene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Nitrobenzene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Parathion	ND	1	10	U*	µg/L	1	11/7/2014 11:54:00 PM
Pentachlorophenol	ND	1	10	U	µg/L	1	11/7/2014 11:54:00 PM
Phenanthrene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Phenol	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Pyrene	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Pyridine	ND	0.5	5.0	U	µg/L	1	11/7/2014 11:54:00 PM
Surr: 2,4,6-Tribromophenol	70.3	0	17-145		%REC	1	11/7/2014 11:54:00 PM
Surr: 2-Fluorobiphenyl	81.3	0	18-131		%REC	1	11/7/2014 11:54:00 PM
Surr: 2-Fluorophenol	44.7	0	10-147		%REC	1	11/7/2014 11:54:00 PM
Surr: 4-Terphenyl-d14	90.8	0	14-140		%REC	1	11/7/2014 11:54:00 PM
Surr: Nitrobenzene-d5	74.9	0	13-133		%REC	1	11/7/2014 11:54:00 PM
Surr: Phenol-d6	29.0	0	10-146		%REC	1	11/7/2014 11:54:00 PM

American Analytical Laboratories, LLC.

Date: *10-Nov-14*

ELAP ID : 11418

CLIENT:	American Environmental Assessment Corp.	**Client Sample ID:**	Drum Composite - Liquid
Lab Order:	1411006	**Collection Date:**	11/3/2014 10:00:00 AM
Project:	HDR-Country Cleaners, W. Main Street, Huntin	**Matrix:**	LIQUID
Lab ID:	1411006-002C		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
MERCURY			**E245.1**		**SW7470A**		Analyst: **JP**
Mercury	ND	).0002	0.000250	U	mg/L	1	11/4/2014 2:23:41 PM
TOTAL METALS			**E200.7**		**SW3010A**		Analyst: **JP**
Arsenic	ND	0.01	0.0250	U	mg/L	1	11/4/2014 10:04:10 AM
Barium	0.301	0.005	0.0200		mg/L	1	11/4/2014 10:04:10 AM
Cadmium	ND	0.005	0.0100	U	mg/L	1	11/4/2014 10:04:10 AM
Chromium	ND	0.005	0.0200	U	mg/L	1	11/4/2014 10:04:10 AM
Lead	0.00516	0.005	0.0150	J	mg/L	1	11/4/2014 10:04:10 AM
Selenium	ND	0.01	0.0250	U	mg/L	1	11/4/2014 10:04:10 AM
Silver	ND	0.005	0.0200	U	mg/L	1	11/4/2014 10:04:10 AM

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **LCS-2809**	SampType: **LCS**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4781**
Client ID: **LCSS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88703**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	47	5.0	50.00	0	94.2	42	139				
1,1,2,2-Tetrachloroethane	38	5.0	50.00	0	75.6	44	138				
1,1,2-Trichloroethane	42	5.0	50.00	0	83.6	43	134				
1,1-Dichloroethane	45	5.0	50.00	0	90.0	41	142				
1,1-Dichloroethene	47	5.0	50.00	0	93.9	33	144				
1,2-Dichlorobenzene	42	5.0	50.00	0	83.4	45	128				
1,2-Dichloroethane	45	5.0	50.00	0	89.6	34	145				
1,2-Dichloropropane	44	5.0	50.00	0	88.8	44	135				
1,3-Dichlorobenzene	44	5.0	50.00	0	88.8	40	135				
1,4-Dichlorobenzene	43	5.0	50.00	0	85.9	42	129				
2-Chloroethyl vinyl ether	43	5.0	50.00	0	86.0	30	146				
Benzene	46	5.0	50.00	0	91.1	46	137				
Bromodichloromethane	46	5.0	50.00	0	91.9	44	133				
Bromoform	49	5.0	50.00	0	97.5	39	147				*
Bromomethane	41	5.0	50.00	0	81.2	22	140				
Carbon tetrachloride	50	5.0	50.00	0	100	40	144				
Chlorobenzene	44	5.0	50.00	0	87.9	45	131				
Chloroethane	56	5.0	50.00	0	113	43	147				*
Chloroform	45	5.0	50.00	0	91.0	40	138				
Chloromethane	56	5.0	50.00	0	112	32	151				
cis-1,3-Dichloropropene	43	5.0	50.00	0	86.7	44	137				
Dibromochloromethane	47	5.0	50.00	0	93.1	43	139				
Ethylbenzene	46	5.0	50.00	0	91.9	52	138				
Methylene chloride	24	10	50.00	0	48.4	20	120				*
Tetrachloroethene	38	5.0	50.00	0	76.5	34	123				
Toluene	42	5.0	50.00	0	85.0	48	135				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **LCS-2809** SampType: **LCS** TestCode: **8260_S** Units: **µg/Kg** Prep Date: **11/4/2014** RunNo: **4781**

Client ID: **LCSS** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88703**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	45	5.0	50.00	0	90.2	43	137				
trans-1,3-Dichloropropene	45	5.0	50.00	0	89.2	48	135				
Trichloroethene	44	5.0	50.00	0	88.9	44	135				
Trichlorofluoromethane	60	5.0	50.00	0	121	52	149				
Vinyl chloride	59	5.0	50.00	0	118	49	154				
Surr: 4-Bromofluorobenzene	51		50.00		102	50	139				
Surr: Dibromofluoromethane	51		50.00		102	50	139				
Surr: Toluene-d8	50		50.00		99.1	71	120				

Sample ID **MB-2809** SampType: **MBLK** TestCode: **8260_S** Units: **µg/Kg** Prep Date: **11/4/2014** RunNo: **4781**

Client ID: **PBS** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									U
1,1,1-Trichloroethane	ND	5.0									U
1,1,2,2-Tetrachloroethane	ND	5.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0									U
1,1,2-Trichloroethane	ND	5.0									U
1,1-Dichloroethane	ND	5.0									U
1,1-Dichloroethene	ND	5.0									U
1,1-Dichloropropene	ND	5.0									U
1,2,3-Trichlorobenzene	ND	5.0									U
1,2,3-Trichloropropane	ND	5.0									U
1,2,4,5-Tetramethylbenzene	ND	5.0									U
1,2,4-Trichlorobenzene	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809**	SampType: **MBLK**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4781**
Client ID: **PBS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	5.0									U
1,2-Dibromo-3-chloropropane	ND	5.0									U
1,2-Dibromoethane	ND	5.0									U
1,2-Dichlorobenzene	ND	5.0									U
1,2-Dichloroethane	ND	5.0									U
1,2-Dichloropropane	ND	5.0									U
1,3,5-Trimethylbenzene	ND	5.0									U
1,3-Dichlorobenzene	ND	5.0									U
1,3-dichloropropane	ND	5.0									U
1,4-Dichlorobenzene	ND	5.0									U
1,4-Dioxane	ND	5.0									U
2,2-Dichloropropane	ND	5.0									U
2-Butanone	ND	10									U*
2-Chloroethyl vinyl ether	ND	5.0									U
2-Chlorotoluene	ND	5.0									U
2-Hexanone	ND	10									U
2-Propanol	ND	5.0									U
4-Chlorotoluene	ND	5.0									U
4-Isopropyltoluene	ND	5.0									U
4-Methyl-2-pentanone	ND	10									U
Acetone	ND	10									U*
Benzene	ND	5.0									U
Bromobenzene	ND	5.0									U
Bromochloromethane	ND	5.0									U
Bromodichloromethane	ND	5.0									U
Bromoform	ND	5.0									U*

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809**	SampType: **MBLK**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4781**
Client ID: **PBS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	5.0									U
Carbon disulfide	ND	5.0									U
Carbon tetrachloride	ND	5.0									U
Chlorobenzene	ND	5.0									U
Chlorodifluoromethane	ND	5.0									U
Chloroethane	ND	5.0									U*
Chloroform	ND	5.0									U
Chloromethane	ND	5.0									U
cis-1,2-Dichloroethene	ND	5.0									U
cis-1,3-Dichloropropene	ND	5.0									U
Cyclohexane	ND	5.0									U
Dibromochloromethane	ND	5.0									U
Dibromomethane	ND	5.0									U
Dichlorodifluoromethane	ND	5.0									U
Diisopropyl ether	ND	5.0									U
Ethanol	ND	20									U
Ethylbenzene	ND	5.0									U
Freon-114	ND	5.0									U
Hexachlorobutadiene	ND	5.0									U
Isopropylbenzene	ND	5.0									U
m,p-Xylene	ND	10									U
Methyl Acetate	ND	5.0									U
Methyl tert-butyl ether	ND	5.0									U
Methylene chloride	ND	10									U*
n-Butylbenzene	ND	5.0									U
n-Propylbenzene	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809** SampType: **MBLK** TestCode: **8260_S** Units: **µg/Kg** Prep Date: **11/4/2014** RunNo: **4781**
Client ID: **PBS** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88704**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	5.0									U
o-Xylene	ND	5.0									U
p-Diethylbenzene	ND	5.0									U
p-Ethyltoluene	ND	5.0									U
sec-Butylbenzene	ND	5.0									U
Styrene	ND	5.0									U
t-Butyl alcohol	ND	5.0									U
tert-Butylbenzene	ND	5.0									U
Tetrachloroethene	ND	5.0									U
Toluene	ND	5.0									U
trans-1,2-Dichloroethene	ND	5.0									U
trans-1,3-Dichloropropene	ND	5.0									U
Trichloroethene	ND	5.0									U
Trichlorofluoromethane	ND	5.0									U
Vinyl acetate	ND	5.0									U
Vinyl chloride	ND	5.0									U
Surr: 4-Bromofluorobenzene	49		50.00		98.6	50	139				
Surr: Dibromofluoromethane	51		50.00		102	50	138				
Surr: Toluene-d8	50		50.00		99.0	71	120				

Sample ID **1411010-001AMS** SampType: **MS** TestCode: **8260_S** Units: **µg/Kg-dry** Prep Date: **11/4/2014** RunNo: **4781**
Client ID: **BatchQC** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	44	5.1	51.21	0	86.2	22	144				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **1411010-001AMS** SampType: **MS** TestCode: **8260_S** Units: **µg/Kg-dry** Prep Date: **11/4/2014** RunNo: **4781**

Client ID: **BatchQC** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	35	5.1	51.21	0	68.7	21	133				
1,1,2-Trichloroethane	41	5.1	51.21	0	80.3	24	130				
1,1-Dichloroethane	43	5.1	51.21	0	83.3	29	138				
1,1-Dichloroethene	45	5.1	51.21	0	88.0	25	143				
1,2-Dichlorobenzene	36	5.1	51.21	0	70.7	14	130				
1,2-Dichloroethane	43	5.1	51.21	0	84.8	24	137				
1,2-Dichloropropane	42	5.1	51.21	0	82.0	30	132				
1,3-Dichlorobenzene	36	5.1	51.21	0	71.0	14	131				
1,4-Dichlorobenzene	36	5.1	51.21	0	70.1	19	128				
2-Chloroethyl vinyl ether	41	5.1	51.21	0	80.1	13	123				
Benzene	43	5.1	51.21	0	83.4	20	142				
Bromodichloromethane	44	5.1	51.21	0	86.3	24	126				
Bromoform	45	5.1	51.21	0	87.1	20	135				*
Bromomethane	39	5.1	51.21	0	76.1	21	137				
Carbon tetrachloride	46	5.1	51.21	0	90.7	20	143				
Chlorobenzene	39	5.1	51.21	0	76.8	21	129				
Chloroethane	51	5.1	51.21	0	101	25	147				*
Chloroform	43	5.1	51.21	0	83.9	34	133				
Chloromethane	54	5.1	51.21	0	105	30	148				
cis-1,3-Dichloropropene	41	5.1	51.21	0	79.1	20	130				
Dibromochloromethane	45	5.1	51.21	0	88.0	20	130				
Ethylbenzene	40	5.1	51.21	0	78.0	20	130				
Methylene chloride	23	10	51.21	0	45.1	20	130				*
Tetrachloroethene	34	5.1	51.21	0	67.3	20	120				
Toluene	39	5.1	51.21	0	76.4	21	142				
trans-1,2-Dichloroethene	43	5.1	51.21	0	83.0	28	132				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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Website: www.American-Analytical.com

QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **1411010-001AMS** SampType: **MS** TestCode: **8260_S** Units: **µg/Kg-dry** Prep Date: **11/4/2014** RunNo: **4781**

Client ID: **BatchQC** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	43	5.1	51.21	0	83.3	20	130				
Trichloroethene	41	5.1	51.21	0	79.8	22	147				
Trichlorofluoromethane	57	5.1	51.21	0	111	42	149				
Vinyl chloride	55	5.1	51.21	0	107	35	152				
Surr: 4-Bromofluorobenzene	53		51.21		104	50	139				
Surr: Dibromofluoromethane	54		51.21		106	50	138				
Surr: Toluene-d8	52		51.21		102	71	120				

Sample ID **1411010-001AMSD** SampType: **MSD** TestCode: **8260_S** Units: **µg/Kg-dry** Prep Date: **11/4/2014** RunNo: **4781**

Client ID: **BatchQC** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88709**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	44	5.2	51.71	0	84.9	22	144	44.14	0.558	20	
1,1,2,2-Tetrachloroethane	33	5.2	51.71	0	63.0	21	133	35.18	7.61	20	
1,1,2-Trichloroethane	40	5.2	51.71	0	77.5	24	130	41.13	2.56	20	
1,1-Dichloroethane	43	5.2	51.71	0	82.6	29	138	42.65	0.141	20	
1,1-Dichloroethene	42	5.2	51.71	0	81.6	25	143	45.08	6.56	20	
1,2-Dichlorobenzene	37	5.2	51.71	0	70.8	14	130	36.20	1.15	20	
1,2-Dichloroethane	43	5.2	51.71	0	82.9	24	137	43.43	1.28	20	
1,2-Dichloropropane	42	5.2	51.71	0	80.6	30	132	41.97	0.738	20	
1,3-Dichlorobenzene	38	5.2	51.71	0	72.7	14	131	36.37	3.27	20	
1,4-Dichlorobenzene	36	5.2	51.71	0	70.6	19	128	35.92	1.61	20	
2-Chloroethyl vinyl ether	40	5.2	51.71	0	76.8	13	123	41.02	3.27	20	
Benzene	43	5.2	51.71	0	82.2	20	142	42.73	0.512	20	
Bromodichloromethane	44	5.2	51.71	0	84.2	24	126	44.20	1.48	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **1411010-001AMSD**	SampType: **MSD**	TestCode: **8260_S**	Units: **µg/Kg-dry**	Prep Date: **11/4/2014**	RunNo: **4781**
Client ID: **BatchQC**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88709**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	44	5.2	51.71	0	85.3	20	135	44.58	1.01	20	*
Bromomethane	41	5.2	51.71	0	79.3	21	137	38.96	5.15	20	
Carbon tetrachloride	47	5.2	51.71	0	90.3	20	143	46.46	0.477	20	
Chlorobenzene	39	5.2	51.71	0	76.1	21	129	39.34	0.0173	20	
Chloroethane	54	5.2	51.71	0	105	25	147	51.47	5.25	20	*
Chloroform	43	5.2	51.71	0	83.9	34	133	42.95	1.01	20	
Chloromethane	49	5.2	51.71	0	94.5	30	148	53.74	9.53	20	
cis-1,3-Dichloropropene	40	5.2	51.71	0	77.7	20	130	40.52	0.851	20	
Dibromochloromethane	44	5.2	51.71	0	85.2	20	130	45.04	2.18	20	
Ethylbenzene	40	5.2	51.71	0	78.3	20	130	39.94	1.37	20	
Methylene chloride	23	10	51.71	0	44.3	20	130	23.07	0.716	20	*
Tetrachloroethene	34	5.2	51.71	0	66.4	20	120	34.47	0.361	20	
Toluene	39	5.2	51.71	0	76.0	21	142	39.14	0.408	20	
trans-1,2-Dichloroethene	42	5.2	51.71	0	82.0	28	132	42.50	0.276	20	
trans-1,3-Dichloropropene	42	5.2	51.71	0	81.5	20	130	42.65	1.25	20	
Trichloroethene	41	5.2	51.71	0	79.9	22	147	40.87	1.14	20	
Trichlorofluoromethane	55	5.2	51.71	0	107	42	149	56.98	3.37	20	
Vinyl chloride	51	5.2	51.71	0	99.5	35	152	54.94	6.60	20	
Surr: 4-Bromofluorobenzene	52		51.71		100	50	139		0	20	
Surr: Dibromofluoromethane	55		51.71		107	50	138		0	20	
Surr: Toluene-d8	52		51.71		101	71	120		0	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **LCS-2809**	SampType: **LCS**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4778**
Client ID: **LCSS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	47	5.0	50.00	0	94.2	42	139				
1,1,2,2-Tetrachloroethane	38	5.0	50.00	0	75.6	44	138				
1,1,2-Trichloroethane	42	5.0	50.00	0	83.6	43	134				
1,1-Dichloroethane	45	5.0	50.00	0	90.0	41	142				
1,1-Dichloroethene	47	5.0	50.00	0	93.9	33	144				
1,2-Dichlorobenzene	42	5.0	50.00	0	83.4	45	128				
1,2-Dichloroethane	45	5.0	50.00	0	89.6	34	145				
1,2-Dichloropropane	44	5.0	50.00	0	88.8	44	135				
1,3-Dichlorobenzene	44	5.0	50.00	0	88.8	40	135				
1,4-Dichlorobenzene	43	5.0	50.00	0	85.9	42	129				
2-Chloroethyl vinyl ether	43	5.0	50.00	0	86.0	30	146				*
Benzene	46	5.0	50.00	0	91.1	46	137				
Bromodichloromethane	46	5.0	50.00	0	91.9	44	133				
Bromoform	49	5.0	50.00	0	97.5	39	147				*
Bromomethane	41	5.0	50.00	0	81.2	22	140				
Carbon tetrachloride	50	5.0	50.00	0	100	40	144				
Chlorobenzene	44	5.0	50.00	0	87.9	45	131				
Chloroethane	56	5.0	50.00	0	113	43	147				*
Chloroform	45	5.0	50.00	0	91.0	40	138				
Chloromethane	56	5.0	50.00	0	112	32	151				
cis-1,3-Dichloropropene	43	5.0	50.00	0	86.7	44	137				
Dibromochloromethane	47	5.0	50.00	0	93.1	43	139				
Ethylbenzene	46	5.0	50.00	0	91.9	52	138				
Methylene chloride	24	10	50.00	0	48.4	20	120				*
Tetrachloroethene	38	5.0	50.00	0	76.5	34	123				
Toluene	42	5.0	50.00	0	85.0	48	135				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **LCS-2809** SampType: **LCS** TestCode: **8260_S** Units: **µg/Kg** Prep Date: **11/4/2014** RunNo: **4778**

Client ID: **LCSS** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	45	5.0	50.00	0	90.2	43	137				
trans-1,3-Dichloropropene	45	5.0	50.00	0	89.2	48	135				
Trichloroethene	44	5.0	50.00	0	88.9	44	135				
Trichlorofluoromethane	60	5.0	50.00	0	121	52	149				*
Vinyl chloride	59	5.0	50.00	0	118	49	154				
Surr: 4-Bromofluorobenzene	51		50.00		102	50	139				
Surr: Dibromofluoromethane	51		50.00		102	50	139				
Surr: Toluene-d8	50		50.00		99.1	71	120				

Sample ID **MB-2809** SampType: **MBLK** TestCode: **8260_S** Units: **µg/Kg** Prep Date: **11/4/2014** RunNo: **4778**

Client ID: **PBS** Batch ID: **2809** TestNo: **SW8260C** **SW5035A** Analysis Date: **11/4/2014** SeqNo: **88680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									U
1,1,1-Trichloroethane	ND	5.0									U
1,1,2,2-Tetrachloroethane	ND	5.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0									U
1,1,2-Trichloroethane	ND	5.0									U
1,1-Dichloroethane	ND	5.0									U
1,1-Dichloroethene	ND	5.0									U
1,1-Dichloropropene	ND	5.0									U
1,2,3-Trichlorobenzene	ND	5.0									U
1,2,3-Trichloropropane	ND	5.0									U
1,2,4,5-Tetramethylbenzene	ND	5.0									U
1,2,4-Trichlorobenzene	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809**	SampType: **MBLK**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4778**
Client ID: **PBS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	5.0									U
1,2-Dibromo-3-chloropropane	ND	5.0									U
1,2-Dibromoethane	ND	5.0									U
1,2-Dichlorobenzene	ND	5.0									U
1,2-Dichloroethane	ND	5.0									U
1,2-Dichloropropane	ND	5.0									U
1,3,5-Trimethylbenzene	ND	5.0									U
1,3-Dichlorobenzene	ND	5.0									U
1,3-dichloropropane	ND	5.0									U
1,4-Dichlorobenzene	ND	5.0									U
1,4-Dioxane	ND	5.0									U
2,2-Dichloropropane	ND	5.0									U
2-Butanone	ND	10									U
2-Chloroethyl vinyl ether	ND	5.0									U*
2-Chlorotoluene	ND	5.0									U
2-Hexanone	ND	10									U
2-Propanol	ND	5.0									U
4-Chlorotoluene	ND	5.0									U
4-Isopropyltoluene	ND	5.0									U
4-Methyl-2-pentanone	ND	10									U
Acetone	ND	10									U*
Benzene	ND	5.0									U
Bromobenzene	ND	5.0									U
Bromochloromethane	ND	5.0									U
Bromodichloromethane	ND	5.0									U
Bromoform	ND	5.0									U*

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809**	SampType: **MBLK**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4778**
Client ID: **PBS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	5.0									U
Carbon disulfide	ND	5.0									U
Carbon tetrachloride	ND	5.0									U
Chlorobenzene	ND	5.0									U
Chlorodifluoromethane	ND	5.0									U
Chloroethane	ND	5.0									U*
Chloroform	ND	5.0									U
Chloromethane	ND	5.0									U
cis-1,2-Dichloroethene	ND	5.0									U
cis-1,3-Dichloropropene	ND	5.0									U
Cyclohexane	ND	5.0									U
Dibromochloromethane	ND	5.0									U
Dibromomethane	ND	5.0									U
Dichlorodifluoromethane	ND	5.0									U
Diisopropyl ether	ND	5.0									U
Ethanol	ND	20									U
Ethylbenzene	ND	5.0									U
Freon-114	ND	5.0									U
Hexachlorobutadiene	ND	5.0									U
Isopropylbenzene	ND	5.0									U
m,p-Xylene	ND	10									U
Methyl Acetate	ND	5.0									U
Methyl tert-butyl ether	ND	5.0									U
Methylene chloride	ND	10									U*
n-Butylbenzene	ND	5.0									U
n-Propylbenzene	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2809**

Sample ID **MB-2809**	SampType: **MBLK**	TestCode: **8260_S**	Units: **µg/Kg**	Prep Date: **11/4/2014**	RunNo: **4778**
Client ID: **PBS**	Batch ID: **2809**	TestNo: **SW8260C**	**SW5035A**	Analysis Date: **11/4/2014**	SeqNo: **88680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	5.0									U
o-Xylene	ND	5.0									U
p-Diethylbenzene	ND	5.0									U
p-Ethyltoluene	ND	5.0									U
sec-Butylbenzene	ND	5.0									U
Styrene	ND	5.0									U
t-Butyl alcohol	ND	5.0									U
tert-Butylbenzene	ND	5.0									U
Tetrachloroethene	ND	5.0									U
Toluene	ND	5.0									U
trans-1,2-Dichloroethene	ND	5.0									U
trans-1,3-Dichloropropene	ND	5.0									U
Trichloroethene	ND	5.0									U
Trichlorofluoromethane	ND	5.0									U*
Vinyl acetate	ND	5.0									U
Vinyl chloride	ND	5.0									U
Surr: 4-Bromofluorobenzene	49		50.00		98.6	50	139				
Surr: Dibromofluoromethane	51		50.00		102	50	138				
Surr: Toluene-d8	50		50.00		99.0	71	120				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID	**MBW110414A**	SampType:	**MBLK**	TestCode:	**ICPSCAN_W**	Units:	**mg/L**	Prep Date:	**11/4/2014**	RunNo:	**4675**
Client ID:	**PBW**	Batch ID:	**2811**	TestNo:	**E200.7**		**SW3010A**	Analysis Date:	**11/4/2014**	SeqNo:	**86462**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	ND	0.0300									U

Sample ID	**LCSW110414A**	SampType:	**LCS**	TestCode:	**ICPSCAN_W**	Units:	**mg/L**	Prep Date:	**11/4/2014**	RunNo:	**4675**
Client ID:	**LCSW**	Batch ID:	**2811**	TestNo:	**E200.7**		**SW3010A**	Analysis Date:	**11/4/2014**	SeqNo:	**86463**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1.98	0.0300	2.000	0	99.0	85	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **MBW110414A** SampType: **MBLK** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4729**

Client ID: **PBW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **87722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0200									U
Antimony	ND	0.0200									U
Arsenic	ND	0.0250									U
Barium	ND	0.0200									U
Beryllium	ND	0.0200									U
Boron	ND	0.0200									U
Cadmium	ND	0.0100									U
Calcium	ND	0.0250									U
Chromium	ND	0.0200									U
Cobalt	ND	0.0200									U
Copper	ND	0.0200									U
Iron	ND	0.0200									U
Lead	ND	0.0150									U
Magnesium	ND	0.0200									U
Manganese	ND	0.0200									U
Molybdenum	ND	0.0200									U
Nickel	ND	0.0200									U
Potassium	ND	0.200									U
Selenium	ND	0.0250									U
Silicon	ND	0.0300									U
Silver	ND	0.0200									U
Sodium	ND	0.0300									U
Thallium	ND	0.0150									U
Tin	ND	0.0200									U
Titanium	ND	0.0200									U
Vanadium	ND	0.0200									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **MBW110414A** SampType: **MBLK** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4729**

Client ID: **PBW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **87722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	ND	0.0200									U

Sample ID **LCSW110414A** SampType: **LCS** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4729**

Client ID: **LCSW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **87723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1.96	0.0200	2.000	0	98.2	85	115				
Antimony	1.96	0.0200	2.000	0	98.0	85	115				
Arsenic	1.96	0.0250	2.000	0	98.2	85	115				
Barium	1.97	0.0200	2.000	0	98.7	85	115				
Beryllium	1.99	0.0200	2.000	0	99.7	85	115				
Cadmium	1.94	0.0100	2.000	0	96.9	85	115				
Calcium	1.94	0.0250	2.000	0	97.2	85	115				
Chromium	1.97	0.0200	2.000	0	98.4	85	115				
Cobalt	1.96	0.0200	2.000	0	98.1	85	115				
Copper	1.96	0.0200	2.000	0	97.9	85	115				
Iron	1.95	0.0200	2.000	0	97.4	85	115				
Lead	1.94	0.0150	2.000	0	97.1	85	115				
Magnesium	1.96	0.0200	2.000	0	97.8	85	115				
Manganese	1.92	0.0200	2.000	0	96.1	85	115				
Molybdenum	1.95	0.0200	2.000	0	97.5	85	115				
Nickel	1.95	0.0200	2.000	0	97.4	85	115				
Potassium	19.8	0.200	20.00	0	98.8	85	115				
Selenium	1.94	0.0250	2.000	0	97.1	85	115				
Silver	1.79	0.0200	2.000	0	89.7	85	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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Website: www.American-Analytical.com

QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **LCSW110414A** SampType: **LCS** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4729**

Client ID: **LCSW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **87723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1.98	0.0300	2.000	0	99.0	85	115				
Thallium	1.93	0.0150	2.000	0	96.6	85	115				
Vanadium	1.95	0.0200	2.000	0	97.5	85	115				
Zinc	1.98	0.0200	2.000	0	99.0	85	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **1411006-002CMS** SampType: **MS** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **Drum Composite - L** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **88988**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1.07	0.0200	1.000	0.05443	102	60	132				
Antimony	1.02	0.0200	1.000	0	102	60	133				
Arsenic	1.04	0.0250	1.000	0	104	70	130				
Barium	1.26	0.0200	1.000	0.3005	96.2	66	135				
Beryllium	1.02	0.0200	1.000	0	102	70	130				
Cadmium	1.01	0.0100	1.000	0	101	70	130				
Calcium	23.4	0.0250	1.000	22.89	48.1	70	130				S
Chromium	1.00	0.0200	1.000	0	100	69	131				
Cobalt	0.961	0.0200	1.000	0	96.1	61	125				
Copper	1.00	0.0200	1.000	0.005319	99.8	70	130				
Iron	17.0	0.0200	1.000	16.55	44.5	51	131				S
Lead	0.988	0.0150	1.000	0.005159	98.3	68	128				
Magnesium	7.62	0.0200	1.000	6.775	84.3	25	125				
Manganese	1.82	0.0200	1.000	0.8929	92.5	65	127				
Molybdenum	0.993	0.0200	1.000	0	99.3	70	130				
Nickel	0.977	0.0200	1.000	0.007514	96.9	68	130				
Potassium	14.0	0.200	10.00	2.631	114	70	134				
Selenium	1.02	0.0250	1.000	0	102	70	130				
Silver	0.997	0.0200	1.000	0	99.7	60	125				
Sodium	10.1	0.0300	1.000	9.432	69.4	30	135				
Thallium	0.983	0.0150	1.000	0	98.3	65	133				
Vanadium	1.00	0.0200	1.000	0	100	70	130				
Zinc	1.22	0.0200	1.000	0.1786	104	68	132				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **1411006-002CMSD** SampType: **MSD** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **Drum Composite - L** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **88989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1.04	0.0200	1.000	0.05443	98.6	60	132	1.071	2.87	20	
Antimony	0.988	0.0200	1.000	0	98.8	60	133	1.016	2.79	20	
Arsenic	1.01	0.0250	1.000	0	101	70	130	1.035	2.89	20	
Barium	1.23	0.0200	1.000	0.3005	93.4	66	135	1.262	2.22	20	
Beryllium	1.02	0.0200	1.000	0	102	70	130	1.019	0.0775	20	
Boron	ND	0.0200	1.000	0	0	70	130	0	0	20	SU
Cadmium	0.980	0.0100	1.000	0	98.0	70	130	1.006	2.66	20	
Calcium	23.0	0.0250	1.000	22.89	14.8	70	130	23.38	1.43	20	S
Chromium	0.990	0.0200	1.000	0	99.0	69	131	1.003	1.32	20	
Cobalt	0.942	0.0200	1.000	0	94.2	61	125	0.9611	1.99	20	
Copper	0.981	0.0200	1.000	0.005319	97.6	70	130	1.004	2.23	20	
Iron	16.7	0.0200	1.000	16.55	15.0	51	131	16.99	1.75	20	S
Lead	0.970	0.0150	1.000	0.005159	96.5	68	128	0.9879	1.80	20	
Magnesium	7.47	0.0200	1.000	6.775	69.1	25	125	7.618	2.03	20	
Manganese	1.79	0.0200	1.000	0.8929	89.4	65	127	1.818	1.69	20	
Molybdenum	0.997	0.0200	1.000	0	99.7	70	130	0.9931	0.402	20	
Nickel	0.986	0.0200	1.000	0.007514	97.9	68	130	0.9767	0.997	20	
Potassium	13.2	0.200	10.00	2.631	106	70	134	14.01	5.81	20	
Selenium	0.986	0.0250	1.000	0	98.6	70	130	1.017	3.09	20	
Silicon	ND	0.0300	1.000	0	0	0	0	0	0	20	U
Silver	1.00	0.0200	1.000	0	100	60	125	0.9973	0.633	20	
Sodium	9.77	0.0300	1.000	9.432	33.8	30	135	10.13	3.58	20	
Thallium	0.957	0.0150	1.000	0	95.7	65	133	0.9834	2.71	20	
Tin	ND	0.0200	1.000	0	0	70	130	0	0	20	SU
Titanium	ND	0.0200	1.000	0	0	70	130	0	0	20	SU
Vanadium	0.988	0.0200	1.000	0	98.8	70	130	1.002	1.32	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **1411006-002CMSD** SampType: **MSD** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **Drum Composite - L** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **88989**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	1.18	0.0200	1.000	0.1786	100	68	132	1.220	3.17	20	

Sample ID **MBW110414A** SampType: **MBLK** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **PBW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **89047**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0200									U
Antimony	ND	0.0200									U
Arsenic	ND	0.0250									U
Barium	ND	0.0200									U
Beryllium	ND	0.0200									U
Boron	ND	0.0200									U
Cadmium	ND	0.0100									U
Calcium	ND	0.0250									U
Chromium	ND	0.0200									U
Cobalt	ND	0.0200									U
Copper	ND	0.0200									U
Iron	ND	0.0200									U
Lead	ND	0.0150									U
Magnesium	ND	0.0200									U
Manganese	ND	0.0200									U
Molybdenum	ND	0.0200									U
Nickel	ND	0.0200									U
Potassium	ND	0.200									U
Selenium	ND	0.0250									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **MBW110414A** SampType: **MBLK** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **PBW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **89047**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silicon	ND	0.0300									U
Silver	ND	0.0200									U
Sodium	ND	0.0300									U
Thallium	ND	0.0150									U
Tin	ND	0.0200									U
Titanium	ND	0.0200									U
Vanadium	ND	0.0200									U
Zinc	ND	0.0200									U

Sample ID **LCSW110414A** SampType: **LCS** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **LCSW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **89048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1.96	0.0200	2.000	0	98.2	85	115				
Antimony	1.96	0.0200	2.000	0	98.0	85	115				
Arsenic	1.96	0.0250	2.000	0	98.2	85	115				
Barium	1.97	0.0200	2.000	0	98.7	85	115				
Beryllium	1.99	0.0200	2.000	0	99.7	85	115				
Cadmium	1.94	0.0100	2.000	0	96.9	85	115				
Calcium	1.94	0.0250	2.000	0	97.2	85	115				
Chromium	1.97	0.0200	2.000	0	98.4	85	115				
Cobalt	1.96	0.0200	2.000	0	98.1	85	115				
Copper	1.96	0.0200	2.000	0	97.9	85	115				
Iron	1.95	0.0200	2.000	0	97.4	85	115				
Lead	1.94	0.0150	2.000	0	97.1	85	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2811**

Sample ID **LCSW110414A** SampType: **LCS** TestCode: **ICPSCAN_W** Units: **mg/L** Prep Date: **11/4/2014** RunNo: **4793**

Client ID: **LCSW** Batch ID: **2811** TestNo: **E200.7** **SW3010A** Analysis Date: **11/4/2014** SeqNo: **89048**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	1.96	0.0200	2.000	0	97.8	85	115				
Manganese	1.92	0.0200	2.000	0	96.1	85	115				
Molybdenum	1.95	0.0200	2.000	0	97.5	85	115				
Nickel	1.95	0.0200	2.000	0	97.4	85	115				
Potassium	19.8	0.200	20.00	0	98.8	85	115				
Selenium	1.94	0.0250	2.000	0	97.1	85	115				
Silver	1.79	0.0200	2.000	0	89.7	85	115				
Sodium	1.98	0.0300	2.000	0	99.0	85	115				
Thallium	1.93	0.0150	2.000	0	96.6	85	115				
Vanadium	1.95	0.0200	2.000	0	97.5	85	115				
Zinc	1.98	0.0200	2.000	0	99.0	85	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **LCS-2820**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **11/4/2014**	RunNo: **4748**
Client ID: **LCSW**	Batch ID: **2820**	TestNo: **SW8260C**	**SW5030C**	Analysis Date: **11/4/2014**	SeqNo: **88005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	50	2.0	50.00	0	101	54	134				
1,1,2,2-Tetrachloroethane	41	2.0	50.00	0	81.4	38	133				
1,1,2-Trichloroethane	44	2.0	50.00	0	87.4	53	132				
1,1-Dichloroethane	48	2.0	50.00	0	96.8	46	138				
1,1-Dichloroethene	52	2.0	50.00	0	105	47	137				
1,2-Dichlorobenzene	45	2.0	50.00	0	90.5	47	134				
1,2-Dichloroethane	46	2.0	50.00	0	92.4	52	136				
1,2-Dichloropropane	47	2.0	50.00	0	93.3	47	145				
1,3-Dichlorobenzene	48	2.0	50.00	0	96.1	47	136				
1,4-Dichlorobenzene	48	2.0	50.00	0	95.7	44	134				
2-Chloroethyl vinyl ether	ND	4.0	50.00	0	0	40	130				SU
Benzene	49	2.0	50.00	0	98.3	51	138				
Bromodichloromethane	46	2.0	50.00	0	92.0	48	143				
Bromoform	44	2.0	50.00	0	87.4	34	138				
Bromomethane	40	4.0	50.00	0	80.5	28	152				
Carbon tetrachloride	52	2.0	50.00	0	103	52	138				
Chlorobenzene	47	2.0	50.00	0	93.6	48	133				
Chloroethane	55	2.0	50.00	0	110	51	147				
Chloroform	48	2.0	50.00	0	96.9	54	136				
Chloromethane	64	2.0	50.00	0	128	58	146				
cis-1,3-Dichloropropene	46	2.0	50.00	0	91.5	52	138				
Dibromochloromethane	46	2.0	50.00	0	91.1	53	131				
Ethylbenzene	50	2.0	50.00	0	100	53	134				
Methylene chloride	23	2.0	50.00	0	45.9	10	120				B
Tetrachloroethene	36	2.0	50.00	0	71.2	44	126				
Toluene	46	2.0	50.00	0	92.4	54	134				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **LCS-2820** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **LCSW** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	50	2.0	50.00	0	99.3	44	138				
trans-1,3-Dichloropropene	46	2.0	50.00	0	91.5	46	137				
Trichloroethene	47	2.0	50.00	0	94.2	52	134				
Trichlorofluoromethane	61	2.0	50.00	0	123	56	151				
Vinyl chloride	66	2.0	50.00	0	132	55	151				
Surr: 4-Bromofluorobenzene	49		50.00		98.5	80	120				
Surr: Dibromofluoromethane	51		50.00		103	77	131				
Surr: Toluene-d8	51		50.00		102	80	120				

Sample ID **MB-2820** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **PBW** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	2.0									U
1,1,1-Trichloroethane	ND	2.0									U
1,1,2,2-Tetrachloroethane	ND	2.0									U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0									U
1,1,2-Trichloroethane	ND	2.0									U
1,1-Dichloroethane	ND	2.0									U
1,1-Dichloroethene	ND	2.0									U
1,1-Dichloropropene	ND	2.0									U
1,2,3-Trichlorobenzene	ND	2.0									U
1,2,3-Trichloropropane	ND	2.0									U
1,2,4,5-Tetramethylbenzene	ND	2.0									U
1,2,4-Trichlorobenzene	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **MB-2820**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **11/4/2014**	RunNo: **4748**
Client ID: **PBW**	Batch ID: **2820**	TestNo: **SW8260C**	**SW5030C**	Analysis Date: **11/4/2014**	SeqNo: **88006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	2.0									U
1,2-Dibromo-3-chloropropane	ND	2.0									U
1,2-Dibromoethane	ND	2.0									U
1,2-Dichlorobenzene	ND	2.0									U
1,2-Dichloroethane	ND	2.0									U
1,2-Dichloropropane	ND	2.0									U
1,3,5-Trimethylbenzene	ND	2.0									U
1,3-Dichlorobenzene	ND	2.0									U
1,3-dichloropropane	ND	2.0									U
1,4-Dichlorobenzene	ND	2.0									U
1,4-Dioxane	ND	2.0									U
2,2-Dichloropropane	ND	2.0									U
2-Butanone	ND	5.0									U*
2-Chloroethyl vinyl ether	ND	4.0									U
2-Chlorotoluene	ND	2.0									U
2-Hexanone	ND	5.0									U
2-Propanol	ND	2.0									U
4-Chlorotoluene	ND	2.0									U
4-Isopropyltoluene	ND	2.0									U
4-Methyl-2-pentanone	ND	5.0									U
Acetone	1.6	5.0									J
Benzene	ND	2.0									U
Bromobenzene	ND	2.0									U
Bromochloromethane	ND	2.0									U
Bromodichloromethane	ND	2.0									U
Bromoform	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **MB-2820**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date: **11/4/2014**	RunNo: **4748**
Client ID: **PBW**	Batch ID: **2820**	TestNo: **SW8260C**	**SW5030C**	Analysis Date: **11/4/2014**	SeqNo: **88006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	4.0									U
Carbon disulfide	ND	2.0									U
Carbon tetrachloride	ND	2.0									U
Chlorobenzene	ND	2.0									U
Chlorodifluoromethane	ND	2.0									U
Chloroethane	ND	2.0									U
Chloroform	ND	2.0									U
Chloromethane	ND	2.0									U
cis-1,2-Dichloroethene	ND	2.0									U
cis-1,3-Dichloropropene	ND	2.0									U
Cyclohexane	ND	2.0									U
Dibromochloromethane	ND	2.0									U
Dibromomethane	ND	2.0									U
Dichlorodifluoromethane	ND	2.0									U
Diisopropyl ether	ND	2.0									U
Ethanol	ND	10									U
Ethylbenzene	ND	2.0									U
Freon-114	ND	2.0									U
Hexachlorobutadiene	ND	2.0									U
Isopropylbenzene	ND	2.0									U
m,p-Xylene	ND	4.0									U
Methyl Acetate	ND	2.0									U
Methyl tert-butyl ether	ND	2.0									U
Methylene chloride	3.6	2.0									
n-Butylbenzene	ND	2.0									U
n-Propylbenzene	ND	2.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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Website: www.American-Analytical.com

QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **MB-2820** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **PBW** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0									U
o-Xylene	ND	2.0									U
p-Diethylbenzene	ND	2.0									U
p-Ethyltoluene	ND	2.0									U
sec-Butylbenzene	ND	2.0									U
Styrene	ND	2.0									U
t-Butyl alcohol	ND	10									U
tert-Butylbenzene	ND	2.0									U
Tetrachloroethene	ND	2.0									U
Toluene	ND	2.0									U
trans-1,2-Dichloroethene	ND	2.0									U
trans-1,3-Dichloropropene	ND	2.0									U
Trichloroethene	ND	2.0									U
Trichlorofluoromethane	ND	2.0									U
Vinyl acetate	ND	2.0									U
Vinyl chloride	ND	2.0									U
Surr: 4-Bromofluorobenzene	50		50.00		99.4	80	120				
Surr: Dibromofluoromethane	53		50.00		106	77	131				
Surr: Toluene-d8	51		50.00		102	80	120				

Sample ID **1411013-009AMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **BatchQC** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	52	2.0	50.00	0	104	50	134				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **1411013-009AMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **BatchQC** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	45	2.0	50.00	0	90.1	37	128				
1,1,2-Trichloroethane	49	2.0	50.00	0	97.1	50	134				
1,1-Dichloroethane	50	2.0	50.00	0	100	49	138				
1,1-Dichloroethene	54	2.0	50.00	0	109	44	140				
1,2-Dichlorobenzene	47	2.0	50.00	0	93.6	53	121				
1,2-Dichloroethane	50	2.0	50.00	0	101	49	139				
1,2-Dichloropropane	49	2.0	50.00	0	98.9	54	128				
1,3-Dichlorobenzene	49	2.0	50.00	0	98.0	54	120				
1,4-Dichlorobenzene	49	2.0	50.00	0	97.7	52	121				
2-Chloroethyl vinyl ether	ND	4.0	50.00	0	0	20	128				SU
Benzene	51	2.0	50.00	0	102	53	133				
Bromodichloromethane	49	2.0	50.00	0	98.1	53	129				
Bromoform	47	2.0	50.00	0	93.6	49	121				
Bromomethane	44	4.0	50.00	0	88.4	20	147				
Carbon tetrachloride	53	2.0	50.00	0	107	47	134				
Chlorobenzene	48	2.0	50.00	0	96.5	54	122				
Chloroethane	57	2.0	50.00	0	114	46	146				
Chloroform	50	2.0	50.00	0	101	56	131				
Chloromethane	67	2.0	50.00	0	135	48	152				
cis-1,3-Dichloropropene	49	2.0	50.00	0	97.4	40	133				
Dibromochloromethane	49	2.0	50.00	0	98.5	54	131				
Ethylbenzene	51	2.0	50.00	0	102	38	142				
Methylene chloride	25	2.0	50.00	4.450	41.4	10	120				B
Tetrachloroethene	37	2.0	50.00	0	73.2	29	123				
Toluene	48	2.0	50.00	0	95.6	54	134				
trans-1,2-Dichloroethene	51	2.0	50.00	0	102	49	133				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **1411013-009AMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **BatchQC** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	49	2.0	50.00	0	97.4	45	133				
Trichloroethene	49	2.0	50.00	0	97.2	50	130				
Trichlorofluoromethane	63	2.0	50.00	0	127	53	151				
Vinyl chloride	69	2.0	50.00	0	138	58	151				
Surr: 4-Bromofluorobenzene	49		50.00		98.7	80	120				
Surr: Dibromofluoromethane	51		50.00		102	77	131				
Surr: Toluene-d8	51		50.00		102	80	120				

Sample ID **1411013-009AMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **BatchQC** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	51	2.0	50.00	0	102	50	134	52.15	2.52	20	
1,1,2,2-Tetrachloroethane	45	2.0	50.00	0	90.8	37	128	45.04	0.774	20	
1,1,2-Trichloroethane	47	2.0	50.00	0	94.9	50	134	48.55	2.27	20	
1,1-Dichloroethane	49	2.0	50.00	0	98.0	49	138	50.13	2.24	20	
1,1-Dichloroethene	53	2.0	50.00	0	107	44	140	54.47	1.82	20	
1,2-Dichlorobenzene	46	2.0	50.00	0	92.8	53	121	46.79	0.837	20	
1,2-Dichloroethane	49	2.0	50.00	0	97.0	49	139	50.30	3.64	20	
1,2-Dichloropropane	49	2.0	50.00	0	98.3	54	128	49.45	0.649	20	
1,3-Dichlorobenzene	49	2.0	50.00	0	97.6	54	120	48.99	0.368	20	
1,4-Dichlorobenzene	48	2.0	50.00	0	95.9	52	121	48.85	1.90	20	
2-Chloroethyl vinyl ether	ND	4.0	50.00	0	0	20	128	0	0	20	SU
Benzene	49	2.0	50.00	0	98.6	53	133	51.10	3.55	20	
Bromodichloromethane	48	2.0	50.00	0	96.3	53	129	49.04	1.85	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2820**

Sample ID **1411013-009AMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: **11/4/2014** RunNo: **4748**

Client ID: **BatchQC** Batch ID: **2820** TestNo: **SW8260C** **SW5030C** Analysis Date: **11/4/2014** SeqNo: **88010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	47	2.0	50.00	0	93.5	49	121	46.79	0.0428	20	
Bromomethane	44	4.0	50.00	0	88.8	20	147	44.22	0.451	20	
Carbon tetrachloride	52	2.0	50.00	0	105	47	134	53.25	1.65	20	
Chlorobenzene	48	2.0	50.00	0	96.0	54	122	48.24	0.520	20	
Chloroethane	56	2.0	50.00	0	112	46	146	57.22	2.05	20	
Chloroform	49	2.0	50.00	0	97.5	56	131	50.45	3.41	20	
Chloromethane	65	2.0	50.00	0	130	48	152	67.43	3.62	20	
cis-1,3-Dichloropropene	48	2.0	50.00	0	96.8	40	133	48.72	0.680	20	
Dibromochloromethane	48	2.0	50.00	0	96.4	54	131	49.27	2.17	20	
Ethylbenzene	51	2.0	50.00	0	103	38	142	51.05	0.644	20	
Methylene chloride	24	2.0	50.00	4.450	38.6	10	120	25.17	5.76	20	B
Tetrachloroethene	37	2.0	50.00	0	73.6	29	123	36.60	0.545	20	
Toluene	47	2.0	50.00	0	94.9	54	134	47.82	0.777	20	
trans-1,2-Dichloroethene	50	2.0	50.00	0	100	49	133	50.84	1.69	20	
trans-1,3-Dichloropropene	48	2.0	50.00	0	96.8	45	133	48.72	0.680	20	
Trichloroethene	49	2.0	50.00	0	97.3	50	130	48.59	0.103	20	
Trichlorofluoromethane	62	2.0	50.00	0	123	53	151	63.44	2.80	20	
Vinyl chloride	68	2.0	50.00	0	135	58	151	69.12	2.24	20	
Surr: 4-Bromofluorobenzene	49		50.00		98.0	80	120		0	20	
Surr: Dibromofluoromethane	49		50.00		98.8	77	131		0	20	
Surr: Toluene-d8	51		50.00		101	80	120		0	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID	**MBS110614A**	SampType:	**MBLK**	TestCode:	**ICPSCAN_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4770**
Client ID:	**PBS**	Batch ID:	**2846**	TestNo:	**SW6010C**	**SW3050B**		Analysis Date:	**11/6/2014**	SeqNo:	**88422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.400									U
Antimony	ND	0.500									U
Arsenic	ND	0.500									U
Barium	ND	0.400									U
Beryllium	ND	0.400									U
Boron	ND	0.400									U
Cadmium	ND	0.400									U
Calcium	ND	0.500									U
Chromium	ND	0.400									U
Cobalt	ND	0.400									U
Copper	ND	0.400									U
Iron	ND	0.400									U
Lead	ND	0.400									U
Magnesium	ND	0.400									U
Manganese	ND	0.400									U
Molybdenum	ND	0.400									U
Nickel	ND	0.400									U
Potassium	ND	0.500									U
Selenium	ND	0.500									U
Silicon	ND	0.500									U
Silver	ND	0.400									U
Sodium	ND	0.500									U
Thallium	ND	0.500									U
Tin	ND	0.400									U
Titanium	ND	0.400									U
Vanadium	ND	0.400									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID	**MBS110614A**	SampType:	**MBLK**	TestCode:	**ICPSCAN_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4770**
Client ID:	**PBS**	Batch ID:	**2846**	TestNo:	**SW6010C**		**SW3050B**	Analysis Date:	**11/6/2014**	SeqNo:	**88422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	ND	0.400									U

Sample ID	**LCSS110614A**	SampType:	**LCS**	TestCode:	**ICPSCAN_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4770**
Client ID:	**LCSS**	Batch ID:	**2846**	TestNo:	**SW6010C**		**SW3050B**	Analysis Date:	**11/6/2014**	SeqNo:	**88423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.2	0.400	40.00	0	95.4	80	120				
Antimony	41.2	0.500	40.00	0	103	80	120				
Arsenic	40.6	0.500	40.00	0	102	80	120				
Barium	37.4	0.400	40.00	0	93.4	80	120				
Beryllium	40.6	0.400	40.00	0	101	80	120				
Cadmium	40.8	0.400	40.00	0	102	80	120				
Calcium	38.6	0.500	40.00	0	96.4	80	120				
Chromium	41.3	0.400	40.00	0	103	80	120				
Cobalt	40.6	0.400	40.00	0	101	80	120				
Copper	38.6	0.400	40.00	0	96.5	80	120				
Iron	39.3	0.400	40.00	0	98.2	80	120				
Lead	40.6	0.400	40.00	0	101	80	120				
Magnesium	39.1	0.400	40.00	0	97.8	80	120				
Manganese	38.8	0.400	40.00	0	96.9	80	120				
Molybdenum	40.6	0.400	40.00	0	102	80	120				
Nickel	40.7	0.400	40.00	0	102	80	120				
Potassium	377	0.500	400.0	0	94.2	80	120				
Selenium	41.2	0.500	40.00	0	103	80	120				
Silver	38.1	0.400	40.00	0	95.2	80	120				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID **LCSS110614A** SampType: **LCS** TestCode: **ICPSCAN_S** Units: **mg/Kg** Prep Date: **11/6/2014** RunNo: **4770**

Client ID: **LCSS** Batch ID: **2846** TestNo: **SW6010C** **SW3050B** Analysis Date: **11/6/2014** SeqNo: **88423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	42.5	0.500	40.00	0	106	80	120				
Thallium	37.8	0.500	40.00	0	94.5	80	120				
Vanadium	39.2	0.400	40.00	0	98.1	80	120				
Zinc	40.9	0.400	40.00	0	102	80	120				

Sample ID **1411011-001BMS** SampType: **MS** TestCode: **ICPSCAN_S** Units: **mg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4770**

Client ID: **BatchQC** Batch ID: **2846** TestNo: **SW6010C** **SW3050B** Analysis Date: **11/6/2014** SeqNo: **88431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4930	0.417	20.83	5025	-454	75	125				S
Antimony	18.0	0.521	20.83	0	86.4	75	125				
Arsenic	22.8	0.521	20.83	3.695	91.5	75	125				
Barium	52.7	0.417	20.83	38.78	66.7	75	125				S
Beryllium	18.5	0.417	20.83	0	88.8	75	125				
Cadmium	19.0	0.417	20.83	0.1375	90.8	75	125				
Calcium	745	0.521	20.83	739.4	26.8	75	125				S
Chromium	27.9	0.417	20.83	8.995	90.7	75	125				
Cobalt	14.7	0.417	20.83	0.8005	66.8	75	125				S
Copper	30.9	0.417	20.83	12.35	89.1	75	125				
Iron	5390	0.417	20.83	5452	-280	75	125				S
Lead	23.3	0.417	20.83	6.037	83.1	75	125				
Magnesium	1330	0.417	20.83	1341	-70.7	75	125				S
Manganese	831	0.417	20.83	835.0	-19.9	75	125				S
Molybdenum	19.4	0.417	20.83	0.4085	91.1	75	125				
Nickel	31.8	0.417	20.83	14.35	84.0	75	125				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

Original

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID **1411011-001BMS** SampType: **MS** TestCode: **ICPSCAN_S** Units: **mg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4770**

Client ID: **BatchQC** Batch ID: **2846** TestNo: **SW6010C** **SW3050B** Analysis Date: **11/6/2014** SeqNo: **88431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	886	0.521	208.3	683.2	97.3	75	125				
Selenium	19.3	0.521	20.83	0.7885	88.9	75	125				
Silver	18.3	0.417	20.83	0	88.0	75	125				
Sodium	67.1	0.521	20.83	47.32	95.0	75	125				
Thallium	17.7	0.521	20.83	0.9700	80.1	75	125				
Vanadium	31.9	0.417	20.83	13.66	87.5	75	125				
Zinc	42.1	0.417	20.83	23.21	90.6	75	125				

Sample ID **1411011-001BMSD** SampType: **MSD** TestCode: **ICPSCAN_S** Units: **mg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4770**

Client ID: **BatchQC** Batch ID: **2846** TestNo: **SW6010C** **SW3050B** Analysis Date: **11/6/2014** SeqNo: **88432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4890	0.413	20.67	5025	-630	75	125	4930	0.725	20	S
Antimony	17.8	0.517	20.67	0	86.1	75	125	18.00	1.16	20	
Arsenic	22.7	0.517	20.67	3.695	91.7	75	125	22.77	0.467	20	
Barium	52.7	0.413	20.67	38.78	67.3	75	125	52.66	0.0322	20	S
Beryllium	18.1	0.413	20.67	0	87.7	75	125	18.51	2.10	20	
Cadmium	18.9	0.413	20.67	0.1375	90.8	75	125	19.05	0.744	20	
Calcium	741	0.517	20.67	739.4	6.01	75	125	745.0	0.583	20	S
Chromium	27.7	0.413	20.67	8.995	90.5	75	125	27.90	0.704	20	
Cobalt	14.5	0.413	20.67	0.8005	66.2	75	125	14.71	1.57	20	S
Copper	30.5	0.413	20.67	12.35	87.8	75	125	30.92	1.34	20	
Iron	5350	0.413	20.67	5452	-469	75	125	5394	0.719	20	S
Lead	23.2	0.413	20.67	6.037	82.9	75	125	23.35	0.752	20	
Magnesium	1320	0.413	20.67	1341	-123	75	125	1326	0.815	20	S

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID **1411011-001BMSD** SampType: **MSD** TestCode: **ICPSCAN_S** Units: **mg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4770**

Client ID: **BatchQC** Batch ID: **2846** TestNo: **SW6010C** **SW3050B** Analysis Date: **11/6/2014** SeqNo: **88432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	825	0.413	20.67	835.0	-48.8	75	125	830.9	0.719	20	S
Molybdenum	19.2	0.413	20.67	0.4085	91.0	75	125	19.39	0.904	20	
Nickel	31.5	0.413	20.67	14.35	83.0	75	125	31.85	1.09	20	
Potassium	878	0.517	206.7	683.2	94.2	75	125	885.9	0.897	20	
Selenium	19.2	0.517	20.67	0.7885	89.2	75	125	19.31	0.491	20	
Silver	18.1	0.413	20.67	0	87.8	75	125	18.33	1.03	20	
Sodium	66.7	0.517	20.67	47.32	93.8	75	125	67.11	0.613	20	
Thallium	17.5	0.517	20.67	0.9700	80.2	75	125	17.66	0.624	20	
Vanadium	31.6	0.413	20.67	13.66	86.9	75	125	31.90	0.858	20	
Zinc	41.9	0.413	20.67	23.21	90.2	75	125	42.09	0.532	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2846**

Sample ID	**MBS110614A**	SampType:	**MBLK**	TestCode:	**ICPSCAN_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4765**
Client ID:	**PBS**	Batch ID:	**2846**	TestNo:	**SW6010C**	**SW3050B**		Analysis Date:	**11/6/2014**	SeqNo:	**88304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									U

Sample ID	**LCSS110614A**	SampType:	**LCS**	TestCode:	**ICPSCAN_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4765**
Client ID:	**LCSS**	Batch ID:	**2846**	TestNo:	**SW6010C**	**SW3050B**		Analysis Date:	**11/6/2014**	SeqNo:	**88305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	40.6	0.500	40.00	0	102	80	120				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2847**

Sample ID **MB-2847** SampType: **MBLK** TestCode: **8082_W** Units: **µg/L** Prep Date: **11/6/2014** RunNo: **4788**

Client ID: **PBW** Batch ID: **2847** TestNo: **SW8082A** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **88800**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									U
Aroclor 1221	ND	0.50									U
Aroclor 1232	ND	0.50									U
Aroclor 1242	ND	0.50									U
Aroclor 1248	ND	0.50									U
Aroclor 1254	ND	0.50									U
Aroclor 1260	ND	0.50									U
Aroclor 1262	ND	0.50									U
Aroclor 1268	ND	0.50									U
Surr: DCB	0.49		0.5000		97.4	12	147				
Surr: TCX	0.98		0.5000		195	12	147				PS

Sample ID **LCS-2847** SampType: **LCS** TestCode: **8082_W** Units: **µg/L** Prep Date: **11/6/2014** RunNo: **4788**

Client ID: **LCSW** Batch ID: **2847** TestNo: **SW8082A** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **88801**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1232	4.5	0.50	5.000	0	90.1	30	130				
Aroclor 1268	4.6	0.50	5.000	0	92.2	20	130				
Surr: DCB	0.72		0.5000		144	12	147				
Surr: TCX	0.93		0.5000		186	12	147				PS

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2847**

Sample ID **MB-2847** SampType: **MBLK** TestCode: **8082_W** Units: **µg/L** Prep Date: **11/6/2014** RunNo: **4787**

Client ID: **PBW** Batch ID: **2847** TestNo: **SW8082A** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **88812**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									U
Aroclor 1221	ND	0.50									U
Aroclor 1232	ND	0.50									U
Aroclor 1242	ND	0.50									U
Aroclor 1248	ND	0.50									U
Aroclor 1254	ND	0.50									U
Aroclor 1260	ND	0.50									U
Aroclor 1262	ND	0.50									U
Aroclor 1268	ND	0.50									U
Surr: DCB	0.49		0.5000		97.5	12	147				
Surr: TCX	0.54		0.5000		108	12	147				P

Sample ID **LCS-2847** SampType: **LCS** TestCode: **8082_W** Units: **µg/L** Prep Date: **11/6/2014** RunNo: **4787**

Client ID: **LCSW** Batch ID: **2847** TestNo: **SW8082A** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **88813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1232	5.1	0.50	5.000	0	103	30	130				
Aroclor 1268	3.9	0.50	5.000	0	78.8	20	130				
Surr: DCB	0.71		0.5000		142	12	147				
Surr: TCX	0.53		0.5000		106	12	147				P

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2848**

Sample ID **MB-2848** SampType: **MBLK** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4832**

Client ID: **PBS** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89721**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	20									U
Aroclor 1221	ND	20									U
Aroclor 1232	ND	20									U
Aroclor 1242	ND	20									U
Aroclor 1248	ND	20									U
Aroclor 1254	ND	20									U
Aroclor 1260	ND	20									U
Aroclor 1262	ND	20									U
Aroclor 1268	ND	20									U
Surr: DCB	19		25.00		76.2	12	151				P
Surr: TCX	27		25.00		108	18	147				

Sample ID **LCS-2848** SampType: **LCS** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4832**

Client ID: **LCSS** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1232	250	20	250.0	0	98.2	30	140				
Aroclor 1268	170	20	250.0	0	68.8	35	135				
Surr: DCB	19		25.00		77.9	12	151				P
Surr: TCX	22		25.00		89.8	18	147				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2848**

Sample ID **1411032-016BMS** SampType: **MS** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4832**

Client ID: **BatchQC** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89743**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1232	210	20	248.1	0	85.7	30	140				
Aroclor 1268	120	20	248.1	0	50.2	35	135				P
Surr: DCB	20		24.81		78.9	12	151				P
Surr: TCX	22		24.81		88.4	18	147				

Sample ID **1411032-016BMSD** SampType: **MSD** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4832**

Client ID: **BatchQC** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1232	250	20	248.8	0	98.6	30	140	212.8	14.2	20	
Aroclor 1268	120	20	248.8	0	49.4	35	135	124.7	1.43	20	P
Surr: DCB	19		24.88		75.7	12	151		0	0	P
Surr: TCX	21		24.88		83.7	18	147		0	0	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2848**

Sample ID **MB-2848** SampType: **MBLK** TestCode: **8082_S** Units: **%REC** Prep Date: **11/6/2014** RunNo: **4833**
Client ID: **PBS** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89751**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: DCB	27		25.00		110	12	151				P
Surr: TCX	32		25.00		129	18	147				

Sample ID **LCS-2848** SampType: **LCS** TestCode: **8082_S** Units: **%REC** Prep Date: **11/6/2014** RunNo: **4833**
Client ID: **LCSS** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89752**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: DCB	27		25.00		110	12	151				P
Surr: TCX	27		25.00		106	18	147				

Sample ID **1411032-016BMS** SampType: **MS** TestCode: **8082_S** Units: **%REC** Prep Date: **11/6/2014** RunNo: **4833**
Client ID: **BatchQC** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89773**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: DCB	30		24.81		123	12	151				P
Surr: TCX	27		24.81		109	18	147				

Sample ID **1411032-016BMSD** SampType: **MSD** TestCode: **8082_S** Units: **%REC** Prep Date: **11/6/2014** RunNo: **4833**
Client ID: **BatchQC** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: DCB	30		24.88		119	12	151		0	0	P

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2848**

Sample ID **1411032-016BMSD** SampType: **MSD** TestCode: **8082_S** Units: **%REC** Prep Date: **11/6/2014** RunNo: **4833**

Client ID: **BatchQC** Batch ID: **2848** TestNo: **SW8082A** **SW3546** Analysis Date: **11/8/2014** SeqNo: **89774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: TCX	26		24.88		104	18	147		0	0	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **MB-2850**	SampType: **MBLK**	TestCode: **8270_S**	Units: **µg/Kg**	Prep Date: **11/6/2014**	RunNo: **4813**
Client ID: **PBS**	Batch ID: **2850**	TestNo: **SW8270D**	**SW3546**	Analysis Date: **11/7/2014**	SeqNo: **89423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	ND	250									U
1,2,4-Trichlorobenzene	ND	250									U
1,2-Dichlorobenzene	ND	250									U
1,3-Dichlorobenzene	ND	250									U
1,4-Dichlorobenzene	ND	250									U
2,4,5-Trichlorophenol	ND	250									U
2,4,6-Trichlorophenol	ND	250									U
2,4-Dichlorophenol	ND	250									U
2,4-Dimethylphenol	ND	250									U
2,4-Dinitrophenol	ND	500									U*
2,4-Dinitrotoluene	ND	250									U
2,6-Dinitrotoluene	ND	250									U
2-Chloronaphthalene	ND	250									U
2-Chlorophenol	ND	250									U
2-Methylnaphthalene	ND	250									U
2-Methylphenol	ND	250									U
2-Nitroaniline	ND	250									U
2-Nitrophenol	ND	250									U
3+4-Methylphenol	ND	250									U
3-Nitroaniline	ND	250									U
4,6-Dinitro-2-methylphenol	ND	500									U
4-Bromophenyl phenyl ether	ND	250									U
4-Chloro-3-methylphenol	ND	250									U
4-Chloroaniline	ND	250									U
4-Chlorophenyl phenyl ether	ND	250									U
4-Nitroaniline	ND	250									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **MB-2850**	SampType: **MBLK**	TestCode: **8270_S**	Units: **µg/Kg**	Prep Date: **11/6/2014**	RunNo: **4813**
Client ID: **PBS**	Batch ID: **2850**	TestNo: **SW8270D**	**SW3546**	Analysis Date: **11/7/2014**	SeqNo: **89423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Nitrophenol	ND	500									U
Acenaphthene	ND	250									U
Acenaphthylene	ND	250									U
Acetophenone	ND	250									U
Aniline	ND	250									U
Anthracene	ND	250									U
Azobenzene	ND	250									U
Benzo(a)anthracene	ND	250									U
Benzo(a)pyrene	ND	150									U
Benzo(b)fluoranthene	ND	250									U
Benzo(g,h,i)perylene	ND	250									U
Benzo(k)fluoranthene	ND	250									U
Benzoic acid	ND	500									U*
Benzyl alcohol	ND	250									U
Bis(2-chloroethoxy)methane	ND	250									U
Bis(2-chloroethyl)ether	ND	250									U
Bis(2-chloroisopropyl)ether	ND	250									U
Bis(2-ethylhexyl)phthalate	ND	250									U
Butyl benzyl phthalate	ND	250									U
Carbazole	ND	250									U
Chrysene	ND	250									U
Di-n-butyl phthalate	ND	250									U
Di-n-octyl phthalate	ND	500									U*
Dibenzo(a,h)anthracene	ND	150									U
Dibenzofuran	ND	250									U
Diethyl phthalate	ND	250									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **MB-2850**	SampType: **MBLK**	TestCode: **8270_S**	Units: **µg/Kg**	Prep Date: **11/6/2014**	RunNo: **4813**
Client ID: **PBS**	Batch ID: **2850**	TestNo: **SW8270D**	**SW3546**	Analysis Date: **11/7/2014**	SeqNo: **89423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dimethyl phthalate	ND	250									U
Fluoranthene	ND	250									U
Fluorene	ND	250									U
Hexachlorobenzene	ND	250									U
Hexachlorobutadiene	ND	250									U
Hexachlorocyclopentadiene	ND	250									U
Hexachloroethane	ND	250									U
Indeno(1,2,3-c,d)pyrene	ND	250									U
Isophorone	ND	250									U
N-Nitrosodi-n-propylamine	ND	150									U
N-Nitrosodimethylamine	ND	250									U
N-Nitrosodiphenylamine	ND	250									U
Naphthalene	ND	250									U
Nitrobenzene	ND	250									U
Parathion	ND	500									U
Pentachlorophenol	ND	500									U*
Phenanthrene	ND	250									U
Phenol	ND	250									U
Pyrene	ND	250									U
Pyridine	ND	250									U
Surr: 2,4,6-Tribromophenol	1600		2000		78.9	14	144				
Surr: 2-Fluorobiphenyl	790		1000		79.3	17	129				
Surr: 2-Fluorophenol	1500		2000		74.8	21	149				
Surr: 4-Terphenyl-d14	870		1000		87.2	18	134				
Surr: Nitrobenzene-d5	750		1000		74.5	18	125				
Surr: Phenol-d6	1500		2000		73.6	20	147				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID	**MB-2850**	SampType:	**MBLK**	TestCode:	**8270_S**	Units:	**µg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4813**
Client ID:	**PBS**	Batch ID:	**2850**	TestNo:	**SW8270D**	**SW3546**		Analysis Date:	**11/7/2014**	SeqNo:	**89423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	**LCS-2850**	SampType:	**LCS**	TestCode:	**8270_S**	Units:	**µg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4813**
Client ID:	**LCSS**	Batch ID:	**2850**	TestNo:	**SW8270D**	**SW3546**		Analysis Date:	**11/7/2014**	SeqNo:	**89424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	ND	250		0	0	28	126				U
1,2,4-Trichlorobenzene	1700	250	2000	0	85.6	20	126				
1,2-Dichlorobenzene	1700	250	2000	0	82.8	23	128				
1,3-Dichlorobenzene	1600	250	2000	0	81.0	22	121				
1,4-Dichlorobenzene	1700	250	2000	0	84.0	20	128				
2,4,5-Trichlorophenol	1600	250	2000	0	82.4	23	135				
2,4,6-Trichlorophenol	1800	250	2000	0	88.4	20	128				
2,4-Dichlorophenol	1700	250	2000	0	85.1	20	125				
2,4-Dimethylphenol	1700	250	2000	0	87.1	16	122				
2,4-Dinitrophenol	1500	500	2000	0	76.6	1	112				*
2,4-Dinitrotoluene	ND	250		0	0	20	127				U
2,6-Dinitrotoluene	ND	250		0	0	12	125				U
2-Chloronaphthalene	1700	250	2000	0	84.8	21	124				
2-Chlorophenol	1700	250	2000	0	84.2	23	133				
2-Methylnaphthalene	1700	250	2000	0	84.5	22	120				
2-Methylphenol	1700	250	2000	0	85.8	24	130				
2-Nitroaniline	1700	250	2000	0	86.0	14	115				
2-Nitrophenol	1700	250	2000	0	83.2	15	129				
3+4-Methylphenol	3400	250	4000	0	85.1	18	140				
3-Nitroaniline	1600	250	2000	0	80.8	14	120				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **LCS-2850**	SampType: **LCS**	TestCode: **8270_S**	Units: **µg/Kg**	Prep Date: **11/6/2014**	RunNo: **4813**
Client ID: **LCSS**	Batch ID: **2850**	TestNo: **SW8270D**	**SW3546**	Analysis Date: **11/7/2014**	SeqNo: **89424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,6-Dinitro-2-methylphenol	1600	500	2000	0	79.7	10	120				
4-Bromophenyl phenyl ether	1700	250	2000	0	85.5	21	134				
4-Chloro-3-methylphenol	1700	250	2000	0	85.9	16	132				
4-Chloroaniline	1300	250	2000	0	66.7	10	101				
4-Chlorophenyl phenyl ether	1800	250	2000	0	88.1	20	127				
4-Nitroaniline	1800	250	2000	0	88.1	20	133				
4-Nitrophenol	1900	500	2000	0	92.6	5	125				
Acenaphthene	1700	250	2000	0	85.5	14	132				
Acenaphthylene	1800	250	2000	0	88.7	17	130				
Acetophenone	ND	250		0	0	34	129				U
Aniline	1200	250	2000	0	57.6	5	105				
Anthracene	1800	250	2000	0	89.8	20	132				
Azobenzene	ND	250		0	0	26	144				U
Benzo(a)anthracene	1900	250	2000	0	97.3	20	138				
Benzo(a)pyrene	1800	150	2000	0	91.8	14	130				
Benzo(b)fluoranthene	1700	250	2000	0	86.3	20	130				
Benzo(g,h,i)perylene	1900	250	2000	0	94.5	10	142				
Benzo(k)fluoranthene	1900	250	2000	0	94.1	20	137				
Benzoic acid	1100	500	2000	0	53.9	1	114				*
Benzyl alcohol	ND	250		0	0	20	130				U
Bis(2-chloroethoxy)methane	2200	250	2000	0	112	19	128				
Bis(2-chloroethyl)ether	1700	250	2000	0	87.3	20	139				
Bis(2-chloroisopropyl)ether	1700	250	2000	0	84.8	11	134				
Bis(2-ethylhexyl)phthalate	ND	250		0	0	18	143				U
Butyl benzyl phthalate	ND	250		0	0	20	148				U
Carbazole	ND	250		0	0	21	135				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **LCS-2850**	SampType: **LCS**	TestCode: **8270_S**	Units: **µg/Kg**	Prep Date: **11/6/2014**	RunNo: **4813**
Client ID: **LCSS**	Batch ID: **2850**	TestNo: **SW8270D**	**SW3546**	Analysis Date: **11/7/2014**	SeqNo: **89424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	1900	250	2000	0	94.9	20	136				
Di-n-butyl phthalate	ND	250		0	0	20	141				U
Di-n-octyl phthalate	ND	500		0	0	16	142				U*
Dibenzo(a,h)anthracene	1900	150	2000	0	95.0	11	140				
Dibenzofuran	ND	250		0	0	21	131				U
Diethyl phthalate	ND	250		0	0	20	138				U
Dimethyl phthalate	ND	250		0	0	20	130				U
Fluoranthene	1800	250	2000	0	91.5	16	130				
Fluorene	1800	250	2000	0	87.6	20	131				
Hexachlorobenzene	1700	250	2000	0	83.8	20	132				
Hexachlorobutadiene	1700	250	2000	0	82.8	20	126				
Hexachlorocyclopentadiene	1500	250	2000	0	75.5	14	128				
Hexachloroethane	1600	250	2000	0	81.7	20	132				
Indeno(1,2,3-c,d)pyrene	1900	250	2000	0	92.7	20	137				m
Isophorone	ND	250		0	0	20	134				U
N-Nitrosodi-n-propylamine	1700	150	2000	0	83.8	20	142				
N-Nitrosodimethylamine	1600	250	2000	0	78.8	15	138				
N-Nitrosodiphenylamine	1700	250	2000	0	86.2	5	100				
Naphthalene	1700	250	2000	0	85.2	20	131				
Nitrobenzene	ND	250		0	0	21	131				U
Parathion	2000	500	2000	0	100	21	130				
Pentachlorophenol	1700	500	2000	0	85.8	10	128				*
Phenanthrene	1700	250	2000	0	86.8	11	133				
Phenol	1700	250	2000	0	83.8	22	132				
Pyrene	1800	250	2000	0	90.2	11	137				
Pyridine	1300	250	2000	0	67.1	1	101				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **LCS-2850** SampType: **LCS** TestCode: **8270_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **LCSS** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	1800		2000		92.0	14	144				
Surr: 2-Fluorobiphenyl	870		1000		86.7	17	129				
Surr: 2-Fluorophenol	1800		2000		88.4	21	149				
Surr: 4-Terphenyl-d14	940		1000		93.9	18	134				
Surr: Nitrobenzene-d5	870		1000		86.5	18	125				
Surr: Phenol-d6	1800		2000		88.3	20	147				

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	ND	260		0	0	20	147				U
1,2,4-Trichlorobenzene	1600	260	2083	0	79.1	23	136				
1,2-Dichlorobenzene	1600	260	2083	0	76.1	17	137				
1,3-Dichlorobenzene	1500	260	2083	0	74.3	19	137				
1,4-Dichlorobenzene	1600	260	2083	0	77.5	17	139				
2,4,5-Trichlorophenol	1700	260	2083	0	81.2	26	138				
2,4,6-Trichlorophenol	1800	260	2083	0	85.0	21	143				
2,4-Dichlorophenol	1700	260	2083	0	79.7	20	144				
2,4-Dimethylphenol	1700	260	2083	0	81.3	24	139				
2,4-Dinitrophenol	1500	520	2083	0	73.5	5	129				*
2,4-Dinitrotoluene	ND	260		0	0	10	144				U
2,6-Dinitrotoluene	ND	260		0	0	12	125				U
2-Chloronaphthalene	1700	260	2083	0	79.9	25	143				
2-Chlorophenol	1600	260	2083	0	78.0	19	144				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	1600	260	2083	0	78.1	20	130				
2-Methylphenol	1700	260	2083	0	79.9	29	136				
2-Nitroaniline	1700	260	2083	0	80.1	25	137				
2-Nitrophenol	1600	260	2083	0	77.1	13	139				
3+4-Methylphenol	3300	260	4167	0	78.7	10	137				
3-Nitroaniline	1600	260	2083	0	76.0	20	120				
4,6-Dinitro-2-methylphenol	1600	520	2083	0	76.2	10	125				
4-Bromophenyl phenyl ether	1700	260	2083	0	79.3	29	139				
4-Chloro-3-methylphenol	1700	260	2083	0	80.1	25	139				
4-Chloroaniline	1100	260	2083	0	54.4	18	120				
4-Chlorophenyl phenyl ether	1700	260	2083	0	81.3	27	136				
4-Nitroaniline	1600	260	2083	0	78.3	23	130				
4-Nitrophenol	1800	520	2083	0	86.8	22	147				
Acenaphthene	1700	260	2083	0	80.7	28	133				
Acenaphthylene	1700	260	2083	0	83.0	22	147				
Acetophenone	ND	260		0	0	20	135				U
Aniline	880	260	2083	0	42.2	10	110				
Anthracene	1700	260	2083	0	82.6	24	140				
Azobenzene	ND	260		0	0	20	151				U
Benzo(a)anthracene	1900	260	2083	35.15	89.1	20	144				
Benzo(a)pyrene	1800	160	2083	31.51	84.3	21	143				
Benzo(b)fluoranthene	1700	260	2083	32.87	78.8	20	145				
Benzo(g,h,i)perylene	1700	260	2083	0	83.2	20	143				
Benzo(k)fluoranthene	1700	260	2083	28.72	81.8	20	143				
Benzoic acid	1500	520	2083	0	69.8	10	120				*
Benzyl alcohol	ND	260		0	0	25	125				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	2200	260	2083	0	104	22	137				
Bis(2-chloroethyl)ether	1700	260	2083	0	80.7	20	143				
Bis(2-chloroisopropyl)ether	1700	260	2083	0	79.5	20	149				
Bis(2-ethylhexyl)phthalate	ND	260		0	0	27	146				U
Butyl benzyl phthalate	ND	260		0	0	20	147				U
Carbazole	ND	260		0	0	27	120				U
Chrysene	1800	260	2083	48.50	85.2	22	142				
Di-n-butyl phthalate	ND	260		0	0	27	145				U
Di-n-octyl phthalate	ND	520		0	0	28	145				U*
Dibenzo(a,h)anthracene	1700	160	2083	0	82.6	23	142				
Dibenzofuran	ND	260		0	0	21	133				Um
Diethyl phthalate	ND	260		0	0	19	136				U
Dimethyl phthalate	ND	260		0	0	20	137				U
Fluoranthene	1800	260	2083	83.62	81.9	20	147				
Fluorene	1700	260	2083	0	82.7	20	138				
Hexachlorobenzene	1600	260	2083	0	77.4	20	140				
Hexachlorobutadiene	1600	260	2083	0	77.0	20	136				
Hexachlorocyclopentadiene	1400	260	2083	0	64.9	4	139				
Hexachloroethane	1600	260	2083	0	77.3	13	139				
Indeno(1,2,3-c,d)pyrene	1900	260	2083	26.21	88.0	26	144				m
Isophorone	ND	260		0	0	24	145				U
N-Nitrosodi-n-propylamine	1600	160	2083	0	78.6	22	146				
N-Nitrosodimethylamine	1500	260	2083	0	70.3	17	134				
N-Nitrosodiphenylamine	1700	260	2083	0	80.1	16	143				
Naphthalene	1600	260	2083	0	78.7	13	143				
Nitrobenzene	ND	260		0	0	20	138				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Parathion	1900	520	2083	0	93.4	21	142				
Pentachlorophenol	1800	520	2083	0	87.8	18	144				*
Phenanthrene	1700	260	2083	50.00	78.3	21	140				
Phenol	1600	260	2083	0	76.6	13	143				
Pyrene	1800	260	2083	68.57	81.9	19	144				
Pyridine	1200	260	2083	0	56.8	17	120				
Surr: 2,4,6-Tribromophenol	1800		2083		86.0	14	144				
Surr: 2-Fluorobiphenyl	840		1042		80.7	17	129				
Surr: 2-Fluorophenol	1700		2083		80.8	21	149				
Surr: 4-Terphenyl-d14	890		1042		85.9	18	134				
Surr: Nitrobenzene-d5	830		1042		79.4	18	125				
Surr: Phenol-d6	1700		2083		80.9	20	147				

Sample ID **1411031-005AMSD** SampType: **MSD** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89427**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	ND	260		0	0	20	147	0	0	20	U
1,2,4-Trichlorobenzene	1700	260	2088	0	80.0	23	136	1649	1.29	20	
1,2-Dichlorobenzene	1600	260	2088	0	76.7	17	137	1585	1.01	20	
1,3-Dichlorobenzene	1500	260	2088	0	73.7	19	137	1549	0.581	20	
1,4-Dichlorobenzene	1600	260	2088	0	78.2	17	139	1614	1.20	20	
2,4,5-Trichlorophenol	1700	260	2088	0	82.4	26	138	1691	1.83	20	m
2,4,6-Trichlorophenol	1800	260	2088	0	87.9	21	143	1771	3.64	20	
2,4-Dichlorophenol	1700	260	2088	0	81.1	20	144	1661	1.98	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMSD** SampType: **MSD** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89427**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dimethylphenol	1800	260	2088	0	84.0	24	139	1693	3.62	20	
2,4-Dinitrophenol	1800	520	2088	0	86.4	5	129	1531	16.4	20	*
2,4-Dinitrotoluene	ND	260		0	0	10	144	0	0	20	U
2,6-Dinitrotoluene	ND	260		0	0	12	125	0	0	20	U
2-Chloronaphthalene	1700	260	2088	0	81.9	25	143	1665	2.65	20	
2-Chlorophenol	1700	260	2088	0	81.2	19	144	1626	4.19	20	
2-Methylnaphthalene	1700	260	2088	0	80.0	20	130	1627	2.67	20	
2-Methylphenol	1700	260	2088	0	83.6	29	136	1665	4.74	20	
2-Nitroaniline	1800	260	2088	0	85.0	25	137	1669	6.10	20	
2-Nitrophenol	1700	260	2088	0	82.8	13	139	1606	7.43	20	
3+4-Methylphenol	3400	260	4177	0	82.3	10	137	3280	4.74	20	
3-Nitroaniline	1600	260	2088	0	77.5	20	120	1583	2.19	20	
4,6-Dinitro-2-methylphenol	1700	520	2088	0	82.7	10	125	1587	8.47	20	
4-Bromophenyl phenyl ether	1700	260	2088	0	82.4	29	139	1653	4.07	20	
4-Chloro-3-methylphenol	1700	260	2088	0	83.1	25	139	1669	3.87	20	
4-Chloroaniline	1200	260	2088	0	55.8	18	120	1134	2.65	20	
4-Chlorophenyl phenyl ether	1800	260	2088	0	84.8	27	136	1694	4.41	20	
4-Nitroaniline	1700	260	2088	0	80.6	23	130	1632	3.08	20	
4-Nitrophenol	1900	520	2088	0	92.7	22	147	1808	6.81	20	
Acenaphthene	1700	260	2088	0	83.0	28	133	1682	3.01	20	
Acenaphthylene	1800	260	2088	0	85.3	22	147	1730	2.95	20	
Acetophenone	ND	260		0	0	20	135	0	0	20	U
Aniline	920	260	2088	0	44.2	10	110	878.8	4.90	20	
Anthracene	1800	260	2088	0	85.6	24	140	1721	3.78	20	
Azobenzene	ND	260		0	0	20	151	0	0	20	U
Benzo(a)anthracene	2000	260	2088	35.15	94.9	20	144	1892	6.40	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMSD** SampType: **MSD** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89427**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)pyrene	1900	160	2088	31.51	89.3	21	143	1787	5.99	20	
Benzo(b)fluoranthene	1800	260	2088	32.87	83.6	20	145	1675	6.02	20	
Benzo(g,h,i)perylene	1800	260	2088	0	88.2	20	143	1733	6.05	20	
Benzo(k)fluoranthene	1800	260	2088	28.72	85.4	20	143	1732	4.56	20	
Benzoic acid	1800	520	2088	0	83.9	10	120	1453	18.7	20	*
Benzyl alcohol	ND	260		0	0	25	125	0	0	20	U
Bis(2-chloroethoxy)methane	2200	260	2088	0	105	22	137	2157	1.82	20	
Bis(2-chloroethyl)ether	1700	260	2088	0	83.5	20	143	1682	3.68	20	
Bis(2-chloroisopropyl)ether	1700	260	2088	0	81.4	20	149	1656	2.55	20	
Bis(2-ethylhexyl)phthalate	ND	260		0	0	27	146	0	0	20	U
Butyl benzyl phthalate	ND	260		0	0	20	147	0	0	20	U
Carbazole	ND	260		0	0	27	120	0	0	20	U
Chrysene	1900	260	2088	48.50	89.4	22	142	1823	4.98	20	
Di-n-butyl phthalate	ND	260		0	0	27	145	0	0	20	U
Di-n-octyl phthalate	ND	520		0	0	28	145	0	0	20	U*
Dibenzo(a,h)anthracene	1800	160	2088	0	87.2	23	142	1721	5.72	20	
Dibenzofuran	ND	260		0	0	21	133	0	0	20	Um
Diethyl phthalate	ND	260		0	0	19	136	0	0	20	U
Dimethyl phthalate	ND	260		0	0	20	137	0	0	20	U
Fluoranthene	1900	260	2088	83.62	86.7	20	147	1790	5.66	20	
Fluorene	1800	260	2088	0	85.3	20	138	1724	3.24	20	
Hexachlorobenzene	1700	260	2088	0	79.5	20	140	1612	2.92	20	
Hexachlorobutadiene	1600	260	2088	0	77.2	20	136	1603	0.537	20	
Hexachlorocyclopentadiene	1300	260	2088	0	64.4	4	139	1352	0.606	20	
Hexachloroethane	1600	260	2088	0	77.7	13	139	1610	0.747	20	
Indeno(1,2,3-c,d)pyrene	1900	260	2088	26.21	89.0	26	144	1859	1.36	20	m

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMSD** SampType: **MSD** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4813**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89427**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isophorone	ND	260		0	0	24	145	0	0	20	U
N-Nitrosodi-n-propylamine	1700	160	2088	0	82.3	22	146	1638	4.87	20	
N-Nitrosodimethylamine	1400	260	2088	0	68.1	17	134	1465	2.94	20	
N-Nitrosodiphenylamine	1700	260	2088	0	82.1	16	143	1669	2.62	20	
Naphthalene	1700	260	2088	0	80.1	13	143	1640	1.96	20	
Nitrobenzene	ND	260		0	0	20	138	0	0	20	U
Parathion	2100	520	2088	0	99.3	21	142	1945	6.46	20	
Pentachlorophenol	2100	520	2088	0	99.2	18	144	1830	12.4	20	*
Phenanthrene	1800	260	2088	50.00	83.3	21	140	1682	6.20	20	
Phenol	1700	260	2088	0	79.7	13	143	1596	4.21	20	
Pyrene	1900	260	2088	68.57	89.3	19	144	1774	8.55	20	
Pyridine	1100	260	2088	0	52.2	17	120	1183	8.19	20	
Surr: 2,4,6-Tribromophenol	1900		2088		91.2	14	144		0	20	
Surr: 2-Fluorobiphenyl	870		1044		82.9	17	129		0	20	
Surr: 2-Fluorophenol	1800		2088		84.3	21	149		0	20	
Surr: 4-Terphenyl-d14	950		1044		91.4	18	134		0	20	
Surr: Nitrobenzene-d5	860		1044		82.5	18	125		0	20	
Surr: Phenol-d6	1800		2088		84.9	20	147		0	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **MB-2850** SampType: **MBLK** TestCode: **8270_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4814**
Client ID: **PBS** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89430**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	250									U
Atrazine	ND	250									U
Benzaldehyde	ND	500									U
Benzidine	ND	500									U
Caprolactam	ND	250									U

Sample ID **LCS-2850** SampType: **LCS** TestCode: **8270_S** Units: **µg/Kg** Prep Date: **11/6/2014** RunNo: **4814**
Client ID: **LCSS** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	1700	250	2000	0	86.3	10	106				
Atrazine	ND	250		0	0	20	130				U
Benzaldehyde	ND	500		0	0	20	130				U
Benzidine	640	500	2000	0	32.0	1	100				
Caprolactam	ND	250		0	0	20	130				U

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4814**
Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	1700	260	2083	0	80.8	15	120				
Atrazine	ND	260		0	0	50	120				U
Benzaldehyde	ND	520		0	0	20	120				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2850**

Sample ID **1411031-005AMS** SampType: **MS** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4814**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine	550	520	2083	0	26.6	1	137				
Caprolactam	ND	260		0	0	20	130				U

Sample ID **1411031-005AMSD** SampType: **MSD** TestCode: **8270_S** Units: **µg/Kg-dry** Prep Date: **11/6/2014** RunNo: **4814**

Client ID: **BatchQC** Batch ID: **2850** TestNo: **SW8270D** **SW3546** Analysis Date: **11/7/2014** SeqNo: **89434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	1900	260	2088	0	91.0	15	120	0	200	20	R
Atrazine	ND	260		0	0	50	120	0	0	20	U
Benzaldehyde	ND	520		0	0	20	120	0	0	20	U
Benzidine	470	520	2088	0	22.4	1	137	0	200	20	JR
Caprolactam	ND	260		0	0	20	130	0	0	20	U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **MB-2860**	SampType: **MBLK**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **PBW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	ND	5.0									U
1,2,4-Trichlorobenzene	ND	5.0									U
1,2-Dichlorobenzene	ND	5.0									U
1,3-Dichlorobenzene	ND	5.0									U
1,4-Dichlorobenzene	ND	5.0									U
2,4,5-Trichlorophenol	ND	5.0									U
2,4,6-Trichlorophenol	ND	5.0									U
2,4-Dichlorophenol	ND	5.0									U
2,4-Dimethylphenol	ND	10									U
2,4-Dinitrophenol	ND	10									U*
2,4-Dinitrotoluene	ND	5.0									U
2,6-Dinitrotoluene	ND	5.0									U
2-Chloronaphthalene	ND	5.0									U
2-Chlorophenol	ND	5.0									U
2-Methylnaphthalene	ND	5.0									U
2-Methylphenol	ND	5.0									U
2-Nitroaniline	ND	5.0									U*
2-Nitrophenol	ND	10									U
3+4-Methylphenol	ND	5.0									U
3-Nitroaniline	ND	10									U
4,6-Dinitro-2-methylphenol	ND	10									U*
4-Bromophenyl phenyl ether	ND	5.0									U
4-Chloro-3-methylphenol	ND	5.0									U
4-Chloroaniline	ND	5.0									U
4-Chlorophenyl phenyl ether	ND	5.0									U
4-Nitroaniline	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **MB-2860**	SampType: **MBLK**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **PBW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Nitrophenol	ND	10									U
Acenaphthene	ND	5.0									U
Acenaphthylene	ND	5.0									U
Acetophenone	ND	5.0									U
Aniline	ND	5.0									U
Anthracene	ND	5.0									U
Azobenzene	ND	5.0									U
Benzo(a)anthracene	ND	5.0									U
Benzo(a)pyrene	ND	5.0									U
Benzo(b)fluoranthene	ND	5.0									U
Benzo(g,h,i)perylene	ND	5.0									U
Benzo(k)fluoranthene	ND	5.0									U
Benzoic acid	ND	10									U
Benzyl alcohol	ND	5.0									U
Bis(2-chloroethoxy)methane	ND	5.0									U
Bis(2-chloroethyl)ether	ND	5.0									U
Bis(2-chloroisopropyl)ether	ND	5.0									U
Bis(2-ethylhexyl)phthalate	4.3	10									J
Butyl benzyl phthalate	ND	10									U
Carbazole	ND	5.0									U
Chrysene	ND	5.0									U
Di-n-butyl phthalate	ND	5.0									U
Di-n-octyl phthalate	ND	5.0									U
Dibenzo(a,h)anthracene	ND	5.0									U
Dibenzofuran	ND	5.0									U
Diethyl phthalate	ND	5.0									U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **MB-2860**	SampType: **MBLK**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **PBW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dimethyl phthalate	ND	5.0									U
Fluoranthene	ND	5.0									U
Fluorene	ND	5.0									U
Hexachlorobenzene	ND	5.0									U
Hexachlorobutadiene	ND	5.0									U
Hexachlorocyclopentadiene	ND	10									U
Hexachloroethane	ND	5.0									U
Indeno(1,2,3-c,d)pyrene	ND	5.0									U
Isophorone	ND	5.0									U
N-Nitrosodi-n-propylamine	ND	5.0									U
N-Nitrosodimethylamine	ND	5.0									U
N-Nitrosodiphenylamine	ND	5.0									U
Naphthalene	ND	5.0									U
Nitrobenzene	ND	5.0									U
Parathion	ND	10									U*
Pentachlorophenol	ND	10									U
Phenanthrene	ND	5.0									U
Phenol	ND	5.0									U
Pyrene	ND	5.0									U
Pyridine	ND	5.0									U
Surr: 2,4,6-Tribromophenol	27		40.00		67.4	17	145				
Surr: 2-Fluorobiphenyl	16		20.00		79.9	18	131				
Surr: 2-Fluorophenol	19		40.00		48.7	10	147				
Surr: 4-Terphenyl-d14	19		20.00		96.5	14	140				
Surr: Nitrobenzene-d5	15		20.00		72.7	13	133				
Surr: Phenol-d6	13		40.00		32.1	10	146				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **MB-2860**	SampType: **MBLK**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **PBW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **LCS-2860**	SampType: **LCS**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **LCSW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Biphenyl	29	5.0	40.00	0	71.9	30	120				
1,2,4-Trichlorobenzene	26	5.0	40.00	0	65.7	20	124				
1,2-Dichlorobenzene	26	5.0	40.00	0	66.2	31	120				
1,3-Dichlorobenzene	26	5.0	40.00	0	64.0	31	120				
1,4-Dichlorobenzene	26	5.0	40.00	0	63.8	32	123				
2,4,5-Trichlorophenol	ND	5.0		0	0	24	138				U
2,4,6-Trichlorophenol	27	5.0	40.00	0	68.4	31	131				
2,4-Dichlorophenol	27	5.0	40.00	0	66.9	20	120				
2,4-Dimethylphenol	22	10	40.00	0	56.0	13	123				
2,4-Dinitrophenol	19	10	40.00	0	47.9	11	126				*
2,4-Dinitrotoluene	23	5.0	40.00	0	57.1	22	137				
2,6-Dinitrotoluene	20	5.0	40.00	0	50.0	20	130				
2-Chloronaphthalene	30	5.0	40.00	0	74.5	24	123				
2-Chlorophenol	25	5.0	40.00	0	63.5	20	120				
2-Methylnaphthalene	ND	5.0		0	0	20	120				U
2-Methylphenol	ND	5.0		0	0	20	125				U
2-Nitroaniline	ND	5.0		0	0	32	124				U*
2-Nitrophenol	24	10	40.00	0	60.4	22	120				
3+4-Methylphenol	ND	5.0		0	0	10	100				U
3-Nitroaniline	ND	10		0	0	30	120				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **LCS-2860**	SampType: **LCS**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **LCSW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,6-Dinitro-2-methylphenol	19	10	40.00	0	47.9	10	132				*
4-Bromophenyl phenyl ether	29	5.0	40.00	0	72.2	21	133				
4-Chloro-3-methylphenol	26	5.0	40.00	0	66.1	29	122				
4-Chloroaniline	ND	5.0		0	0	10	100				U
4-Chlorophenyl phenyl ether	29	5.0	40.00	0	71.7	32	128				
4-Nitroaniline	ND	5.0		0	0	30	127				U
4-Nitrophenol	11	10	40.00	0	26.6	10	100				
Acenaphthene	28	5.0	40.00	0	70.9	24	125				
Acenaphthylene	28	5.0	40.00	0	71.1	23	125				
Acetophenone	28	5.0	40.00	0	71.1	25	120				
Aniline	ND	5.0		0	0	20	120				U
Anthracene	29	5.0	40.00	0	71.8	32	130				
Azobenzene	ND	5.0		0	0	40	130				U
Benzo(a)anthracene	30	5.0	40.00	0	74.7	27	130				
Benzo(a)pyrene	29	5.0	40.00	0	71.7	32	125				
Benzo(b)fluoranthene	29	5.0	40.00	0	73.5	30	125				
Benzo(g,h,i)perylene	29	5.0	40.00	0	71.4	27	141				
Benzo(k)fluoranthene	31	5.0	40.00	0	78.5	34	134				m
Benzoic acid	ND	10		0	0	10	110				U
Benzyl alcohol	ND	5.0		0	0	30	120				U
Bis(2-chloroethoxy)methane	27	5.0	40.00	0	68.1	23	122				
Bis(2-chloroethyl)ether	28	5.0	40.00	0	69.0	32	126				
Bis(2-chloroisopropyl)ether	28	5.0	40.00	0	69.0	27	127				
Bis(2-ethylhexyl)phthalate	29	10	40.00	0	73.4	30	136				B
Butyl benzyl phthalate	29	10	40.00	0	71.3	28	141				
Carbazole	ND	5.0		0	0	34	127				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **LCS-2860**	SampType: **LCS**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **LCSW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	30	5.0	40.00	0	74.4	27	130				
Di-n-butyl phthalate	30	5.0	40.00	0	74.4	27	146				
Di-n-octyl phthalate	27	5.0	40.00	0	66.7	26	136				
Dibenzo(a,h)anthracene	29	5.0	40.00	0	72.1	24	140				
Dibenzofuran	ND	5.0		0	0	30	121				U
Diethyl phthalate	29	5.0	40.00	0	72.7	21	142				
Dimethyl phthalate	28	5.0	40.00	0	70.3	24	123				
Fluoranthene	30	5.0	40.00	0	73.8	30	139				
Fluorene	29	5.0	40.00	0	72.4	22	133				
Hexachlorobenzene	28	5.0	40.00	0	69.2	24	142				
Hexachlorobutadiene	27	5.0	40.00	0	66.9	22	130				
Hexachlorocyclopentadiene	26	10	40.00	0	64.5	16	101				
Hexachloroethane	26	5.0	40.00	0	65.2	20	133				
Indeno(1,2,3-c,d)pyrene	29	5.0	40.00	0	72.4	24	133				m
Isophorone	27	5.0	40.00	0	67.2	22	131				
N-Nitrosodi-n-propylamine	27	5.0	40.00	0	67.0	29	134				
N-Nitrosodimethylamine	14	5.0	40.00	0	35.6	12	100				
N-Nitrosodiphenylamine	27	5.0	40.00	0	66.3	11	140				
Naphthalene	28	5.0	40.00	0	68.9	25	123				
Nitrobenzene	27	5.0	40.00	0	67.3	22	138				
Parathion	ND	10		0	0	30	130				U*
Pentachlorophenol	26	10	40.00	0	64.7	18	140				
Phenanthrene	28	5.0	40.00	0	69.3	25	132				m
Phenol	11	5.0	40.00	0	28.2	10	100				
Pyrene	30	5.0	40.00	0	73.9	24	136				
Pyridine	ND	5.0		0	0	10	100				U

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **LCS-2860**	SampType: **LCS**	TestCode: **8270_W**	Units: **µg/L**	Prep Date: **11/7/2014**	RunNo: **4830**
Client ID: **LCSW**	Batch ID: **2860**	TestNo: **SW8270D**	**SW3510C**	Analysis Date: **11/7/2014**	SeqNo: **89712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	33		40.00		83.4	17	145				
Surr: 2-Fluorobiphenyl	17		20.00		83.5	18	131				
Surr: 2-Fluorophenol	20		40.00		50.4	10	147				
Surr: 4-Terphenyl-d14	18		20.00		90.0	14	140				
Surr: Nitrobenzene-d5	16		20.00		79.3	13	133				
Surr: Phenol-d6	13		40.00		32.3	10	146				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.

Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2860**

Sample ID **MB-2860** SampType: **MBLK** TestCode: **8270_W** Units: **µg/L** Prep Date: **11/7/2014** RunNo: **4831**

Client ID: **PBW** Batch ID: **2860** TestNo: **SW8270D** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **89715**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	5.0									U
Atrazine	ND	5.0									U
Benzaldehyde	ND	10									U
Benzidine	ND	10									U
Caprolactam	ND	5.0									U

Sample ID **LCS-2860** SampType: **LCS** TestCode: **8270_W** Units: **µg/L** Prep Date: **11/7/2014** RunNo: **4831**

Client ID: **LCSW** Batch ID: **2860** TestNo: **SW8270D** **SW3510C** Analysis Date: **11/7/2014** SeqNo: **89716**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	5.0		0	0	10	121				U
Atrazine	32	5.0	40.00	0	78.8	30	120				
Benzaldehyde	28	10	40.00	0	70.8	30	120				
Benzidine	ND	10		0	0	1	100				U
Caprolactam	7.1	5.0	40.00	0	17.8	10	115				

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: **1411006**

10-Nov-14

Client: American Environmental Assessment Corp.
Project: HDR-Country Cleaners, W. Main Street, Huntin **BatchID:** **2862**

Sample ID	**MBS110614A**	SampType:	**MBLK**	TestCode:	**HG_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4786**
Client ID:	**PBS**	Batch ID:	**2862**	TestNo:	**SW7471B**	**SW7471B**		Analysis Date:	**11/7/2014**	SeqNo:	**88912**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0120									U

Sample ID	**LCSS110614A**	SampType:	**LCS**	TestCode:	**HG_S**	Units:	**mg/Kg**	Prep Date:	**11/6/2014**	RunNo:	**4786**
Client ID:	**LCSS**	Batch ID:	**2862**	TestNo:	**SW7471B**	**SW7471B**		Analysis Date:	**11/7/2014**	SeqNo:	**88913**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.189	0.0120	0.2000	0	94.3	80	120				

Sample ID	**1411011-001BMS**	SampType:	**MS**	TestCode:	**HG_S**	Units:	**mg/Kg-dry**	Prep Date:	**11/6/2014**	RunNo:	**4786**
Client ID:	**BatchQC**	Batch ID:	**2862**	TestNo:	**SW7471B**	**SW7471B**		Analysis Date:	**11/7/2014**	SeqNo:	**88923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.148	0.00934	0.1557	0	95.3	80	120				

Sample ID	**1411011-001BMSD**	SampType:	**MSD**	TestCode:	**HG_S**	Units:	**mg/Kg-dry**	Prep Date:	**11/6/2014**	RunNo:	**4786**
Client ID:	**BatchQC**	Batch ID:	**2862**	TestNo:	**SW7471B**	**SW7471B**		Analysis Date:	**11/7/2014**	SeqNo:	**88924**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.152	0.00921	0.1535	0	98.8	80	120	0.1483	2.16	20	

Qualifiers: R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits