2014 OU2 GROUNDWATER INVESTIGATION
VPB 153
BETHPAGE, NY

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
9742 Maryland Ave.
Norfolk, VA 23511-3095

Comprehensive Long-Term Environmental Action Navy
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CTO WE15

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Table of Contents

Tables

Figures

Appendices

Appendix A VPB 153

- Section 1 Boring and Gamma Logs
- Section 2 Gamma and PCE/TCE Plot
- Section 3 Groundwater Sample Log Sheets
- Section 4 Analytical Data Validation
- Section 5 Analytical Data Table
- Section 6 Survey

List of Acronyms and Abbreviations

AOC	Area of Concern
bgs	below ground surface
DoD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency, United States
ft	feet
GOCO	Government-Owned Contractor-Operated
GPS	Global Positioning System
IDW	Investigation Derived Waste
IR	Installation Restoration
Katahdin	Katahdin Analytical Services, Inc
NAD	North American Datum
NAVD	North American Vertical Datum
NAVFAC	Naval Facilities Engineering Command
NG	Northrop Grumman
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PID	Photoionization Detector
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
SAP	Sampling and analysis plan
SVOC	Semivolatile Organic Compounds
TCE	Trichloroethene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Total Organic Carbon
UFP	United Federal Programs
VOC	Volatile Organic Compounds
VPB	Vertical Profile Boring

1.0 PROJECT BACKGROUND

Resolution Consultants has prepared this Data Summary Report for the Naval Facilities Engineering Command (NAVFAC), Mid-Atlantic under contract task order WE15 Contract N62470-11-D-8013. This report describes vertical profile boring (VPB) installation activities (specifically at the VPB 153 location) in 2014 for the Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage Operable Unit (OU) 2 Site 1 offsite plume. NWIRP Bethpage is located in east-central Nassau County, Long Island, New York, approximately 30 miles east of New York City (Figure 1).

1.1 Scope and Objectives

This data summary report provides information on the installation of VPB 153. The purpose of the VPB 153 investigation was to determine subsurface conditions and contaminant levels upgradient of the South Farmington Water District Plant 6 wellfield and to design outpost wells that will be used to provide early warning of plume migration toward the South Farmington Water District Plant 6 wellfield. VPB locations within the general vicinity of VPB 153 are shown in Figure 2. VPB 153 was completed to 1010 feet (ft) below ground surface (bgs).

Field tasks were conducted in 2014 in accordance with the *United Federal Programs Sampling and Analysis Plan (UFP SAP)*, Bethpage, New York and the UFP SAP Addendum Installation of Vertical Profile Borings and Monitoring Wells (Resolution Consultants, 2013). The field investigation included completing one vertical profile boring, groundwater grab samples, geophysical logging and surveying.

Documentation of these activities is included in Appendix A of this report.

1.2 Site History

NWIRP Bethpage is in the Hamlet of Bethpage, Town of Oyster Bay, New York. Since its inception in 1941, the plant's primary mission was the research prototyping, testing, design, engineering, fabrication, and primary assembly of military aircraft. The facilities at NWIRP included four plants used for assembly and prototype testing, a group of quality control laboratories, two warehouse complexes (north and south), a salvage storage area, water recharge basins, the Industrial Wastewater Treatment Plant, and several smaller support buildings.

The Navy's property originally totaled 109.5 acres and was formerly a Government-Owned Contractor-Operated (GOCO) facility that was operated by Northrop Grumman (NG) until September 1998. Prior to 2002, the NWIRP property was bordered on the north, west, and south

by current or former NG facilities, and on the east by a residential neighborhood. By March 2008, approximately 100 acres of NWIRP property were transferred to Nassau County in three separate actions. The remaining 9 acres and access easements were retained by the Navy to continue remedial efforts at Installation Restoration (IR) Site 1 – Former Drum Marshalling Area and Site 4 – Former Underground Storage Tanks (Area of Concern [AOC] 22). A parcel of land connecting the two sites was also retained. Currently, the 9-acre parcel of NWIRP is bordered on the east by the residential neighborhood and on the north, south, and west by Nassau County property. Access to the NWIRP is from South Oyster Bay Road.

1.3 Geology and Hydrogeology

Overburden at the site consists of well over 1,000 ft of Cretaceous deposits overlying crystalline bedrock of the Hartland Formation. Overburden is divided into four geologic units: the upper Pleistocene deposits, the Magothy Formation, the clay member of the Raritan Formation ("Raritan Clay") and the Lloyd Sand member of the Raritan Formation ("Lloyd Sand") (Geraghty and Miller, 1994).

The upper Pleistocene ranges in thickness from approximately 50 to 100 ft and consists of till and outwash deposits of medium to coarse sand and gravel with lenses of fine sand, silt and clay (Smolensky and Feldman, 1990); these deposits form the Upper Glacial Aquifer. Directly underlying this unit is the Magothy Formation with a thickness of 650 to 900 ft bgs observed onsite. The Magothy is characterized by fine to medium sands and silts interbedded with zones of clays, silty sands and sandy clays. Sand and gravel lenses are found in some areas between depths of 600 and 880 ft bgs; these deposits form the Magothy Aquifer.

Investigations performed by the Navy since 2012 indicate that the bottom of the Magothy (top of the Raritan Clay) can extend to depths of 700 to greater than 1,000 ft bgs. The top of the Raritan Clay deepens to the south southeast, as evidenced by clay depths of 1,000 ft bgs (or more) in borings installed offsite. The Raritan Clay Unit is of continental origin and consists of clay, silty clay, clayey silt, and fine silty sand. This member acts as a confining layer over the Lloyd Sand Unit. The Lloyd Sand Unit is also of continental origin, having been deposited in a large fresh water lacustrine environment. The material consists of fine to coarse-grained sands, gravel, inter-bedded clay, and silty sand. These deposits form the Lloyd Aquifer.

The Upper Glacial Aquifer and the Magothy Aquifer comprise the aquifers of interest at the NWIRP. Regionally, these formations are generally considered to form a common, interconnected aquifer as

the coarse nature of each unit near their contact and the lack of any regionally confining clay unit allows for the unrestricted flow of groundwater between the formations.

The Magothy Aquifer is the major source of public water in Nassau County. The most productive water bearing zones are the discontinuous lenses of sand and gravel that occur within the siltier matrix. The major water-bearing zones are course sand and gravel lenses located in the lower portion of the Magothy. The Magothy Aquifer is commonly regarded to function overall as an unconfined aquifer at shallow depths and a confined aquifer at deeper depths. The drilling program at the NWIRP has revealed that clay zones beneath the facility are common but laterally discontinuous. No confining clay units of facility-wide extent have been encountered.

Groundwater is encountered at a depth of approximately 50 ft bgs at the facility. Historically, because of pumping and recharge at the facility, groundwater depths have been measured to range from 40 to 60 ft bgs. The groundwater flow in the area is to the south-southeast.

2.0 FIELD PROGRAM

Field investigation activities at VPB 153 consisted of drilling, sampling, soil/groundwater analysis, geophysical logging, and surveying. Drilling during this investigation was performed by Delta Well and Pump Company of Ronkonkoma, New York. A description of these tasks is provided below.

2.1 Vertical Profile Borings

One vertical profile boring (VPB 153) was completed during this field effort between November 4, 2014 and December 17, 2014. The total depth of VPB 153 was 1010 ft. The location is shown in Figure 2 and details are summarized in Table 1.

2.1.1 Drilling

VPB 153 was installed by drilling an 8-inch diameter hole using mud rotary drilling techniques. Drilling mud consisted of potable water and polymer-free sodium bentonite or equivalent. Drilling mud was contained and re-circulated in baffled, high capacity mud tubs. A sand separator was used intermittently to remove fines from circulation.

2.1.2 Sampling

A total of nine split spoon samples were collected from ground surface to the bottom of the boring. A change in geology was observed by the field geologist at 998 ft bgs and three split spoon samples were subsequently collected to confirm the presence of the Raritan Clay. Samples were logged by the field geologist and screened for Volatile Organic Compounds (VOCs) utilizing a photoionization detector (PID). A detailed boring log for VPB 153 is included in Appendix A.

Groundwater grab samples were collected every 50 ft for the first 200 ft of borehole depth. After the first 200 ft, groundwater grab samples were collected approximately every 20 ft until the boring terminated in the Raritan. Groundwater grab samples were collected with a hydropunch sampler and analyzed for VOCs using Environmental Protection Agency (EPA) Method 8260C. The groundwater grab samples were analyzed by Katahdin Analytical Services (Katahdin), a Department of Defense (DoD), Environmental Laboratory Accreditation Program (ELAP), and New York State Department of Environmental Conservation (NYSDEC)-certified laboratory. During the collection of groundwater grab samples, field parameters were measured (pH, temperature, specific conductivity, oxidation reduction potential, dissolved oxygen, and turbidity). Data validation was performed by Resolution Consultants. Groundwater grab sample logs, data validation packages, and analytical data tables are included in Appendix A.

One soil sample was collected for laboratory analysis for total organic carbon (TOC) by EPA series SW-846 method 9060A. During drilling, air sampling was conducted under a Community Air Monitoring Plan. One air sample was collected per VPB using Summa canisters and submitted for laboratory analysis by EPA Method TO-15. All analyses were performed or sub-contracted by Katahdin. Data validation of both TOC and air data was performed by Resolution Consultants. Data validation packages and analytical data tables are included in Appendix A.

2.1.3 Geophysics

Borehole geophysical logs (gamma) were recorded after the borehole was drilled but prior to the removal of drill rods. A Mount Sopris Instrument model 2PGA-100 poly gamma was used. Starting at the top of the hole, the probe was advanced at a maximum rate of 12 ft per minute. A copy of the log was printed in the field for review once the probe reached the bottom of the borehole. The instrument was then raised to the top of the boring and a second log was generated and printed in the field. The down hole gamma log sheets and plots comparing the gamma log with trichloroethene (TCE) and tetrachloroethene (PCE) concentrations from hydropunch samples are included in Appendix A.

2.2 Decontamination and Investigation Derived Waste (IDW)

Resolution Consultants utilized dedicated and disposable sampling equipment when possible to avoid the potential for cross-contamination of samples. The sampling equipment included dedicated plastic scoops, disposable Teflon or polyethylene tubing, disposable gloves, and laboratory supplied sample bottles. Hand held equipment, split spoons, and the hydropunch were decontaminated using Liquinox and water wash, a potable water rinse, followed by a distilled water rinse. Water was collected in 5-gallon pails or 55-gallon drums.

As part of the IDW management practices and in accordance with the SAP, the investigation waste (consisting of soil cuttings, drilling muds, IDW fluids, and personal protective equipment [PPE]) generated during the boring installation was containerized and staged at NWIRP Bethpage. IDW solids were characterized and disposed of properly. Representative samples from each roll off were submitted to Katahdin for analysis of:

- Target Compound List (TCL) VOCs
- TCL Semi-volatile Organic Compounds (SVOCs)
- Toxicity Characteristic Leaching Procedure (TCLP) Metals

- Polychlorinated Biphenyls (PCBs)
- Total petroleum hydrocarbons
- Corrosivity
- Ignitability
- Reactive Cyanide
- Reactive Sulfide
- Paint Filter

IDW water was containerized in frac tanks and stored at NWIRP Bethpage for characterization and ultimate disposal to the Publicly Owned Treatment Works (POTW), in accordance with the facilities existing discharge permit. A representative water sample was collected from each frac tank and submitted to Katahdin for analysis of VOCs via Method SW 624, pH via Method SW 9040B, PCBs via Method 8082 and Total Metals via Method SW 846 (all waters). To the extent feasible, soil and water were not mixed. All analytical criteria were met for disposal of soil and water.

2.3 Surveying

A survey of the boring location was conducted at the end of fieldwork by C. T. Male, Inc., of Latham, NY, under the direct supervision of Resolution Consultants. The location was tied into the existing base map developed for this investigation. The survey elevation is referenced to the North American Vertical Datum (NAVD) 1988 and has a vertical accuracy of 0.01 foot. Vertical control is based on observations of COR Stations Queens and Central Islip. The horizontal location is referenced to the North American Datum (NAD) 1983 (2011) N.Y. Long Island Zone 3104 and has an accuracy of 0.1 foot. Local horizontal and vertical control is based on Global Positioning System (GPS) observations using the NYS Net Real Time Network.

A table of survey data (ground, latitude/longitude and northing/easting) and a survey map is included in Appendix A.

3.0 REFERENCES

Geraghty and Miller, Inc., 1994. *Remedial Investigation Report, Grumman Aerospace Corporation, Bethpage, New York*. Revised September 1994.

Naval Facilities Engineering Command (NAVFAC), 2003. *Record of Decision Naval Weapons Industrial Reserve Plant Bethpage, New York, Operable Unit 2 – Groundwater*, NYS Registry: 1-30-003B. April.

Resolution Consultants, 2013. *United Federal Programs Sampling and Analysis Plan*, *Site OU-2 Offsite TCE Groundwater Plume Investigation,* Bethpage, New York. April.

Resolution Consultants, 2013. UFP SAP Addendum, *Groundwater Sampling Using Low Stress (Low Flow) Purging and Sampling* Protocol. November.

Resolution Consultants, 2013. UFP SAP Addendum*, Installation of Vertical Profile Borings and Monitoring Wells.* December.

Smolensky, D., and Feldman, S., 1990. *Geohydrology of the Bethpage-Hicksville-Levittown Area, Long Island, New York, U.S*. Geological Survey Water-Resourced Investigations Report 88-4135, 25 pp.

Tables

TABLE 1
VERTICAL PROFILE BORING SUMMARY
2014 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

BORING	BORING START DATE	BORING COMPLETION DATE	GROUND ELEVATION (MSL)	TOTAL DEPTH (ft bgs)	SURFACE CASING SET AT (ft bgs)	NO. OF SPOON SAMPLES	GAMMA LOG (ft bgs)	NO. GW SAMPLES COLLECTED / ATTEMPTED*	TOC SAMPLES	DATE OF AIR SAMPLE	MONITORING WELLS INSTALLED AT LOCATION
VPB 153	11/4/2014	12/17/2014	56.2	1010	53	9	1006	38/43	423 - 425 ft bgs	11/13/2014	Pending

* includes field duplicates

Figures

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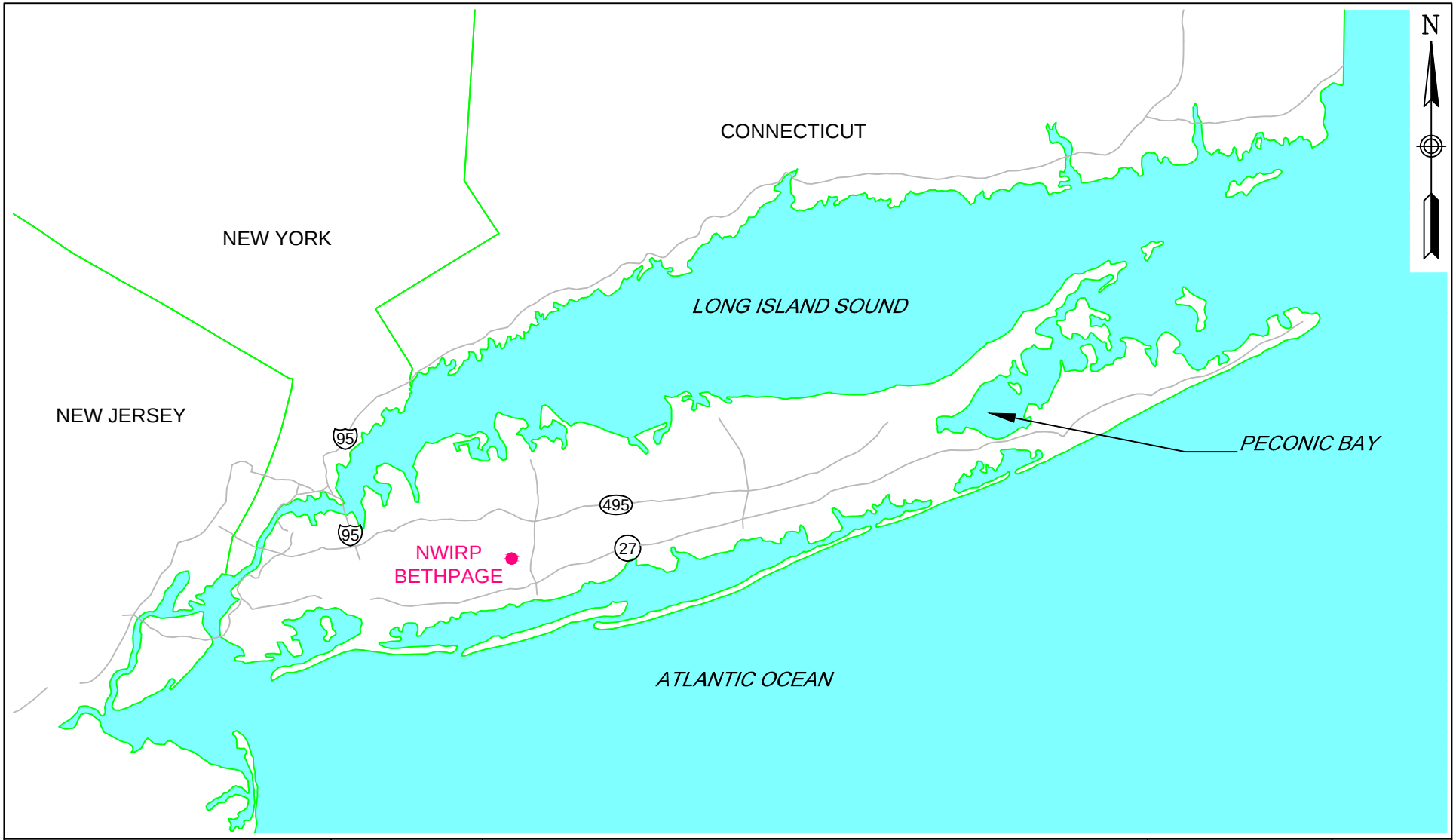

0 15 30

SCALE IN MILES

NAVFAC

GENERAL LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

CONTRACT NUMBER	CTO NUMBER
N62470-11-D-8013	WE15
APPROVED BY --	DATE --
APPROVED BY --	DATE --
FIGURE NO. 1	REV 0

F:\Projects\Navy\Bethpage WXE0817.0 Deliverables\7.2 CADD\GIS_files\Bethpage\MAP DOCS\MXD\MISC\Location Maps\F2 VPB 153 2015 04 01 R1.mxd

Former Naval Weapons Industrial Reserve Plant

Former Northrop Grumman Site

N

PWD-7486

VPB 153

VPB153

Duff Pl

Thorne Ave

Margaret Rd

Daniel Rd N

Arlington Dr

Daniel Rd S

Hicksville Rd

Ailee Rd

Briarwood Rd

Robert Pl

SFWD-8664

SFWD-8665

Joan St

Greenwood Dr

S Park Dr

Southern State Pkwy

New Rd

Poplar St

Rutland Rd

Marlboro Ave

VPB133

TT-102D

TT-102D2

Alken Ave

Sherrey Ct

0 375 750 1,500 Feet

Inset: VPB 153 Location

Cherry Ave

Plainview Rd

Stewart Ave

Broadway

Powell Ave

Central Ave

Wantagh Ave

Hempstead Tpke

Union Ave

Miller Pl

Boundary Ave

Motor Ave

Bethpage State Pkwy

Merritts Rd

Fulton St

Conklin St

N Broadway

N Linden St

N Jerusalem Rd

Seamans Neck Rd

State Hwy 135

Bethpage

Plainedge

South Farmingdale

North Massapequa

Levittown

North Wantagh

0 750 1,500 3,000 Feet

Legend

- Monitoring Well
- Vertical Profile Boring
- Vertical Profile Boring - Proposed
- Water Supply Well
- Extraction Well

NAVFAC

VPB 153 LOCATION MAP
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

CONTRACT NUMBER	CTO NUMBER
N62470-11-D8013	WE15
APPROVED BY	DATE
PS	4/1/2015
APPROVED BY	DATE
—	—
FIGURE NO.	REV
2	0

Appendix A

VPB 153

Section 1

VPB 153 Boring and Gamma Logs

Resolution Consultants

Boring Log

BORING #: VPB153
Sheet 1 of 17

Client: Department of the Navy, Naval Facilities Engineering Command, Mid-Atlantic		**Logged By:** Mike Zobel
Location: Joseph Rd and William Rd, T.O. Oyster Bay, NY	**Northing:** 197259.207 **Easting:** 1128698.19	**Drilling Company:** Delta Well & Pump
Project #: 60266526	**Ground Elevation (ft amsl):** 56.2	**Well Screen Interval (ft):** NA
Start Date: 11/4/2014	**Drilling Method:** Auger (0-50' bgs) Mud Rotary (>50' bgs)	**Water Level (ft):** NA
Finish Date: 12/17/2014		**Total Depth (ft):** 1010.0

Mud Rotary Drilling Note: Unless denoted by a splitspoon sample (indicated by the presence of a PID reading), boundaries between strata are approximate only and may be transitional because they are based on screened wash samples collected during mud rotary drilling at 5 ft. intervals.

DEPTH (ft)	Gamma Ray (30 60 90)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
0–2					Upper Glacial	SP		Brown (10YR 4/3) poorly graded medium subrounded SAND
2–6						SP		Dark brown (10YR 3/3) poorly graded medium subrounded SAND
6–12						SP		Brown (10YR 4/3) poorly graded medium subrounded SAND with few fine rounded Gravel
12–16						SP		Brown (10YR 4/3) poorly graded medium subrounded SAND with few fine rounded Gravel
16–22						SP		Brown (10YR 4/3) poorly graded medium subrounded SAND with few fine rounded Gravel
22–26						SP		Brown (10YR 4/3) poorly graded medium subrounded SAND with few fine rounded Gravel
26–32						SP-GP		Yellowish brown (10YR 5/6) poorly graded medium subrounded SAND and fine subrounded Gravel
32–38						SP-GP		Yellowish brown (10YR 5/6) poorly graded medium subrounded SAND and fine subrounded Gravel
38–42						SP		Brown (10YR 4/3) poorly graded medium subrounded SAND with few fine subrounded Gravel
42–46						GP		Brown (10YR 4/3) poorly graded fine to medium subrounded GRAVEL with fine to medium subrounded Sand
46–52						GP		Brown (10YR 4/3) poorly graded fine to medium subrounded GRAVEL with fine to medium subrounded Sand
52–54						SP		

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Resolution Consultants

Boring Log

BORING #: VPB153

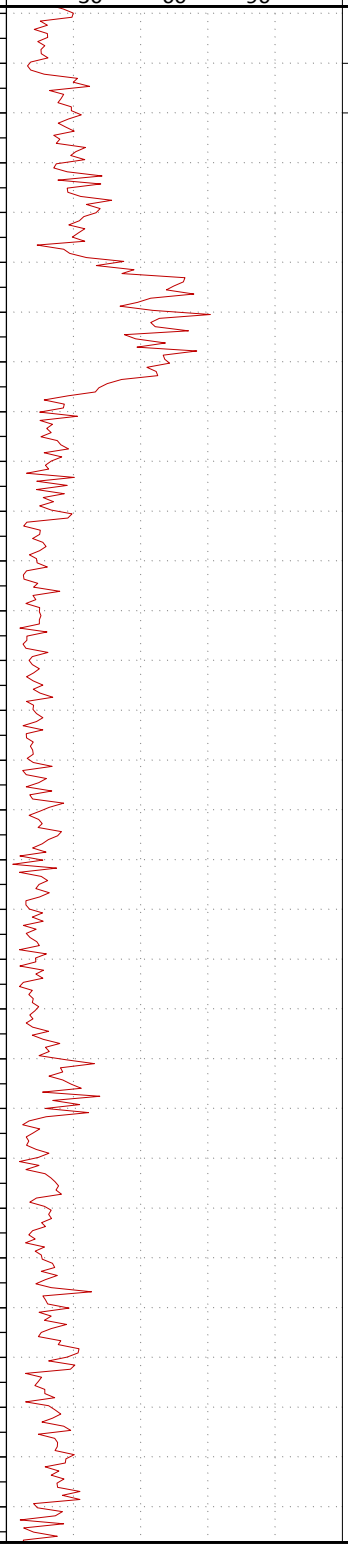
DEPTH (ft)	Gamma Ray (30 60 90)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
54					Upper Glacial	SP		Yellowish brown (10YR 5/6) poorly graded medium to coarse subrounded SAND with fine subrounded Gravel *(continued)*
56								
58								
60			< 0.50	< 0.50		SP		Yellowish brown (10YR 5/6) poorly graded medium to coarse subrounded SAND with fine subrounded Gravel
62								
64						SW		Yellowish brown (10YR 5/6) poorly graded fine to coarse subrounded SAND with fine subrounded Gravel
66								
68								
70						SW		Yellowish brown (10YR 5/6) poorly graded fine to coarse subrounded SAND with fine subrounded Gravel
72								
74						SP-SC		Yellowish brown (10YR 5/6) poorly graded fine to coarse subrounded SAND with fine subrounded Gravel and medium fat clay
76								
78								
80						SP-SC		Brownish yellow (10YR 6/6) poorly graded fine to medium subangular SAND with medium fat Clay
82								
84						SP-SC		Brownish yellow (10YR 6/6) poorly graded fine to medium subangular SAND with medium fat Clay
86								
88								
90						SP-SC		Brownish yellow (10YR 6/6) poorly graded fine to medium subangular SAND with medium fat Clay
92								
94						SP		Brownish yellow (10YR 6/6) poorly graded fine to medium subangular SAND, trace fat Clay, iron nodules
96								
98								
100			< 0.50	< 0.50		SP-SC		Light yellowish brown (10YR 6/4) poorly graded fine SAND with medium fat Clay, iron nodules
102					Magothy			
104						SM		Pale brown (2.5Y 7/4) Silty poorly graded fine SAND, iron nodules
106								
108								
110						SM		Pale brown (2.5Y 7/4) Silty poorly graded fine SAND, iron nodules
112								
114						SP-SM		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND with Silt

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
116				Magothy	SP-SM		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND with Silt *(continued)*
118							
120	0				SM		Light yellowish brown (2.5Y 6/4) Silty poorly graded fine SAND, trace medium sand
122					SP		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND
124					SC		Pale brown (2.5Y 7/4) loose fat Clayey fine SAND
126							
128					SP-SC		Pale brown (2.5Y 7/4) poorly graded fine SAND with loose fat Clay
130							
132					SM		Light gray (2.5Y 7/1) Silty fine SAND, trace medium subangular sand
134							
136					SP		Light gray (5Y 7/1) poorly graded fine to medium SAND, trace Silt
138							
140					SP		Light gray (5Y 7/1) poorly graded fine to medium SAND, trace Silt, trace loose fat clay
142							
144					SP		Light gray (5Y 7/1) poorly graded fine to medium SAND, trace Silt, trace loose fat clay
146							
148		< 0.50	< 0.50		SP		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND, trace loose fat Clay, iron nodules
150							
152					SP-SC		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND with loose fat Clay, iron nodules
154							
156					SP-SC		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND with loose fat Clay, iron nodules
158							
160					SP		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND, loose fat Clay
162							
164					SP		Pale brown (2.5Y 7/4) poorly graded fine to medium SAND, loose fat Clay
166							
168							
170							
172							
174							
176							

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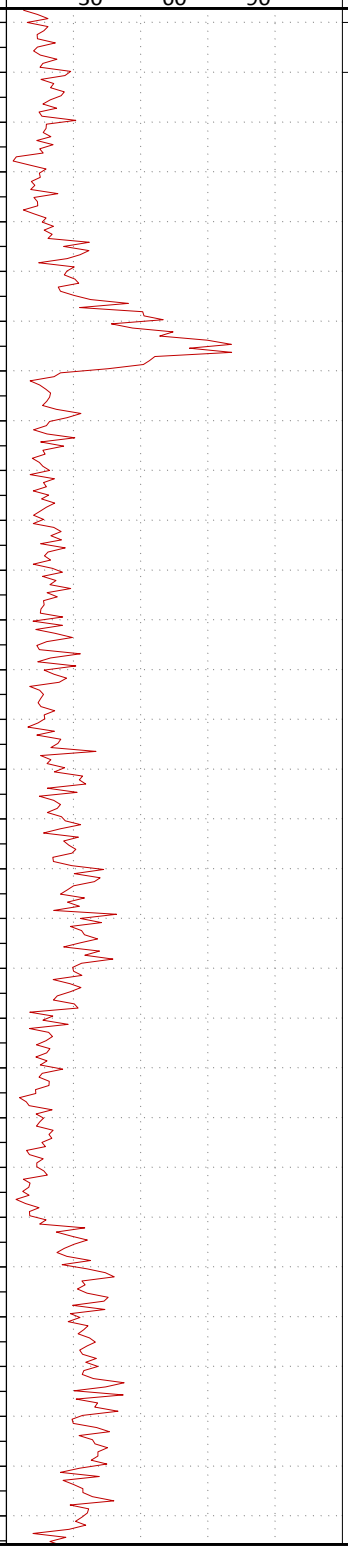
Resolution Consultants

Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
178				Magothy			
180	0				SP		Banded (1"-2") light gray (5Y 7/1) and yellow (2.5Y 8/8) poorly graded medium subangular SAND, trace coarse subangular Sand
182					SP		Light gray (2.5Y 7/2) poorly graded medium subangular SAND, trace coarse subangular Sand
184					SC		Light gray (2.5Y 7/2) loose fat Clayey poorly graded fine to medium subangular SAND, trace coarse subangular sand
186							
188							
190					SC		Light gray (2.5Y 7/2) loose fat Clayey poorly graded fine to medium subangular SAND, trace coarse subangular sand
192							
194					SC		Light gray (2.5Y 7/2) loose fat Clayey poorly graded fine to medium subangular SAND
196							
198							
200		21	0.98		SC		Gray (2.5Y 6/1) loose fat Clayey poorly graded fine to medium subangular SAND
202							
204					SC		Gray (2.5Y 6/1) loose fat Clayey poorly graded fine to medium subangular SAND
206							
208							
210					CH		Gray (Gley 1 5/N) fine Sandy loose fat CLAY
212							
214					CH		Gray (Gley 1 5/N) loose fat CLAY with fine Sand, trace coarse subangular sand
216							
218							
220		53	1.6		SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace lignite
222							
224					SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, few lignite
226							
228							
230					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace lignite
232							
234							
236					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace lignite
238							
		51	< 0.50		SP-SC		

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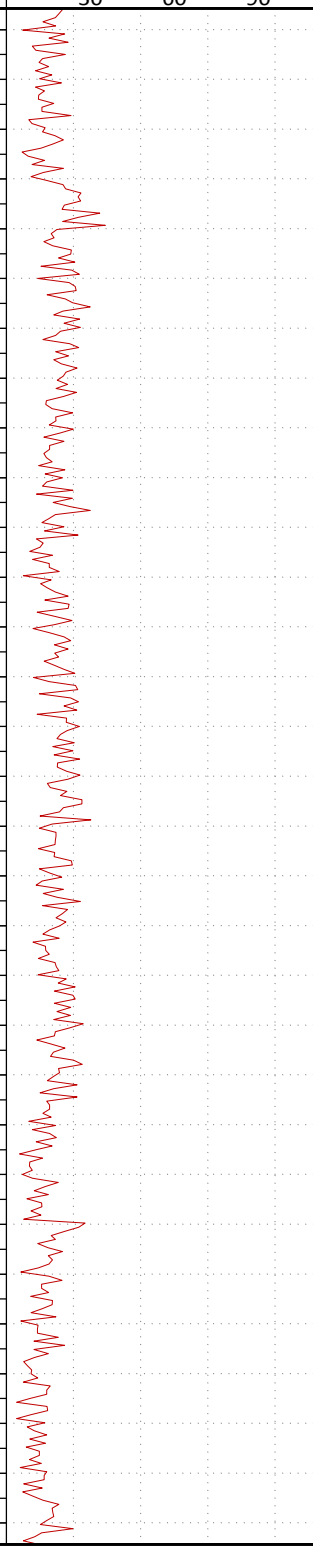
Resolution Consultants

Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
240		51	< 0.50	Magothy	SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace fine gravel, trace lignite *(continued)*
242							
244					SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace fine gravel, trace lignite
246							
248							
250					SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace fine gravel, trace lignite
252							
254					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace coarse sand, trace lignite
256							
258							
260		4.8	< 0.50		SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace coarse sand, trace lignite
262							
264					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace lignite
266							
268							
270					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to medium SAND, trace lignite
272							
274					CH		Gray (Gley 1 5/N) loose fat CLAY with fine to medium Sand, trace lignitie
276							
278							
280		< 0.50	< 0.50		CH		Gray (Gley 1 5/N) loose fat CLAY with fine to medium Sand, trace lignitie
282							
284					SC		Dark gray (Gley 1 4/N) loose fat Clayey fine to medium SAND, few lignite
286							
288							
290					SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace lignite
292							
294					SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace lignite
296							
298							
300		< 0.50	< 0.50		SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace lignite

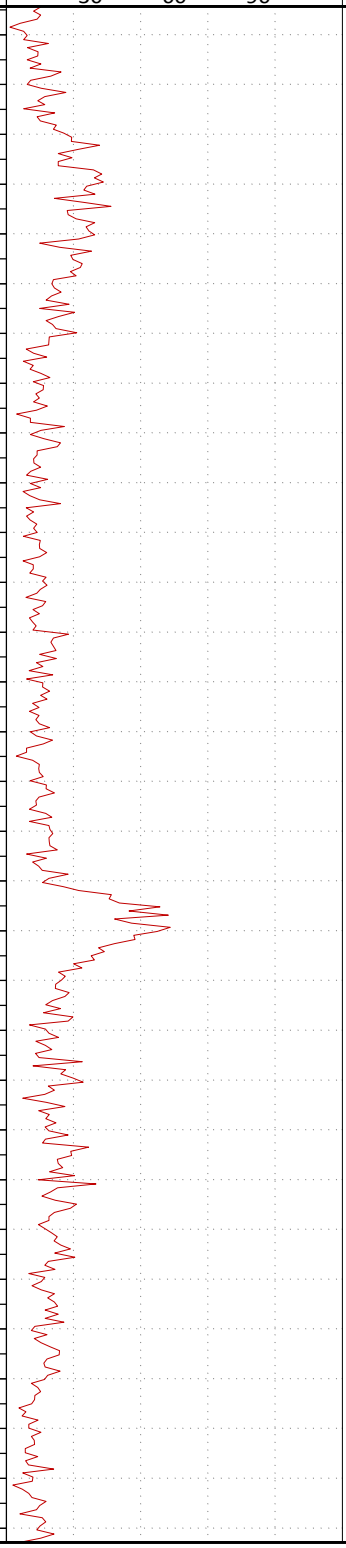
(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: VPB153

Sheet 6 of 17



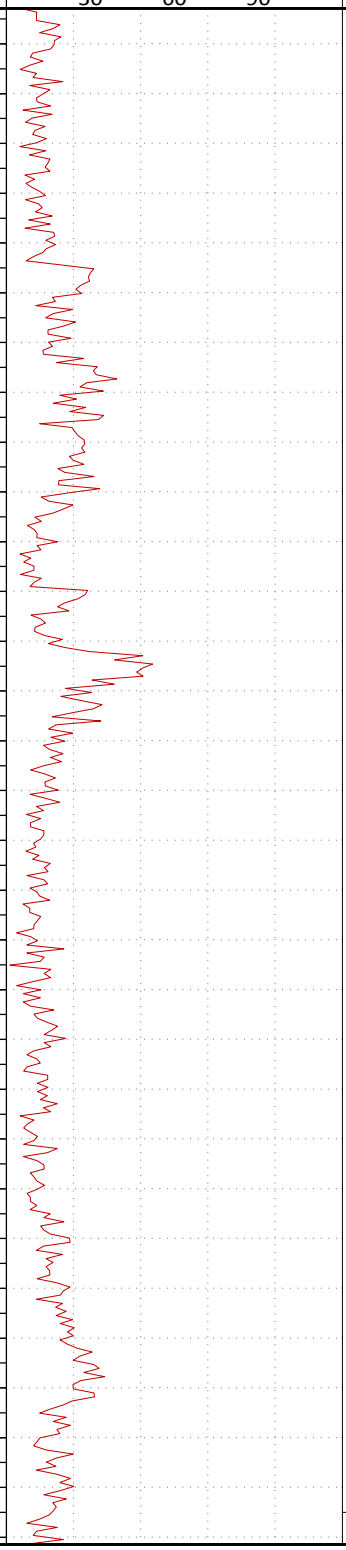
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
302				Magothy	SP-SC		Gray (Gley 1 5/N) poorly graded fine to medium SAND with loose fat Clay, trace lignite *(continued)*
304					CH		Gray (Gley 1 6/N) fine Sandy loose fat CLAY, trace medium sand
306							
308							
310					CH		Gray (Gley 1 6/N) fine Sandy loose fat CLAY, trace medium sand, trace lignite
312							
314					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace coarse subangular sand, trace lignite
316							
318							
320		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace coarse subangular sand, trace lignite
322							
324					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace lignite
326							
328							
330					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace coarse subangular sand, trace lignite
332							
334					CH		Gray (Gley 1 6/N) medium fat CLAY with fine to medium Sand, trace coarse subangular sand
336							
338							
340		< 0.50	< 0.50		CH		Gray (Gley 1 6/N) fine to medium Sandy medium fat CLAY
342							
344					SC		Gray (Gley 1 6/N) loose fat Clayey fine SAND, trace medium to coarse subangular sand, trace lignite
346							
348							
350					SC		Gray (Gley 1 6/N) loose fat Clayey fine SAND, trace medium to coarse subangular sand, trace lignite
352							
354							
356					SC		Gray (Gley 1 6/N) loose fat Clayey fine SAND, trace medium sand, trace lignite
358							
360		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey fine SAND, trace medium sand, trace lignite
362							

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
364				Magothy	SP-SC		Gray (2.5Y 6/1) poorly graded fine to medium subangular SAND with loose fat Clay, trace lignite
366							
368							
370					SP-SC		Gray (2.5Y 6/1) poorly graded fine to medium subangular SAND with loose fat Clay, trace lignite
372							
374					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium subangular SAND, trace lignite
376							
378							
380		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium subangular SAND, trace lignite
382							
384					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to medium Sand
386							
388							
390					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to medium Sand
392							
394					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to medium Sand, trace coarse sand, trace lignite
396							
398							
400					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to medium Sand
402							
404		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium subangular SAND, trace lignite
406							
408							
410					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium subangular SAND, trace lignite, trace coarse subangular sand
412							
414					SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace coarse subangular sand
416							
418							
420		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium subangular SAND
422							
424	0				SM		

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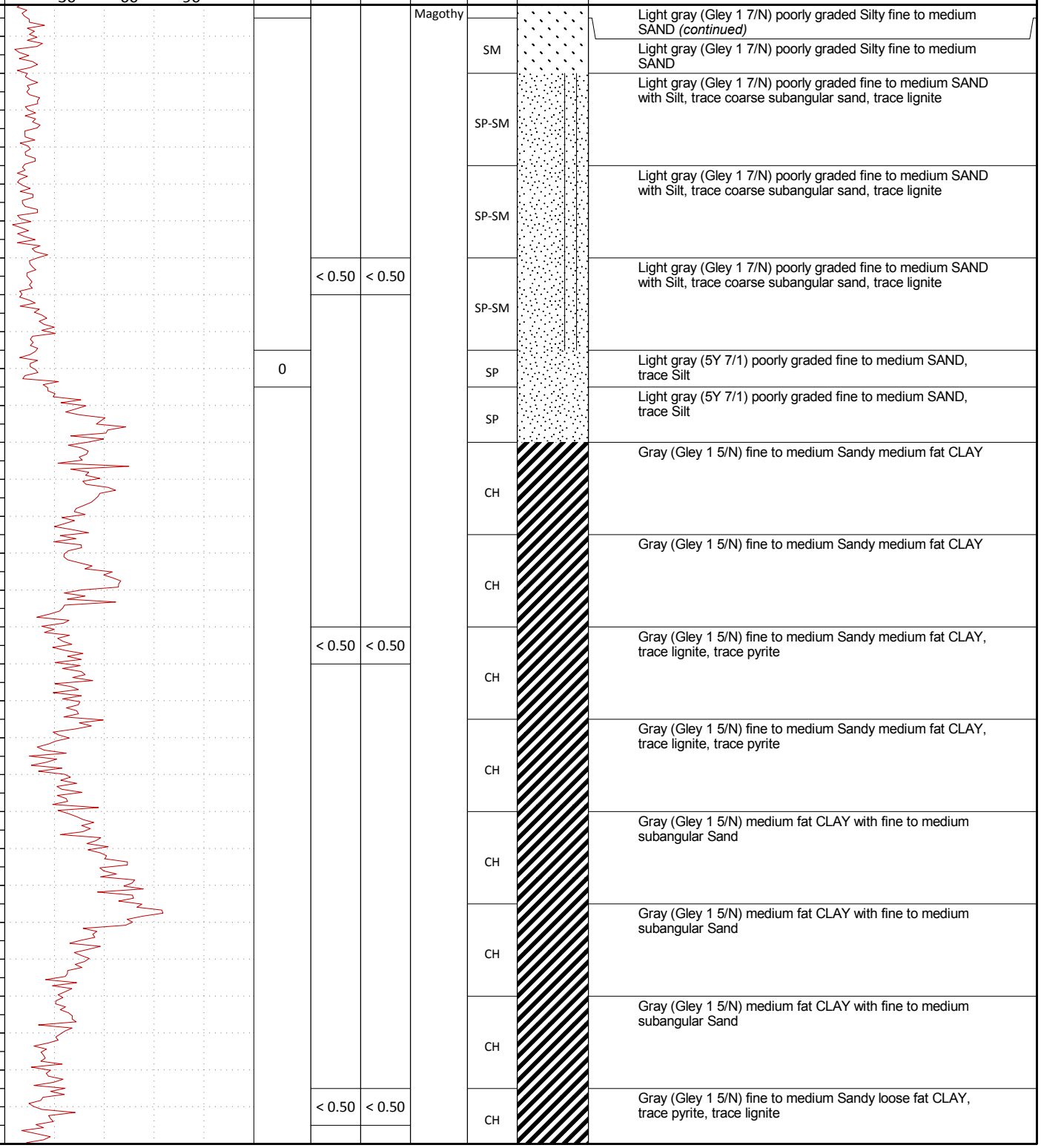

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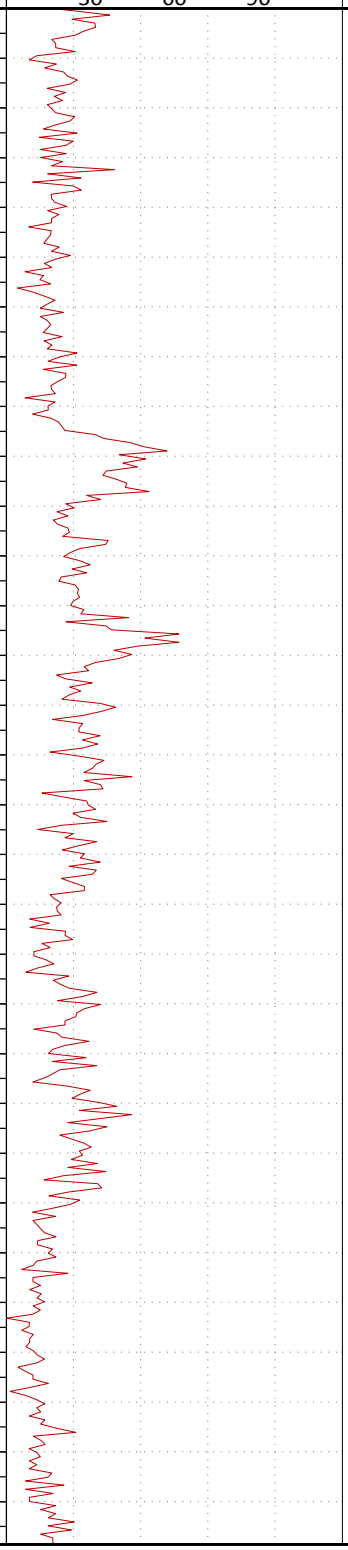
Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
486				Magothy	CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY, trace pyrite, trace lignite *(continued)*
488							
490					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium subangular SAND
492							
494					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium subangular SAND, trace pyrite
496							
498					CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY
500		< 0.50	< 0.50				
502							
504					CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY
506							
508					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace pyrite
510							
512					CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY, trace pyrite, trace lignite
514							
516							
518					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace lignite
520		< 0.50	< 0.50				
522							
524					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace lignite
526							
528					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
530							
532					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
534							
536					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace pyrite
538							
540		< 0.50	< 0.50				
542					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
544							
546							

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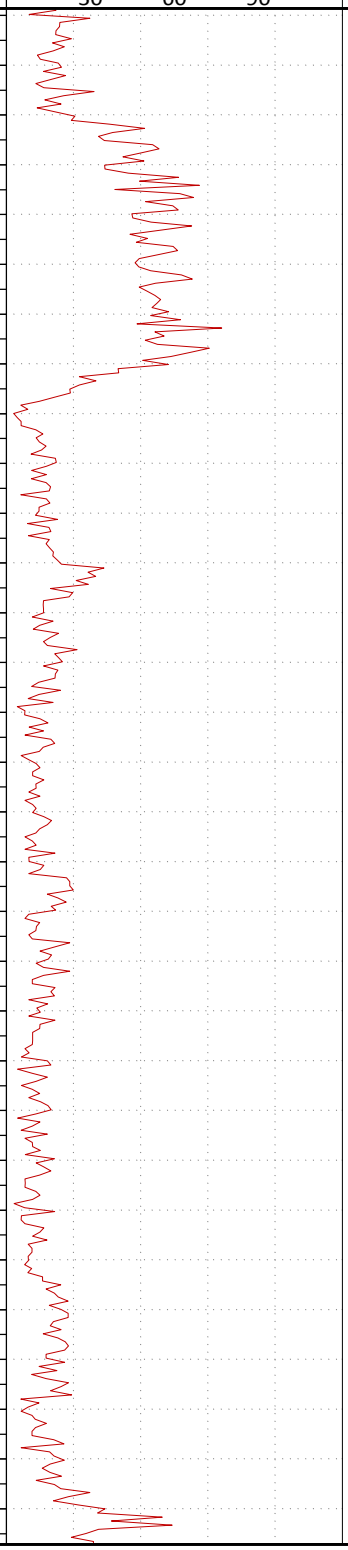
Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
548				Magothy			
550					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
552							
554					CH		Gray (Gley 1 5/N) fine Sandy medium fat CLAY
556							
558							
560					CH		Gray (Gley 1 5/N) fine Sandy medium fat CLAY
562							
564					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
566							
568							
570					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
572							
574					SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND
576							
578							
580		< 0.50	< 0.50		SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND
582							
584					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to coarse subangular SAND
586							
588							
590					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to coarse subangular SAND
592							
594					SP-SC		Gray (Gley 1 5/N) poorly graded fine to coarse subangular SAND with loose fat Clay, trace fine subangular gravel
596							
598							
600					SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to coarse subangular SAND, trace fine subangular gravel
602							
604		< 0.50	< 0.50		SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to coarse subangular SAND
606							
608							
					SC		

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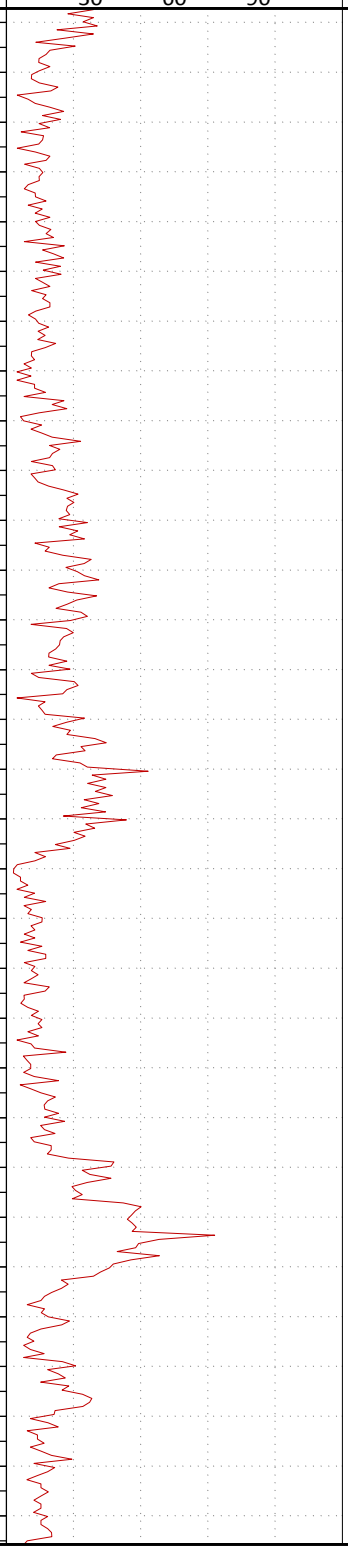

DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
610–612				Magothy	SC		Gray (Gley 1 5/N) loose fat Clayey poorly graded fine to coarse subangular SAND, trace fine subangular gravel *(continued)*
612–618					SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND, trace pyrite
618–622		< 0.50	< 0.50		SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND, trace pyrite
622–628					SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND, trace pyrite
628–632					SM		Gray (Gley 1 5/N) Silty fine to coarse subangular SAND, trace medium fat clay
632–638					CH		Gray (Gley 1 5/N) fine Sandy medium fat CLAY, trace medium to coarse subangular sand
638–642		< 0.50	< 0.50		SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace coarse subangular sand, trace fine subangular gravel
642–648					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace coarse subangular sand
648–652					SP		Gray (Gley 1 6/N) poorly graded fine to medium subangular SAND, trace coarse subangular Sand, trace pyrite, trace lignite
652–658					SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium subangular SAND with loose fat Clay, trace lignitie, trace pyrite
658–662		< 0.50	< 0.50		SC		Gray (Gley 1 6/N) floose fat Clayey fine to medium SAND
662–668					SC		Gray (Gley 1 6/N) floose fat Clayey fine to medium SAND
668–670					SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium subangular SAND with loose fat clay, trace coarse subangular Sand, trace pyrite, trace lignite

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Resolution Consultants

Boring Log

BORING #: VPB153

DEPTH (ft)	Gamma Ray (30 60 90)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
672					Magothy	SP-SC		
674						SP		Gray (Gley 1 6/N) poorly graded fine to medium subangular SAND, trace coarse subangular Sand, trace pyrite, trace lignite
676								
678								
680			< 0.50	< 0.50		SC		Gray (Gley 1 6/N) loose fat Clayey poorly graded fine to medium subangular SAND, trace lignite
682								
684						SP		Gray (Gley 1 6/N) poorly graded fine to coarse subangular SAND, trace fine subangular Gravel
686								
688								
690						SP		Gray (Gley 1 6/N) poorly graded medium to coarse subangular SAND, trace fine subangular Gravel
692								
694						SC		Gray (Gley 1 6/N) loose fat Clayey medium to coarse subangular SAND, trace fine subangular gravel
696								
698								
700			< 0.50	< 0.50		CH		Gray (Gley 1 5/N) medium to coarse subangular Sandy loose fat CLAY, trace fine subangular gravel
702								
704						CH		Gray (Gley 1 5/N) medium to coarse subangular Sandy loose fat CLAY, trace fine subangular gravel
706								
708								
710						CH		Gray (Gley 1 5/N) fine to coarse subangular Sandy loose fat CLAY
712								
714						CH		Gray (Gley 1 5/N) fine to coarse subangular Sandy loose fat CLAY
716								
718								
720			< 0.50	< 0.50		CH		Gray (Gley 1 5/N) fine to coarse subangular Sandy loose fat CLAY
722								
724						SC		Gray (Gley 1 5/N) loose fat Clayey fine to coarse subangular SAND
726								
728								
730						CH		Gray (Gley 1 5/N) fine to coarse subangular Sandy loose fat CLAY
732								

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: VPB153

DEPTH (ft)	Gamma Ray (30 60 90)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
734					Magothy	SC		Gray (Gley 1 5/N) loose fat Clayey fine to coarse subangular SAND
736								
738								
740			2.8	< 2.0		SC		Gray (Gley 1 5/N) loose fat Clayey fine to coarse subangular SAND, trace lignite
742								
744						CH		Gray (Gley 1 5/N) fine to coarse subangular Sandy loose fat CLAY, trace lignite
746								
748								
750						SC		Gray (Gley 1 5/N) loose fat Clayey fine to coarse subangular SAND, trace lignite
752								
754						SC		Gray (Gley 1 5/N) loose fat Clayey fine to coarse subangular SAND, trace lignite
756								
758								
760						SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace coarse subangular sand
762								
764						SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace coarse subangular sand
766								
768								
770						SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace coarse subangular sand
772								
774						SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace coarse subangular sand
776								
778								
780						SP-SC		Gray (Gley 1 6/N) poorly graded fine to coarse SAND with loose fat Clay
782								
784						SP-SC		Gray (Gley 1 6/N) poorly graded fine to coarse SAND with loose fat Clay
786								
788								
790						SP-SC		Gray (Gley 1 6/N) poorly graded fine to coarse SAND with loose fat Clay
792								
794						SP-SC		

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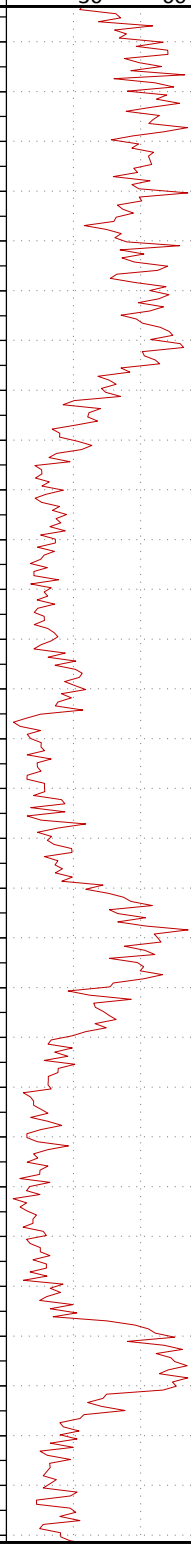
Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
796				Magothy	SP-SC		Gray (Gley 1 6/N) poorly graded fine to coarse SAND with loose fat Clay *(continued)*
798							
800		< 2.0	< 2.0		CH		Gray (Gley 1 5/N) fine to medium Sandy medium fat CLAY
802							
804					CH		Gray (Gley 1 5/N) fine to medium Sandy medium fat CLAY
806							
808					CH		Gray (Gley 1 5/N) fine to medium Sandy medium fat CLAY
810							
812					SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with medium fat Clay, trace lignitie, trace pyrite
814							
816					SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace lignitie, trace pyrite
818							
820		< 0.50	< 0.50		SP-SC		Gray (Gley 1 6/N) poorly graded fine to medium SAND with loose fat Clay, trace lignitie, trace pyrite
822							
824					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace pyrite
826							
828					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace pyrite
830							
832					SC		Gray (Gley 1 6/N) loose fat Clayey fine to medium SAND, trace pyrite
834							
836					CH		Gray (Gley 1 6/N) fine to medium Sandy stiff fat CLAY
838							
840		< 0.50	< 0.50		CH		Gray (Gley 1 6/N) fine to medium Sandy stiff fat CLAY
842							
844					SC		Gray (Gley 1 6/N) medium fat Clayey fine to medium SAND, trace lignite, trace pyrite, trace fine subangular gravel
846							
848							
850							
852							
854							
856							

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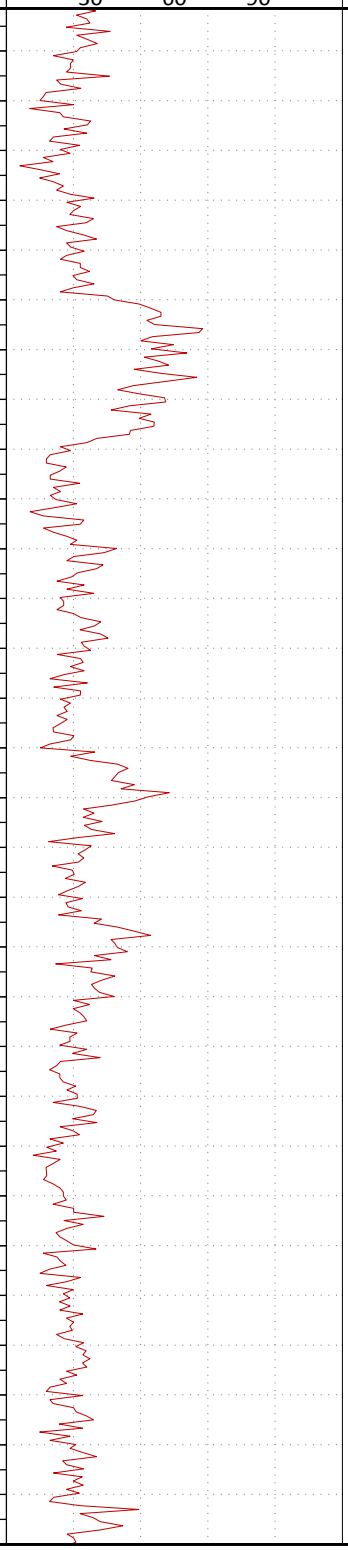
Boring Log

BORING #: VPB153



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
858				Magothy	SC		
860					SC		Gray (Gley 1 6/N) medium fat Clayey fine to medium SAND, trace lignite, trace pyrite, trace fine subangular gravel
862							
864					CH		Gray (Gley 1 5/N) fine Sandy medium fat CLAY
866							
868							
870					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to coarse Sand
872							
874					CH		Gray (Gley 1 5/N) medium fat CLAY with fine to coarse Sand
876							
878							
880		< 0.50	< 0.50		SC		Gray (Gley 1 5/N) medium fat Clayey fine to medium SAND, trace lignite
882							
884					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND, trace lignite
886							
888							
890					CH		Gray (Gley 1 6/N) fine Sandy loose fat CLAY
892							
894					CH		Gray (Gley 1 6/N) fine Sandy loose fat CLAY, trace fine to coarse sand
896							
898							
900		< 0.50	< 0.50		CH		Gray (Gley 1 6/N) fine Sandy loose fat CLAY, trace fine to coarse sand
902							
904					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
906							
908							
910					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
912							
914					SC		Gray (Gley 1 5/N) loose fat Clayey fine to medium SAND
916							
918							

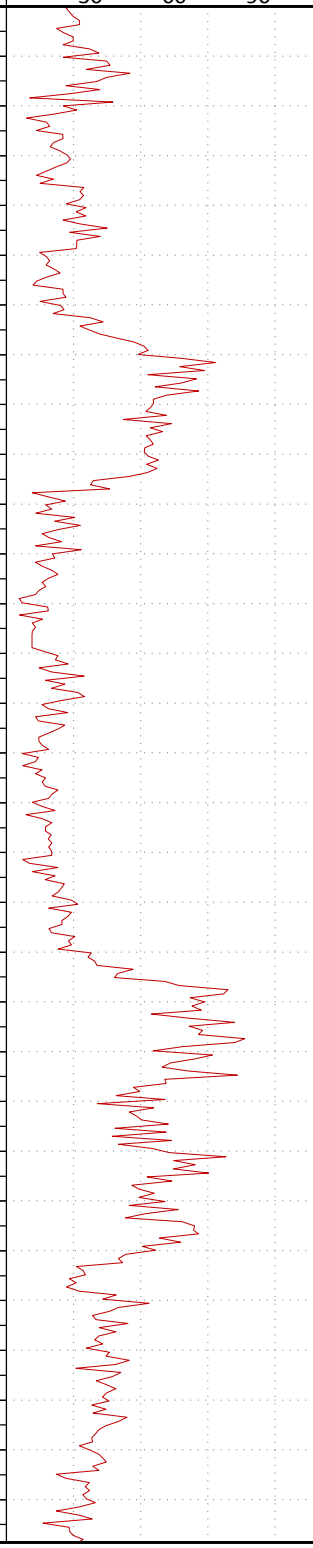
(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: VPB153

Sheet 16 of 17



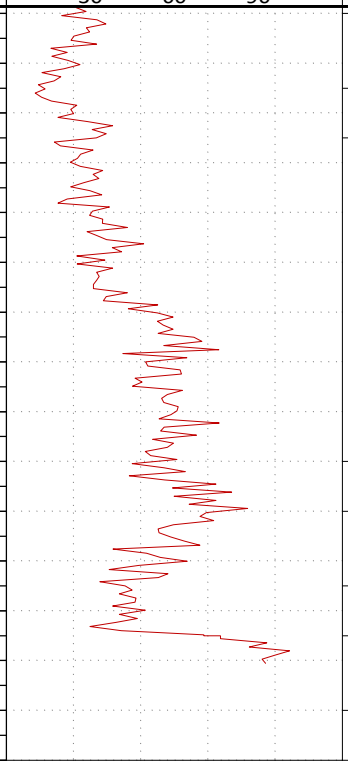
PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
	< 0.50	< 0.50	Magothy	CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY
				CH		Gray (Gley 1 5/N) fine to medium Sandy loose fat CLAY
				CH		Gray (Gley 1 5/N) fine to medium Sandy medium fat CLAY
				CH		Gray (Gley 1 5/N) fine to medium Sandy stiff fat CLAY
				CH		Gray (Gley 1 5/N) fine to medium Sandy stiff fat CLAY
				SM		Gray (Gley 1 5/N) Silty fine to medium SAND
				SM		Gray (Gley 1 5/N) Silty fine to medium SAND
				SM		Gray (Gley 1 5/N) Silty fine to medium SAND
				CH		Gray (Gley 1 5/N) fine Sandy stiff fat CLAY
				CH		Gray (Gley 1 5/N) fine Sandy stiff fat CLAY
				CH		Gray (Gley 1 5/N) fine Sandy stiff fat CLAY
				CH		Gray (Gley 1 5/N) fine Sandy stiff fat CLAY
0				SP-SC		Light gray (Gley 1 7/N) poorly graded fine to coarse SAND with fat Clay

(Continued Next Page)

Resolution Consultants

Boring Log

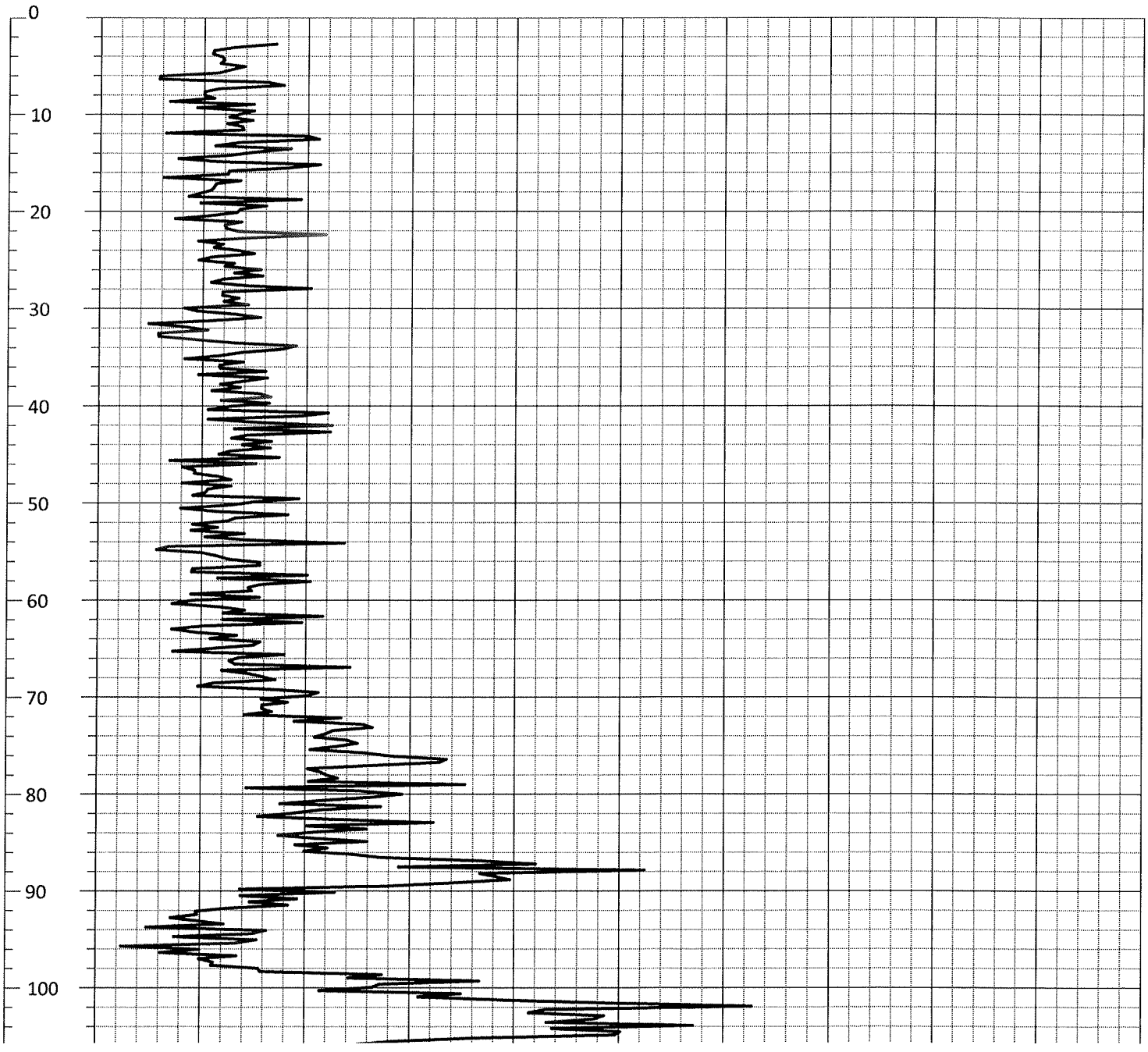
BORING #: VPB153

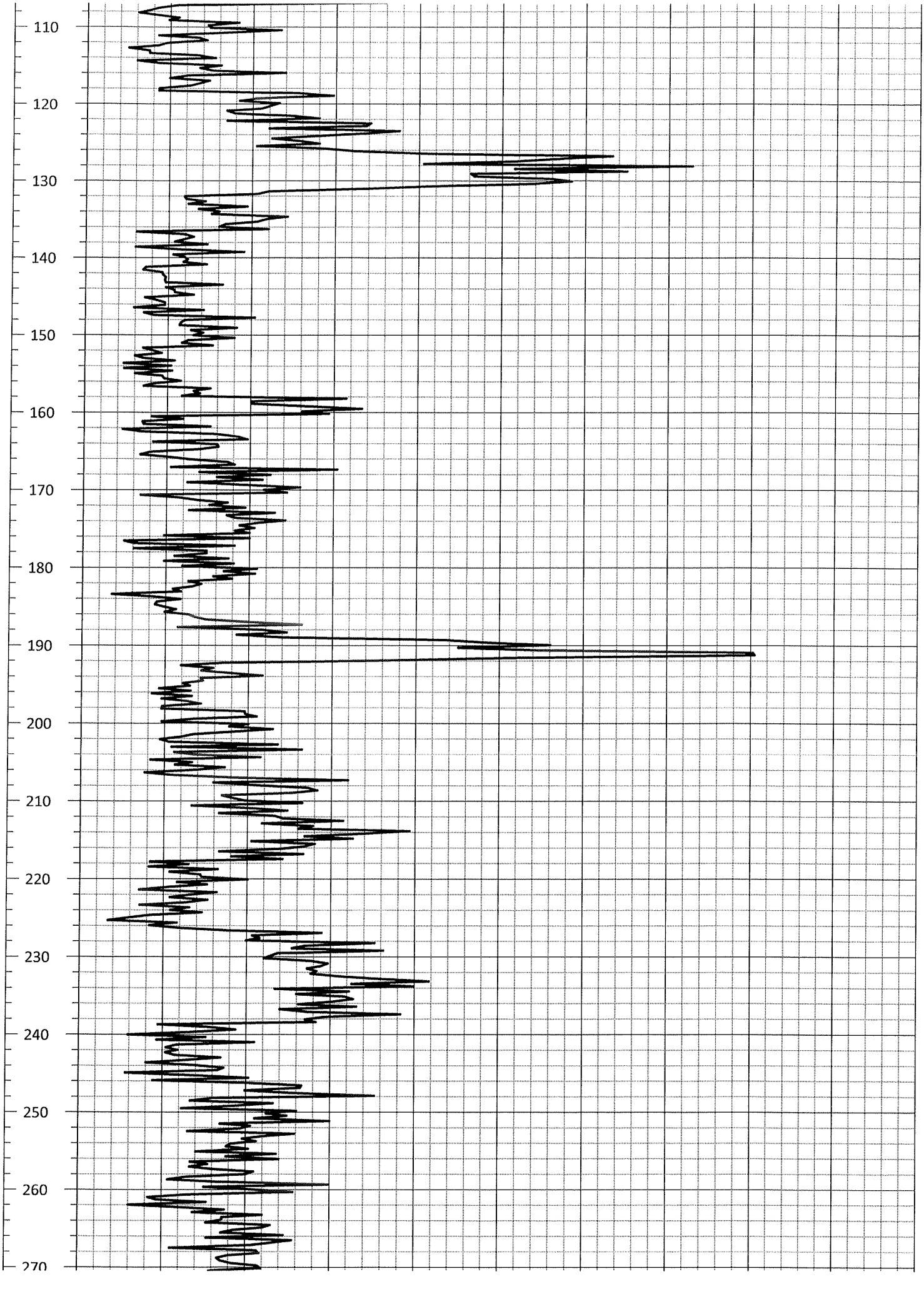
DEPTH (ft)	Gamma Ray (30 60 90)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
980					Magothy	SP-SC		Light gray (Gley 1 7/N) poorly graded fine to coarse SAND with fat Clay
982								
984		0				SP-SC		Light gray (Gley 1 7/N) poorly graded fine to coarse SAND with fat Clay
986						SP-SC		Light gray (Gley 1 7/N) poorly graded fine to coarse SAND with fat Clay
988								
990						SC		Gray (Gley 1 6/N) fat Clayey poorly graded fine to coarse SAND
992								
994						SC		Gray (Gley 1 6/N) fat Clayey poorly graded fine to coarse SAND
996								
998								
1000		0			Raritan	CH		Gray (Gley 1 5/N) stiff fat CLAY, trace Lignite
1002						CH		Gray (Gley 1 5/N) stiff fat CLAY, trace Lignite
1004		0				CH		Pale red (10R 6/2) stiff fat CLAY
1006						CH		Pale red (10R 6/2) stiff fat CLAY
1008								
1010		0				CH		Red (10R 5/6) and gray (Gley 1 6/N) stiff fat CLAY

End of boring at 1010.0 ft. bgs.

DOWN

COMPANY: DELTA WELL & PUMP CO., INC.	
LOCATION: NWIRP JOSEPH RD	
Well: VPB-153	Depth Driller:
	Depth Logger:
Date: 12/18/2014 Time:	Logged by: CMO
File Name: 739	Witness: MIKE

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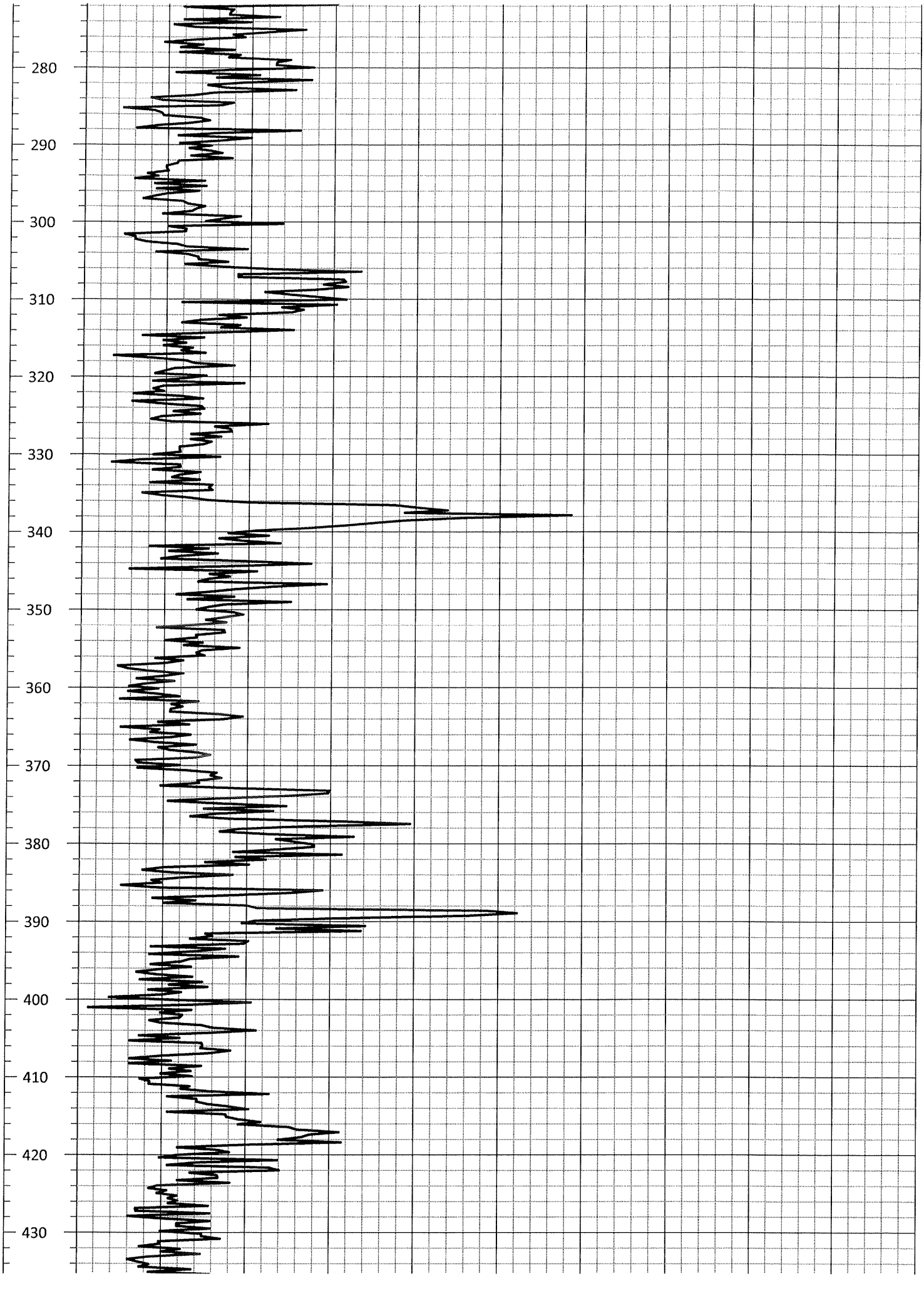
270


280
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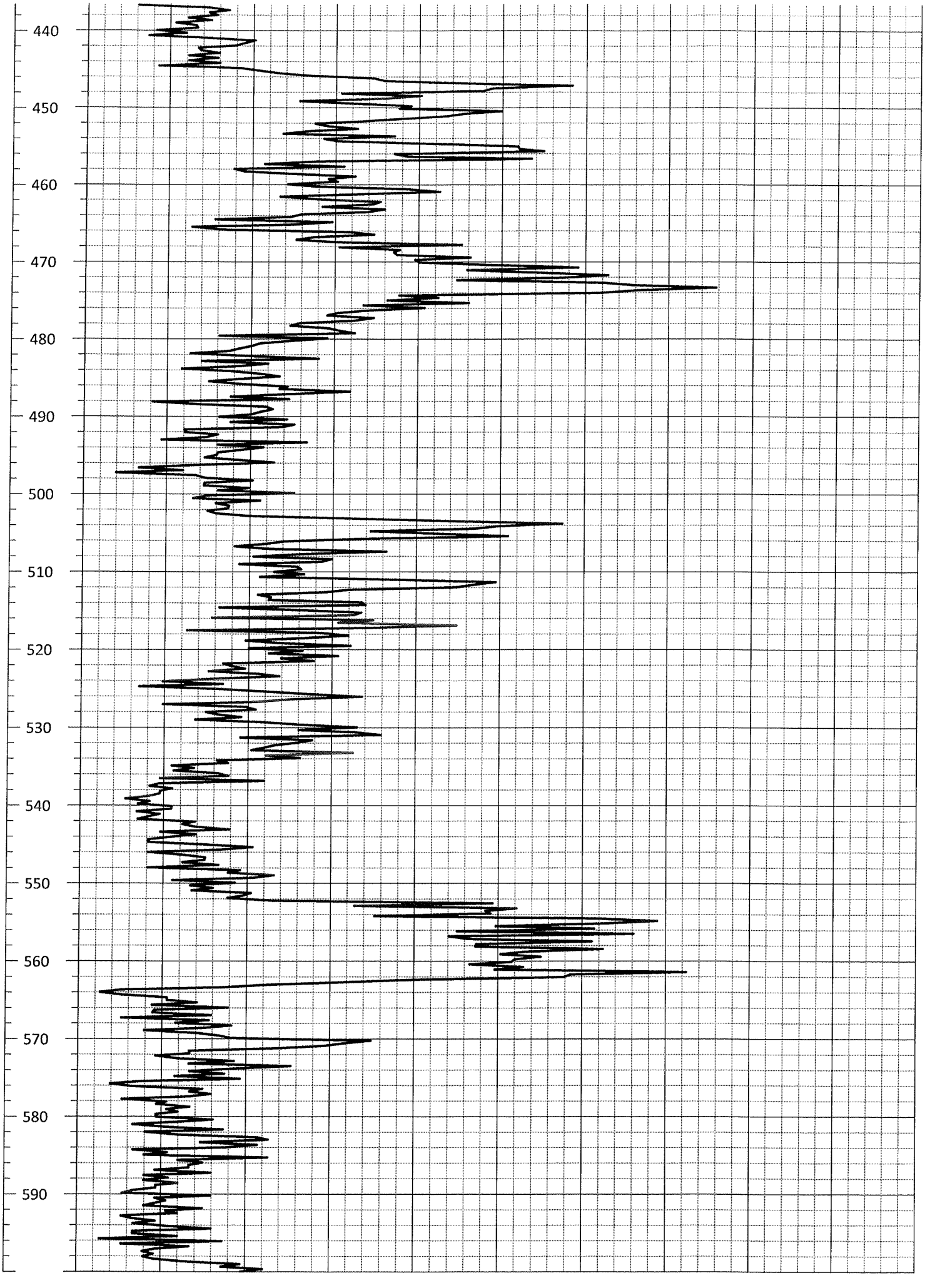
410
420
430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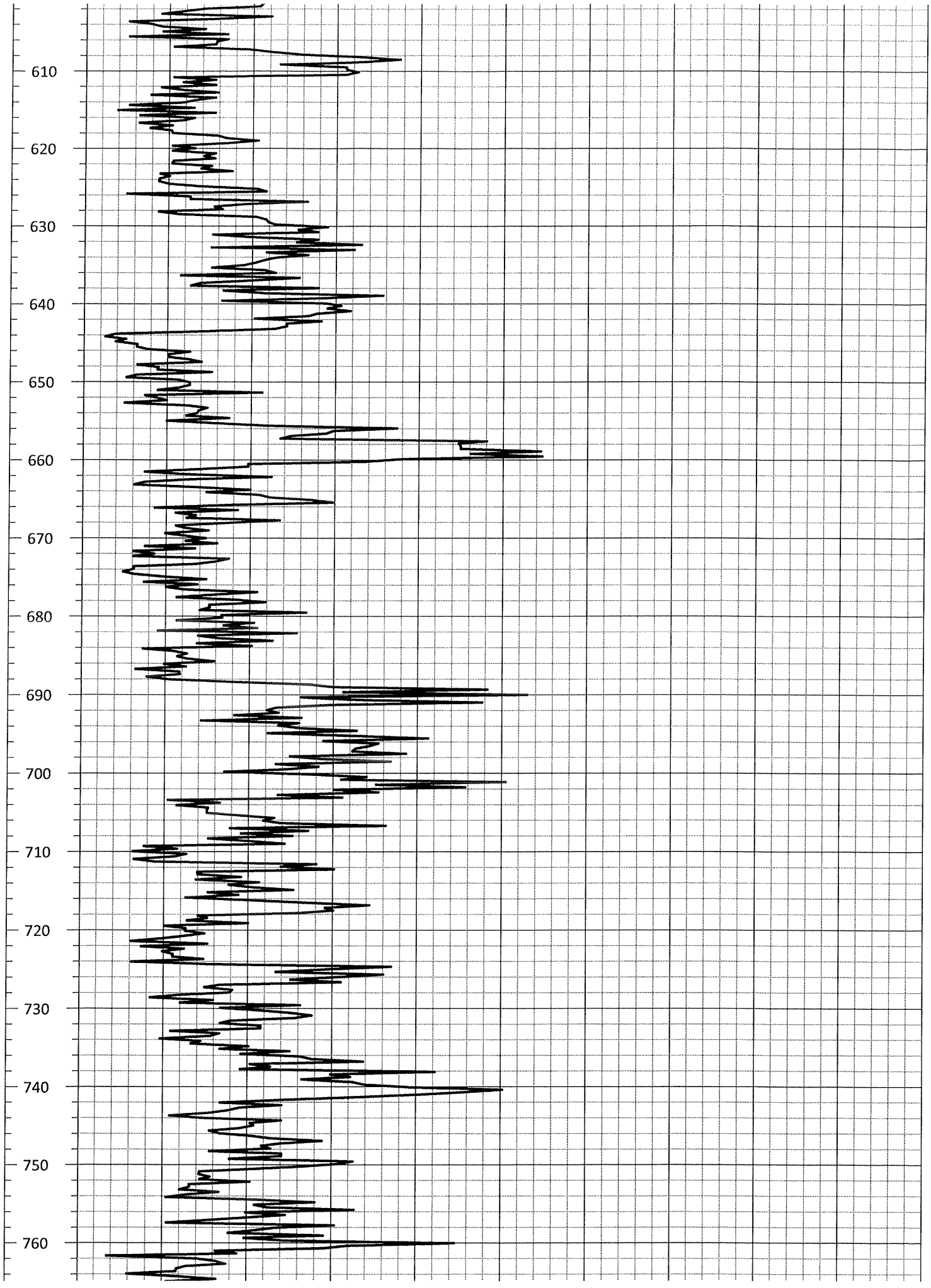
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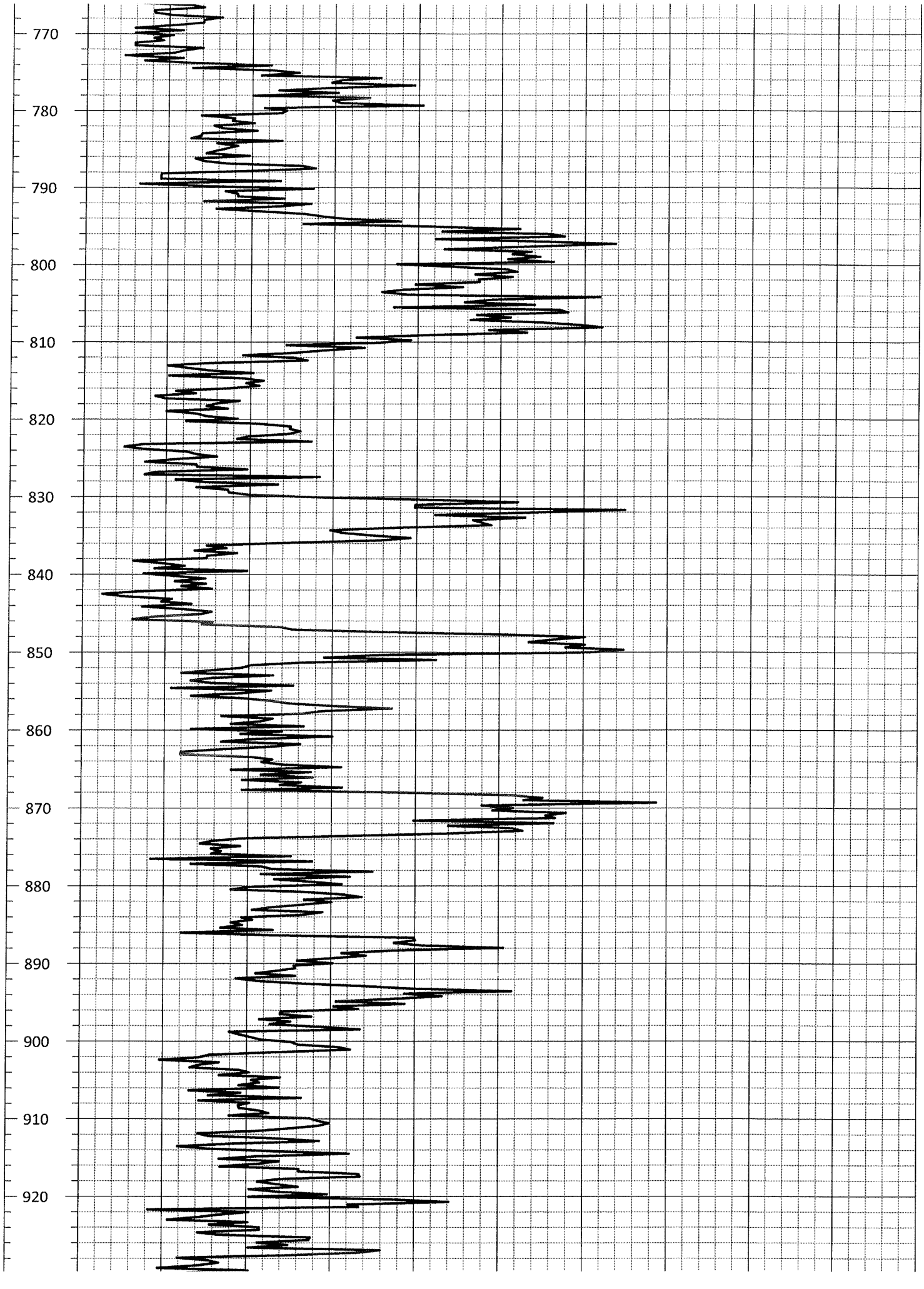
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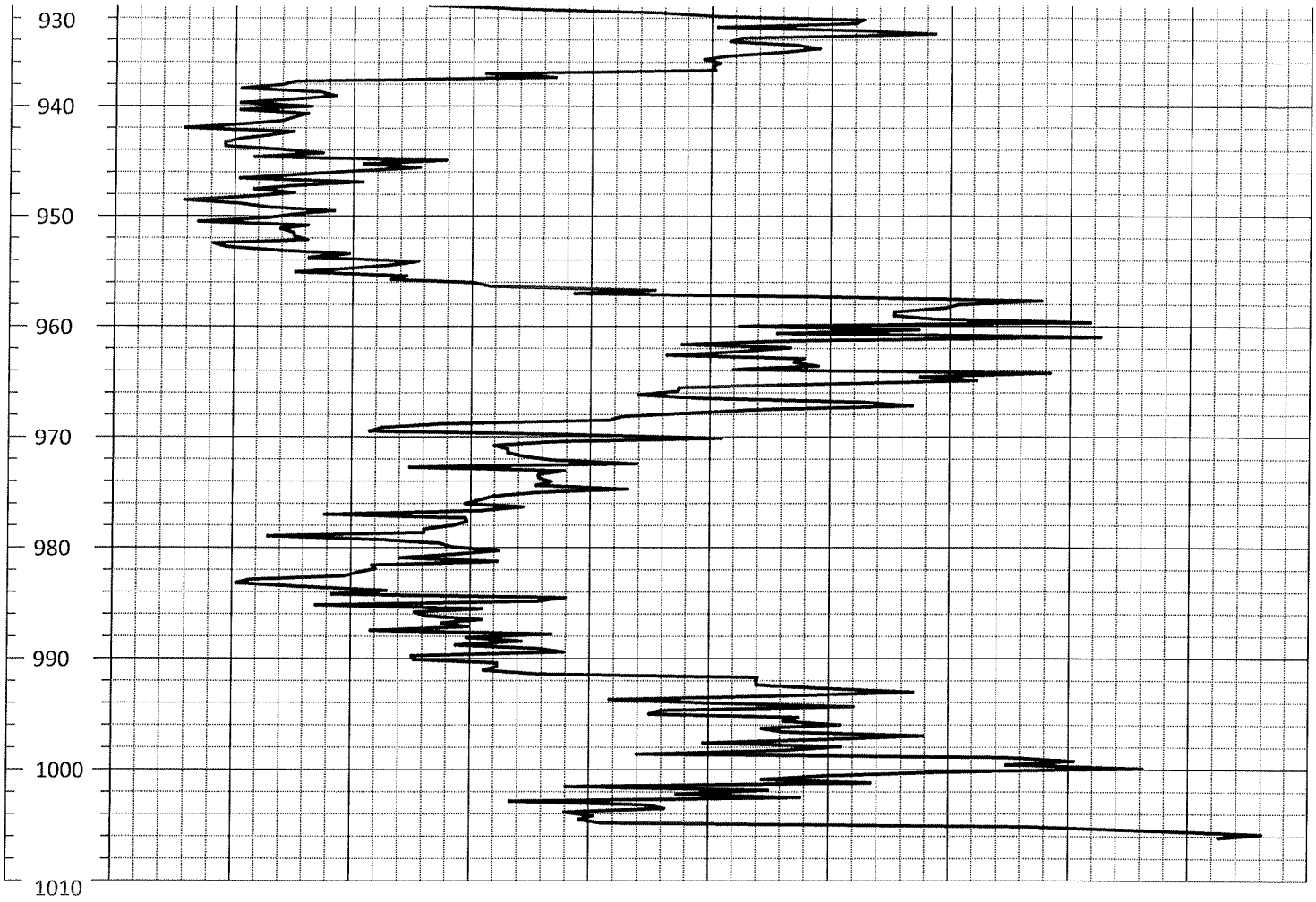
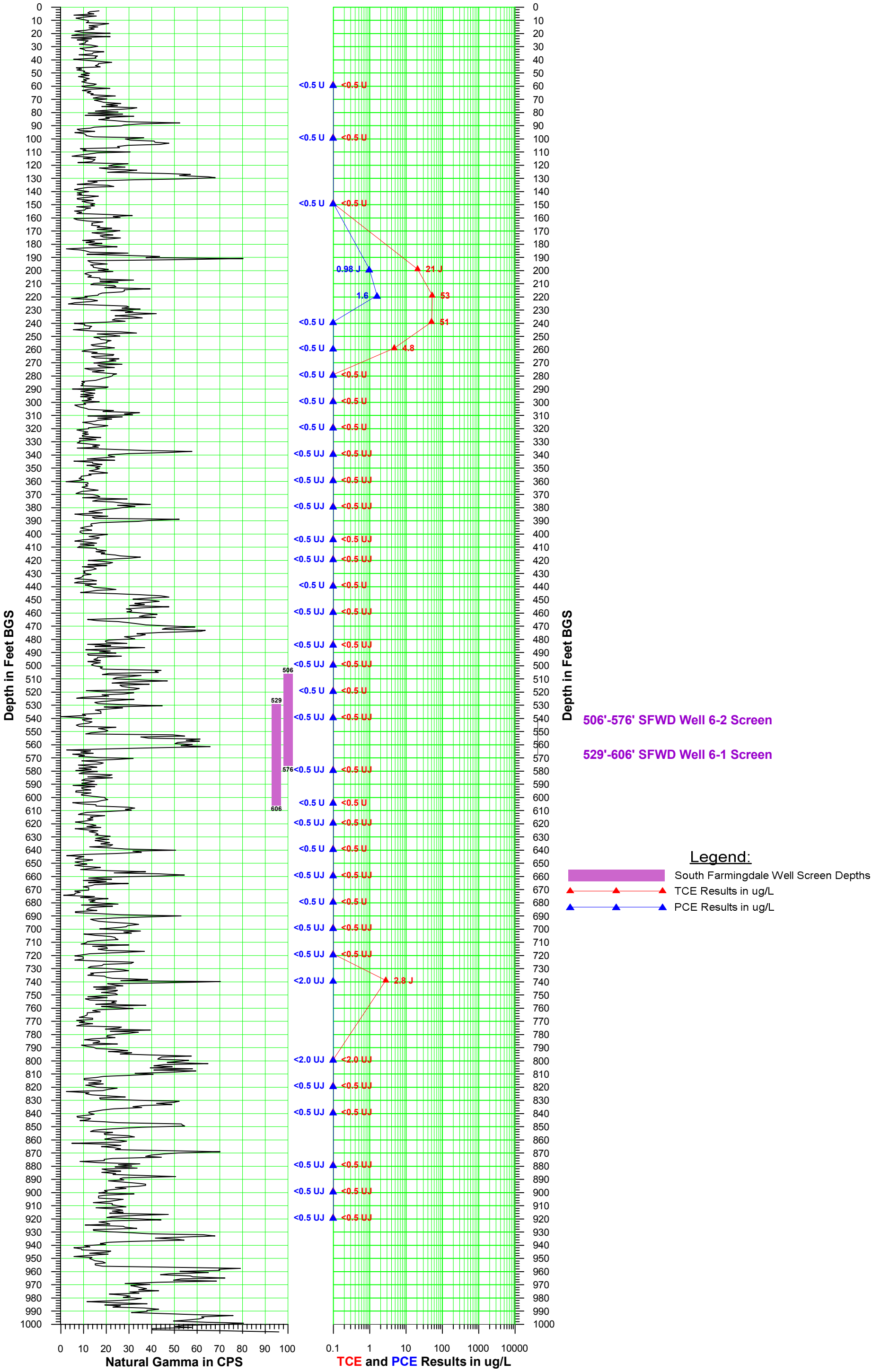


Depth (ft.)	GAMMA (cps)
	0.0 — 100.0

Section 2

VPB 153 Gamma and PCE/TCE Plot

Vertical Profile Boring VPB-153
Downward Run - December 18, 2014
Validated Analytical Data



Section 3

VPB 153 Groundwater Sample Log Sheets

Hydropunch Sample

Client: Navy (ResCon)
Project No: 60266526
Site Location: ~~Bethpage~~
Weather Conds:

Date :
VPB: ~~149~~ 153
Collector(s): MZ

Sample Date	Time	Temp (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Starting depth(ft)	Ending depth(ft)	Color
11-12-14	1100	15.72	6.23	314	2.18	-41.0	731.9	58	60	brown
11-12-14	1320	15.21	6.48	291	2.79	23.1	685.3	98	100	brown
*DUP- 11-13-14	1030	14.19	6.20	308	2.42	-21.6	483.1	148	150	cloudy
+MS/MSD- 11-13-14	1400	14.31	6.15	321	3.71	-65.2	262.0	198	200	cloudy
11-14-14	1020	10.96	7.14	353	6.04	-77.5	65.02	218	220	opaque
11-14-14	1220	12.54	6.96	273	9.56	-20.7	153	238	240	cloudy
11-14-14	1400	11.54	7.08	381	5.84	-48.7	>1000	258	260	brown, silty
11-17-14	1050	9.62	6.82	265	2.14	5.	431.4	278	280	brown
11-17-14	1300	10.43	6.71	299	2.71	-16.3	416.3	296	300	cloudy
11-17-14	1500	10.12	6.62	312	2.27	-17.8	674.9	318	320	cloudy
11-18-14	1130	10.54	6.54	241	2.93	-28.1	691.3	338	340	cloudy
11-18-14	1340	10.83	6.60	260	1.74	-19.8	514.6	358	360	cloudy
11-19-14	1030	—	not enough to take reading				733.3	378	380	cloudy
11-19-14	1445	10.24	6.43	298	1.27	-54.3	447.2	403	405	cloudy
MS/MSD- 11-20-14	1040	9.48	6.55	325	0.81	-130.4	>1,100	418	420	gray
11-20-14	1330	9.62	6.16	273	1.12	-79.8	531.4	438	440	gray
11-21-14	1045	12.41	6.33	282	1.47	-12.1	>1,100	458	460	gray
11-25-14	1040	14.31	6.28	214	0.881	62.0	395.0	483	485	gray
11-25-14	1250	13.59	6.47	207	1.30	8.0	417.8	498	500	gray
11-26-14	1030	11.43	6.41	219	1.62	18.1	581.3	518	520	gray
12-1-14	1440							538	540	gray

Hydropunch Sample

Client: Navy (ResCon)
Project No: 60266526
Site Location: VPB153 / NWIRP Bethpage
Weather Conds:

Date:
VPB: VPB153
Collector(s): MZ

Sample Date	Time	Temp (°C)	pH	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Starting depth(ft)	Ending depth(ft)	Color
12-2-14	1430	11.63	6.49	216	1.81	15.4	>1,100	576	580	gray
12-3-14	1120	10.92	6.21	183	2.35	21.6	562.3	603	605	cloudy
12-3-14	1445	—	—	—	not enough to take readings	—	—	618	620	gray-brown
12-4-14	1110	11.63	~~6.34~~	160	2.17	18.2	390	634	640	cloudy
12-4-14	1320	12.02	6.79	203	1.03	32.3	>1,100	656	660	gray
12-5-14	1015	10.48	6.99	54	2.55	72.6	462.1	678	680	cloudy
12-5-14	1310	10.14	6.83	215	1.14	37.6	>1,100	698	700	gray-brown
12-6-14	1200	8.61	6.92	243	0.78	8.4	>1,100	718	720	gray-brown
12-8	—	—	—	not enough to take reading	—	—	—	~~857~~	74	—
12-14-14	1115	9.84	6.87	236	1.07	34.7	>1,100	796	800	gray-brown
12-15-14	1330	10.05	6.83	224	0.61	22.8	>1,100	818	820	gray-brown
12-15-14	1550	9.71	6.90	116	0.92	64.3	>1,100	834	840	gray-brown
12-16-14	1158 ~~0850~~	10.14	—	—	not enough to take readings	—	—	878	880	gray
12-16-14	1435	10.30	6.74	204	1.04	18.1	>1,100	896	900	gray-brown
12-16-14	1710	~~9.58~~	6.84	~~2~~16	0.61	26.6	>1,100	918	920	gray

Section 4

VPB 153 Analytical Data Validation

- Analytical Data Sheets
- Chain of Custody Records
- Validation Letter and Table

RESOLUTION CONSULTANTS

Resolution Consultants
250 Apollo Drive
Chelmsford, MA 01824

978.905.2100 tel
978.905.2101 fax

Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	SH9765	
Analyses/Method:	EPA SW-846 Method 8260B for VOCs (GC/MS) and Standard Method 5310 for Total Organic Carbon by High-Temperature Combustion	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/12/2015
Reviewed by:	Lori Herberich/RESCON	File Name: SH9765_5310B and 8260B

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 12, 2014 and November 13, 2014.

Sample ID	Matrix/Sample Type
VPB153-EB-111314	Equipment blank
VPB153-FB-111314	Field blank
VPB153-GW-D-111314	Field Duplicate of VPB153-GW-111314-198-200
VPB153-GW-111214-58-60	Groundwater
VPB153-GW-111214-98-100	Groundwater
VPB153-GW-111314-148-150	Groundwater
VPB153-GW-111314-198-200	Groundwater
VPB153-TRIP BLANK-111314	Trip Blank

The samples were analyzed in accordance with:

- *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846,* Method 8260B, *Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 1996).
- *Standard Methods for the Examination of Water and Wastewater, Method SM5310B, Total Organic Carbon by High-Temperature Combustion*

Data validation activities were conducted with reference to these methods, *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (January 2010), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010) where applicable. In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

✓	Data completeness (chain-of-custody [COC])/sample integrity
✓	Holding times and sample preservation
✓	GC/MS performance checks
✗	Initial calibration/continuing calibration verification
✗	Laboratory blanks/equipment blanks/trip blanks
✓	Surrogate spike recoveries
✓	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS) results
✗	Field duplicate results
✓	Internal standard results
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the "GW" from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

Holding Times/Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

Nonconformances are summarized in Attachment A in Table A-1.

Data qualification to the analytes associated with the specific ICAL and/or CCV was as follows:

CCV Linearity Nonconformances:

Nonconformance	Actions	
	Detected Results	Nondetected Results
%D > 20%	J	UJ
%Drift >20%	J*	UJ*
* No guidance in NFG, thus professional judgment was used		

Qualified sample results are shown in Table 1.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL).

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method, equipment rinsate and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Tables A-2 and A-3.

Sample results were qualified as follows:

For common lab contaminants (methylene chloride, acetone, 2-butanone):

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x LOQ	Report the sample result with a U**
		≥ 4x LOQ	No qualifications
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the sample result with a U
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
**Based on professional judgment			

For all other compounds:

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ LOQ	< LOQ	Report sample LOQ value with a U
		≥ LOQ and ≤ 2x LOQ	Report the sample result with a U**
		≥ 2x the LOQ	No qualifications
	> LOQ	< LOQ	Report sample LOQ value with a U
		≥ LOQ and < blank contamination	Report the sample result with a U or reject the sample result as unusable R
		≥ LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
**Based on professional judgment.			

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

The MS/MSD %Rs and relative percent differences (RPDs) were reviewed for conformance with the QC acceptance criteria. Chloroethane exceeded the %R limits in the MS; however, the associated sample was nondetect for this compound and the results were accepted without qualification.

LCS Results

The LCS %Rs were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

Field duplicate RPDs were reviewed for conformance with the QC criterion of ≤30% for aqueous matrices. This criterion applies if both results were greater than five times the Limit of Quantitation (LOQ).

Nonconformances are summarized in Attachment A in Table A-4.

Data qualification to the analytes associated with the specific field duplicate RPDs was as follows:

Sample Results	RPD	Action	
		Detected	Nondetected
Sample and duplicate are nondetect results	Not calculable (NC)	No qualification	No qualification
Sample and duplicate results ≥5x LOQ	>30 (aqueous)	J	Not Applicable
Sample and duplicate results <5x LOQ	>60 (aqueous)	J	Not Applicable
If sample or duplicate result is >5x LOQ and the other is not detected	NC	J	UJ
If sample or duplicate result is <5x LOQ and the other is not detected	NC	No qualification	No qualification

Actions: professional judgment was used

Qualified sample results are shown in Table 1.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-EB-111314	WQ	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-EB-111314	WQ	CARBON DISULFIDE		1.0*	UG/L	U	bl
VPB153-FB-111314	WQ	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-FB-111314	WQ	CARBON DISULFIDE		1.0*	UG/L	U	bl
VPB153-GW-111214-58-60	WG	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-GW-111214-58-60	WG	ACETONE		9.4**	UG/L	U	bt
VPB153-GW-111214-98-100	WG	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-GW-111214-98-100	WG	ACETONE		5.6**	UG/L	U	bt
VPB153-GW-111314-148-150	WG	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-GW-111314-148-150	WG	ACETONE		7.9**	UG/L	U	bt
VPB153-GW-111314-148-150	WG	CARBON DISULFIDE		1.0*	UG/L	U	bl
VPB153-GW-111314-198-200	WG	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-GW-111314-198-200	WG	ACETONE		6.4**	UG/L	U	bt
VPB153-GW-111314-198-200	WG	TRICHLOROETHENE	21	0.50	UG/L	J	fd
VPB153-GW-D-111314	WG	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-GW-D-111314	WG	TRICHLOROETHENE		0.50	UG/L	UJ	fd
VPB153-TRIP BLANK-111314	WQ	2-BUTANONE		2.5	UG/L	UJ	c
VPB153-TRIP BLANK-111314	WQ	CARBON DISULFIDE		1.0*	UG/L	U	bl

*LOQ

**sample result

Attachment A

Nonconformance Summary Tables

Table A-1 -Continuing Calibration Verification Standard

CCV ID	Compound	% D	Limits
WG154295-4	2-BUTANONE	23	≤20%
Associated samples: all samples in SDG SH9765			

Table A-2 - Lab Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
WG154235-9	CARBON DISULFIDE	0.35	0.50	UG/L	VPB153-EB-111314, VPB153-FB-111314, VPB153-GW-111314-148-150, VPB153-TRIP BLANK-111314

Table A-3 - Field Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
VPB153-TRIP BLANK-111314	ACETONE	4.9	2.5	UG/L	VPB153-GW-111214-58-60 VPB153-GW-111214-98-100 VPB153-GW-111314-148-150 VPB153-GW-111314-198-200

Table A-4 - Field Duplicates

Sample ID	Duplicate ID	Compound	Sample Result	Qual	Duplicate Result	Qual	LOD	Units	RPD
VPB153-GW-111314-198-200	VPB153-GW-D-111314	TRICHLOROETHENE	21		0.5	U	0.50	UG/L	190.7

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bt	Trip blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: Resolution Consultants | Contact: Eleanor Vivaldo | Phone #: (845) 425-4980 | Fax #: ( )

Address: 100 Red Schoolhouse Rd. | City: Chestnut Ridge | State: NY | Zip Code: 10977

Purchase Order # | Proj. Name / No.: NWIRP Bethpage / 60266526 | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign): Michael Zebel / Michael Zebel | Copies To:

LAB USE ONLY | WORK ORDER #: 5H1976S | KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: VOC	TOC	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐
	VPB153-GW-111214-58-60	11-12-14 / 1100	GW	3	X											
	VPB153-GW-111214-98-100	11-12-14 / 1320	GW	3	X											
	VPB153-GW-111314-148-150	11-13-14 / 1030	GW	3	X											
	VPB153-GW-111314-198-200	11-13-14 / 1400	GW	3	X											
	VPB153-GW-D-111314	11-13-14 / —	GW	3	X											
	VPB153-Trip Blank-111314	9-15-14 / 1130	W	3	X											
	VPB153-GW-MS/MSD-111314-198-200	11-13-14 / 1400	GW	6	X											
	VPB153-EB-111314	11-13-14 / 1300	W	6	X	X										
	VPB153-FB-111314	11-13-14 / 1310	W	6	X	X										
		/														
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COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zebel	11-13-14 / 1430	11-14-14 09:00			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

ORIGINAL

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-1
Client ID: VPB153-GW-58-60
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0059.D

Sample Date: 12-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UJ	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	9.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	J	0.46	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-1
Client ID: VPB153-GW-58-60
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0059.D

Sample Date: 12-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		101.	%					
Toluene-d8		99.9	%					
1,2-Dichloroethane-d4		112.	%					
Dibromofluoromethane		109.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-2
Client ID: VPB153-GW-98-100
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0060.D

Sample Date: 12-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UL	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	5.6	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	J	0.36	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-2
Client ID: VPB153-GW-98-100
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0060.D

Sample Date: 12-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		102.	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		114.	%					
Dibromofluoromethane		108.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-3
Client ID: VPB153-GW-148-150
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0061.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UL	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	0.28	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	7.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-3
Client ID: VPB153-GW-148-150
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0061.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		102.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		112.	%					
Dibromofluoromethane		107.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-4
Client ID: VPB153-GW-198-200
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0063.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UL	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	6.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	J	0.54	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	J	0.24	ug/L	1	1	1.0	0.21	0.50
Chloroform	J	0.35	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	J	21	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	J	0.98	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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R. 1/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-4
Client ID: VPB153-GW-198-200
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0063.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	J	0.24	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		101.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		116.	%					
Dibromofluoromethane		112.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-5
Client ID: VPB153-GW-D-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0062.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UL	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	~~U~~ UJ	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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R. 1/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-5
Client ID: VPB153-GW-D-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0062.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		103.	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		118.	%					
Dibromofluoromethane		113.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-6
Client ID: VPB153-TB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0056.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UJ	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	~~J~~ U	~~0.27~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	4.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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11/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-6
Client ID: VPB153-TB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0056.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		97.0	%					
Toluene-d8		99.8	%					
1,2-Dichloroethane-d4		105.	%					
Dibromofluoromethane		102.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-7
Client ID: VPB153-EB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0057.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UJ	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	~~J~~ U	~~0.28~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-7
Client ID: VPB153-EB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0057.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		99.6	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		112.	%					
Dibromofluoromethane		106.	%					

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Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-8
Client ID: VPB153-FB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0058.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	~~J~~ U	~~0.28~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	J	0.89	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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R. 1/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9765-8
Client ID: VPB153-FB-111314
Project: Navy Clean WE15-03-06 NW
SDG: SH9765
Lab File ID: C0058.D

Sample Date: 13-NOV-14
Received Date: 14-NOV-14
Extract Date: 17-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154235

Analysis Date: 17-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 18-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		96.9	%					
Toluene-d8		99.6	%					
1,2-Dichloroethane-d4		110.	%					
Dibromofluoromethane		105.	%					

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http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Rick Purdy
AECOM
701 Edgewater Drive
Wakefield,MA 01880

Lab Sample ID: SH9765-7
Report Date: 02-DEC-14
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SH9765

Sample Description	Matrix	Date Sampled	Date Received
VPB153-EB-111314	AQ	13-NOV-14 13:00:00	14-NOV-14

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Organic Carbon	J0.32 mg/L	1.0	0.10	.5	SM5310B	WG154362	18-NOV-14 23:17:37	N/A	N/A	

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: Rick Purdy
AECOM
701 Edgewater Drive
Wakefield,MA 01880

Lab Sample ID: SH9765-8
Report Date: 02-DEC-14
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: SH9765

Sample Description	Matrix	Date Sampled	Date Received
VPB153-FB-111314	AQ	13-NOV-14 13:10:00	14-NOV-14

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Organic Carbon	J0.33 mg/L	1.0	0.10	.5	SM5310B	WG154362	19-NOV-14 00:11:34	N/A	N/A	

Katahdin Analytical Services 0000175

Resolution Consultants
250 Apollo Drive
Chelmsford, MA 01824

978.905.2100 tel
978.905.2101 fax

Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	SH9895	
Analyses/Method:	EPA SW-846 Method 8260C for VOCs (GC/MS)	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/05/2015
Reviewed by:	Lori Herberich/RESCON	File Name: SH9895_8260C

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 14 and 17, 2014 and September 15, 2014.

Sample ID	Matrix/Sample Type
VPB153-GW-111414-218-220	Groundwater
VPB153-GW-111414-238-240	Groundwater
VPB153-GW-111414-258-260	Groundwater
VPB153-GW-111714-278-280	Groundwater
VPB153-GW-111714-298-300	Groundwater
VPB153-TRIP BLANK-111714	Trip Blank

Data validation activities were conducted with reference to *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically SW-846 Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 2006), *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

✓ Data completeness (chain-of-custody [COC])/sample integrity
✓ Holding times and sample preservation
✓ GC/MS performance checks
✗ Initial calibration/continuing calibration verification
✗ Laboratory blanks/equipment blanks/trip blanks
✓ Surrogate spike recoveries
NA Matrix spike (MS) and/or matrix spike duplicate (MSD) results

✓	Laboratory control sample (LCS) results
NA	Field duplicate results
✓	Internal standard results
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the “GW” from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

Holding Times and Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;

- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

Nonconformances are summarized in Attachment A in Table A-1.

Data qualification to the analytes associated with the specific ICAL and/or CCV was as follows:

CCV Linearity Nonconformances:

Nonconformance	Actions	
	Detected Results	Nondetected Results
%D > 20%	J	UJ
%Drift > 20%	J*	UJ*
* No guidance in NFG, thus professional judgment was used		

Qualified sample results are shown in Table 1.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL). An equipment blank was not submitted with the samples in this data set.

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Table A-2.

Sample results were qualified as follows:

For common lab contaminants (methylene chloride, acetone, 2-butanone):

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x LOQ	Report the sample result with a U**
		≥ 4x LOQ	No qualifications
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the sample result with a U
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
***** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
******Based on professional judgment			

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG. There were no validation actions taken on this basis.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

There were no field duplicate samples submitted with this data set. No validation actions were taken on this basis.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111414-218-220	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c
VPB153-GW-111414-218-220	WG	ACETONE		5.6**	UG/L	U	bt
VPB153-GW-111414-238-240	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c
VPB153-GW-111414-238-240	WG	ACETONE		5.3**	UG/L	U	bt
VPB153-GW-111414-258-260	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c
VPB153-GW-111414-258-260	WG	ACETONE		9.5**	UG/L	U	bt
VPB153-GW-111714-278-280	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c
VPB153-GW-111714-278-280	WG	ACETONE		9.7**	UG/L	U	bt
VPB153-GW-111714-298-300	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c
VPB153-GW-111714-298-300	WG	ACETONE		5.7**	UG/L	U	bt
VPB153-TRIP BLANK-111714	WQ	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	c

**sample value

Attachment A

Nonconformance Summary Tables

Table A-1 -Continuing Calibration Verification Standard

CCV ID	Compound	% D	Limits
WG154371-4	4-METHYL-2-PENTANONE	22	≤20%
Associated samples: all samples in SDG SH9895			

Table A-2 - Field Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
VPB153-TRIP BLANK-111714	ACETONE	4.4	2.5	UG/L	All samples in SDG SH9895

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bt	Trip blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results

Katahdin ANALYTICAL SERVICES
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Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Resolution Consultants	Eleanor Vivarelo	(845) 425-4820	( )

Address	City	State	Zip Code
100 Red Schoolhouse Rd.	Chestnut Ridge	NY	10977

Purchase Order #	Proj. Name / No.	Katahdin Quote #
	NWFRP Bethpage / 60266526	

Bill (if different than above) Address

Sampler (Print / Sign) Michael Zobel / Michael Zobel

Copies To:

LAB USE ONLY WORK ORDER #: 5H9895

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: VOC	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	VPB153-GW-111414-218-226	11-14-14 / 1020	GW	3	X									
	VPB153-GW-111414-236-246	11-14-14 / 1220	GW	3	X									
	VPB153-GW-111414-258-260	11-14-14 / 1400	GW	3	X									
	VPB153-GW-111714-278-280	11-17-14 / 1050	GW	3	X									
	VPB153-TRIP BLANK-111714	9-15-14 / 1130	W	3	X									
	VPB153-GW-111714-298-300	11-17-14 / 1300	GW	3	3									
		/												
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		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zobel	11-17-14 / 1600	11-18-14 0950			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

ORIGINAL

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-1
Client ID: 153-111414-218-220
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0105.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	5.6	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	J	0.48	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		1.3	ug/L	1	1	1.0	0.21	0.50
Chloroform	J	0.45	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		53	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene		1.6	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-1
Client ID: 153-111414-218-220
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0105.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	J	1.3	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		97.3	%					
Toluene-d8		98.4	%					
1,2-Dichloroethane-d4		106.	%					
Dibromofluoromethane		106.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-2
Client ID: 153-111414-238-340
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0108.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	5.3	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether		2.6	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		1.0	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	J	0.77	ug/L	1	1	1.0	0.21	0.50
Chloroform		1.3	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene		1.0	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		3.4	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		51	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-2
Client ID: 153-111414-238-340
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0108.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	J	0.77	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		96.5	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		110.	%					
Dibromofluoromethane		104.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-3
Client ID: 153-111414-258-260
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0107.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	9.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether		2.4	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	J	0.54	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	J	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		1.1	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		4.8	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-3
Client ID: 153-111414-258-260
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0107.D

Sample Date: 14-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		100.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		109.	%					
Dibromofluoromethane		104.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-4
Client ID: 153-111714-278-280
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0109.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	9.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether		5.2	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-4
Client ID: 153-111714-278-280
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0109.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		99.5	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		109.	%					
Dibromofluoromethane		108.	%					

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-5
Client ID: VPB153-TB-111714
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0101.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	J	0.42	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	~~J~~ U	~~4.4~~ 5.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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R. 12/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-5
Client ID: VPB153-TB-111714
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0101.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		95.4	%					
Toluene-d8		98.9	%					
1,2-Dichloroethane-d4		107.	%					
Dibromofluoromethane		100.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-6
Client ID: 153-111714-298-300
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0110.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	5.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	J	0.46	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	~~U~~ UJ	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9895-6
Client ID: 153-111714-298-300
Project: Navy Clean WE15-03-06 NW
SDG: SH9895
Lab File ID: C0110.D

Sample Date: 17-NOV-14
Received Date: 19-NOV-14
Extract Date: 19-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154371

Analysis Date: 19-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 20-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		101.	%					
Toluene-d8		104.	%					
1,2-Dichloroethane-d4		110.	%					
Dibromofluoromethane		104.	%					

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RESOLUTION CONSULTANTS

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Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	SH9998	
Analyses/Method:	EPA SW-846 Method 8260C for VOCs (GC/MS)	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/05/2015
Reviewed by:	Lori Herberich/RESCON	File Name: SH9998_8260C

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 17 - 20, 2014 and September 15, 2014.

Sample ID	Matrix/Sample Type
VPB153-GWD-112014	Field Duplicate of VPB153-GW-112014-418-420
VPB153-GW-111714-318-320	Groundwater
VPB153-GW-111814-338-340	Groundwater
VPB153-GW-111814-358-360	Groundwater
VPB153-GW-111914-378-380	Groundwater
VPB153-GW-111914-403-405	Groundwater
VPB153-GW-112014-418-420	Groundwater
VPB153-GW-112014-438-440	Groundwater
VPB153-TRIP BLANK-112014	Trip Blank

Data validation activities were conducted with reference to *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically SW-846 Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 2006), *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

- ✗ Data completeness (chain-of-custody [COC])/sample integrity
- ✓ Holding times and sample preservation
- ✓ GC/MS performance checks

✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/equipment blanks/trip blanks
✓	Surrogate spike recoveries
✗	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS) results
✓	Field duplicate results
✓	Internal standard results
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the "GW" from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

The vials of samples VPB153-GW-111814-338-340, VPB153-GW-111814-358-360, VPB153-GW-111914-378-380, VPB153-GW-111914-403-405, VPB153-GW-112014-418-420, and VPB153-GWD-112014 each contained soil at the bottom of the vials. Therefore, each vial was decanted and analyzed. Positive and nondetect results for these sample were qualified as estimated (J and UJ, respectively), due to possible loss of sample integrity during the decanting procedure.

Two sets of two vials of sample VPB153-GW-112014-418-420 were decanted and composited into one vial each and analyzed for both the MS and MSD.

Holding Times and Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and
- the retention time method acceptance criteria were met.

There were a few compounds that exceeded the QC acceptance criteria in the ICVs relevant to this SDG, but because the samples were nondetect, no qualifications were needed.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL). An equipment blank was not submitted with the samples in this data set.

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Tables A-1 and A-2.

Sample results were qualified as follows:

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ LOQ	< LOQ	Report sample LOQ value with a U
		≥ LOQ and ≤ 2x LOQ	Report the sample result with a U**
		≥ 2x the LOQ	No qualifications
	> LOQ	< LOQ	Report sample LOQ value with a U
		≥ LOQ and < blank contamination	Report the sample result with a U or reject the sample result as unusable R

Blank type	Blank result	Sample result	Action for samples
		≥ LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
**Based on professional judgment.			

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

The MS/MSD %Rs and relative percent differences (RPDs) were reviewed for conformance with the QC acceptance criteria.

Nonconformances are summarized in Attachment A in Table A-3.

Data qualification to the analytes associated with the specific MS/MSD nonconformances was as follows:

Nonconformance	Action	
	Detected Compounds	Nondetected Compounds
%R> UL	J	No qualification
20% ≤ %R < LL	J	UJ
%R <20% (see note 1)	J	R*
%RPD > UL (see note 2)	J	No qualification
Note: Actions are applied to the native unspiked sample only (see note 3) *When the native sample concentration is >4X the concentration of the spike added (based on Region I criteria), evaluate the MS, MSD, and native sample with regards to %RSD rather than %R (professional judgment)		

Notes:

1. Based on NFG 2008 VOC guidance, professional judgment is used to reject (R) nondetects in all associated samples for any analyte with < 20% recovery. Also, professional judgment is used to estimate (UJ) rather the reject (R) sample results previously negated (U) on the basis of blank contamination.
2. In the absence of Region 2 guidance, RPD actions are based on professional judgment.
3. If a field duplicate sample was also collected for the native sample chosen for MS/MSD analysis, professional judgment is used to apply MS/MSD actions to the corresponding field duplicate sample as well as the native sample.

Qualified sample results are shown in Table 1.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs)u were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

Field duplicate RPDs were reviewed for conformance with the QC criterion of ≤30% for aqueous matrices. This criterion applies if both results were greater than five times the Limit of Quantitation (LOQ). All QC acceptance criteria were met.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111714-318-320	WG	CARBON DISULFIDE		1.0*	UG/L	U	bl
VPB153-GW-111814-338-340	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	ACETONE	3.2	2.5	UG/L	J	mc
VPB153-GW-111814-338-340	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CARBON DISULFIDE		1.0*	UG/L	UJ	mc,bl
VPB153-GW-111814-338-340	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111814-338-340	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-111814-338-340	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	ACETONE	4.9	2.5	UG/L	J	mc
VPB153-GW-111814-358-360	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CARBON DISULFIDE		1.2**	UG/L	UJ	mc,bl

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111814-358-360	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CHLOROMETHANE		2.0*	UG/L	UJ	mc,bt
VPB153-GW-111814-358-360	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-111814-358-360	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111914-378-380	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	ACETONE	16	2.5	UG/L	J	mc
VPB153-GW-111914-378-380	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CARBON DISULFIDE		1.0*	UG/L	UJ	mc,bl
VPB153-GW-111914-378-380	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CHLOROMETHANE		2.0*	UG/L	UJ	mc,bt
VPB153-GW-111914-378-380	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-378-380	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111914-378-380	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	ACETONE	7.0	2.5	UG/L	J	mc
VPB153-GW-111914-403-405	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	METHYL ACETATE		0.75	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-111914-403-405	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-111914-403-405	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	2-HEXANONE		2.5	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	ACETONE	4.4	2.5	UG/L	J	mc
VPB153-GW-112014-418-420	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CARBON DISULFIDE		1.0*	UG/L	UJ	mc,bl
VPB153-GW-112014-418-420	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-112014-418-420	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	METHYL ACETATE		0.75	UG/L	UJ	mc,m
VPB153-GW-112014-418-420	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-112014-418-420	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GWD-112014	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GWD-112014	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GWD-112014	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GWD-112014	WG	ACETONE	5.8	2.5	UG/L	J	mc
VPB153-GWD-112014	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	CARBON DISULFIDE		1.0*	UG/L	UJ	mc,bl
VPB153-GWD-112014	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GWD-112014	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GWD-112014	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GWD-112014	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GWD-112014	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-TRIP BLANK-112014	WQ	CARBON DISULFIDE		1.0*	UG/L	U	bl

*LOQ

**Sample value

Attachment A

Nonconformance Summary Tables

Table A-1 - Lab Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
WG154652-2	CARBON DISULFIDE	0.32	0.50	UG/L	VPB153-GW-111714-318-320, VPB153-GW-111814-338-340, VPB153-GW-111814-358-360, VPB153-GW-111914-378-380, VPB153-GW-112014-418-420, VPB153-GWD-112014, VPB153-TRIP BLANK-112014

Table A-2 - Field Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
VPB153-TRIP BLANK-112014	CHLOROMETHANE	0.46	1.0	UG/L	VPB153-GW-111814-358-360, VPB153-GW-111914-378-380

Table A-3 - Matrix Spikes

Sample ID	Compound	MS % Recovery	MSD % Recovery	Lower Limit	Upper Limit	RPD	RPD Limit
VPB153-GW-112014-418-420	4-METHYL-2-PENTANONE	57.2	64.0	60	135	11	30
	2-HEXANONE	46.4	52.2	55	130	12	30
	1,2,4-TRICHLOROBENZENE	57.8	68.8	65	135	17	30
	METHYL ACETATE	42.8	48.4	70	132	13	30
	1,2-DIBROMOETHANE	76.8	82.4	80	120	7	30
	1,2-DIBROMO-3-CHLOROPROPANE	48.8	54.4	50	130	11	30

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bt	Trip blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results
mc	Method compliance nonconformance

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

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Page 1 of 1

Client: Resolution Consultants | Contact: Eleanor Vivaldo | Phone #: (845) 425-4620 | Fax #: ( )

Address: 100 Red Schoolhouse Rd. | City: Chestnut Ridge | State: NY | Zip Code: 10977

Purchase Order # | Proj. Name / No.: Bethpage / 60266526 | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign): Michael Zobel / Michael Zobel | Copies To:

LAB USE ONLY | WORK ORDER #: SH9998 | KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt. ☐Y ☐N
VPB153-GW-111714-345-320	11-17-14 / 1500	GW	3	X
VPB153-GW-111814-335-340	11-18-14 / 1130	GW	3	X
VPB153-GW-111814-358-360	11-18-14 / 1340	GW	3	X
VPB153-GW-111914-378-380	11-19-14 / 1030	GW	3	X
VPB153-GW-111914-403-405	11-19-14 / 1445	GW	3	X
VPB153-GW-112014-418-420	11-20-14 / 1040	GW	3	X
VPB153-GW-MS/MSD-112014-418-420	11-20-14 / 1040	GW	6	X
VPB153-GWD-112014	11-20-14 / N/A	GW	3	X
VPB153-GW-112014-436-440	11-20-14 / 1330	GW	3	X
VPB153-Trip Blank-112014	9-15-14 / 1130	W	3	X
	/			
	/			
	/			
	/			
	/			
	/			

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zobel	11-20-14 / 1830				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
		11-21-14 0900			

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN

Katahdin
NALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-1
Client ID: 153-111714-318-320
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0170.D

Sample Date: 17-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	~~J~~ U	~~0.70~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	3.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-1
Client ID: 153-111714-318-320
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0170.D

Sample Date: 17-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		99.5	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		107.	%					
Dibromofluoromethane		105.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-2
Client ID: 153-111814-338-340
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0171.D

Sample Date: 18-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	~~0.33~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J J	3.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-2
Client ID: 153-111814-338-340
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0171.D

Sample Date: 18-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		101.	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		106.	%					
Dibromofluoromethane		101.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-3
Client ID: 153-111814-358-360
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0172.D

Sample Date: 18-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	J	~~0.47~~ 2.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide		1.2	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J J	4.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/14

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-3
Client ID: 153-111814-358-360
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0172.D

Sample Date: 18-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		99.4	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		106.	%					
Dibromofluoromethane		103.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-4
Client ID: 153-111914-378-380
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0173.D

Sample Date: 19-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	J	~~0.47~~ 2.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	~~0.45~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	16	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-4
Client ID: 153-111914-378-380
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0173.D

Sample Date: 19-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		97.0	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		101.	%					

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-5
Client ID: 153-111914-403-405
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0174.D

Sample Date: 19-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	7.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-5
Client ID: 153-111914-403-405
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0174.D

Sample Date: 19-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		96.6	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		104.	%					
Dibromofluoromethane		102.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-6
Client ID: 153-112014-418-420
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0175.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	UMM	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	~~0.48~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J J	4.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	UM	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	UM	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	UMM	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-6
Client ID: 153-112014-418-420
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0175.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	UM	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	UM	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	UMM	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	UM	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	UM	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		96.1	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		102.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-7
Client ID: VPB153-GWD-112014
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0176.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	~~0.42~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	5.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-7
Client ID: VPB153-GWD-112014
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0176.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		95.8	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		105.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-8RA
Client ID: 153-112014-438-440
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: D0350.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	4.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-8RA
Client ID: 153-112014-438-440
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: D0350.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		99.4	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		108.	%					
Dibromofluoromethane		109.	%					

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ANALYTICAL SERVICES

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Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-9
Client ID: VPB153-TB-112014
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0165.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	J	0.46	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	~~J~~ U	~~0.31~~ 1.0	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/15

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Report of Analytical Results

Client: ENSAFE
Lab ID: SH9998-9
Client ID: VPB153-TB-112014
Project: Navy Clean WE15-03-06 NW
SDG: SH9998
Lab File ID: C0165.D

Sample Date: 20-NOV-14
Received Date: 21-NOV-14
Extract Date: 24-NOV-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154652

Analysis Date: 24-NOV-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 01-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		98.9	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		101.	%					

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RESOLUTION CONSULTANTS

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Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	TH0084	
Analyses/Method:	EPA SW-846 Method 8260C for VOCs (GC/MS) and Standard Method 5310 for Total Organic Carbon by High-Temperature Combustion	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/13/2015
Reviewed by:	Lori Herberich/RESCON	File Name: TH0084_5310B and 8260C

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 21 and 24, 2014.

Sample ID	Matrix/Sample Type
VPB153-EB-112114	Equipment blank
VPB153-GW-112114-458-460	Groundwater
VPB153-TRIP BLANK-112414	Trip Blank

The samples were analyzed in accordance with:

- *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846,* Method 8260B, *Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 1996).
- *Standard Methods for the Examination of Water and Wastewater, Method SM5310B, Total Organic Carbon by High-Temperature Combustion*

Data validation activities were conducted with reference to these methods, *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (January 2010), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010) where applicable. In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

✗ Data completeness (chain-of-custody [COC])/sample integrity
✓ Holding times and sample preservation
✓ GC/MS performance checks

✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/equipment blanks/trip blanks
✓	Surrogate spike recoveries
NA	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS) results
NA	Field duplicate results
✓	Internal standard results
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the "GW" from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

The three vials of sample VPB153-GW-112114-458-460 each contained significant amounts of soil and not much liquid. Therefore, two vials were decanted and composited into one vial and analyzed. Positive and nondetect results for these samples were qualified as estimated (J and UJ, respectively) due to possible loss of sample integrity during the decanting procedure.

Holding Times and Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

Vinyl chloride, bromomethane, and carbon disulfide exceeded %R limits in ICV WG154762-7; however, all associated samples were nondetect for these compounds and the results were accepted without qualification.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL).

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method, equipment rinsate and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Table A-1.

Sample results were qualified as follows:

Blank Type	Blank Result	Sample Result	Action for Samples
ICB/CCB (Positive)	≥DL but ≤ LOQ	Nondetect	No action
		≥DL but ≤LOQ	Qualify as nondetect (U) at the LOQ
		> LOQ	Use professional judgment (see below [1])
	>LOQ	≥DL but ≤LOQ	Qualify as nondetect (U) at the LOQ
		> LOQ but < ICB/CCB Result	Qualify at level of Blank Result with a "U" or Qualify result as unusable
		>ICB/CCB but <10x the ICB/CCB result	Qualify as estimated (J)
		≥10x ICB/CCB	No action is taken based on professional judgment
PB / EB/ FB (Positive)	> LOQ	≥DL but ≤ LOQ	Qualify as nondetect (U) at the LOQ
		>LOQ but < 10x Blank Result	Qualify results as unusable
		≥10x Blank Result	No action
	≥DL but ≤LOQ	Nondetect	No action
		≥DL but ≤LOQ	Qualify as nondetect (U) at the LOQ

Blank Type	Blank Result	Sample Result	Action for Samples
		> LOQ	Use professional judgment (see below [1])

[1] Establish an action level (AL) at 5x the blank contamination. If sample result is <AL, qualify the reported result with a U.

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG. There were no validation actions taken on this basis.

LCS Results

The LCS %Rs were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

There were no field duplicate samples submitted with this data set. No validation actions were taken on this basis.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-EB-112114	WQ	TOTAL ORGANIC CARBON		1.0*	MG/L	U	bl
VPB153-GW-112114-458-460	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	ACETONE	14	2.5	UG/L	J	mc
VPB153-GW-112114-458-460	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-112114-458-460	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-112114-458-460	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc

*LOQ

Attachment A

Nonconformance Summary Tables

Table A-1 - Lab Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
WG154890-5	TOTAL ORGANIC CARBON	0.43	0.50	MG/L	VPB153-EB-112114

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results
mc	Method compliance nonconformance

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: ResCon | Contact: Eleanor Vivadou | Phone #: (845) 425-4820 | Fax #: ( )

Address: 100 Red Schoolhouse Rd | City: Chestnut Ridge | State: NY | Zip Code: 10977

Purchase Order # | Proj. Name / No.: NWIRP Bethpage / 60266526 | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign): Michael Zobel / Michael Zobel | Copies To:

LAB USE ONLY | WORK ORDER #: ~~SHO~~ TH0089 | KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

#	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: VOC	TOC	Filt. ☐Y ☐N
	VPB153-GW-112114-458-460	11-21-14 / 1045	GW	3	X		
	VPB153-EB-112114	11-21-14 / 1130	W	6	X	X	
	VPB153-TripBlank-112114	9-15-14 / 1130	W	3	X		
		/					
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		/					

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zobel	11-24-14 / 1615	11-25-14 0935			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-1
Client ID: 153-112114-458-460
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0349.D

Sample Date: 21-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	14	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U UJ	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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JZ 1/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-1
Client ID: 153-112114-458-460
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0349.D

Sample Date: 21-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		90.0	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		95.7	%					
Dibromofluoromethane		99.8	%					

R. 12/30/15

600 Technology Way
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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-2
Client ID: VPB153-EB-112114
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0348.D

Sample Date: 21-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	2.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-2
Client ID: VPB153-EB-112114
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0348.D

Sample Date: 21-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		91.8	%					
Toluene-d8		100.	%					
1,2-Dichloroethane-d4		96.3	%					
Dibromofluoromethane		99.1	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-3
Client ID: VPB153-TB-112414
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0347.D

Sample Date: 24-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0084-3
Client ID: VPB153-TB-112414
Project: Navy Clean WE15-03-06 NW
SDG: TH0084
Lab File ID: D0347.D

Sample Date: 24-NOV-14
Received Date: 25-NOV-14
Extract Date: 25-NOV-14
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG154762

Analysis Date: 25-NOV-14
Analyst: DJP
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 26-NOV-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		96.1	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		106.	%					

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Katahdin
ANALYTICAL SERVICES

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Report of Analytical Results

Client: Rick Purdy
AECOM
701 Edgewater Drive
Wakefield,MA 01880

Lab Sample ID: TH0084-2
Report Date: 12-DEC-14
Client PO: 16518
Project: Navy Clean WE15-03-0
SDG: TH0084

Sample Description	Matrix	Date Sampled	Date Received
VPB153-EB-112114	AQ	21-NOV-14 11:30:00	25-NOV-14

Parameter	Result	Adj LOQ	Adj MDL	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Organic Carbon	~~0.26~~ 1.0 U mg/L	1.0	0.10	.5	SM5310B	WG154890	25-NOV-14 21:15:52	N/A	N/A	

R 1/30/15

RESOLUTION CONSULTANTS

Resolution Consultants
250 Apollo Drive
Chelmsford, MA 01824

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978.905.2101 fax

Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	TH0145	
Analyses/Method:	EPA SW-846 Method 8260C for VOCs (GC/MS)	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/06/2015
Reviewed by:	Lori Herberich/RESCON	File Name: TH0145_8260C

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 25 and 26, 2014 and September 15, 2014.

Sample ID	Matrix/Sample Type
VPB153-GW-112514-483-485	Groundwater
VPB153-GW-112514-498-500	Groundwater
VPB153-GW-112614-518-520	Groundwater
VPB153-TRIP BLANK-112614	Trip Blank

Data validation activities were conducted with reference to *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically SW-846 Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 2006), *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

✗	Data completeness (chain-of-custody [COC])/sample integrity
✓	Holding times and sample preservation
✓	GC/MS performance checks
✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/equipment blanks/trip blanks
✓	Surrogate spike recoveries
NA	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS) results
NA	Field duplicate results

✓ Internal standard results
✓ Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the "GW" from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

The vials of samples VPB153-GW-112514-483-485 and VPB153-GW-112514-498-500 each contained soil at the bottom of the vials. Therefore, one vial for each sample was decanted and analyzed. Positive and nondetect results for these samples were qualified as estimated (J and UJ, respectively), due to possible loss of sample integrity during the decanting procedure.

Holding Times and Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

The QC acceptance criteria were met, with the exception of the exceedance of carbon disulfide in the ICV WG154861-7. Because carbon disulfide was not detected in the samples, no qualifications were needed.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL). An equipment blank was not submitted with the samples in this data set.

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Table A-1. Sample results were qualified as follows:

For common lab contaminants (methylene chloride, acetone, 2-butanone):

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x LOQ	Report the sample result with a U**
		≥ 4x LOQ	No qualifications
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the sample result with a U
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
**Based on professional judgment			

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG. There were no validation actions taken on this basis.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

There were no field duplicate samples submitted with this data set. No validation actions were taken on this basis.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-112514-483-485	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	ACETONE		9.4**	UG/L	UJ	mc,bt
VPB153-GW-112514-483-485	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-112514-483-485	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-112514-483-485	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	ACETONE		5.0*	UG/L	UJ	mc,bt
VPB153-GW-112514-498-500	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CHLOROETHANE		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-112514-498-500	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-112514-498-500	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-112614-518-520	WG	ACETONE		5.0*	UG/L	U	bt

*LOQ

**sample value

Attachment A

Nonconformance Summary Tables

Table A-1 - Field Blanks

Blank ID	Compound	Result	LOD	Units	Associated Samples
VPB153-TRIP BLANK-112614	ACETONE	2.9	2.5	UG/L	All samples in SDG TH0145

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bt	Trip blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results
mc	Method compliance nonconformance

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

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Page 1 of 1

Client	Resolution Consultants	Contact	Eleanor Vivaudou	Phone #	(845) 425-4820
Address	100 Red Schoolhouse Rd	City	Chestnut Ridge	State	NY
Zip Code	10977				
Purchase Order #		Proj. Name / No.	NWIRP Bethpage / 60266526	Katahdin Quote #	
Bill (if different than above)		Address			
Sampler (Print / Sign)	Michael Zahel / Michael Zahel			Copies To:	

LAB USE ONLY WORK ORDER #: TH0145

KATAHDIN PROJECT NUMBER _____

REMARKS: _____

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO: _____

TEMP°C _____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: Filt. ☐Y ☐N
	VPB153-GW-112514-483-485	11-25-14 / 1040	GW	3	X
	VPB153-GW-112514-498-500	11-25-14 / 1250	GW	3	X
	VPB153-GW-112614-516-520	11-26-14 / 1030	GW	3	X
	VPB153-TripBlank-112614	11-15-14 / 1130	W	3	X
		/			
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		/			
		/			
		/			

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zahel	11-26-14 / 1430				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN SERVICES, EXCEPT WHEN A SIGNED CONTRACTUAL AGREEMENT EXISTS

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Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-1
Client ID: 153-112514-483-485
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0270.D

Sample Date: 25-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		9.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

GJ

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12/30/14

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-1
Client ID: 153-112514-483-485
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0270.D

Sample Date: 25-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		89.2	%					
Toluene-d8		94.0	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		101.	%					

12/30/15

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Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-2
Client ID: 153-112514-498-500
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0271.D

Sample Date: 25-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	~~4.6~~ 5.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/14

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH melac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-2
Client ID: 153-112514-498-500
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0271.D

Sample Date: 25-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		87.3	%					
Toluene-d8		92.3	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		99.8	%					

12/30/15

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Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH melac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-3
Client ID: 153-112614-518-520
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0272.D

Sample Date: 26-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	~~J~~ U	~~4.1~~ 5.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-3
Client ID: 153-112614-518-520
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0272.D

Sample Date: 26-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		87.9	%					
Toluene-d8		93.4	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		97.3	%					

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Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-4
Client ID: VPB153-TB-112614
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0267.D

Sample Date: 26-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	J	2.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0145-4
Client ID: VPB153-TB-112614
Project: Navy Clean WE15-03-06 NW
SDG: TH0145
Lab File ID: C0267.D

Sample Date: 26-NOV-14
Received Date: 01-DEC-14
Extract Date: 02-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG154936

Analysis Date: 02-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 03-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		89.4	%					
Toluene-d8		94.5	%					
1,2-Dichloroethane-d4		100.	%					
Dibromofluoromethane		100.	%					

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RESOLUTION CONSULTANTS

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Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	TestAmerica, South Burlington, Vermont	
Service Request:	200-25461	
Analyses/Method:	EPA Method TO-15, VOCs Collected in Canisters - GC/MS	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/15/2015
Reviewed by:	Lori Herberich/RESCON	File Name: 200-25461_TO-15

SUMMARY

The sample listed below was collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on November 13, 2014.

Sample ID	Matrix/Sample Type
VPB153-AIR-111314	Ambient air

Data validation activities were conducted with reference to *Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)* (USEPA, Method TO-15) and the *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

- ✓ Data completeness (chain-of-custody [COC])/sample integrity
- ✓ Holding times and sample preservation
- ✓ GC/MS performance checks
- ✓ Initial calibration/continuing calibration verification
- ✓ Laboratory blanks
- NA Matrix duplicate (MD) results
- ✓ Laboratory control sample (LCS) results
- NA Field duplicates
- ✓ Internal standards
- ✓ Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this

validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. There were no data points qualified or rejected on the basis of this data review.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Holding Times and Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

The QC acceptance criteria were met.

Laboratory Blanks

Laboratory method blanks were evaluated as to whether there were contaminants detected above the detection limit (DL). Blank results were reviewed for conformance with the QC acceptance criteria. Data validation qualifications for individual samples are based on the maximum

contaminant concentration detected in all associated blanks. The QC acceptance criteria were met and qualification of the sample results was not required.

MD Results

MD analyses were not performed on samples reported in this SDG. There were no validation actions taken on this basis.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

There were no field duplicate samples submitted with this data set. No validation actions were taken on this basis.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

No sample results were qualified as a result of this data review.

ATTACHMENTS

Attachment A: Qualifier Codes and Explanations

Attachment A

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

#N/A
#N/A
#N/A
#N/A

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

THE LEADER IN ENVIR

TestAmerica Labo.

Client Contact Information	**Project Manager:** Eleanor Virador	**Samples Collected By:** Michael Zobel / Michael Zobel	**COC No:** 1 of 1 COCs
Company Name: Resolution Consultants	**Phone:** 845-425-4820		
Address: 100 Red Schoolhouse Rd	**Email:** eleanor.virador@aecom.com		
City/State/Zip Chestnut Ridge, NY 10977			
Phone: 845-425-4820	**Site Contact:** Mike Zobel		**For Lab Use Only:** Walk-In Client: / Lab Sampling:
FAX:	**TA Contact:**		
Project Name: NWIRP Bethpage	**Anaylsis Turnaround Time**		**Job / SDG No.:**
Site/Location:	Standard (Specific):		(See below for Add'l Items)
P O #	Rush (Specifiy):		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
VPB153-AIR-111314	11-13-14	0750	1550	-30	-4	4761	5724	X														

	Temperature (Fahrenheit)			
	Start	Interior	Ambient 45°F	
	Stop		58°F	

	Temperature (Fahrenheit)			
	Start	Interior	Ambient	
	Stop			

200-25461 Chain of Custody

Special Instructions/QC Requirements & Comments:

VPB153 8-hr SUMMA

Samples Shipped by:	**Date / Time:** 11-17-14 / 1600	**Samples Received by:**	11/18/14 1020 TA BUR
Samples Relinquished by:	**Date / Time:**	**Received by:**	
Relinquished by:	**Date / Time:**	**Received by:**	
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 1.1, dated 07/15/2014

Client: Katahdin Analytical Services

Job Number: 200-25461-1
Sdg Number: 200-25461

Client Sample ID: **VPB153-AIR-111314**

Lab Sample ID: 200-25461-1
Client Matrix: Air

Date Sampled: 11/13/2014 1550
Date Received: 11/18/2014 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-80837	Instrument ID:	CHG.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	10664_14.D
Dilution:	2.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/20/2014 1905			Final Weight/Volume:	200 mL
Prep Date:	11/20/2014 1905			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	DL	LOQ
1,1,1-Trichloroethane	0.16	U	0.40	0.40
1,1,2,2-Tetrachloroethane	0.16	U	0.40	0.40
1,1,2-Trichloro-1,2,2-trifluoroethane	0.16	U	0.40	0.40
1,1,2-Trichloroethane	0.16	U	0.40	0.40
1,1-Dichloroethane	0.060	U	0.40	0.40
1,1-Dichloroethene	0.060	U	0.40	0.40
1,2,4-Trichlorobenzene	0.16	U	1.0	1.0
1,2-Dibromoethane (EDB)	0.060	U	0.40	0.40
1,2-Dichlorobenzene	0.060	U	0.40	0.40
1,2-Dichloroethane	0.16	U	0.40	0.40
1,2-Dichloropropane	0.16	U	0.40	0.40
Acetone	77	D	10	10
1,3-Dichlorobenzene	0.060	U	0.40	0.40
1,4-Dichlorobenzene	0.060	U	0.40	0.40
2-Butanone (MEK)	1.2	D	1.0	1.0
2-Hexanone	0.40	U	1.0	1.0
4-Methyl-2-pentanone	0.40	U	1.0	1.0
Benzene	0.060	U	0.40	0.40
Bromoform	0.060	U	0.40	0.40
Bromomethane	0.16	U	0.40	0.40
Carbon disulfide	0.16	U	1.0	1.0
Carbon tetrachloride	0.060	U	0.40	0.40
Chlorobenzene	0.060	U	0.40	0.40
Dibromochloromethane	0.060	U	0.40	0.40
Chloroethane	0.16	U	1.0	1.0
Chloroform	0.16	U	0.40	0.40
Chloromethane	1.1	D	1.0	1.0
cis-1,2-Dichloroethene	0.16	U	0.40	0.40
cis-1,3-Dichloropropene	0.060	U	0.40	0.40
Cyclohexane	0.060	U	0.40	0.40
Bromodichloromethane	0.060	U	0.40	0.40
Dichlorodifluoromethane	0.40	U	1.0	1.0
Ethylbenzene	0.060	U	0.40	0.40
Isopropylbenzene	2.0	D	0.40	0.40
Methyl tert-butyl ether	0.060	U	0.40	0.40
Methylene Chloride	0.40	U	1.0	1.0
m,p-Xylene	0.12	U	1.0	1.0
Xylene, o-	0.060	U	0.40	0.40
Styrene	0.060	U	0.40	0.40
Tetrachloroethene	0.060	U	0.40	0.40
Toluene	0.060	U	0.40	0.40
trans-1,2-Dichloroethene	0.060	U	0.40	0.40
trans-1,3-Dichloropropene	0.060	U	0.40	0.40
Trichloroethene	0.060	U	0.40	0.40
Trichlorofluoromethane	0.16	U	0.40	0.40
Vinyl chloride	0.060	U	0.40	0.40

Client: Katahdin Analytical Services

Job Number: 200-25461-1
Sdg Number: 200-25461

Client Sample ID: **VPB153-AIR-111314**

Lab Sample ID: 200-25461-1
Client Matrix: Air

Date Sampled: 11/13/2014 1550
Date Received: 11/18/2014 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-80837	Instrument ID:	CHG.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	10664_14.D
Dilution:	2.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/20/2014 1905			Final Weight/Volume:	200 mL
Prep Date:	11/20/2014 1905			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	DL	LOQ
Xylene (total)	0.18	U	0.40	0.40

Analyte	Result (ug/m3)	Qualifier	DL	LOQ
1,1,1-Trichloroethane	0.87	U	2.2	2.2
1,1,2,2-Tetrachloroethane	1.1	U	2.7	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2	U	3.1	3.1
1,1,2-Trichloroethane	0.87	U	2.2	2.2
1,1-Dichloroethane	0.24	U	1.6	1.6
1,1-Dichloroethene	0.24	U	1.6	1.6
1,2,4-Trichlorobenzene	1.2	U	7.4	7.4
1,2-Dibromoethane (EDB)	0.46	U	3.1	3.1
1,2-Dichlorobenzene	0.36	U	2.4	2.4
1,2-Dichloroethane	0.65	U	1.6	1.6
1,2-Dichloropropane	0.74	U	1.8	1.8
Acetone	180	D	24	24
1,3-Dichlorobenzene	0.36	U	2.4	2.4
1,4-Dichlorobenzene	0.36	U	2.4	2.4
2-Butanone (MEK)	3.5	D	2.9	2.9
2-Hexanone	1.6	U	4.1	4.1
4-Methyl-2-pentanone	1.6	U	4.1	4.1
Benzene	0.19	U	1.3	1.3
Bromoform	0.62	U	4.1	4.1
Bromomethane	0.62	U	1.6	1.6
Carbon disulfide	0.50	U	3.1	3.1
Carbon tetrachloride	0.38	U	2.5	2.5
Chlorobenzene	0.28	U	1.8	1.8
Dibromochloromethane	0.51	U	3.4	3.4
Chloroethane	0.42	U	2.6	2.6
Chloroform	0.78	U	2.0	2.0
Chloromethane	2.3	D	2.1	2.1
cis-1,2-Dichloroethene	0.63	U	1.6	1.6
cis-1,3-Dichloropropene	0.27	U	1.8	1.8
Cyclohexane	0.21	U	1.4	1.4
Bromodichloromethane	0.40	U	2.7	2.7
Dichlorodifluoromethane	2.0	U	4.9	4.9
Ethylbenzene	0.26	U	1.7	1.7
Isopropylbenzene	9.8	D	2.0	2.0
Methyl tert-butyl ether	0.22	U	1.4	1.4
Methylene Chloride	1.4	U	3.5	3.5
m,p-Xylene	0.52	U	4.3	4.3
Xylene, o-	0.26	U	1.7	1.7
Styrene	0.26	U	1.7	1.7
Tetrachloroethene	0.41	U	2.7	2.7
Toluene	0.23	U	1.5	1.5
trans-1,2-Dichloroethene	0.24	U	1.6	1.6
trans-1,3-Dichloropropene	0.27	U	1.8	1.8

Client: Katahdin Analytical Services

Job Number: 200-25461-1
Sdg Number: 200-25461

Client Sample ID: **VPB153-AIR-111314**

Lab Sample ID: 200-25461-1
Client Matrix: Air

Date Sampled: 11/13/2014 1550
Date Received: 11/18/2014 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-80837	Instrument ID:	CHG.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	10664_14.D
Dilution:	2.0			Initial Weight/Volume:	100 mL
Analysis Date:	11/20/2014 1905			Final Weight/Volume:	200 mL
Prep Date:	11/20/2014 1905			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	DL	LOQ
Trichloroethene	0.32	U	2.1	2.1
Trichlorofluoromethane	0.90	U	2.2	2.2
Vinyl chloride	0.15	U	1.0	1.0
Xylene (total)	0.78	U	1.7	1.7

RESOLUTION CONSULTANTS

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Data Validation Report

Project:	Regional Groundwater Investigation - NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Service Request:	TH0393	
Analyses/Method:	EPA SW-846 Method 8260C for VOCs (GC/MS)	
Validation Level:	3	
AECOM Project Number:	60266526.SA.DV	
Prepared by:	Dawn Brule/RESCON	Completed on: 01/15/2015
Reviewed by:	Lori Herberich/RESCON	File Name: TH0393_8260C

SUMMARY

The samples listed below were collected by Resolution Consultants from the Regional Groundwater Investigation - NWIRP Bethpage site on December 1 -5, 2014 and September 15, 2014.

Sample ID	Matrix/Sample Type
VPB153-GW-120114-538-540	Groundwater
VPB153-GW-120214-578-580	Groundwater
VPB153-GW-120314-603-605	Groundwater
VPB153-GW-120314-618-620	Groundwater
VPB153-GW-120414-638-640	Groundwater
VPB153-GW-120414-658-660	Groundwater
VPB153-GW-120514-678-680	Groundwater
VPB153-GW-120514-698-700	Groundwater
VPB153-TRIP BLANK-120514	Trip Blank

Data validation activities were conducted with reference to *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW846, specifically SW-846 Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (USEPA, 2006), *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008), and Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following review elements (where applicable to the method):

✗ Data completeness (chain-of-custody [COC])/sample integrity
✓ Holding times and sample preservation
✓ GC/MS performance checks

✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/equipment blanks/trip blanks
✓	Surrogate spike recoveries
NA	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS) results
NA	Field duplicate results
✓	Internal standard results
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

The data appear valid as reported and may be used for decision making purposes. Selected data points were estimated and/or negated due to nonconformances of certain QC criteria (see discussion below). Qualified sample results are presented in Table 1.

RESULTS

Data Completeness (COC)/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- The COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the COC requests.

Due to limitations in the reporting system, the laboratory omitted the "VPB-" prefix and the "GW" from the sample ID, and truncated the ID for the Trip Blank in the report. The submitted EDD file reflects the full sample ID.

Selected samples were mostly soil and had very little standing water.

- For sample VPB153-GW-120314-618-620 the laboratory decanted the liquid from one vial prior to analysis.
- For sample VPB153-GW-120414-658-660 the laboratory decanted the water from three individual vials into one vial as a composite.
- For each of the samples VPB153-GW-120114-538-540, VPB153-GW-120214-578-580, and VPB153-GW-120514-698-700, the laboratory decanted the water from three individual vials into one vial as a composite.

Positive and nondetect results for these samples were qualified as estimated (J and UJ, respectively) due to possible loss of sample integrity during the decanting procedure.

Holding Times/Sample Preservation

Sample preservation and preparation/analysis holding times were reviewed for conformance with the QC acceptance criteria. The QC acceptance criteria were met.

GC/MS Performance Checks

The data were reviewed to ensure that the 4-bromofluorobenzene (BFB) tuning was performed at the correct frequency and that the method acceptance criteria were met. The QC acceptance criteria were met.

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- the initial calibration (ICAL) percent relative standard deviation (%RSD), correlation coefficient (r)/coefficient of determination (r^2), and/or response factor method acceptance criteria were met;
- the initial calibration verification (ICV) percent recovery (%R) criteria were met;
- the continuing calibration verification standard (CCV) method percent difference or percent drift (%Ds) and RF acceptance criteria were met; and/or
- the retention time method acceptance criteria were met.

The QC acceptance criteria were met, with the exception of the exceedance of carbon disulfide in the ICV WG154861-7. Because carbon disulfide was not detected in the samples, no qualifications were needed.

Laboratory Blanks/Equipment Blanks/Trip Blanks

Laboratory method blanks, equipment rinsate and trip blanks were evaluated as to whether there were contaminants detected above the detection limit (DL). An equipment blank was not submitted with the samples in this data set.

Data validation qualifications for individual samples are based on the maximum contaminant concentration detected in all associated blanks.

Method and trip blank results were reviewed for conformance with the QC acceptance criteria. Detected results in blanks are not discussed in this data validation report if the associated results were nondetect or if qualification of sample results was not required.

Nonconformances are summarized in Attachment A in Table A-1.

Sample results were qualified as follows:

For common lab contaminants (methylene chloride, acetone, 2-butanone):

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Field, Trip, or Instrument*	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x LOQ	Report the sample result with a U**
		≥ 4x LOQ	No qualifications
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the sample result with a U
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required.**
* Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 g/L.			
**Based on professional judgment			

LOQ - Limit of Quantitation.

Qualified sample results are shown in Table 1.

Surrogate Spike Recoveries

The surrogate recoveries (%Rs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

MS/MSD Results

MS/MSD analyses were not performed on samples reported in this SDG. There were no validation actions taken on this basis.

LCS/LCSD Results

The LCS/LCSD %Rs and/or relative percent recoveries (RPDs) were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Field Duplicate Results

There were no field duplicate samples submitted with this data set. No validation actions were taken on this basis.

Internal Standard Results

The internal standard (IS) recoveries were reviewed for conformance with the QC acceptance criteria. All QC acceptance criteria were met.

Sample Results/Reporting Issues

Compounds that were not detected in the sample are reported as not detected (U) at the Limit of Detection (LOD).

Compounds detected at concentrations less than the LOQ but greater than the detection limit (DL) were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

Any sample that was analyzed at a dilution due to high concentrations of target or non-target compounds or matrix interferences was checked to ensure that the results and/or sample specific LODs and LOQs were adjusted accordingly by the laboratory.

QUALIFICATION ACTIONS

Sample results qualified as a result of validation actions are summarized in Table 1. All actions are described above.

ATTACHMENTS

Attachment A: Nonconformance Summary Tables

Attachment B: Qualifier Codes and Explanations

Attachment C: Reason Codes and Explanations

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120114-538-540	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	2-BUTANONE	1.6	2.5	UG/L	J	mc
VPB153-GW-120114-538-540	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	ACETONE		12**	UG/L	UJ	mc,bt
VPB153-GW-120114-538-540	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	METHYL ACETATE		0.75	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120114-538-540	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-120114-538-540	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	ACETONE		13**	UG/L	UJ	mc,bt
VPB153-GW-120214-578-580	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120214-578-580	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-120214-578-580	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-120314-603-605	WG	ACETONE		5.0*	UG/L	U	bt
VPB153-GW-120314-618-620	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120314-618-620	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	ACETONE		5.7**	UG/L	UJ	mc,bt
VPB153-GW-120314-618-620	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-120314-618-620	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-120414-638-640	WG	ACETONE		7.7**	UG/L	U	bt
VPB153-GW-120414-658-660	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120414-658-660	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	ACETONE		17**	UG/L	UJ	mc,bt
VPB153-GW-120414-658-660	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CHLOROETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120414-658-660	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-120414-658-660	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc
VPB153-GW-120514-678-680	WG	ACETONE		5.0*	UG/L	U	bt
VPB153-GW-120514-698-700	WG	1,1,1-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,1,2,2-TETRACHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,1,2-TRICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,1-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,1-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2,4-TRICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DIBROMO-3-CHLOROPROPANE		0.75	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DIBROMOETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DICHLOROETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DICHLOROETHENE, TOTAL		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,2-DICHLOROPROPANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,3-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	1,4-DICHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	2-BUTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	2-HEXANONE		2.5	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	4-METHYL-2-PENTANONE		2.5	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	ACETONE		13**	UG/L	UJ	mc,bt
VPB153-GW-120514-698-700	WG	BENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	BROMODICHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	BROMOFORM		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	BROMOMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CARBON DISULFIDE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CARBON TETRACHLORIDE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CHLOROBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CHLOROETHANE		1.0	UG/L	UJ	mc

Sample ID	Matrix	Compound	Result	LOD	Units	Validation Qualifiers	Validation Reason
VPB153-GW-120514-698-700	WG	CHLOROFORM		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CHLOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CIS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CIS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	DIBROMOCHLOROMETHANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	DICHLORODIFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	ETHYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	ISOPROPYLBENZENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	M- AND P-XYLENE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	METHYL ACETATE		0.75	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	METHYL CYCLOHEXANE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	METHYL TERT-BUTYL ETHER		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	METHYLENE CHLORIDE		2.5	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	O-XYLENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	STYRENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TETRACHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TOLUENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TRANS-1,2-DICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TRANS-1,3-DICHLOROPROPENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TRICHLOROETHENE		0.50	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	TRICHLOROFLUOROMETHANE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	VINYL CHLORIDE		1.0	UG/L	UJ	mc
VPB153-GW-120514-698-700	WG	XYLENES, TOTAL		1.5	UG/L	UJ	mc

*LOQ

**sample result

Attachment A

Nonconformance Summary Tables

Table A-1 - Field Blanks

Blank ID	Compound	Result	LOQ	Units	Associated Samples
VPB153-TRIP BLANK-120514	ACETONE	6.2	5.0	UG/L	All samples is SDG TH0393

Attachment B

Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Attachment C

Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bt	Trip blank contamination
bl	Laboratory blank contamination
c	Calibration issue
co	Analyte carryover
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results
mc	Method compliance nonconformance

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
Resolution Consultants	Eleanor Vivarelo	(845) 425-4820	( )

Address	City	State	Zip Code
100 Red Schoolhouse Rd	Chestnut Ridge	NY	10977

Purchase Order #	Proj. Name / No.	Katahdin Quote #
	NWIRP Bethpage / 60266526	

Bill (if different than above) Address

Sampler (Print / Sign) Michael Zobel / Michael Zobel

Copies To:

LAB USE ONLY WORK ORDER #: TH0393

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

#	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐
					→ 10 U									
	VPB153-GW-120114-538-540	12-1-14 / 1440	GW	3	X									
	VPB153-GW-120214-578-580	12-2-14 / 1430	GW	3	X									
	VPB153-GW-120314-603-605	12-3-14 / 1220	GW	3	X									
	VPB153-GW-120514-618-620	12-3-14 / 1445	GW	3	X									
	VPB153-GW-120414-636-640	12-4-14 / 1110	GW	3	X									
	VPB153-GW-120414-658-660	12-4-14 / 1320	GW	3	X									
	VPB153-TripBlank-120514	9-15-14 / 1130	W	3	X									
	VPB153-GW-120514-678-680	12-5-14 / 1015	GW	3	X									
	VPB153-GW-120514-698-700	12-5-14 / 1310	GW	3	X									
		/												
		/												
		/												
		/												
		/												
		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Michael Zobel	12-5-14 / 1600	12/6 1015			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

THE TERMS AND CONDITIONS ON THE REVERSE SIDE HEREOF SHALL GOVERN

Katahdin
NALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH
melac
Cert No E87604

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-1
Client ID: 153-120114-538-540
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0387.D

Sample Date: 01-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		12	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	J UJ	1.6	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U UJ	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

JL 1/30/15

Report of Analytical Results

Client: ENSAFE
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Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0387.D

Sample Date: 01-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		92.6	%					
Toluene-d8		94.0	%					
1,2-Dichloroethane-d4		97.9	%					
Dibromofluoromethane		96.9	%					

12/30/15

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-2
Client ID: 153-120214-578-580
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0388.D

Sample Date: 02-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		13	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-2
Client ID: 153-120214-578-580
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0388.D

Sample Date: 02-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		92.4	%					
Toluene-d8		93.8	%					
1,2-Dichloroethane-d4		99.3	%					
Dibromofluoromethane		101.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-3
Client ID: 153-120314-603-605
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0389.D

Sample Date: 03-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	~~J~~ U	~~4.2~~ 5.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-3
Client ID: 153-120314-603-605
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0389.D

Sample Date: 03-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		93.2	%					
Toluene-d8		94.9	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		98.3	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-4
Client ID: 153-120314-618-620
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0390.D

Sample Date: 03-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		5.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-4
Client ID: 153-120314-618-620
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0390.D

Sample Date: 03-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U VJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		94.7	%					
Toluene-d8		94.4	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		101.	%					

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-5
Client ID: 153-120414-638-640
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0391.D

Sample Date: 04-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	7.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-5
Client ID: 153-120414-638-640
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0391.D

Sample Date: 04-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		94.4	%					
Toluene-d8		95.7	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		101.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-6
Client ID: 153-120414-658-660
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0392.D

Sample Date: 04-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		17	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-6
Client ID: 153-120414-658-660
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0392.D

Sample Date: 04-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U UJ	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		89.5	%					
Toluene-d8		91.1	%					
1,2-Dichloroethane-d4		98.4	%					
Dibromofluoromethane		96.9	%					

12/30/15

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-8
Client ID: 153-120514-678-680
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0393.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	~~J~~ U	~~3.4~~ 5.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/20/15

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-8
Client ID: 153-120514-678-680
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0393.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		90.8	%					
Toluene-d8		92.5	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		98.2	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-9
Client ID: 153-120514-698-700
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0394.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U U5	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		92.1	%					
Toluene-d8		93.7	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		103.	%					

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Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-9
Client ID: 153-120514-698-700
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0394.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U UJ	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		13	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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12/30/15

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-7
Client ID: VPB153-TB-120514
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0386.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Freon-113	U	0.50	ug/L	1	1	1.0	0.31	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone		6.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Cyclohexane	U	0.50	ug/L	1	1	1.0	0.31	0.50
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50

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http://www.katahdinlab.com

DATA VALIDATION REPORT

Project:	Regional Groundwater Investigation — NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Sample Delivery Group:	TH0532	
Analyses/Method:	Volatile Organic Compounds (VOCs) by U.S. EPA SW-846 Method 8260C Total Organic Carbon (TOC) by U.S. EPA SW-846 Method 9060A	
Validation Level:	3	
Project Number:	0888812477.SA.DV	
Prepared by:	Dana Miller/Resolution Consultants	Completed on: 02/06/2015
Reviewed by:	Tina Cantwell/Resolution Consultants	File Name: TH0532_8260C_9060A

SUMMARY

This report summarizes data review findings for samples listed below, collected by Resolution Consultants from the Regional Groundwater Investigation — NWIRP Bethpage site on 20 November 2014 and 10 December 2014 in accordance with the following Sampling and Analysis Plans:

- *Sampling and Analysis Plan, Bethpage, New York,* April 2013.
- *UFP SAP Addendum, Inclusion of Additional Target Analytes for Volatile Organics Analyses, NWIRP Bethpage OU2, Bethpage, New York, August 2014.*
- *UFP SAP Addendum, Installation of Vertical Profile Borings and Monitoring Wells, Operable Unit 2, NWIRP Bethpage, New York,* November 2013.

Sample ID	Matrix/Sample Type	Analysis
VPB153-GW-120814-718-720	Groundwater	8260C
VPB153-GW-120814-738-740	Groundwater	8260C
VPB153-SOIL-112014-423-425	Soil	9060A
VPB153-SOIL-D-112014	Field Duplicate	9060A
VPB153-TRIP BLANK-121114	Trip Blank	8260C

Data validation activities were conducted using the following guidance documents: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (U.S. EPA, 2006), *SW-846 Method 9060A, Total Organic Carbon* (U.S. EPA, 1996), *U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (NFG, June 2008), *U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory*

Program National Functional Guidelines for Inorganic Superfund Data Review (NFG, January 2010) and Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following parameters (where applicable to the method):

✗	Data completeness (chain-of-custody [COC])/sample integrity
✓	Holding times and sample preservation
✓	GC/MS performance checks
✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/trip blanks
✓	Surrogate spike recoveries
✓	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
✗	Field duplicates
✓	Internal standards
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. Acceptable data parameters for which all criteria were met and no qualification was performed and non-conformance or other issues that were noted during validation, but did not result in qualification of data are not discussed further. The symbol (✗) indicates that a QC non-conformance resulted in the qualification of data. Any QC non-conformance that resulted in the qualification of data is discussed below.

RESULTS

Data Completeness/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- the COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody;
- the laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory;

- completeness of analyses was verified by comparing the reported results to the COC request.

Due to limitations in the reporting system, the laboratory omitted the first characters "VPB-" and middle characters "GW-" from the sample ID in samples VPB153-GW-120814-718-720 and VPB153-GW-120814-738-740, and truncated Trip Blank to "TB" in the report. Below shows a list of samples that were mostly comprised of soil and not very much liquid:

- VPB153-GW-120814-738-740 had three vials decanted, composited into one vial and analyzed at a dilution of 1:4;

- VPB153-GW-120814-718-720 had one vial decanted prior to analysis.

Positive and non-detected results for both samples listed above were qualified as estimated (j and UJ) respectively due to possible loss of sample integrity during the decanting process. Non-conformances are summarized in Attachment A in Table A-1.

Laboratory Blanks/Trip Blanks

Laboratory blanks and trip blanks were analyzed with samples to assess contamination imparted by sample preparation and/or analysis. All results associated with a particular laboratory blank were evaluated to determine whether there was an inherent variability in the data, or if a problem was an isolated occurrence that did not affect the data. Samples were flagged in accordance with *Functional Guidelines* (shown below) where detections were not believed to be site-related.
Non-conformances are summarized in Attachment A in Table A-1.

Blank Non-conformances Chart:

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	< 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U. If the result is > 2x blank result, no qualification is required.
	= 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	Gross contamination	Detects	Qualify results as unusable R

Notes:

LOQ	=	Limit of quantitation
U	=	Undetected (Refer to Attachment B)
R	=	Rejected

Field Duplicate

Field duplicate RPDs were reviewed for conformance with the Resolution Consultants QC criteria of ≤50% for solid matrices and ≤30% for aqueous matrices. These criteria apply if both results were greater than two times the limit of quantitation (LOQ). Non-conformance is summarized in Attachment A in Table A-2. Data qualification to the analytes associated with the specific field duplicate RPDs was as follows:

Field Duplicate Non-conformances Chart:

Criteria	RPD	Action	
		Detected	Non-detected
Sample and duplicate are nondetect	Not calculable (NC)	No qualification	No qualification
Sample and duplicate results ≥2x LOQ	>30 (aqueous)	J	Not Applicable
	>50 (solids)		
If sample or duplicate result is >2x LOQ and the other is not detected	NC	J	UJ
If sample or duplicate result is <2x LOQ and the other is not detected	NC	No qualification	No qualification

Notes:

LOQ	=	Limit of quantitation
J	=	Estimated (Refer to Attachment B)
UJ	=	Undetected and estimated (Refer to Attachment B)

Qualifications Actions

The data was reviewed independently from the laboratory to assess data quality. All compounds detected at concentrations less than the limit of quantitation (LOQ) but greater than the method detection limit were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation. Any sample that was analyzed at a dilution because of high concentrations of target or non-targets was checked to confirm that the results and/or sample-specific LOQs and limit of detections were adjusted accordingly by the laboratory.

No results were rejected; therefore, analytical completeness was calculated to be 100 percent. Data not qualified during data review are considered usable by the project. The remaining results qualified as estimated may be high or low, but the data are usable for their intended purpose, according to U.S. Environmental Protection Agency and Department of Defense guidelines. Table 1 shows a summary of qualified data as a result of validation actions. Final data review qualifiers

used to describe results and how they should be interpreted by the end data user are provided in Attachment B and Attachment C. Attachment D provides final results after data review.

ATTACHMENTS

Attachment A: Nonconformance Summary Table
Attachment B: Qualifier Codes and Explanations
Attachment C: Reason Codes and Explanations
Attachment D: Final Results after Data Review

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-120814-718-720	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	2-BUTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	ACETONE	17	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-120814-718-720	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-120814-718-720	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-120814-718-720	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1,1-TRICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1,2,2-TETRACHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1,2-TRICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1-DICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,1-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2,4-TRICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DIBROMO-3-CHLOROPROPANE	3.0	3.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DIBROMOETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DICHLOROETHENE, TOTAL	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,2-DICHLOROPROPANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,3-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	1,4-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	2-BUTANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-120814-738-740	2-HEXANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-120814-738-740	4-METHYL-2-PENTANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-120814-738-740	ACETONE	22	10	20	UG_L	UJ	bt,mc
VPB153-GW-120814-738-740	BENZENE	2.0	2.0	4.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-120814-738-740	BROMODICHLOROMETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	BROMOFORM	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	BROMOMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CARBON DISULFIDE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CARBON TETRACHLORIDE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CHLOROETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CHLOROFORM	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CHLOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CIS-1,2-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CIS-1,3-DICHLOROPROPENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	CYCLOHEXANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	DIBROMOCHLOROMETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	DICHLORODIFLUOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	ETHYLBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	ISOPROPYLBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	M- AND P-XYLENE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	METHYL ACETATE	3.0	3.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	METHYL CYCLOHEXANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	METHYL TERT-BUTYL ETHER	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	METHYLENE CHLORIDE	10	10	20	UG_L	UJ	mc
VPB153-GW-120814-738-740	O-XYLENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	STYRENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	TETRACHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	TOLUENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	TRANS-1,2-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	TRANS-1,3-DICHLOROPROPENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	TRICHLOROETHENE	2.8	2.0	4.0	UG_L	J	mc
VPB153-GW-120814-738-740	TRICHLOROFLUOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	VINYL CHLORIDE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-120814-738-740	XYLENES, TOTAL	6.0	6.0	12	UG_L	UJ	mc
VPB153-SOIL-112014-423-425	TOTAL ORGANIC CARBON	6800	460	620	UG_G	J	fd
VPB153-SOIL-D-112014	TOTAL ORGANIC CARBON	2800	460	620	UG_G	J	fd

Notes:

ID	=	Identification
LOD	=	Limit of detection
LOQ	=	Limit of quantitation
UG_L	=	Micrograms per liter
UG_G	=	Micrograms per gram
Validation Qual	=	Qualifier codes and explanation (Refer to Attachment B)
Reason Code	=	Reason code (Refer to Attachment C)

Attachment A
Non Conformance Summary Table

Table (A-1)
Field Blanks

Blank ID	Analyte	Blank Result (UG_L)	LOD	LOQ	Associated Samples	Sample Result (UG_L)	Qualifier
VPB153-TRIP BLANK	ACETONE	7.0	2.5	5.0	VPB153-GW-120814-718-720	17	U
VPB153-TRIP BLANK	ACETONE	7.0	2.5	5.0	VPB153-GW-120814-738-740	22	U

Notes:

LOD = Limit of detection
LOQ = Limit of quantitation
UG_L = Micrograms per liter
U = Sample qualified as undetected "U" because the analyte concentration was less than the LOQ.

Table (A-2)
Field Duplicate

Sample ID	Duplicate ID	Compound	Sample Result (UG_G)	Duplicate Result (UG_G)	LOQ	RPD	Qualifiers
VPB153-SOIL-112014-423-425	VPB153-SOIL-D-112014	TOTAL ORGANIC CARBON	6800	2800	620	83.3	J - both results

Notes:

UG_G = Micrograms per gram
LOQ = Limit of quantitation
RPD = Relative percent difference
J = Estimated value

Attachment B
Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual quantitation limit necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Attachment C
Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bt	Trip blank contamination
c	Calibration issue
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
mc	Method compliance non-conformance
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results

Attachment D
Final Results after Data Review

		Lab ID	TH0532-1		
		Sample ID	VPB153-GW-120814-718-720		
		Sample Date	12/8/2014		
		Sample Type	Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

			Lab ID	TH0532-2DL		
			Sample ID	VPB153-GW-120814-738-740		
			Sample Date	12/8/2014		
			Sample Type	Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	2	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	2	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	2	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	3	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	2	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	4	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	2	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	2	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	2	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	10	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	10	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	10	UJ	mc
8260C	ACETONE	67-64-1	UG_L	10	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	2	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	2	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	2	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	4	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	2	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	2	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	2	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	4	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	2	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	4	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	2	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	2	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	2	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	4	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	2	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	2	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	4	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	3	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	2	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	2	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	10	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	2	UJ	mc
8260C	STYRENE	100-42-5	UG_L	2	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	2	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	2	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	2	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	2	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	2.8	J	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	4	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	4	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	6	UJ	mc

			Lab ID	TH0532-3		
			Sample ID	VPB153-TRIP BLANK-121114		
			Sample Date	12/11/2014		
			Sample Type	Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	7		
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

			Sample Delivery Group	TH0532		
			Lab ID	TH0532-4		
			Sample ID	VPB153-SOIL-112014-423-425		
			Sample Date	11/20/2014		
			Sample Type	Soil		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
9060A	TOTAL ORGANIC CARBON	-28	UG_G	6800	J	fd

			Sample Delivery Group	TH0532		
			Lab ID	TH0532-5		
			Sample ID	VPB153-SOIL-D-112014		
			Sample Date	11/20/2014		
			Sample Type	Field Duplicate		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
9060A	TOTAL ORGANIC CARBON	-28	UG_G	2800	J	fd

Notes:

ID = Identification
UG_L = Micrograms per liter
UG_G = Micrograms per gram
Qual = Final qualifier (Refer to Attachment B)
RC = Reason code (Refer to Attachment C)

Report of Analytical Results

Client: ENSAFE
Lab ID: TH0393-7
Client ID: VPB153-TB-120514
Project: Navy Clean WE15-03-06 NW
SDG: TH0393
Lab File ID: C0386.D

Sample Date: 05-DEC-14
Received Date: 06-DEC-14
Extract Date: 08-DEC-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG155321

Analysis Date: 08-DEC-14
Analyst: REC
Analysis Method: SW846 8260C
Matrix: AQ
% Solids: NA
Report Date: 09-DEC-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Xylenes (total)	U	1.5	ug/L	1	3	3.0	0.25	1.5
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
Methyl Acetate	U	0.75	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.50	ug/L	1	1	1.0	0.30	0.50
o-Xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
M+P-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
1,2-Dichloroethylene (Total)	U	1.0	ug/L	1	2	2.0	0.21	1.0
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
1,2-Dibromo-3-Chloropropane	U	0.75	ug/L	1	1	1.0	0.50	0.75
P-Bromofluorobenzene		94.8	%					
Toluene-d8		95.2	%					
1,2-Dichloroethane-d4		96.2	%					
Dibromofluoromethane		91.2	%					

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DATA VALIDATION REPORT

Project:	Regional Groundwater Investigation — NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Sample Delivery Group:	TH0715	
Analyses/Method:	Volatile Organic Compounds (VOCs) by U.S. EPA SW-846 Method 8260C	
Validation Level:	3	
Project Number:	0888812477.SA.DV	
Prepared by:	Dana Miller/Resolution Consultants	Completed on: 01/26/2015
Reviewed by:	Tina Cantwell/Resolution Consultants	File Name: TH0715_8260C

SUMMARY

This report summarizes data review findings for samples listed below, collected by Resolution Consultants from the Regional Groundwater Investigation — NWIRP Bethpage site on 15 to 16 December 2014 in accordance with the following Sampling and Analysis Plans:

- *Sampling and Analysis Plan, Bethpage, New York,* April 2013.
- *UFP SAP Addendum, Inclusion of Additional Target Analytes for Volatile Organics Analyses, NWIRP Bethpage OU2, Bethpage, New York, August 2014.*
- *UFP SAP Addendum, Installation of Vertical Profile Borings and Monitoring Wells, Operable Unit 2, NWIRP Bethpage, New York,* November 2013.

Sample ID	Matrix/Sample Type	Analysis
VPB153-GW-121514-798-800	Ground water	8260C
VPB153-GW-121514-818-820	Ground water	8260C
VPB153-GW-121514-838-840	Ground water	8260C
VPB153-GW-121614-878-880	Ground water	8260C
VPB153-GW-121614-898-900	Ground water	8260C
VPB153-GW-121614-918-920	Ground water	8260C
VPB153-TRIP BLANK-121814	Trip Blank	8260C

Data validation activities were conducted using the following guidance documents: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (U.S. EPA, 2006), *U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional*

Guidelines for Superfund Organic Methods Data Review (NFG, June 2008), and Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following parameters (where applicable to the method):

✗	Data completeness (chain-of-custody [COC])/sample integrity
✓	Holding times and sample preservation
✓	GC/MS performance checks
✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/trip blanks
✓	Surrogate spike recoveries
NA	Matrix spike (MS) and/or matrix spike duplicate (MSD) results
✓	Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) results
NA	Field duplicates
✓	Internal standards
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. Acceptable data parameters for which all criteria were met and no qualification was performed and non-conformance or other issues that were noted during validation, but did not result in qualification of data are not discussed further. The symbol (✗) indicates that a QC non-conformance resulted in the qualification of data. Any QC non-conformance that resulted in the qualification of data is discussed below.

RESULTS

Data Completeness/Sample Integrity

The data package was reviewed and found to meet acceptance criteria for completeness:

- the COCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody;

- the laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory;

- completeness of analyses was verified by comparing the reported results to the COC request.

Due to limitations in the reporting system, the laboratory omitted the first characters "VPB-" and middle characters "GW-" from the sample ID in all samples, and truncated Trip Blank to "TB" in the report. Below shows a list of samples that were mostly comprised of soil and not very much liquid:

- VPB153-GW-121514-798-800 had three vials decanted, composited into one vial and analyzed at a dilution of 1:4;

- VPB153-GW-121514-818-820, VPB153-GW-121514-898-900, and VPB153-GW-121514-918-920 had two vials decanted and composited into one vial for each sample prior to analysis;

- VPB153-GW-121514-838-840 and VPB153-GW-121514-878-880 had three vials decanted and composited into one vial for each sample prior to analysis.

Positive and non-detected results for both samples listed above were qualified as estimated (J and UJ) respectively due to possible loss of sample integrity during the decanting process.

Laboratory Blanks/Trip Blanks

Laboratory blanks and trip blanks were analyzed with samples to assess contamination imparted by sample preparation and/or analysis. All results associated with a particular laboratory blank were evaluated to determine whether there was an inherent variability in the data, or if a problem was an isolated occurrence that did not affect the data. Samples were flagged in accordance with *Functional Guidelines* (shown below) where detections were not believed to be site-related.
Non-conformances are summarized in Attachment A in Table A-1.

Blank Non-conformances Chart:

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	< 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U. If the result is > 2x blank result, no qualification is required.

Blank type	Blank result	Sample result	Action for samples
Method, Storage, Trip,	Detects	Not detected	No qualification
	= 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	Gross contamination	Detects	Qualify results as unusable R

Notes:

LOQ = Limit of quantitation
U = Undetected (Refer to Attachment B)
R = Rejected

Qualifications Actions

The data was reviewed independently from the laboratory to assess data quality. All compounds detected at concentrations less than the limit of quantitation (LOQ) but greater than the method detection limit were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation. Any sample that was analyzed at a dilution because of high concentrations of target or non-targets was checked to confirm that the results and/or sample-specific LOQs and limit of detections were adjusted accordingly by the laboratory.

No results were rejected; therefore, analytical completeness was calculated to be 100 percent. Data not qualified during data review are considered usable by the project. The remaining results qualified as estimated may be high or low, but the data are usable for their intended purpose, according to U.S. Environmental Protection Agency and Department of Defense guidelines. Table 1 shows a summary of qualified data as a result of validation actions. Final data review qualifiers used to describe results and how they should be interpreted by the end data user are provided in Attachment B and Attachment C. Attachment D provides final results after data review.

ATTACHMENTS

Attachment A: Nonconformance Summary Table
Attachment B: Qualifier Codes and Explanations
Attachment C: Reason Codes and Explanations
Attachment D: Final Results after Data Review

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121514-798-800	1,1,1-TRICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,1,2,2-TETRACHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,1,2-TRICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,1-DICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,1-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2,4-TRICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DIBROMO-3-CHLOROPROPANE	3.0	3.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DIBROMOETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DICHLOROETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DICHLOROETHENE, TOTAL	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,2-DICHLOROPROPANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,3-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	1,4-DICHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	2-BUTANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-121514-798-800	2-HEXANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-121514-798-800	4-METHYL-2-PENTANONE	10	10	20	UG_L	UJ	mc
VPB153-GW-121514-798-800	ACETONE	11	10	20	UG_L	UJ	bt,mc
VPB153-GW-121514-798-800	BENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	BROMODICHLOROMETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	BROMOFORM	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	BROMOMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CARBON DISULFIDE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CARBON TETRACHLORIDE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CHLOROBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CHLOROETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CHLOROFORM	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CHLOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CIS-1,2-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CIS-1,3-DICHLOROPROPENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	CYCLOHEXANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	DIBROMOCHLOROMETHANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	DICHLORODIFLUOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	ETHYLBENZENE	2.0	2.0	4.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121514-798-800	ISOPROPYLBENZENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	M- AND P-XYLENE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	METHYL ACETATE	3.0	3.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	METHYL CYCLOHEXANE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	METHYL TERT-BUTYL ETHER	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	METHYLENE CHLORIDE	10	10	20	UG_L	UJ	mc
VPB153-GW-121514-798-800	O-XYLENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	STYRENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TETRACHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TOLUENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TRANS-1,2-DICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TRANS-1,3-DICHLOROPROPENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TRICHLOROETHENE	2.0	2.0	4.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	TRICHLOROFLUOROMETHANE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	VINYL CHLORIDE	4.0	4.0	8.0	UG_L	UJ	mc
VPB153-GW-121514-798-800	XYLENES, TOTAL	6.0	6.0	12	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	2-BUTANONE	1.7	2.5	5.0	UG_L	J	mc
VPB153-GW-121514-818-820	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	ACETONE	11	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-121514-818-820	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121514-818-820	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-818-820	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121514-838-840	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	2-BUTANONE	2.5	2.5	5.0	UG_L	J	mc
VPB153-GW-121514-838-840	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	ACETONE	15	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-121514-838-840	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121514-838-840	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121514-838-840	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	2-BUTANONE	2.0	2.5	5.0	UG_L	J	mc
VPB153-GW-121614-878-880	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	ACETONE	12	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-121614-878-880	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121614-878-880	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-878-880	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121614-898-900	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	2-BUTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	ACETONE	11	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-121614-898-900	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121614-898-900	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-898-900	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1,1-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1,2,2-TETRACHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1,2-TRICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,1-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2,4-TRICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DIBROMO-3-CHLOROPROPANE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DIBROMOETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DICHLOROETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DICHLOROETHENE, TOTAL	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,2-DICHLOROPROPANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,3-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	1,4-DICHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	2-BUTANONE	2.1	2.5	5.0	UG_L	J	mc
VPB153-GW-121614-918-920	2-HEXANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	4-METHYL-2-PENTANONE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	ACETONE	15	2.5	5.0	UG_L	UJ	bt,mc
VPB153-GW-121614-918-920	BENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	BROMODICHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	BROMOFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	BROMOMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CARBON DISULFIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CARBON TETRACHLORIDE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CHLOROBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CHLOROETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CHLOROFORM	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CHLOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CIS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CIS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc

Table 1
Data Validation Summary of Qualified Data

Sample ID	Compound	Result	LOD	LOQ	Units	Validation Qualifiers	Reason Code
VPB153-GW-121614-918-920	DIBROMOCHLOROMETHANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	DICHLORODIFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	ETHYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	ISOPROPYLBENZENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	M- AND P-XYLENE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	METHYL ACETATE	0.75	0.75	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	METHYL CYCLOHEXANE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	METHYL TERT-BUTYL ETHER	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	METHYLENE CHLORIDE	2.5	2.5	5.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	O-XYLENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	STYRENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TETRACHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TOLUENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TRANS-1,2-DICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TRANS-1,3-DICHLOROPROPENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TRICHLOROETHENE	0.50	0.50	1.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	TRICHLOROFLUOROMETHANE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	VINYL CHLORIDE	1.0	1.0	2.0	UG_L	UJ	mc
VPB153-GW-121614-918-920	XYLENES, TOTAL	1.5	1.5	3.0	UG_L	UJ	mc

Notes:

ID	=	Identification
LOD	=	Limit of detection
LOQ	=	Limit of quantitation
UG_L	=	Micrograms per liter
Validation Qual	=	Qualifier codes and explanation (Refer to Attachment B)
Reason Code	=	Reason code (Refer to Attachment C)

Attachment A
Non Conformance Summary Table

Table (A-1)
Field Blanks

Blank ID	Analyte	Blank Result (UG_L)	LOD	LOQ	Associated Samples	Sample Result (UG_L)	Qualifier
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	20	VPB153-GW-121514-798-800	11	U
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	5.0	VPB153-GW-121514-818-820	11	U
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	5.0	VPB153-GW-121514-838-840	15	U
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	5.0	VPB153-GW-121614-878-880	12	U
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	5.0	VPB153-GW-121614-898-900	11	U
VPB153-TRIP BLANK-121814	ACETONE	5.6	2.5	5.0	VPB153-GW-121614-918-920	15	U

Notes:

LOD = Limit of detection
LOQ = Limit of quantitation
UG_L = Micrograms per liter
U = Sample qualified as undetected “U” because the analyte concentration was less than the LOQ.

Attachment B
Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual quantitation limit necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Attachment C
Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bt	Trip blank contamination
c	Calibration issue
d	Reporting limit raised due to chromatographic interference
fd	Field duplicate RPDs
h	Holding times
i	Internal standard areas
k	Estimated Maximum Possible Concentration (EMPC)
l	LCS or OPR recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
mc	Method compliance non-conformance
md	Matrix spike/matrix spike duplicate RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
r	Dual column RPD
q	Quantitation issue
s	Surrogate recovery
su	Ion suppression
t	Temperature preservation issue
x	Percent solids
y	Serial dilution results
z	ICS results

Attachment D
Final Results after Data Review

		Lab ID		TH0715-1DL		
		Sample ID		VPB153-GW-121514-798-800		
		Sample Date		12/15/2014		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	2	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	2	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	2	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	3	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	2	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	4	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	2	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	2	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	2	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	10	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	10	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	10	UJ	mc
8260C	ACETONE	67-64-1	UG_L	10	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	2	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	2	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	2	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	4	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	2	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	2	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	2	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	4	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	2	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	4	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	2	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	2	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	2	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	4	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	2	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	2	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	4	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	3	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	2	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	2	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	10	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	2	UJ	mc
8260C	STYRENE	100-42-5	UG_L	2	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	2	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	2	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	2	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	2	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	2	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	4	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	4	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	6	UJ	mc

		Lab ID		TH0715-2		
		Sample ID		VPB153-GW-121514-818-820		
		Sample Date		12/15/2014		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	1.7	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

			Lab ID	TH0715-3		
			Sample ID	VPB153-GW-121514-838-840		
			Sample Date	12/15/2014		
			Sample Type	Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

		Lab ID		TH0715-4		
		Sample ID		VPB153-GW-121614-878-880		
		Sample Date		12/16/2014		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

		Lab ID		TH0715-5		
		Sample ID		VPB153-GW-121614-898-900		
		Sample Date		12/16/2014		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

			Lab ID	TH0715-6		
			Sample ID	VPB153-GW-121614-918-920		
			Sample Date	12/16/2014		
			Sample Type	Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.1	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	bt,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

			Lab ID	TH0715-7		
			Sample ID	VPB153-TRIP BLANK-121814		
			Sample Date	12/18/2014		
			Sample Type	Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	5.6		
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

ID = Identification
UG_L = Micrograms per liter
Qual = Final qualifier (Refer to Attachment B)
RC = Reason code (Refer to Attachment C)

Section 5

VPB 153 Analytical Data Table

Vertical Profile Boring 153 Analytical Data Table
Naval Weapons Industrial Reserve Plant
Bethpage - Bethpage, New York

Resolution Consultants

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/12/2014	11/12/2014	11/13/2014	11/13/2014
Sample ID		VPB153-GW-111214-58-60	VPB153-GW-111214-98-100	VPB153-GW-111314-148-150	VPB153-GW-111314-198-200
Sample Interval		58 - 60 ft	98 - 100 ft	148 - 150 ft	198 - 200 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2-TRICHLOROETHANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1-DICHLOROETHANE	5	< 0.50 U	**0.36 J**	< 0.50 U	< 0.50 U
1,1-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2,4-TRICHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 U***	***< 0.75 U***	***< 0.75 U***	***< 0.75 U***
1,2-DIBROMOETHANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 U	< 1.0 U	< 1.0 U	**0.24 J**
1,2-DICHLOROPROPANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,3-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,4-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
2-BUTANONE	50	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
2-HEXANONE	50	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
4-METHYL-2-PENTANONE	NL	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
ACETONE	50	< 9.4 U	< 5.6 U	< 7.9 U	< 6.4 U
BENZENE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
BROMODICHLOROMETHANE	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
BROMOFORM	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
BROMOMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CARBON DISULFIDE	60	< 0.50 U	< 0.50 U	< 1.0 U	< 0.50 U
CARBON TETRACHLORIDE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
CHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
CHLOROETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CHLOROFORM	7	**0.46 J**	< 0.50 U	< 0.50 U	**0.35 J**
CHLOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CIS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	**0.24 J**
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***
CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
DIBROMOCHLOROMETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
DICHLORODIFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
ETHYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
ISOPROPYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
M- AND P-XYLENE	NL	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
METHYL ACETATE	NL	< 0.75 U	< 0.75 U	< 0.75 U	< 0.75 U
METHYL CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
METHYL TERT-BUTYL ETHER	10	< 0.50 U	< 0.50 U	< 0.50 U	**0.54 J**
METHYLENE CHLORIDE	5	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
O-XYLENE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
STYRENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TETRACHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	**0.98 J**
TOLUENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TRANS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***
TRICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	**21 J**
TRICHLOROFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
VINYL CHLORIDE	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
XYLENES, TOTAL	5	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/13/2014	11/14/2014	11/14/2014	11/14/2014
Sample ID		VPB153-GW-D-111314	VPB153-GW-111414-218-220	VPB153-GW-111414-238-240	VPB153-GW-111414-258-260
Sample Interval		198 - 200 ft	218 - 220 ft	238 - 240 ft	258 - 260 ft
Sample type code		FD	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1,2-TRICHLOROETHANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,1-DICHLOROETHANE	5	< 0.50 U	< 0.50 U	**1.0**	< 0.50 U
1,1-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2,4-TRICHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 U***	***< 0.75 U***	***< 0.75 U***	***< 0.75 U***
1,2-DIBROMOETHANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,2-DICHLOROETHANE	5	< 0.50 U	< 0.50 U	**3.4**	**1.1**
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 U	**1.3 J**	**0.77 J**	< 1.0 U
1,2-DICHLOROPROPANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,3-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
1,4-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
2-BUTANONE	50	< 2.5 UJ	< 2.5 U	< 2.5 U	< 2.5 U
2-HEXANONE	50	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
4-METHYL-2-PENTANONE	NL	< 2.5 U	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
ACETONE	50	< 2.5 U	< 5.6 U	< 5.3 U	< 9.5 U
BENZENE	1	< 0.50 U	< 0.50 U	**1.0**	**0.50 J**
BROMODICHLOROMETHANE	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
BROMOFORM	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
BROMOMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CARBON DISULFIDE	60	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
CARBON TETRACHLORIDE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
CHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
CHLOROETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CHLOROFORM	7	< 0.50 U	**0.45 J**	**1.3**	**0.54 J**
CHLOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CIS-1,2-DICHLOROETHENE	5	< 0.50 U	**1.3**	**0.77 J**	< 0.50 U
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***
CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
DIBROMOCHLOROMETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
DICHLORODIFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
ETHYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
ISOPROPYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
M- AND P-XYLENE	NL	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
METHYL ACETATE	NL	< 0.75 U	< 0.75 U	< 0.75 U	< 0.75 U
METHYL CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
METHYL TERT-BUTYL ETHER	10	< 0.50 U	**0.48 J**	**2.6**	**2.4**
METHYLENE CHLORIDE	5	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
O-XYLENE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
STYRENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TETRACHLOROETHENE	5	< 0.50 U	**1.6**	< 0.50 U	< 0.50 U
TOLUENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TRANS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***
TRICHLOROETHENE	5	< 0.50 UJ	**53**	**51**	**4.8**
TRICHLOROFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
VINYL CHLORIDE	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
XYLENES, TOTAL	5	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/17/2014	11/17/2014	11/17/2014	11/18/2014
Sample ID		VPB153-GW-111714-278-280	VPB153-GW-111714-298-300	VPB153-GW-111714-318-320	VPB153-GW-111814-338-340
Sample Interval		278 - 280 ft	298 - 300 ft	318 - 320 ft	338 - 340 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 U***	***< 0.75 U***	***< 0.75 U***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
2-BUTANONE	50	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 UJ
2-HEXANONE	50	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 UJ	< 2.5 UJ	< 2.5 U	< 2.5 UJ
ACETONE	50	< 9.7 U	< 5.7 U	**3.9 J**	**3.2 J**
BENZENE	1	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
BROMOFORM	50	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
BROMOMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
CARBON DISULFIDE	60	< 0.50 U	< 0.50 U	< 1.0 U	< 1.0 UJ
CARBON TETRACHLORIDE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
CHLOROETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
CHLOROFORM	7	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
CHLOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 U	< 0.75 U	< 0.75 U	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	**5.2**	**0.46 J**	< 0.50 U	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 UJ
O-XYLENE	NL	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
STYRENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
TOLUENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 U***	***< 0.50 U***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 UJ

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/18/2014	11/19/2014	11/19/2014	11/20/2014
Sample ID		VPB153-GW-111814-358-360	VPB153-GW-111914-378-380	VPB153-GW-111914-403-405	VPB153-GW-112014-418-420
Sample Interval		358 - 360 ft	378 - 380 ft	403 - 405 ft	418 - 420 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 UJ***	***< 0.75 UJ***	***< 0.75 UJ***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
2-BUTANONE	50	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
2-HEXANONE	50	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
ACETONE	50	**4.9 J**	**16 J**	**7.0 J**	**4.4 J**
BENZENE	1	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMOFORM	50	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMOMETHANE	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
CARBON DISULFIDE	60	< 1.2 UJ	< 1.0 UJ	< 0.50 UJ	< 1.0 UJ
CARBON TETRACHLORIDE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROETHANE	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
CHLOROFORM	7	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROMETHANE	5	< 2.0 UJ	< 2.0 UJ	< 1.0 UJ	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 UJ	< 0.75 UJ	< 0.75 UJ	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
O-XYLENE	NL	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
STYRENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TOLUENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 UJ	< 1.5 UJ	< 1.5 UJ	< 1.5 UJ

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/20/2014	11/20/2014	11/21/2014	11/25/2014
Sample ID		VPB153-GWD-112014	VPB153-GW-112014-438-440	VPB153-GW-112114-458-460	VPB153-GW-112514-483-485
Sample Interval		418 - 420 ft	438 - 440 ft	458 - 460 ft	483 - 485 ft
Sample type code		FD	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 UJ***	***< 0.75 U***	***< 0.75 UJ***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
2-BUTANONE	50	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
2-HEXANONE	50	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
ACETONE	50	**5.8 J**	**4.5 J**	**14 J**	< 9.4 UJ
BENZENE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMOFORM	50	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMOMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CARBON DISULFIDE	60	< 1.0 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CARBON TETRACHLORIDE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CHLOROFORM	7	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 UJ	< 0.75 U	< 0.75 UJ	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
O-XYLENE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
STYRENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TOLUENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 UJ	< 1.5 U	< 1.5 UJ	< 1.5 UJ

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	11/25/2014	11/26/2014	12/1/2014	12/2/2014
Sample ID		VPB153-GW-112514-498-500	VPB153-GW-112614-518-520	VPB153-GW-120114-538-540	VPB153-GW-120214-578-580
Sample Interval		498 - 500 ft	518 - 520 ft	538 - 540 ft	578 - 580 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 UJ***	***< 0.75 U***	***< 0.75 UJ***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
2-BUTANONE	50	< 2.5 UJ	< 2.5 U	**1.6 J**	< 2.5 UJ
2-HEXANONE	50	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
ACETONE	50	< 5.0 UJ	< 5.0 U	< 12 UJ	< 13 UJ
BENZENE	1	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMOFORM	50	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
BROMOMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CARBON DISULFIDE	60	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CARBON TETRACHLORIDE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CHLOROFORM	7	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CHLOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 UJ	< 0.75 U	< 0.75 UJ	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 UJ	< 2.5 U	< 2.5 UJ	< 2.5 UJ
O-XYLENE	NL	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
STYRENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TOLUENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 UJ	< 0.50 U	< 0.50 UJ	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 UJ	< 1.0 U	< 1.0 UJ	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 UJ	< 1.5 U	< 1.5 UJ	< 1.5 UJ

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	12/3/2014	12/3/2014	12/4/2014	12/4/2014
Sample ID		VPB153-GW-120314-603-605	VPB153-GW-120314-618-620	VPB153-GW-120414-638-640	VPB153-GW-120414-658-660
Sample Interval		603 - 605 ft	618 - 620 ft	638 - 640 ft	658 - 660 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 U***	***< 0.75 UJ***	***< 0.75 U***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
2-BUTANONE	50	< 2.5 U	< 2.5 UJ	< 2.5 U	< 2.5 UJ
2-HEXANONE	50	< 2.5 U	< 2.5 UJ	< 2.5 U	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 U	< 2.5 UJ	< 2.5 U	< 2.5 UJ
ACETONE	50	< 5.0 U	< 5.7 UJ	< 7.7 U	< 17 UJ
BENZENE	1	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
BROMOFORM	50	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
BROMOMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
CARBON DISULFIDE	60	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
CARBON TETRACHLORIDE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
CHLOROETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
CHLOROFORM	7	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
CHLOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 U	< 0.75 UJ	< 0.75 U	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 U	< 2.5 UJ	< 2.5 U	< 2.5 UJ
O-XYLENE	NL	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
STYRENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
TOLUENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 U***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 U	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 U	< 1.5 UJ	< 1.5 U	< 1.5 UJ

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	12/5/2014	12/5/2014	12/8/2014	12/8/2014
Sample ID		VPB153-GW-120514-678-680	VPB153-GW-120514-698-700	VPB153-GW-120814-718-720	VPB153-GW-120814-738-740
Sample Interval		678 - 680 ft	698 - 700 ft	718 - 720 ft	738 - 740 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 U	< 0.50 UJ	< 0.50 UJ	***< 2.0 UJ***
1,1-DICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,1-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 U***	***< 0.75 UJ***	***< 0.75 UJ***	***< 3.0 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,2-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,2-DICHLOROETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 U	< 0.50 UJ	< 0.50 UJ	***< 2.0 UJ***
1,3-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
1,4-DICHLOROBENZENE	3	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
2-BUTANONE	50	< 2.5 U	< 2.5 UJ	< 2.5 UJ	< 10 UJ
2-HEXANONE	50	< 2.5 U	< 2.5 UJ	< 2.5 UJ	< 10 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 U	< 2.5 UJ	< 2.5 UJ	< 10 UJ
ACETONE	50	< 5.0 U	< 13 UJ	< 2.5 UJ	< 10 UJ
BENZENE	1	< 0.50 U	< 0.50 UJ	< 0.50 UJ	***< 2.0 UJ***
BROMODICHLOROMETHANE	50	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
BROMOFORM	50	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
BROMOMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
CARBON DISULFIDE	60	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
CARBON TETRACHLORIDE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
CHLOROBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
CHLOROETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
CHLOROFORM	7	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
CHLOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***	***< 2.0 UJ***
CYCLOHEXANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
ETHYLBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
ISOPROPYLBENZENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
M- AND P-XYLENE	NL	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
METHYL ACETATE	NL	< 0.75 U	< 0.75 UJ	< 0.75 UJ	< 3.0 UJ
METHYL CYCLOHEXANE	NL	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
METHYLENE CHLORIDE	5	< 2.5 U	< 2.5 UJ	< 2.5 UJ	***< 10 UJ***
O-XYLENE	NL	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
STYRENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
TETRACHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
TOLUENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	< 2.0 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 U***	***< 0.50 UJ***	***< 0.50 UJ***	***< 2.0 UJ***
TRICHLOROETHENE	5	< 0.50 U	< 0.50 UJ	< 0.50 UJ	**2.8 J**
TRICHLOROFLUOROMETHANE	5	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 4.0 UJ
VINYL CHLORIDE	2	< 1.0 U	< 1.0 UJ	< 1.0 UJ	***< 4.0 UJ***
XYLENES, TOTAL	5	< 1.5 U	< 1.5 UJ	< 1.5 UJ	***< 6.0 UJ***

Location		VPB153	VPB153	VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	12/15/2014	12/15/2014	12/15/2014	12/16/2014
Sample ID		VPB153-GW-121514-798-800	VPB153-GW-121514-818-820	VPB153-GW-121514-838-840	VPB153-GW-121614-878-880
Sample Interval		798 - 800 ft	818 - 820 ft	838 - 840 ft	878 - 880 ft
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	***< 2.0 UJ***	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 3.0 UJ***	***< 0.75 UJ***	***< 0.75 UJ***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
1,2-DICHLOROPROPANE	1	***< 2.0 UJ***	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
2-BUTANONE	50	< 10 UJ	**1.7 J**	**2.5 J**	**2.0 J**
2-HEXANONE	50	< 10 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 10 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
ACETONE	50	< 10 UJ	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
BENZENE	1	***< 2.0 UJ***	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMOFORM	50	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
BROMOMETHANE	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
CARBON DISULFIDE	60	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CARBON TETRACHLORIDE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROBENZENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROETHANE	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
CHLOROFORM	7	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CHLOROMETHANE	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 2.0 UJ***	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
ETHYLBENZENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
ISOPROPYLBENZENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
M- AND P-XYLENE	NL	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
METHYL ACETATE	NL	< 3.0 UJ	< 0.75 UJ	< 0.75 UJ	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
METHYLENE CHLORIDE	5	***< 10 UJ***	< 2.5 UJ	< 2.5 UJ	< 2.5 UJ
O-XYLENE	NL	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
STYRENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TETRACHLOROETHENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TOLUENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 2.0 UJ***	***< 0.50 UJ***	***< 0.50 UJ***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 2.0 UJ	< 0.50 UJ	< 0.50 UJ	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 4.0 UJ	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
VINYL CHLORIDE	2	***< 4.0 UJ***	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ
XYLENES, TOTAL	5	***< 6.0 UJ***	< 1.5 UJ	< 1.5 UJ	< 1.5 UJ

Location		VPB153	VPB153
Sample Date	NYSDEC Groundwater Guidance or Standard Value (Note 1)	12/16/2014	12/16/2014
Sample ID		VPB153-GW-121614-898-900	VPB153-GW-121614-918-920
Sample Interval		898 - 900 ft	918 - 920 ft
Sample type code		N	N
VOC 8260C (ug/L)			
1,1,1-TRICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	< 0.50 UJ	< 0.50 UJ
1,1,2-TRICHLOROETHANE	1	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ
1,1-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ
1,2,4-TRICHLOROBENZENE	5	< 0.50 UJ	< 0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***< 0.75 UJ***	***< 0.75 UJ***
1,2-DIBROMOETHANE	NL	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHANE	5	< 0.50 UJ	< 0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	< 1.0 UJ	< 1.0 UJ
1,2-DICHLOROPROPANE	1	< 0.50 UJ	< 0.50 UJ
1,3-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ
1,4-DICHLOROBENZENE	3	< 0.50 UJ	< 0.50 UJ
2-BUTANONE	50	< 2.5 UJ	**2.1 J**
2-HEXANONE	50	< 2.5 UJ	< 2.5 UJ
4-METHYL-2-PENTANONE	NL	< 2.5 UJ	< 2.5 UJ
ACETONE	50	< 2.5 UJ	< 2.5 UJ
BENZENE	1	< 0.50 UJ	< 0.50 UJ
BROMODICHLOROMETHANE	50	< 0.50 UJ	< 0.50 UJ
BROMOFORM	50	< 0.50 UJ	< 0.50 UJ
BROMOMETHANE	5	< 1.0 UJ	< 1.0 UJ
CARBON DISULFIDE	60	< 0.50 UJ	< 0.50 UJ
CARBON TETRACHLORIDE	5	< 0.50 UJ	< 0.50 UJ
CHLOROBENZENE	5	< 0.50 UJ	< 0.50 UJ
CHLOROETHANE	5	< 1.0 UJ	< 1.0 UJ
CHLOROFORM	7	< 0.50 UJ	< 0.50 UJ
CHLOROMETHANE	5	< 1.0 UJ	< 1.0 UJ
CIS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 UJ***
CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 UJ
DIBROMOCHLOROMETHANE	5	< 0.50 UJ	< 0.50 UJ
DICHLORODIFLUOROMETHANE	5	< 1.0 UJ	< 1.0 UJ
ETHYLBENZENE	5	< 0.50 UJ	< 0.50 UJ
ISOPROPYLBENZENE	5	< 0.50 UJ	< 0.50 UJ
M- AND P-XYLENE	NL	< 1.0 UJ	< 1.0 UJ
METHYL ACETATE	NL	< 0.75 UJ	< 0.75 UJ
METHYL CYCLOHEXANE	NL	< 0.50 UJ	< 0.50 UJ
METHYL TERT-BUTYL ETHER	10	< 0.50 UJ	< 0.50 UJ
METHYLENE CHLORIDE	5	< 2.5 UJ	< 2.5 UJ
O-XYLENE	NL	< 0.50 UJ	< 0.50 UJ
STYRENE	5	< 0.50 UJ	< 0.50 UJ
TETRACHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ
TOLUENE	5	< 0.50 UJ	< 0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***< 0.50 UJ***	***< 0.50 UJ***
TRICHLOROETHENE	5	< 0.50 UJ	< 0.50 UJ
TRICHLOROFLUOROMETHANE	5	< 1.0 UJ	< 1.0 UJ
VINYL CHLORIDE	2	< 1.0 UJ	< 1.0 UJ
XYLENES, TOTAL	5	< 1.5 UJ	< 1.5 UJ

Notes:

1 New York State Department of Environmental Conservation Division of Water Technical and Operation Guidance series (6 NYCRR 700-706, Part 703.5 summarized in TOGS 1.1.1)
Ambient water quality standards and groundwater effluent limitations, class GA; NL = Not Listed

Bold = Detected; ***Bold and Italics*** =Detection limit exceeds NYS Groundwater Standards or guidance value

Yellow highlighted values exceed Groundwater Standards or guidance value

Sample type codes: N - normal environmental sample, FD - field duplicate

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

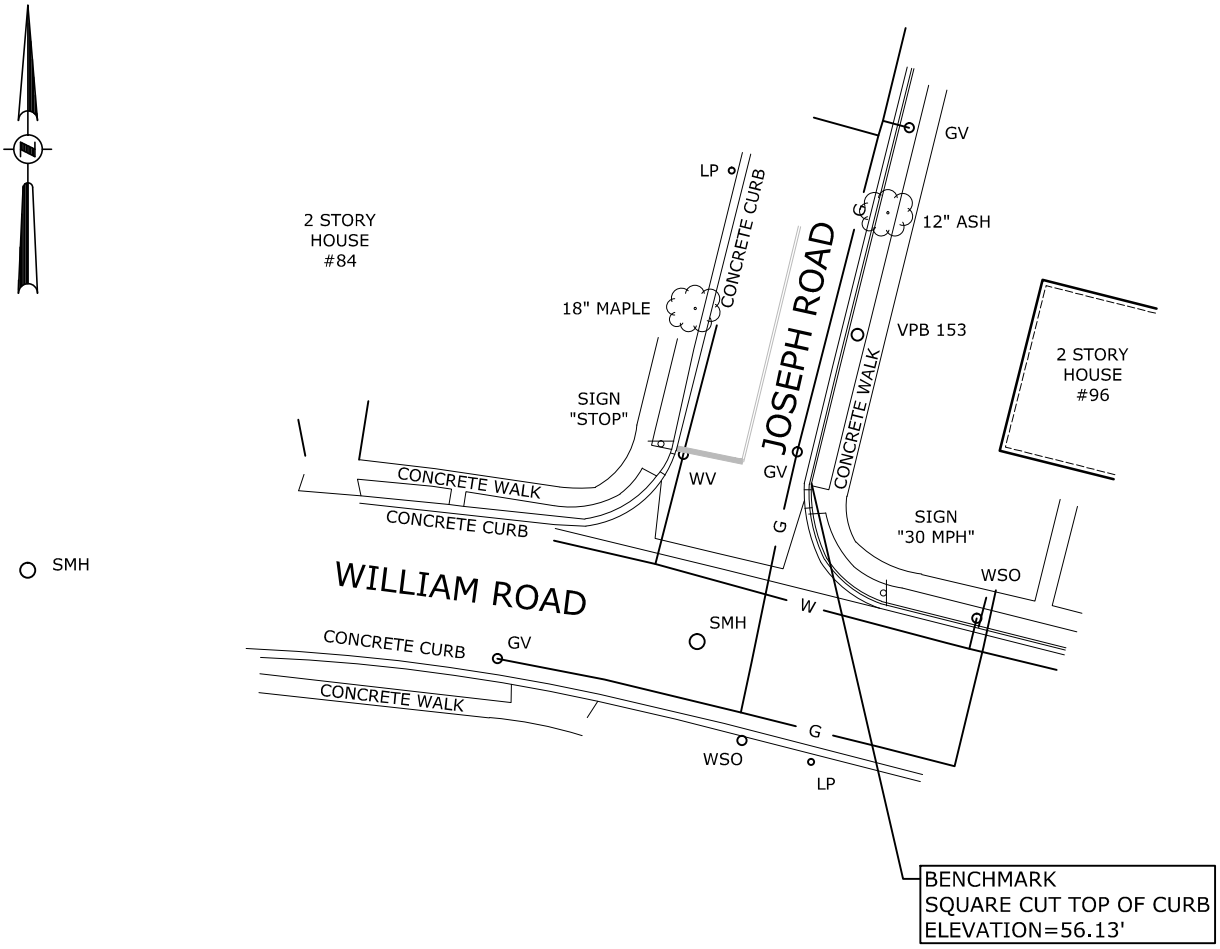
Section 6

Survey

NONE :XREFS

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

Description	Northing	Easting	Latitude	Longitude	Ground	Rim	PVC
VPB 153	197259.21	1128698.82	N40-42-24.94	W73-28-44.38	56.28	NA	NA



Legend

GV	Gas Valve
LP	Light Pole
SMH	Sanitary Manhole
VPB 153	Vertical Profile Boring
WSO	Water Shut Off
WV	Water Valve
G	Gas Line Markout
W	Water Line Markout

Map Notes

1. Information shown hereon was compiled from an actual field survey conducted on March 26, 2015.
2. North orientation is Grid North based on the New York State Plane Coordinate System, Long Island Zone, NAD 83 as obtained from GPS observations.
3. Vertical datum shown hereon is NAVD 88 as obtained from GPS observations.

BAR SCALE
40 0 20 40 80
1 inch = 40 ft.

DWG NO. 15-217

Date	RECORD OF WORK	Appr.

VERTICAL PROFILE BORING 153 SURVEY LOCATION
96 WILLIAM ROAD

TOWN OF OYSTER BAY | NASSAU COUNTY, NEW YORK

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Drafter: LMK	Checker: JFC
Appr. by: JFC	Proj. No. 14.4121
SCALE: 1"=40'	DATE: MARCH 26, 2015

CAD DWG. FILE NAME: K:\Projects\14412\1\Survey\Drawings and Maps\VPB 153.dwg