TETRA TECH

May 8, 2020

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Deferral Request
ConocoPhillips
Vacuum Abo Battery #3 Tank Release
Unit Letters M and L, Section 34, Township 17 South, Range 35 East
Lea County, New Mexico
1RP-3555
Incident ID NTO1506430213

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (COP) to evaluate assessment and remediation work that occurred in response to a release at the Vacuum Abo Battery #3, Unit Letter M and L, Section 34, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The well listed in the C-141 (Appendix A) is the EVGSAU 3440-005 (API # 30-025-26521) and its coordinates are 32.78844°, -103.45115°. This well is located on an adjacent lease pad northeast of the battery site. The approximate release point is inside the tank battery firewall with coordinates 32.78769°, -103.450280°. The site location is shown on Figures 1 and 2 found in Appendix B.

BACKGROUND

According to the State of New Mexico C-141 Initial Report, on March 3, 2015, COP was notified that a leak was observed at the Site. The release originated from a produced water tank overflow. Approximately 34 barrels (bbls) of oil and 2,240 bbls of produced water were released to a large area of caliche pad and adjacent pastureland. Vacuum trucks were called to the Site and recovered 28 bbls of oil and 1,837 bbls of produced water. Immediate response action taken was to shut in all related area production, and containment and cleanup activities started immediately. New Mexico Oil Conservation Division (NMOCD) was notified of the release on March 4, 2015. NMOCD received the initial C-141 on March 5, 2015 and it is associated with 1RP-3555. The incident ID for this release is NTO1506430213. The initial C-141 form is included in Appendix A.

Basin Environmental Service Technologies (Basin) was retained by COP in 2015 to visually assess and define the extent of soils impacted by the release. Basin personnel were on site to map the release extents on March 4, 2015. The initial release extent was recorded by Basin, as shown on Figure 1 in Appendix C.

After the release extents were mapped by Basin, COP operations were at the Site to remove the visually impacted material located on the lease pad and along the lease road using heavy equipment. In these areas, 4 inches of caliche material were removed and properly disposed of. The extent of the 4-inch scrape on the lease pad and lease road is shown in Figure 1.

Tetra Tech
901 West Wall St., Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The site is in a low karst potential area.

Based on data from the New Mexico Office of the State Engineer (NMOSE), there are nine water wells located in Section 34, Township 17 South, and Range 35 East. The average depth to water is 64 feet. The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

A risk-based evaluation was performed for the Site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chloride in soil.

Based upon the site characterization data, the proposed RRALs for soil are:

- Benzene: 10 milligrams per kilogram (mg/kg);
- Total BTEX (sum of benzene, toluene, ethylbenzene, and xylene): 50 mg/kg;
- TPH (GRO + DRO + ORO): 2,500 mg/kg;
- TPH (GRO + DRO): 1,000 mg/kg;
- Chloride: 10,000 mg/kg (600 mg/kg in the top four feet).

SITE ASSESSMENT

GHD Environmental and Consulting Inc. (GHD) was retained by COP in 2015 to complete an initial soil assessment at the Site. In August 2015, GHD personnel collected soil samples from 46 soil boring locations (advanced via hand auger) to delineate impacted soils in the vicinity of the release area. A total of 65 soil samples were submitted to Pace Analytical, and selected samples were analyzed for TPH, BTEX and chloride. Based on the analytical results, GHD submitted an initial soil assessment report that was received by NMOCD on December 10, 2015 (Appendix B). The soil boring locations/sample locations are shown on Figure 3, Appendix B. A copy of the laboratory analytical reports and the soil analytical summary table associated with the initial soil assessment are included in Appendix B. In their report, GHD concluded that that the horizontal extent of hydrocarbon affected soils appeared to be delineated; however, additional vertical delineation was warranted in several locations, including the areas inside the earthen containment berms.

Basin was then again retained by COP in 2016 to further assess and delineate the release. On February 9, 2016, four (4) verticals (Vert 1 through Vert 4) were installed and soil samples were taken at regular depth intervals. Additionally, Basin installed two (2) soil borings (SB-1 and SB-2) on February 11, 2016. A total of seven (7) soil samples were collected at regular depth intervals from these borings. Soil samples collected from February 9 and February 11, 2020 were submitted to Cardinal Laboratories to be analyzed for TPH and chloride. The soil boring locations/sample locations are shown on Figures 1 and 2, Appendix C. Copies of the laboratory analytical reports associated with the additional assessment are also included in Appendix C.

CORRECTIVE ACTION PLAN

Based on the analytical results associated with the site assessments, COP submitted a Corrective Action Plan (CAP) to NMOCD on February 19, 2016 (Appendix C).

Email correspondence, found on the NMOCD Imaging website, between NMOCD and Basin states that the original CAP required increased depth of excavation. Thus, an addendum to the CAP was submitted on March 11, 2016.

The addendum states, "based on the laboratory analysis, the area around Soil Bores 1 and 2 and Verticals 1 and 2 will be excavated to a depth of 4 ft. bgs. At the base of the excavation, a 20-mil reinforced poly liner will be installed and properly seated. The excavation will then be backfilled with clean soil. The area around verticals 3 and 4 will be excavated to a depth of 1 ft. bgs and confirmation samples will be collected and sent to the lab and backfilled with clean soil. Any impact within the lease pad area will be in the facility cleanup upon abandonment". The addendum was approved by NMOCD on March 30, 2016 (Appendix D).

REMEDIATION ACTIVITIES AND CONFIRMATION SAMPLING

Basin began remedial activities at the Site in June 2016. In accordance with the NMOCD-approved CAP, the areas associated with Soil Bores 1 and 2 and Verticals 1 and 2 were excavated to a depth of 4 ft bgs. At the base of the excavation, a 20-mil reinforced poly liner was installed and properly seated.

As shown in Figure 1, the areas associated with Verticals 3 and 4 were excavated to a depth of 1 ft. bgs in accordance with the approved CAP. Following excavation activities, confirmation samples were collected and sent to Cardinal Laboratories. Confirmation samples were collected from two locations (NW SCRAPE BOTTOM 1 and NW SCRAPE BOTTOM 2) at the base of the Vertical 4 excavation area and from two locations (NE SCRAPE BOTTOM 1 and NE SCRAPE BOTTOM 2) at the base of the Vertical 3 excavation area. Soil samples were sent to Cardinal Laboratories to be analyzed for chloride and TPH. Analytical results associated with NW SCRAPE BOTTOM 1, NW SCRAPE BOTTOM 2 and NE SCRAPE BOTTOM 2 were below the RRALs for both chloride and TPH. However, NE SCRAPE BOTTOM 1 was above the RRALs for TPH.

Additional excavations were performed in the vicinity of confirmation sample NE SCRAPE BOTTOM 1. Following this further excavation, a confirmation sample (NORTH EAST EXC. BOTTOM) was collected in this area. The sample was submitted to Cardinal Laboratories for TPH and chloride analysis. The analytical results were below the RRALs for TPH and chloride.

All excavated soil was exported to a NMOCD-approved facility for disposal. Clean topsoil was imported to the Site to be used as backfill in the pasture areas. A sample of the imported material (IMPORTED SOIL) was submitted to Cardinal Laboratories for chloride analysis as prescribed in the CAP. The imported sample returned a chloride value of <16.0 kg/mg. Site was then backfilled with imported material and contoured to the surrounding area.

The confirmation sample locations and approximate extent of remediation are shown in Figure 1. Table 1 summarizes the confirmation samples and backfill soil sample analytical data. Copies of the laboratory analytical reports are included as Appendix E. Photographic documentation of the initial visual assessment and remediation activities is included as Appendix F.

REVEGETATION

The Site was seeded with BLM #2 LPC on August 3, 2016. From review of recent aerial photography, it appears that the formerly impacted surface areas were restored to the conditions that existed prior to the release in accordance with 19.15.29.13 NMAC, except the caliche pad area and inside the earthen containment berm as needed for production operations.

CONCLUSION

As detailed above, the release associated with 1RP-3555 was delineated and was remediated in accordance with the NMOCD-approved CAP. The remaining contaminants do not cause an imminent risk to human health, the environment, or groundwater. Final remediation and reclamation of any impact within

the lease pad area and inside the earthen containment berm shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the Site is no longer being used for oil and gas operations.

ConocoPhillips respectfully requests that NMOCD will consider delaying additional remediation activities at the Site until the end of life of the battery. At time of abandonment, retrofit, or inactivity, remediation will be completed in addition to reclamation. Based on the above, ConocoPhillips requests deferment of this remaining impacted area. The completed C-141 forms are enclosed in Appendix A.

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU - ConocoPhillips

List of Attachments

Figures:

Figure 1 – Approximate Remediation Extent and Confirmation Sample Locations

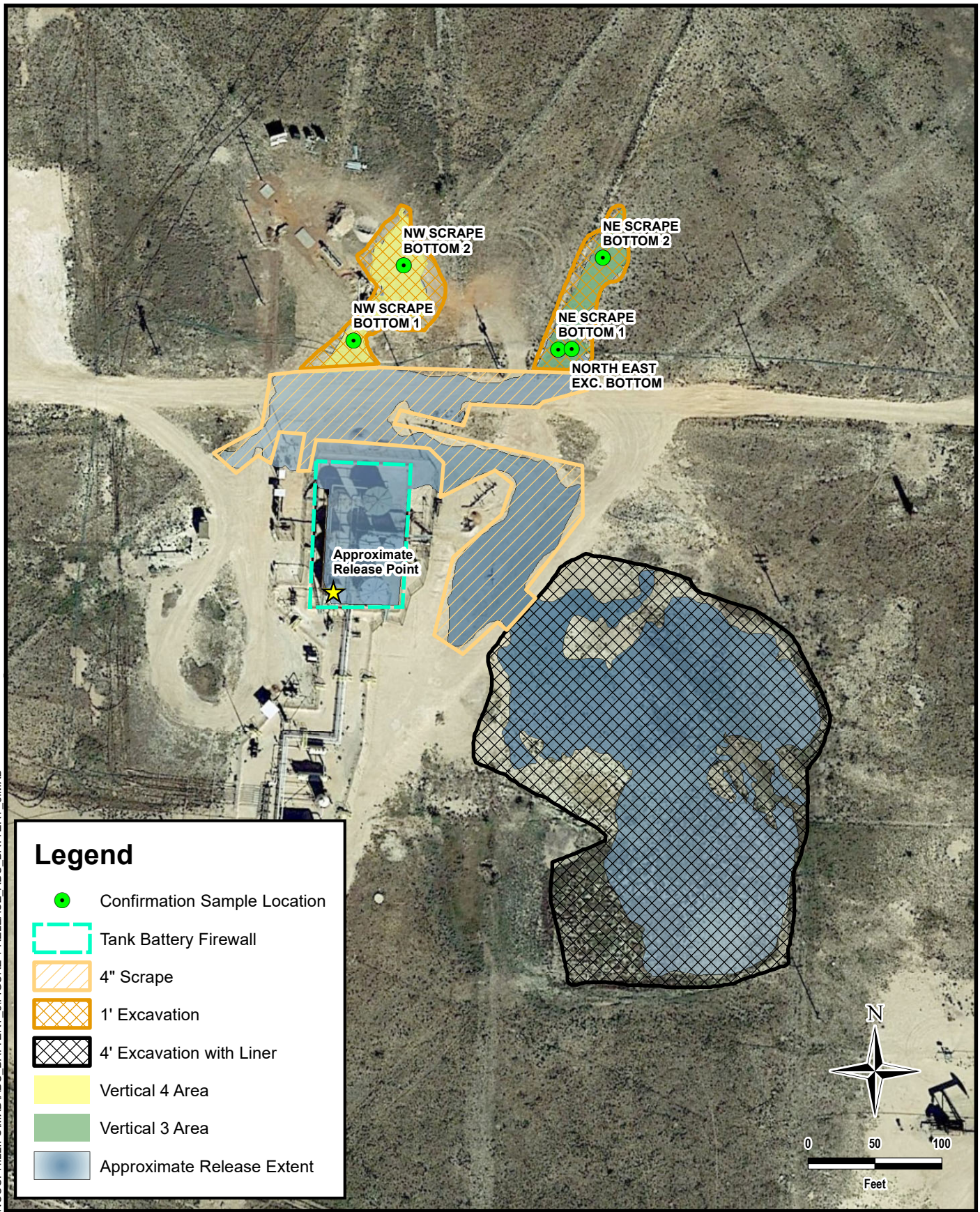
Tables:

Table 1 – Summary of Analytical Results – Confirmation Sampling Events

Appendices:

Appendix A – Final C-141 Forms
Appendix B – Site Characterization Data
Appendix C – GHD Initial Soil Assessment Report
Appendix D – Corrective Action Plan (May 24, 2016)
Appendix E – CAP Addendum
Appendix F – Confirmation Laboratory Analytical Data
Appendix G – Photographic Documentation

FIGURES



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\ABO_BATTERY_3\FIGURE 1 RELEASE_ABO_BATTERY_3.MXD

TETRA TECH

www.tetratech.com

901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

(32.7884412°, -103.4511526°)
LEA COUNTY, NEW MEXICO

VACUUM ABO #3 BATTERY TANK RELEASE
APPROXIMATE REMEDIATION
EXTENT AND CONFIRMATION SAMPLE LOCATIONS

PROJECT NO.:	212C-MD-02109
DATE:	APRIL 30, 2020
DESIGNED BY:	AAM

Figure No.

1

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
CONFIRMATION SAMPLES
VACUUM ABO BATTERY #3
1RP-3555
LEA COUNTY, NM

Sample ID	Sample Date	Sample Interval	Chloride[1]		TPH[2]				
					GRO (C_6- C_{10})		DRO (C_{10} - C_{28})		TPH (C_6 - C_{28})
		in bgs	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
NW SCRAPE BOTTOM 1	07/01/16	6	160		<10.0		18.1		18.1
NW SCRAPE BOTTOM 2	07/01/16	6	160		<10.0		438		438
NE SCRAPE BOTTOM 1	07/01/16	6	304		<10.0		232		232
NE SCRAPE BOTTOM 2	07/01/16	6	48		<10.0		36.3		36.3
NORTH EAST EXC. BOTTOM	07/18/16	8	<16.0		<10.0		<10.0		<10.0
IMPORTED SOIL	07/18/16	--	<16.0		--		--		--

NOTES:

ft	Feet	***Bold and italicized values indicate exceedance of RRALS.***	
bgs	Below ground surface	--	No value to report
mg/kg	Milligrams per kilogram	1	Method SM4500Cl-B
NM	Not measured	2	Method 8015M
TPH	Total Petroleum Hydrocarbons	B	The same analyte is found in the associated blank.
GRO	Gasoline range organics	J	The identification of the analyte is acceptable; the reported value is an estimate.
DRO	Diesel range organics	J4	The associated batch QC was outside the established quality control range for accuracy.

APPENDIX A
C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Jay Garcia**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-704-2455**
Facility Name: **Vac Abo Battery #03**	Facility Type: **Well**

Surface Owner: NMOCD	Mineral Owner:	API No. 30-025-26521

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	34	17S	35E	1600	North	900	East	**LEA**

Latitude 32.7884411982176,- **Longitude** 103.451152598831

NATURE OF RELEASE

2240 water & 34 oil 1837 water & 28 oil

Type of Release: **Spill**	Volume of Release: ~~8.5 BBLS~~	Volume Recovered. ~~0 BBLS~~
Source of Release: overflowing tank battery.	Date and Hour of Occurrence 03/03/2015 07:30 am	Date and Hour of Discovery 03/03/2015 07:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Tomas Oberding- NMOCD**	
By Whom? **Jay Garcia**	Date and Hour: **03/04/2015 12:30 pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By OCD; Dr. Oberding at 8:07 am, Mar 05, 2015

ENV – Corporate / Agency Reportable – 34 BO & 2240 BPW – Vac ABO Battery 3 – RR III – MCBU – Buckeye – On Tuesday, March 3, 2015 at 07:30 MST, a MSO was notified that a tank was overflowing at Vac ABO Battery 3 resulting in a release of 34 bbls of oil and 2240 bbls of produced water, with 28 bbls of oil and 1837 bbls of produced water recovered. Immediate action was to shut down and isolate all incoming fluids and begin recovering the fluids. Notifications were made to Crisis Hotline and Management. The investigation is in progress. The area will be remediated according to NMOCD guidelines.
Consequence: 4, Likelihood: 4, RR: III, PSE Tier 2

On Tuesday, March 3rd, 2015 @ 07:30 hrs, a COPC MSO was notified that a leak was observed at the Vac Abo 3 Battery. The release at the Vac Abo 3 facility originated from the produced water overflow tank. All Abo area production was shut in to stop the spill, and containment and cleanup activities started immediately. Surface area affected by the spill was 154' x 230' of pasture, 114' x 69' of diked area, and 625' x 123' of a mix of caliche pad and pasture. Total volume spilled was 2274 bbls (2240 water & 34 oil). 1895 bbls were recovered by vacuum trucks (1837 water & 28 oil). The area will be remediated according to NMOCD guidelines and the investigation is in progress.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: *Jay Garcia*

Printed Name: Jay Garcia

Title: LEAD HSE

OIL CONSERVATION DIVISION

Hydrologist
Approved by ~~Environmental Specialist~~:

Approval Date: 03/05/2015 Expiration Date: 05/05/2015

E-mail Address: ***jay.c.garcia@conocophillips.com***	Conditions of Approval: Site samples required. Delineate and remeate are as per NMOCD guides.	Attached ☐
Date: 01/06/2015 Phone:575-704-2455		1RP-3555 217817 nTO1506430213 pTO1506430397

* Attach Additional Sheets If Necessary

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nTO1506430213
District RP	1RP-3555
Facility ID	
Application ID	pTO1506430397

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Marvin Soriwei Title: Program Manager, Risk MGMT & Remediation

Signature: [signature] Date: 5/7/2020

email: marvin.soriwei@conocophillips.com Telephone: 832-486-2730

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: Bradford Billings Date: 10/07/2021

APPENDIX B
Site Characterization Data

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 04618	L	LE		3	3	34	17S	35E	644973	3628611*	128	55	73
L 04727	L	LE				34	17S	35E	645576	3629214*	120	45	75
L 04775	L	LE		4	1	34	17S	35E	645365	3629421*	133	68	65
L 04793	L	LE				34	17S	35E	645576	3629214*	150	50	100
L 05834 POD6	L	LE	1	1	4	34	17S	35E	645673	3629122*	234	65	169
L 10297	L	LE		1	1	34	17S	35E	644955	3629819*	150	42	108
L 10404	L	LE	4	4	4	34	17S	35E	646283	3628523*	115	115	0
L 13479 POD1	L	LE	2	2	1	34	17S	35E	645495	3630015	80	70	10
L 13479 POD2	L	LE	2	2	1	34	17S	35E	645480	3629941	80	70	10

Average Depth to Water: **64 feet**
Minimum Depth: **42 feet**
Maximum Depth: **115 feet**

Record Count: 9

PLSS Search:

Section(s): 34 **Township:** 17S **Range:** 35E

***UTM location was derived from PLSS - see Help**

Karst Potential Map

Vacuum Abo Battery #3
1RP-3555

Legend
- High
- Low
- Medium

Lovington

Lea

Vacuum Abo Battery #3

Google Earth

Image Landsat / Copernicus

N

10 mi

APPENDIX C
GHD Initial Soil Assessment Report

October 19, 2015 Reference No. 089467

David C. Hathaway, P.E.
ConocoPhillips
Program Manager
1380-E POB
315 Johnstone Ave.
Bartlesville, OK 74004
Email: David.C.Hathaway@cop.com

Re: Initial Soil Assessment Report
Vacuum Abo Battery #3 Release
6 miles SW of Buckeye Road and NM-483 Intersection
Lovington, New Mexico

Mr. Hathaway:

Transmitted within this letter is a summary of the sampling activities and laboratory results conducted at the ConocoPhillips Vacuum ABO Battery #3 (Site) in response to the above-referenced crude oil and produced water release on March 04, 2015.

1. Introduction

ConocoPhillips (COP) personnel indicated that a release of approximately 2,137 barrels (bbl) of produced water and 34 bbl of crude oil occurred on March 04, 2015. The location of the Site is at Section 34, Township 17S; Range 35E as presented on Figure 1. An aerial photograph of the Site and surrounding area is presented as Figure 2. The release was reported to the New Mexico Oil Conservation District (NMOCD) on March 04, 2015 and initial response activities were initiated by COP. The release resulted from the overflow of a tank located within the earthen containment area. The released liquids overflowed the containment area and flowed onto the ground surface in the immediate vicinity of the tank battery as depicted on the Figure 3.

2. Regulatory Framework

Based on information available on the Petroleum Recovery Research Center (PRRC) Mapping Portal, the depth to groundwater in the vicinity of the Site is approximately 103-feet bgs. The nearest private domestic water source is greater than 200-feet; the nearest public/municipal water source is greater than 1,000-feet from the release site; and the release site lies more than 1,000 horizontal feet from the nearest surface water body. The NMOCD has established the Recommended Remediation Action Levels (RRALs) for benzene, total benzene, toluene, ethylbenzene, and xylenes (BTEX), and total

petroleum hydrocarbons (TPH) resulting from spills of produced natural gas liquids and presented in the Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	***Score***
Depth to Ground Water (>100-feet)	0
Wellhead Protection Area (> 1000-feet from water source, > 200-feet from domestic source)	0
Distance to Surface Body Water (>1000 horizontal feet)	0
Ranking Criteria Total Score	**0***
Because the ranking criteria total score is (0), NMOCD established RRALs are 10 mg/kg for benzene, and 50 mg/kg for benzene, toluene, ethylbenzene, and xylene (BTEX), 5000 mg/kg TPH (GRO + DRO), and 500 mg/kg for chlorides[1].	

The following site-specific RRALs have been applied to the Site based on the Ranking Criteria Score of zero:

Benzene: 10 mg/kg
Total BTEX: 50 mg/kg
TPH: 5,000 mg/kg
Chlorides: 500 mg/kg

3. Initial Soil Sampling Activities

In August 2015, GHD personnel collected soil samples from 46 boreholes (advanced via hand auger) to delineate TPH and chloride affected soil in the spill area. The locations of the boreholes/sample locations are illustrated on Figure 3.

Representative soil samples were placed in laboratory provided containers, which were immediately labeled, sealed, and stored in a cooler containing ice. A separate aliquot of each sample was placed in a sealed bag and allowed to equilibrate to ambient temperature. The atmosphere within the sealed bag was subsequently screened for presence of volatile organic compounds (VOCs) with a photoionization detector (PID). The soil was also inspected for olfactory and visual evidence of impacts. The samples were shipped under chain-of-custody to Pace Analysis in Lenexa, Kansas for analysis.

Selected samples were submitted for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) by analytical method EPA Method 8260, TPH DRO and TPH GRO by Method 8015, and

chloride by EPA Method 9056. Copies of the certified analytical results as well as chain of custody documentation are provided in Appendix A, and a summary of soil sample analytical results is presented on Table 1. Summary analytical data for TPH and chloride are illustrated in Figures 4 and 5, respectively.

4. Laboratory Results

Laboratory results for samples collected during the delineation efforts were compared to the NMOCD Site-specific RRALs indicate the following:

- Concentrations of Benzene in soils did not meet or exceed the NMOCD Protection Limits of 10 mg/kg.
- Concentrations of BTEX in soils did not meet or exceed the NMOCD Protection Limits of 50 mg/kg.
- Concentrations of Total TPH GRO and DRO in soils exceed the NMOCD Protection Limits of 5,000 mg/kg in 16 of the 65 total samples collected.
- Concentrations of Chlorides in soils exceed the NMOCD Protection Limits of 500 mg/kg in 53 of the 65 total samples collected.

5. Conclusions Results

A review of laboratory results from the initial soil assessment activities indicates that the horizontal extent of hydrocarbon affected soils appears to be delineated; however, additional vertical delineation is warranted in several locations including the areas inside the earthen containment berms. Based on the volume of liquids released, laboratory results decreasing with depth, and on-site observations, it is anticipated that vertical delineation can be achieved simultaneous with hydrocarbon affected soil excavation and removal. A workplan will be prepared and submitted to the NMOCD outlining the proposed remedial activities.

Should you have any questions regarding the results please contact Moshghan Mansoori or Phil Hurley at (972) 331-8500.

Sincerely,

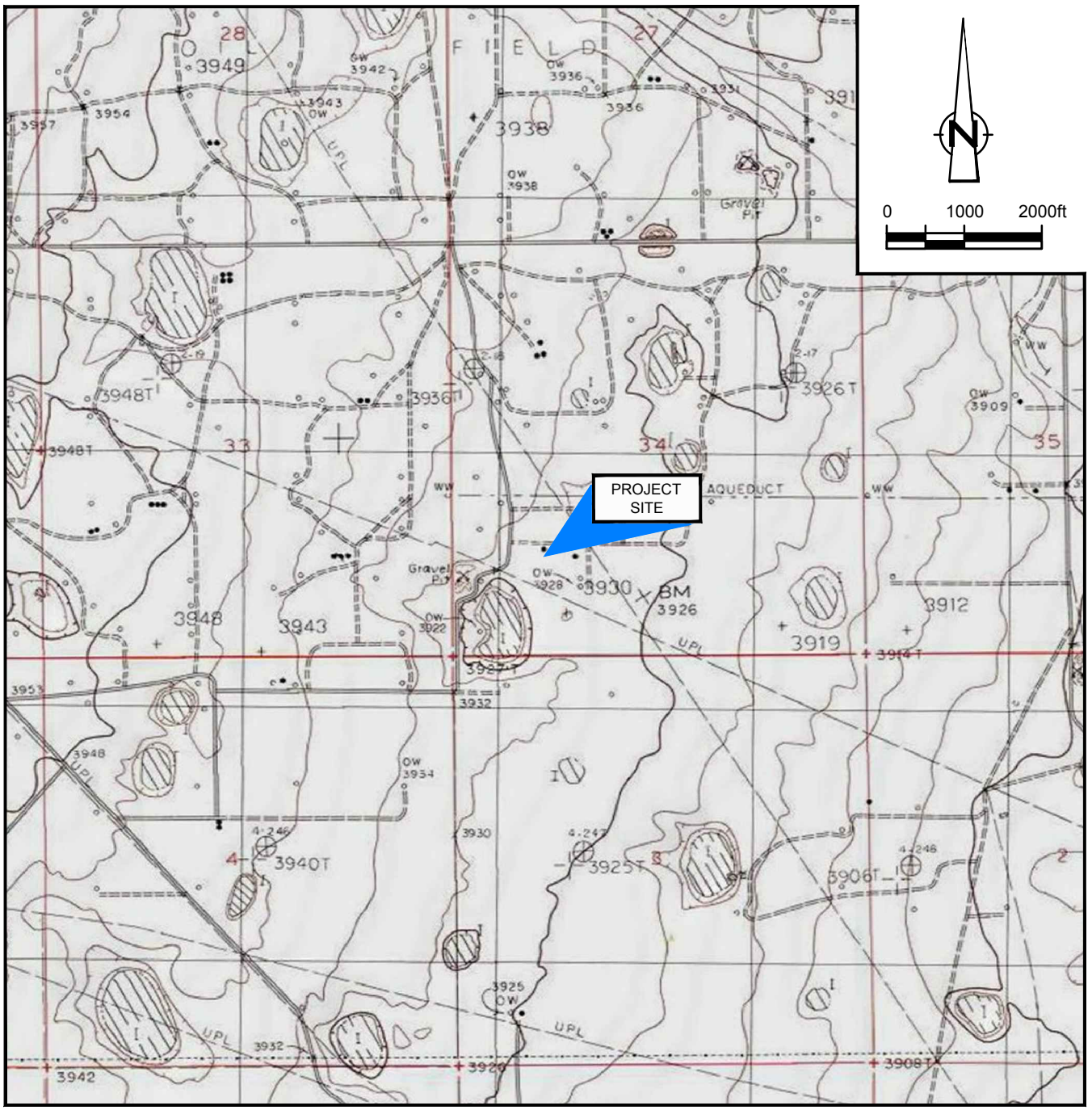
GHD

Moshghan Mansoori
Senior Project Manager

Philip Hurley
Senior Geologist and Principal

MM/cd/1

Encl. Figure 1-5, Table 1, Appendix A



SOURCE: USGS 7.5 MINUTE QUAD
"LOVINGTON SW, NEW MEXICO"

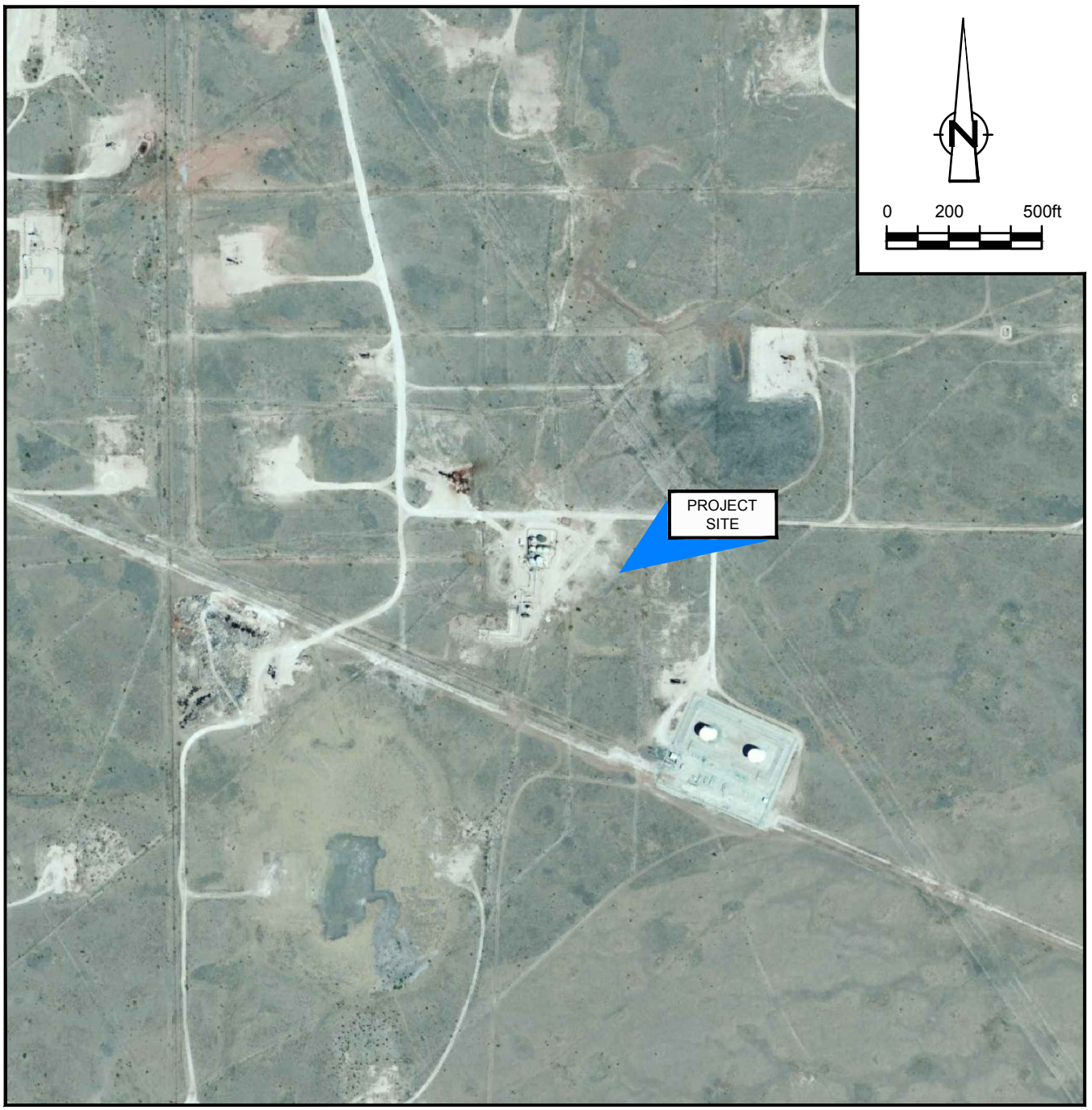
LAT/LONG: 32.788° NORTH, 103.45° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

figure 1

SITE LOCATION MAP
VACUUM ABO BATTERY #3
LEA COUNTY, NEW MEXICO
ConocoPhillips Company

GHD

089467-00(003)GN-DL001 SEP 24/2015



LAT/LONG: 32.788° NORTH, 103.45° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

figure 2

SITE AERIAL PHOTOGRAPH
VACUUM ABO BATTERY #3
LEA COUNTY, NEW MEXICO
ConocoPhillips Company

GHD

089467-00(003)GN-DL001 SEP 24/2015

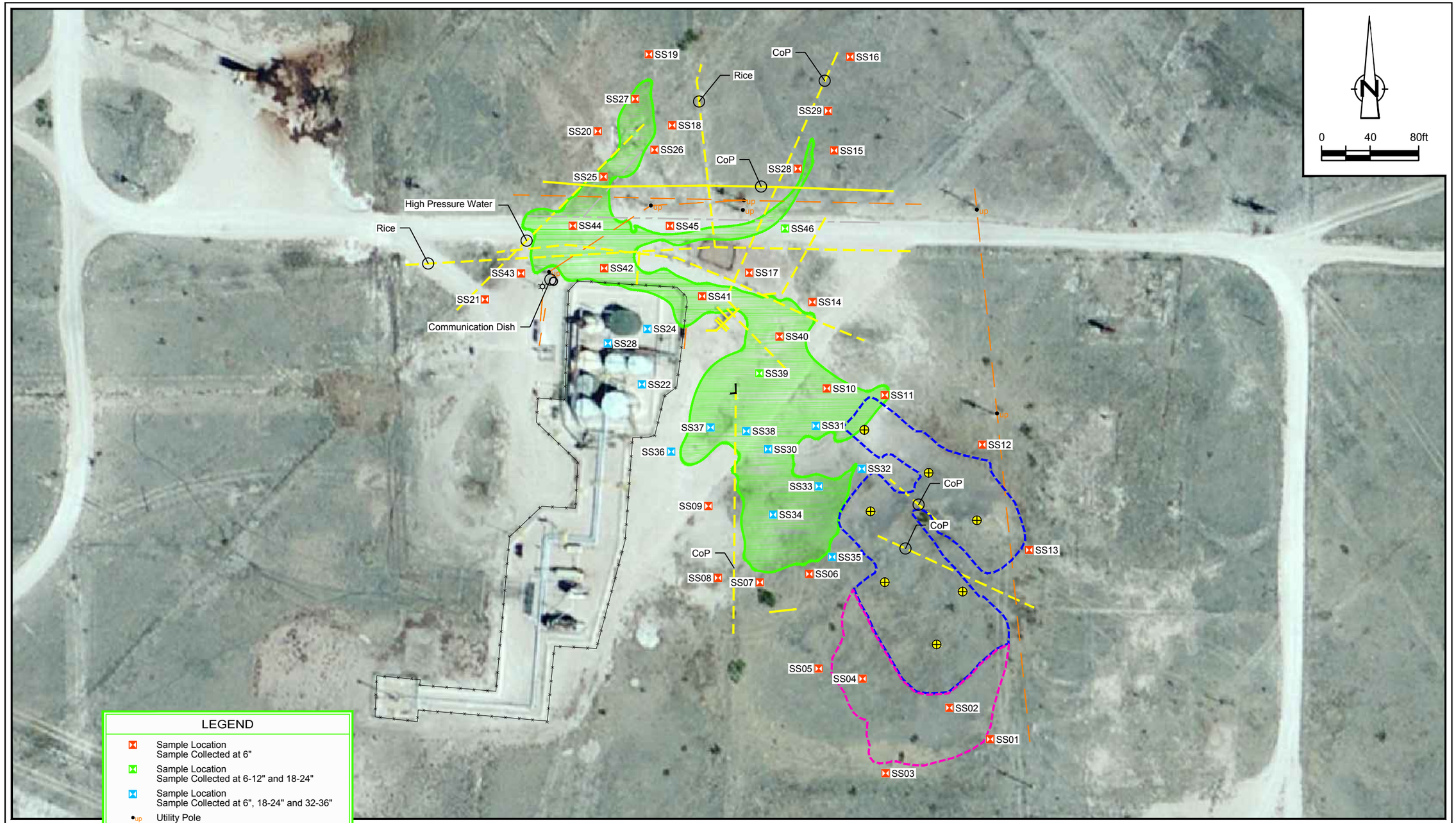
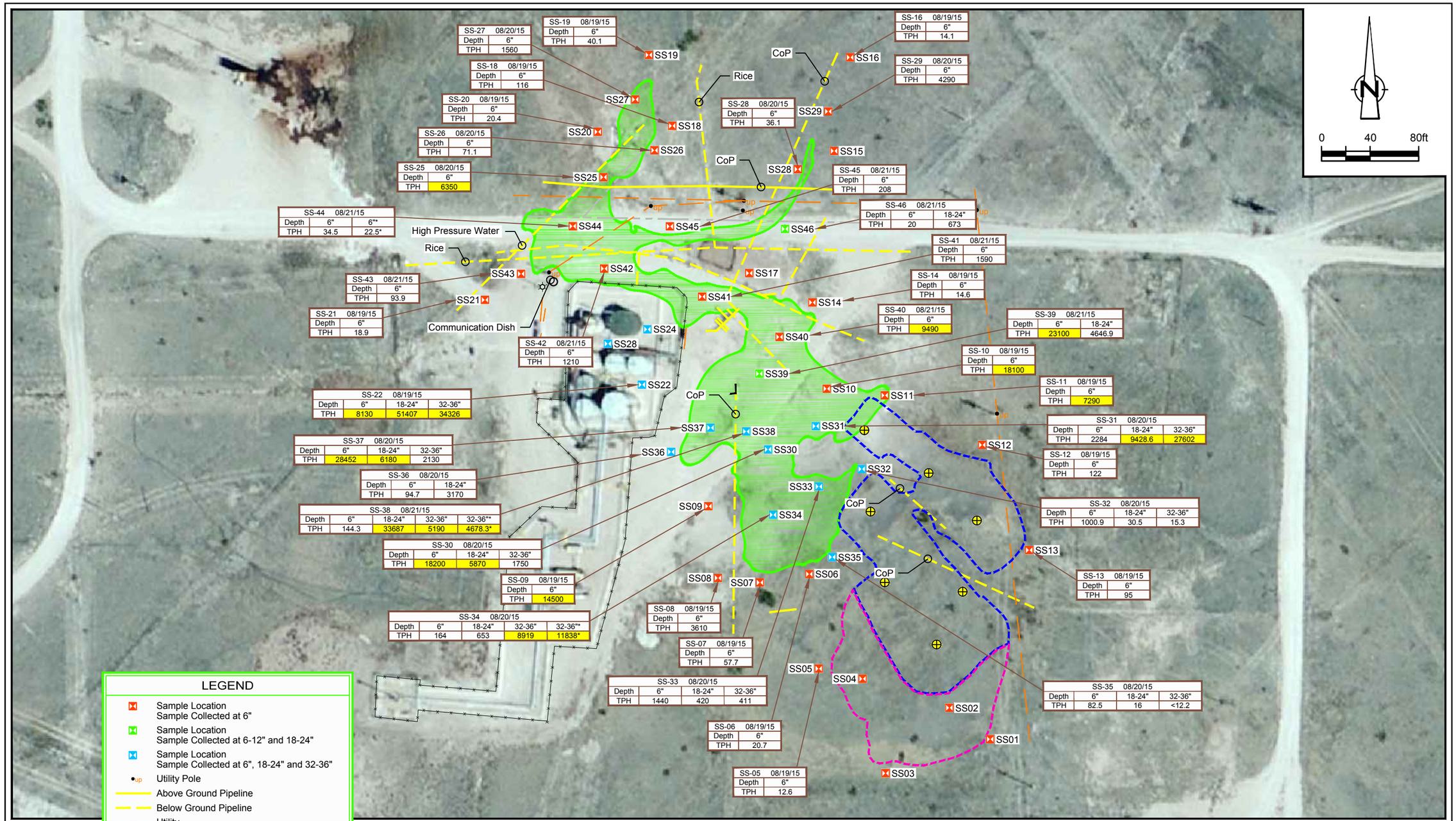


figure 3

SITE DETAILS MAP
VACUUM ABO BATTERY #3
LEA COUNTY, NEW MEXICO
ConocoPhillips Company

089467-00(003)GN-DL001 OCT 14/2015



LEGEND

- Sample Location — Sample Collected at 6"
- Sample Location — Sample Collected at 6-12" and 18-24"
- Sample Location — Sample Collected at 6", 18-24" and 32-36"
- up — Utility Pole
- Above Ground Pipeline
- Below Ground Pipeline
- Utility
- Paint Marked Line
- Fence Line
- Approximate Release Affected Area
- Approximate Area Excavated to 1 foot
- Approximate Area Excavated to 6 inches
- Depth — Depth of Sample (ft)
- TPH — Total Petroleum Hydrocarbons Concentration (mg/kg)

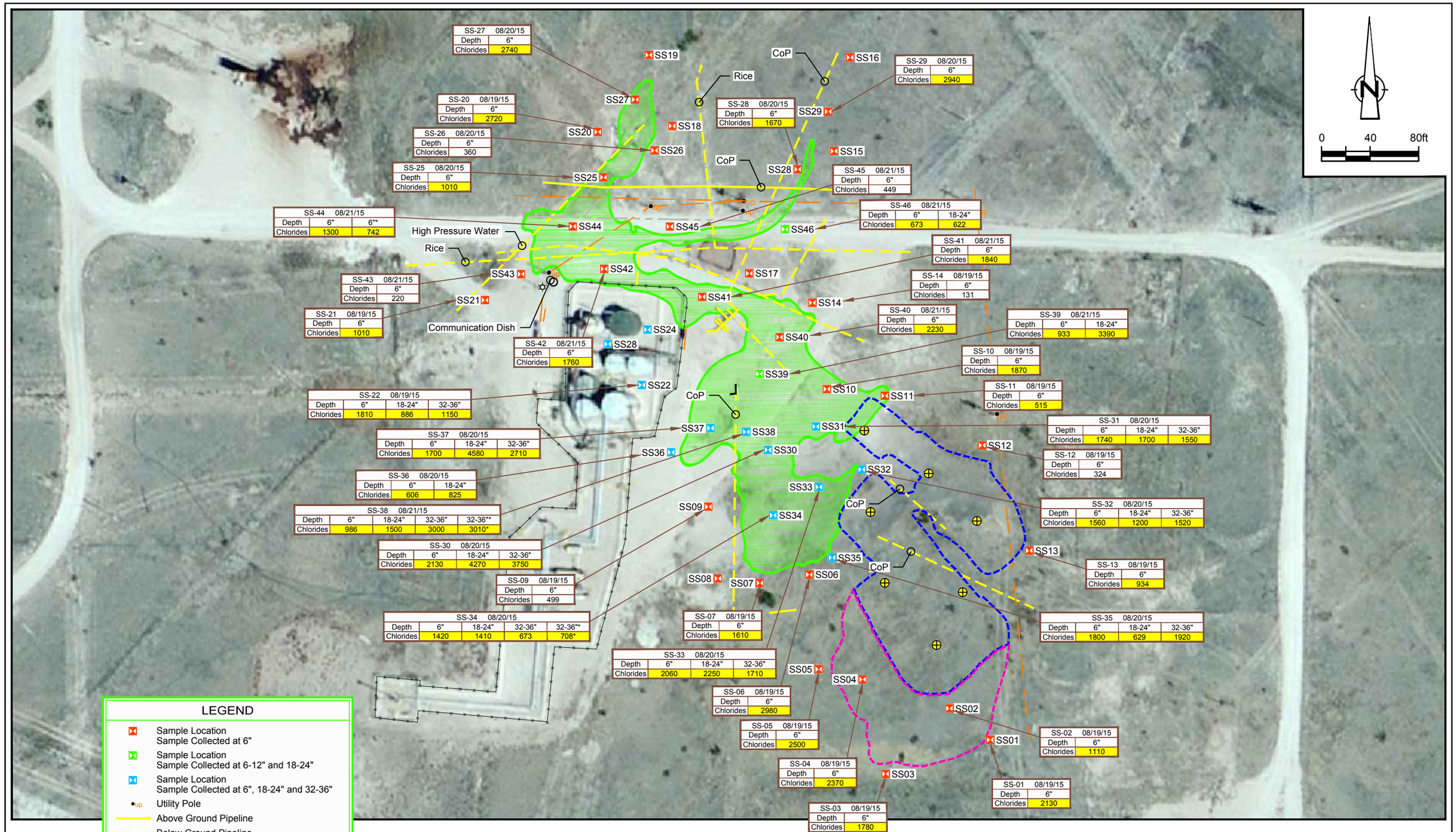
NOTES:

1. All analytical results reported in (mg/kg) milligrams per kilogram.
2. Highlighted cells indicate concentrations exceeding guidance RRALs.

figure 4

SOIL ANALYTICAL MAP - TPH (TOTAL PETROLEUM HYDROCARBONS)
VACUUM ABO BATTERY #3
LEA COUNTY, NEW MEXICO
ConocoPhillips Company

089467-00(003)GN-DL001 OCT 14/2015



NOTES:

1. All analytical results reported in (mg/kg) milligrams per kilogram.
2. Highlighted cells indicate concentrations exceeding guidance RRALs.

figure 5

SOIL ANALYTICAL MAP - CHLORIDES
VACUUM ABO BATTERY #3
LEA COUNTY, NEW MEXICO
ConocoPhillips Company

089467-00(003)GN-DL001 OCT 19/2015

Table 1

Soil Analytical Summary
ABO Reef Gathering System (AB TN9)
Lea County, New Mexico

Sample ID	Depth (bgs)	Sample Date	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total BTEX	TPH (EPA 8015B)			Chlorides
								GRO	DRO	(GRO+DRO)	
NMOCD Recommended Remediation Action Levels			10	---	---	---	50	---	---	5000	500
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SS01	6"	8/19/15	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<10.5	<10.6	<10.6	**2130**
SS02	6"	8/19/15	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.8	<11.8	<11.8	**1110**
SS03	6"	8/19/15	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.5	<11.1	<11.5	**1780**
SS04	6"	8/19/15	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<12.5	<12.2	<12.5	**2370**
SS05	6"	8/19/15	<0.006	<0.006	<0.006	<0.006	<0.006	<12.1	**12.6**	**12.6**	**2500**
SS06	6"	8/19/15	<0.0066	<0.0066	<0.0066	<0.0066	<0.0066	<13.0	**20.7**	**20.7**	**2980**
SS07	6"	8/19/15	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<12.5	**57.7**	**57.7**	**1610**
SS08	6"	8/19/15	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<10.9	**3610**	**3610**	<108
SS09	6"	8/19/15	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.4	**14500**	**14500**	**499**
SS10	6"	8/19/15	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.7	**18100**	**18100**	**1870**
SS11	6"	8/19/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.3	**7290**	**7290**	**515**
SS12	6"	8/19/15	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.8	**122**	**122**	**324**
SS13	6"	8/19/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.3	**95**	**95**	**934**
SS14	6"	8/19/15	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.6	**14.6**	**14.6**	**131**
SS15	6"	8/19/15	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<10.5	<10.4	<10.5	<103
SS16	6"	8/19/15	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.6	**14.1**	**14.1**	<103
SS17	6"	8/19/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.2	<11.1	<11.2	<112
SS18	6"	8/19/15	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<10.4	**116**	**116**	<103
SS19	6"	8/19/15	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.7	**40.1**	**40.1**	<108
SS20	6"	8/19/15	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<10.8	**20.4**	**20.4**	**2720**
SS21	6"	8/19/15	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.7	**18.9**	**18.9**	**1010**
SS22	6"	8/20/15	<0.288	<0.288	<0.288	<0.288	<0.288	<11.4	**8130**	**8130**	**1810**
	18-24"	8/20/15	<0.287	<0.287	**2.29**	**1.99**	**4.28**	**107**	**51300**	**51407**	**886**
	32-36"	8/20/15	<0.295	<0.295	**2.65**	**2.12**	**4.77**	**126**	**34200**	**34326**	**1150**
SS23			Unable to Sample Inside Tank Battery								
SS24			Unable to Sample Inside Tank Battery								
SS25	6"	8/20/15	<0.306	**0.806**	**5.72**	**9.43**	**15.506**	**390.0**	**5960**	**6350**	**1010**
SS26	6"	8/20/15	<0.006	<0.006	<0.006	<0.006	<0.006	**16.8**	**54.3**	**71.1**	**360**
SS27	6"	8/20/15	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<11.0	**1560**	**1560**	**2740**
SS28	6"	8/20/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.3	**36.1**	**36.1**	**1670**
SS29	6"	8/20/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.4	**4290**	**4290**	**2940**
SS30	6"	8/20/15	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<11.6	**18200**	**18200**	**2130**
	18-24"	8/20/15	<0.0059	<0.0059	**0.0162**	<0.0059	**0.0162**	<11.7	**5870**	**5870**	**4270**
	32-36"	8/20/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.4	**1750**	**1750**	**3750**
SS31	6"	8/20/15	**0.718**	**0.387**	**1.63**	**1.84**	**4.575**	**64.6**	**2220**	**2284.6**	**1740**
	18-24"	8/20/15	<0.311	<0.311	**0.648**	<0.311	**0.648**	**28.6**	**9400**	**9428.6**	**1700**
	32-36"	8/20/15	**1.08**	<0.306	**2.41**	**1.09**	**2.58**	**102.0**	**27500**	**27602**	**1550**
SS32	6"	8/20/15	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	**18.9**	**982**	**1000.9**	**1560**
	18-24"	8/20/15	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<12.3	**30.5**	**30.5**	**1200**
	32-36"	8/20/15	<0.006	<0.006	<0.006	<0.006	<0.006	<12.1	**15.3**	**15.3**	**1520**
SS33	6"	8/20/15	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<12.3	**1440**	**1440**	**2060**
	18-24"	8/20/15	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<11.7	**420**	**420**	**2250**
	32-36"	8/20/15	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.3	**411**	**411**	**1710**
SS34	6"	8/20/15	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	<12.9	**164**	**164**	**1420**
	18-24"	8/20/15	<0.0065	<0.0065	**0.0138**	<0.0065	**0.0138**	<12.7	**653**	**653**	**1410**
	32-36"	8/20/15	<0.294	<0.294	**11.5**	**22.3**	**33.8**	**439.0**	**8480**	**8919**	**673**
DUP02	32-36"	8/20/15	<0.288	<0.288	**16.8**	**31.8**	**48.6**	**638.0**	**11200**	**11838**	**708**

Soil Analytical Summary
ABO Reef Gathering System (AB TN9)
Lea County, New Mexico

Sample ID	Depth (bgs)	Sample Date	Benzene	Toluene	Ethyl-Benzene	Xylenes	Total BTEX	TPH (EPA 8015B)			Chlorides
								GRO	DRO	(GRO+DRO)	
NMOCD Recommended Remediation Action Levels			**10**	**---**	**---**	**---**	**50**	**---**	**---**	**5000**	**500**
			(mg/kg)	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**
SS35	6"	8/20/15	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<13.5	**82.5**	**82.5**	**1800**
	18-24"	8/20/15	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<12.7	**16**	**16**	**629**
	32-36"	8/20/15	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<12.2	<12.1	<12.2	**1920**
SS36	6"	8/20/15	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.2	**94.7**	**94.7**	**606**
	18-24"	8/20/15	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.6	**3170**	**3170**	**825**
SS37	6"	8/20/15	<0.275	**2.08**	**1.00**	**2.14**	**5.22**	**52.1**	**28400**	**28452**	**1700**
	18-24"	8/20/15	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<12.3	**6180**	**6180**	**4580**
	32-36"	8/20/15	<0.006	<0.006	<0.006	<0.006	<0.006	<12.1	**2130**	**2130**	**2710**
SS38	6"	8/21/15	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	**14.3**	**130**	**144.3**	**986**
	18-24"	8/21/15	**0.442**	<0.303	**0.874**	**0.318**	**1.634**	**87.8**	**33600**	**33687**	**1500**
	32-36"	8/21/15	<0.303	<0.303	**2.68**	**1.58**	**4.26**	**80.0**	**5110**	**5190**	**3000**
DUP01	32-36"	8/20/15	<0.302	<0.302	**2.47**	**1.46**	**3.93**	**38.3**	**4640**	**4678.3**	**3010**
SS39	6"	8/21/15	0.012	<0.0058	<0.0058	<0.0058	0.012	<11.4	**23100**	**23100**	**933**
	18-24"	8/21/15	<0.313	<0.313	<0.313	<0.313	<0.313	**16.9**	**4630**	**4646.9**	**3390**
SS40	6"	8/21/15	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.4	**9490**	**9490**	**2230**
SS41	6"	8/21/15	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<11.7	**1590**	**1590**	**1840**
SS42	6"	8/21/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.3	**1210**	**1210**	**1760**
SS43	6"	8/21/15	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.4	**93.9**	**93.9**	**220**
SS44	6"	8/21/15	<0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<12.3	**34.5**	**34.5**	**1300**
DUP03	6"	8/21/15	<0.006	<0.006	<0.006	<0.006	<0.006	<12.2	**22.5**	**22.5**	**742**
SS45	6"	8/21/15	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<10.9	**208**	**208**	**449**
SS46	6"	8/21/15	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.4	**20**	**20**	**673**
	18-24"	8/21/15	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<11.6	**27.8**	**27.8**	**622**

Notes:
1. All analytical results reported in (mg/kg) milligrams per kilogram
2. Chloride analyses by Method EPA 9056
3. BTEX analysis by Method EPA 8260
4. TPH analysis by Method EPA 8015B
5. Highlighted cells indicate concentrations exceeding guidance RRALs
6. RRALs from NMOCD (September 2011 Draft) Release Guidance Document
7. bgs - below ground surface
8. '--' indicates sample was not analyzed
9. < indicates below laboratory Reporting Limit (RL)
10. (SB) indicates Soil Borings; (SS) indicates Soil Sample; (SW) indicates Side Wall

Pace Analytical
www.pacelabs.com
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

September 02, 2015

Moshghan Mansoori
GHD Services, Inc.
1755 Wittington Place
Suite 500
Dallas, TX 75234

RE: Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Dear Moshghan Mansoori:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Accounts Payable, GHD Services, Inc.

Pace Analytical
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

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(913)599-5665

SAMPLE SUMMARY

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60201209001	089467-081915-MM-SS01(6")	Solid	08/19/15 10:30	08/22/15 08:25
60201209002	089467-081915-MM-SS02(6")	Solid	08/19/15 10:45	08/22/15 08:25
60201209003	089467-081915-MM-SS03(6")	Solid	08/19/15 11:05	08/22/15 08:25
60201209004	089467-081915-MM-SS04(6")	Solid	08/19/15 11:15	08/22/15 08:25
60201209005	089467-081915-MM-SS05(6")	Solid	08/19/15 11:30	08/22/15 08:25
60201209006	089467-081915-MM-SS06(6")	Solid	08/19/15 11:45	08/22/15 08:25
60201209007	089467-081915-MM-SS07(6")	Solid	08/19/15 12:00	08/22/15 08:25
60201209008	089467-081915-MM-SS08(6")	Solid	08/19/15 12:15	08/22/15 08:25
60201209009	089467-081915-MM-SS09(6")	Solid	08/19/15 12:20	08/22/15 08:25
60201209010	089467-081915-MM-SS10(6")	Solid	08/19/15 13:10	08/22/15 08:25
60201209011	089467-081915-MM-SS11(6")	Solid	08/19/15 13:25	08/22/15 08:25
60201209012	089467-081915-MM-SS12(6")	Solid	08/19/15 13:35	08/22/15 08:25
60201209013	089467-081915-MM-SS13(6")	Solid	08/19/15 13:40	08/22/15 08:25
60201209014	089467-081915-MM-SS14(6")	Solid	08/19/15 14:10	08/22/15 08:25
60201209015	089467-081915-MM-SS15(6")	Solid	08/19/15 14:25	08/22/15 08:25
60201209016	089467-081915-MM-SS16(6")	Solid	08/19/15 14:35	08/22/15 08:25
60201209017	089467-081915-MM-SS17(6")	Solid	08/19/15 14:55	08/22/15 08:25
60201209018	089467-081915-MM-SS18(6")	Solid	08/19/15 15:10	08/22/15 08:25
60201209019	089467-081915-MM-SS19(6")	Solid	08/19/15 15:20	08/22/15 08:25
60201209020	089467-081915-MM-SS20(6")	Solid	08/19/15 15:35	08/22/15 08:25
60201209021	089467-081915-MM-SS21(6")	Solid	08/19/15 15:55	08/22/15 08:25
60201209022	089467-082015-MM-SS35(6")	Solid	08/20/15 08:15	08/22/15 08:25
60201209023	089467-082015-MM-SS35(18-24")	Solid	08/20/15 08:20	08/22/15 08:25
60201209024	089467-082015-MM-SS35(32-36")	Solid	08/20/15 08:25	08/22/15 08:25
60201209025	089467-082015-MM-SS34(6")	Solid	08/20/15 08:40	08/22/15 08:25
60201209026	089467-082015-MM-SS34(18-24")	Solid	08/20/15 08:45	08/22/15 08:25
60201209027	089467-082015-MM-SS34(32-36")	Solid	08/20/15 08:50	08/22/15 08:25
60201209028	089467-082015-MM-SS32(6")	Solid	08/20/15 09:00	08/22/15 08:25
60201209029	089467-082015-MM-SS32(18-24")	Solid	08/20/15 09:05	08/22/15 08:25
60201209030	089467-082015-MM-SS32(32-36")	Solid	08/20/15 09:10	08/22/15 08:25
60201209031	089467-082015-MM-SS31(6")	Solid	08/20/15 09:25	08/22/15 08:25
60201209032	089467-082015-MM-SS31(18-24")	Solid	08/20/15 09:30	08/22/15 08:25
60201209033	089467-082015-MM-SS31(32-36")	Solid	08/20/15 09:35	08/22/15 08:25
60201209034	089467-082015-MM-SS30(6")	Solid	08/20/15 09:55	08/22/15 08:25
60201209035	089467-082015-MM-SS30(18-24")	Solid	08/20/15 10:00	08/22/15 08:25
60201209036	089467-082015-MM-SS30(32-36")	Solid	08/20/15 10:05	08/22/15 08:25
60201209037	089467-082015-MM-SS33(6")	Solid	08/20/15 10:50	08/22/15 08:25

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Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60201209038	089467-082015-MM-SS33(18-24")	Solid	08/20/15 10:55	08/22/15 08:25
60201209039	089467-082015-MM-SS33(32-36")	Solid	08/20/15 11:00	08/22/15 08:25
60201209040	089467-082015-MM-SS22(6")	Solid	08/20/15 11:25	08/22/15 08:25
60201209041	089467-082015-MM-SS22(18-24")	Solid	08/20/15 11:30	08/22/15 08:25
60201209042	089467-082015-MM-SS22(32-36")	Solid	08/20/15 11:35	08/22/15 08:25
60201209043	089467-082015-MM-SS25(6")	Solid	08/20/15 12:10	08/22/15 08:25
60201209044	089467-082015-MM-SS26(6")	Solid	08/20/15 13:10	08/22/15 08:25
60201209045	089467-082015-MM-SS27(6")	Solid	08/20/15 13:20	08/22/15 08:25
60201209046	089467-082015-MM-SS28(6")	Solid	08/20/15 13:45	08/22/15 08:25
60201209047	089467-082015-MM-SS29(6")	Solid	08/20/15 13:55	08/22/15 08:25
60201209048	089467-082015-MM-SS36(6")	Solid	08/20/15 14:45	08/22/15 08:25
60201209049	089467-082015-MM-SS36(18-24")	Solid	08/20/15 14:50	08/22/15 08:25
60201209050	089467-082015-MM-SS37(6")	Solid	08/20/15 15:05	08/22/15 08:25
60201209051	089467-082015-MM-SS37(18-24")	Solid	08/20/15 15:10	08/22/15 08:25
60201209052	089467-082015-MM-SS37(32-36")	Solid	08/20/15 15:15	08/22/15 08:25
60201209053	089467-082015-MM-DUP02	Solid	08/20/15 08:00	08/22/15 08:25
60201209054	089467-082115-MM-SS38(6")	Solid	08/21/15 07:15	08/22/15 08:25
60201209055	089467-082115-MM-SS38(18-24")	Solid	08/21/15 07:20	08/22/15 08:25
60201209056	089467-082115-MM-SS38(32-36")	Solid	08/21/15 07:35	08/22/15 08:25
60201209057	089467-082115-MM-SS39(6")	Solid	08/21/15 08:15	08/22/15 08:25
60201209058	089467-082115-MM-SS39(18-24")	Solid	08/21/15 08:20	08/22/15 08:25
60201209059	089467-082115-MM-SS40(6")	Solid	08/21/15 08:40	08/22/15 08:25
60201209060	089467-082115-MM-SS46(6")	Solid	08/21/15 09:00	08/22/15 08:25
60201209061	089467-082115-MM-SS46(18-24")	Solid	08/21/15 09:05	08/22/15 08:25
60201209062	089467-082115-MM-SS41(6")	Solid	08/21/15 09:20	08/22/15 08:25
60201209063	089467-082115-MM-SS42(6")	Solid	08/21/15 09:50	08/22/15 08:25
60201209064	089467-082115-MM-SS43(6")	Solid	08/21/15 10:15	08/22/15 08:25
60201209065	089467-082115-MM-SS44(6")	Solid	08/21/15 10:45	08/22/15 08:25
60201209066	089467-082115-MM-SS45(6")	Solid	08/21/15 10:55	08/22/15 08:25
60201209067	089467-082115-MM-DUP01	Solid	08/21/15 08:00	08/22/15 08:25
60201209068	089467-082115-MM-DUP03	Solid	08/21/15 08:00	08/22/15 08:25
60201209069	TRIP BLANK 1	Solid	08/21/15 08:00	08/22/15 08:25
60201209070	TRIP BLANK 2	Solid	08/21/15 08:00	08/22/15 08:25

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60201209001	089467-081915-MM-SS01(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209002	089467-081915-MM-SS02(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209003	089467-081915-MM-SS03(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209004	089467-081915-MM-SS04(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209005	089467-081915-MM-SS05(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209006	089467-081915-MM-SS06(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209007	089467-081915-MM-SS07(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209008	089467-081915-MM-SS08(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209009	**089467-081915-MM-SS09(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209010	**089467-081915-MM-SS10(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209011	**089467-081915-MM-SS11(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209012	**089467-081915-MM-SS12(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209013	**089467-081915-MM-SS13(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209014	**089467-081915-MM-SS14(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209015	**089467-081915-MM-SS15(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9056	AJM	1
60201209016	089467-081915-MM-SS16(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209017	089467-081915-MM-SS17(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209018	089467-081915-MM-SS18(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209019	089467-081915-MM-SS19(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209020	089467-081915-MM-SS20(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209021	089467-081915-MM-SS21(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209022	089467-082015-MM-SS35(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209023	089467-082015-MM-SS35(18-24")	EPA 8015B	ACW	3

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209024	**089467-082015-MM-SS35(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209025	**089467-082015-MM-SS34(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209026	**089467-082015-MM-SS34(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209027	**089467-082015-MM-SS34(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209028	**089467-082015-MM-SS32(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209029	**089467-082015-MM-SS32(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209030	**089467-082015-MM-SS32(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209031	**089467-082015-MM-SS31(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209032	**089467-082015-MM-SS31(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209033	**089467-082015-MM-SS31(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209034	**089467-082015-MM-SS30(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209035	**089467-082015-MM-SS30(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209036	**089467-082015-MM-SS30(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209037	**089467-082015-MM-SS33(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60201209038	089467-082015-MM-SS33(18-24")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209039	089467-082015-MM-SS33(32-36")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209040	089467-082015-MM-SS22(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209041	089467-082015-MM-SS22(18-24")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209042	089467-082015-MM-SS22(32-36")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209043	089467-082015-MM-SS25(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209044	089467-082015-MM-SS26(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209045	089467-082015-MM-SS27(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209046	**089467-082015-MM-SS28(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209047	**089467-082015-MM-SS29(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209048	**089467-082015-MM-SS36(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209049	**089467-082015-MM-SS36(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209050	**089467-082015-MM-SS37(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209051	**089467-082015-MM-SS37(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209052	**089467-082015-MM-SS37(32-36")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9056	AJM	1
60201209053	089467-082015-MM-DUP02	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209054	089467-082115-MM-SS38(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209055	089467-082115-MM-SS38(18-24")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209056	089467-082115-MM-SS38(32-36")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209057	089467-082115-MM-SS39(6")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209058	089467-082115-MM-SS39(18-24")	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209059	089467-082115-MM-SS40(6")	EPA 8015B	JDH	3
		EPA 8015B	JTK	2
		EPA 8260	JKL	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209060	089467-082115-MM-SS46(6")	EPA 8015B	JDH	3

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209061	**089467-082115-MM-SS46(18-24")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209062	**089467-082115-MM-SS41(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209063	**089467-082115-MM-SS42(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209064	**089467-082115-MM-SS43(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209065	**089467-082115-MM-SS44(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209066	**089467-082115-MM-SS45(6")**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209067	**089467-082115-MM-DUP01**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7

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SAMPLE ANALYTE COUNT

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		ASTM D2974	DWC	1
		EPA 9056	AJM	1
60201209068	**089467-082115-MM-DUP03**	EPA 8015B	ACW	3
		EPA 8015B	JTK	2
		EPA 8260	TJT	7
		ASTM D2974	DWC	1
		EPA 9056	AJM	1

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: GHD Services_COP TX
Date: September 02, 2015

General Information:
68 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/50864

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- 089467-081915-MM-SS08(6") (Lab ID: 60201209008)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-081915-MM-SS09(6") (Lab ID: 60201209009)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-081915-MM-SS10(6") (Lab ID: 60201209010)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-081915-MM-SS11(6") (Lab ID: 60201209011)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

QC Batch: OEXT/50865

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- 089467-082015-MM-SS22(6") (Lab ID: 60201209040)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS30(18-24") (Lab ID: 60201209035)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS30(32-36") (Lab ID: 60201209036)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: GHD Services_COP TX
Date: September 02, 2015

QC Batch: OEXT/50865

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- 089467-082015-MM-SS30(6") (Lab ID: 60201209034)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS31(32-36") (Lab ID: 60201209033)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS32(6") (Lab ID: 60201209028)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS33(6") (Lab ID: 60201209037)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS34(32-36") (Lab ID: 60201209027)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

QC Batch: OEXT/50867

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- 089467-082015-MM-DUP02 (Lab ID: 60201209053)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS22(18-24") (Lab ID: 60201209041)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS22(32-36") (Lab ID: 60201209042)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS25(6") (Lab ID: 60201209043)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS27(6") (Lab ID: 60201209045)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS29(6") (Lab ID: 60201209047)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS36(18-24") (Lab ID: 60201209049)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS37(18-24") (Lab ID: 60201209051)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082015-MM-SS37(32-36") (Lab ID: 60201209052)
  - n-Tetracosane (S)

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: GHD Services_COP TX
Date: September 02, 2015

QC Batch: OEXT/50867

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- p-Terphenyl (S)
- 089467-082015-MM-SS37(6") (Lab ID: 60201209050)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS38(18-24") (Lab ID: 60201209055)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS38(32-36") (Lab ID: 60201209056)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS39(18-24") (Lab ID: 60201209058)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS39(6") (Lab ID: 60201209057)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS40(6") (Lab ID: 60201209059)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- MS (Lab ID: 1623324)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- MSD (Lab ID: 1623325)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

QC Batch: OEXT/50872

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- 089467-082115-MM-DUP01 (Lab ID: 60201209067)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS41(6") (Lab ID: 60201209062)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- 089467-082115-MM-SS42(6") (Lab ID: 60201209063)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: GHD Services_COP TX
Date: September 02, 2015

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: OEXT/50867

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60201209041

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1623324)
  - TPH-DRO
- MSD (Lab ID: 1623325)
  - TPH-DRO

Additional Comments:

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8015B**
Description: Gasoline Range Organics
Client: GHD Services_COP TX
Date: September 02, 2015

General Information:
68 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCV/5171

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: GHD Services_COP TX
Date: September 02, 2015

General Information:
68 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: MSV/71418

IO: The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.

- 089467-082115-MM-SS39(6") (Lab ID: 60201209057)
  - Toluene-d8 (S)

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/71367

S0: Surrogate recovery outside laboratory control limits.

- 089467-081915-MM-SS09(6") (Lab ID: 60201209009)
  - 4-Bromofluorobenzene (S)
- 089467-081915-MM-SS10(6") (Lab ID: 60201209010)
  - 4-Bromofluorobenzene (S)
- 089467-082015-MM-SS30(6") (Lab ID: 60201209034)
  - 4-Bromofluorobenzene (S)

QC Batch: MSV/71387

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 1623863)
  - 4-Bromofluorobenzene (S)
- MSD (Lab ID: 1623864)
  - 4-Bromofluorobenzene (S)

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).

- MS (Lab ID: 1623863)
  - Toluene-d8 (S)
- MSD (Lab ID: 1623864)
  - Toluene-d8 (S)

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: GHD Services_COP TX
Date: September 02, 2015

QC Batch: MSV/71418

S0: Surrogate recovery outside laboratory control limits.
- 089467-082115-MM-SS39(6") (Lab ID: 60201209057)
  - 4-Bromofluorobenzene (S)

QC Batch: MSV/71453

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- 089467-082115-MM-SS40(6") (Lab ID: 60201209059)
  - 4-Bromofluorobenzene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/71367

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- 089467-082015-MM-SS22(6") (Lab ID: 60201209040)
  - Toluene-d8 (S)

QC Batch: MSV/71387

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- 089467-082115-MM-SS39(18-24") (Lab ID: 60201209058)
  - Toluene-d8 (S)

QC Batch: MSV/71453

1e: The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis.
- 089467-082115-MM-SS40(6") (Lab ID: 60201209059)
  - Toluene-d8 (S)

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 9056**
Description: 9056 IC Anions
Client: GHD Services_COP TX
Date: September 02, 2015

General Information:
68 samples were analyzed for EPA 9056. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9056 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/35641

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60201209001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1623263)
  - Chloride
- MSD (Lab ID: 1623264)
  - Chloride

QC Batch: WETA/35644

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60201209068

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1623278)
  - Chloride
- MSD (Lab ID: 1623279)
  - Chloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Method: **EPA 9056**
Description: 9056 IC Anions
Client: GHD Services_COP TX
Date: September 02, 2015

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS01(6") **Lab ID: 60201209001** Collected: 08/19/15 10:30 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	08/26/15 00:00	08/28/15 04:15		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	08/26/15 00:00	08/28/15 04:15	646-31-1	
p-Terphenyl (S)	84	%	51-120	1	08/26/15 00:00	08/28/15 04:15	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	08/25/15 00:00	08/25/15 14:40		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	08/25/15 00:00	08/25/15 14:40	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.2	1		08/26/15 05:03	71-43-2	
Ethylbenzene	ND	ug/kg	5.2	1		08/26/15 05:03	100-41-4	
Toluene	ND	ug/kg	5.2	1		08/26/15 05:03	108-88-3	
Xylene (Total)	ND	ug/kg	5.2	1		08/26/15 05:03	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/26/15 05:03	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/26/15 05:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-142	1		08/26/15 05:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.6**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2130**	mg/kg	211	20	08/27/15 15:00	08/29/15 10:52	16887-00-6	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS02(6") **Lab ID: 60201209002** Collected: 08/19/15 10:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.8	1	08/26/15 00:00	08/28/15 04:23		
Surrogates								
n-Tetracosane (S)	87	%	18-139	1	08/26/15 00:00	08/28/15 04:23	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	08/26/15 00:00	08/28/15 04:23	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.8	1	08/25/15 00:00	08/25/15 15:30		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/25/15 00:00	08/25/15 15:30	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.8	1		08/26/15 05:49	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/26/15 05:49	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/26/15 05:49	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/26/15 05:49	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		08/26/15 05:49	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/26/15 05:49	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	1		08/26/15 05:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1110**	mg/kg	117	10	08/27/15 15:00	08/28/15 19:40	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS03(6") **Lab ID: 60201209003** Collected: 08/19/15 11:05 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.1	1	08/26/15 00:00	08/28/15 04:30		
Surrogates								
n-Tetracosane (S)	91	%	18-139	1	08/26/15 00:00	08/28/15 04:30	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	08/26/15 00:00	08/28/15 04:30	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.5	1	08/25/15 00:00	08/25/15 15:46		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/25/15 15:46	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.8	1		08/26/15 06:04	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/26/15 06:04	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/26/15 06:04	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/26/15 06:04	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		08/26/15 06:04	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/26/15 06:04	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/26/15 06:04	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1780**	mg/kg	113	10	08/27/15 15:00	08/28/15 20:35	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS04(6") **Lab ID: 60201209004** Collected: 08/19/15 11:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	12.2	1	08/26/15 00:00	08/28/15 04:38		
Surrogates								
n-Tetracosane (S)	93	%	18-139	1	08/26/15 00:00	08/28/15 04:38	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	08/26/15 00:00	08/28/15 04:38	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.5	1	08/25/15 00:00	08/25/15 16:03		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/25/15 16:03	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.2	1		08/26/15 06:20	71-43-2	
Ethylbenzene	ND	ug/kg	6.2	1		08/26/15 06:20	100-41-4	
Toluene	ND	ug/kg	6.2	1		08/26/15 06:20	108-88-3	
Xylene (Total)	ND	ug/kg	6.2	1		08/26/15 06:20	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		08/26/15 06:20	2037-26-5	
4-Bromofluorobenzene (S)	94	%	82-119	1		08/26/15 06:20	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-142	1		08/26/15 06:20	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.7**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2370**	mg/kg	244	20	08/27/15 15:00	08/29/15 11:33	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS05(6") **Lab ID: 60201209005** Collected: 08/19/15 11:30 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**12.6**	mg/kg	11.8	1	08/26/15 00:00	08/28/15 05:00		
Surrogates								
n-Tetracosane (S)	94	%	18-139	1	08/26/15 00:00	08/28/15 05:00	646-31-1	
p-Terphenyl (S)	92	%	51-120	1	08/26/15 00:00	08/28/15 05:00	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.1	1	08/25/15 00:00	08/27/15 15:46		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	08/25/15 00:00	08/27/15 15:46	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.0	1		08/26/15 06:35	71-43-2	
Ethylbenzene	ND	ug/kg	6.0	1		08/26/15 06:35	100-41-4	
Toluene	ND	ug/kg	6.0	1		08/26/15 06:35	108-88-3	
Xylene (Total)	ND	ug/kg	6.0	1		08/26/15 06:35	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/26/15 06:35	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/26/15 06:35	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-142	1		08/26/15 06:35	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**16.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2500**	mg/kg	241	20	08/27/15 15:00	08/29/15 12:14	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS06(6") **Lab ID: 60201209006** Collected: 08/19/15 11:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**20.7**	mg/kg	12.7	1	08/26/15 00:00	08/28/15 05:08		
Surrogates								
n-Tetracosane (S)	97	%	18-139	1	08/26/15 00:00	08/28/15 05:08	646-31-1	
p-Terphenyl (S)	92	%	51-120	1	08/26/15 00:00	08/28/15 05:08	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	13.0	1	08/25/15 00:00	08/27/15 16:02		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	08/25/15 00:00	08/27/15 16:02	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.6	1		08/26/15 06:50	71-43-2	
Ethylbenzene	ND	ug/kg	6.6	1		08/26/15 06:50	100-41-4	
Toluene	ND	ug/kg	6.6	1		08/26/15 06:50	108-88-3	
Xylene (Total)	ND	ug/kg	6.6	1		08/26/15 06:50	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/26/15 06:50	2037-26-5	
4-Bromofluorobenzene (S)	92	%	82-119	1		08/26/15 06:50	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-142	1		08/26/15 06:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**22.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2980**	mg/kg	255	20	08/27/15 15:00	08/29/15 12:27	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS07(6") **Lab ID: 60201209007** Collected: 08/19/15 12:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**57.7**	mg/kg	12.2	1	08/26/15 00:00	08/28/15 05:16		
Surrogates								
n-Tetracosane (S)	87	%	18-139	1	08/26/15 00:00	08/28/15 05:16	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	08/26/15 00:00	08/28/15 05:16	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.5	1	08/25/15 00:00	08/27/15 16:19		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	08/25/15 00:00	08/27/15 16:19	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.2	1		08/26/15 07:06	71-43-2	
Ethylbenzene	ND	ug/kg	6.2	1		08/26/15 07:06	100-41-4	
Toluene	ND	ug/kg	6.2	1		08/26/15 07:06	108-88-3	
Xylene (Total)	ND	ug/kg	6.2	1		08/26/15 07:06	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/26/15 07:06	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/26/15 07:06	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	1		08/26/15 07:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.3**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1610**	mg/kg	124	10	08/27/15 15:00	08/28/15 21:30	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS08(6") **Lab ID: 60201209008** Collected: 08/19/15 12:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**3610**	mg/kg	1080	100	08/26/15 00:00	09/01/15 13:51		
Surrogates								
n-Tetracosane (S)	0	%	18-139	100	08/26/15 00:00	09/01/15 13:51	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	100	08/26/15 00:00	09/01/15 13:51	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.9	1	08/25/15 00:00	08/27/15 16:36		
Surrogates								
4-Bromofluorobenzene (S)	95	%	68-144	1	08/25/15 00:00	08/27/15 16:36	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.5	1		08/26/15 22:29	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		08/26/15 22:29	100-41-4	
Toluene	ND	ug/kg	5.5	1		08/26/15 22:29	108-88-3	
Xylene (Total)	ND	ug/kg	5.5	1		08/26/15 22:29	1330-20-7	
Surrogates								
Toluene-d8 (S)	111	%	82-137	1		08/26/15 22:29	2037-26-5	
4-Bromofluorobenzene (S)	82	%	82-119	1		08/26/15 22:29	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	1		08/26/15 22:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.8**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	108	10	08/27/15 15:00	08/28/15 21:44	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS09(6") **Lab ID: 60201209009** Collected: 08/19/15 12:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**14500**	mg/kg	2240	200	08/26/15 00:00	08/28/15 05:31		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	08/28/15 05:31	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	08/28/15 05:31	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	08/25/15 00:00	08/27/15 16:52		
Surrogates								
4-Bromofluorobenzene (S)	93	%	68-144	1	08/25/15 00:00	08/27/15 16:52	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.8	1		08/26/15 22:44	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/26/15 22:44	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/26/15 22:44	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/26/15 22:44	1330-20-7	
Surrogates								
Toluene-d8 (S)	110	%	82-137	1		08/26/15 22:44	2037-26-5	
4-Bromofluorobenzene (S)	81	%	82-119	1		08/26/15 22:44	460-00-4	S0
1,2-Dichloroethane-d4 (S)	109	%	81-142	1		08/26/15 22:44	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**499**	mg/kg	114	10	08/27/15 15:00	08/28/15 21:57	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS10(6") **Lab ID: 60201209010** Collected: 08/19/15 13:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**18100**	mg/kg	2330	200	08/26/15 00:00	08/28/15 05:38		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	08/28/15 05:38	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	08/28/15 05:38	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.7	1	08/25/15 00:00	08/27/15 17:09		
Surrogates								
4-Bromofluorobenzene (S)	92	%	68-144	1	08/25/15 00:00	08/27/15 17:09	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.8	1		08/26/15 22:59	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/26/15 22:59	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/26/15 22:59	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/26/15 22:59	1330-20-7	
Surrogates								
Toluene-d8 (S)	111	%	82-137	1		08/26/15 22:59	2037-26-5	
4-Bromofluorobenzene (S)	79	%	82-119	1		08/26/15 22:59	460-00-4	S0
1,2-Dichloroethane-d4 (S)	107	%	81-142	1		08/26/15 22:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**14.7**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1870**	mg/kg	115	10	08/27/15 15:00	08/28/15 22:11	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS11(6") **Lab ID: 60201209011** Collected: 08/19/15 13:25 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**7290**	mg/kg	2270	200	08/26/15 00:00	08/28/15 05:46		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	08/28/15 05:46	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	08/28/15 05:46	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	08/25/15 00:00	08/27/15 17:25		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	08/25/15 00:00	08/27/15 17:25	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/26/15 08:07	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/26/15 08:07	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/26/15 08:07	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/26/15 08:07	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/26/15 08:07	2037-26-5	
4-Bromofluorobenzene (S)	94	%	82-119	1		08/26/15 08:07	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	1		08/26/15 08:07	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**515**	mg/kg	112	10	08/27/15 15:00	08/28/15 22:25	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS12(6") **Lab ID: 60201209012** Collected: 08/19/15 13:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**122**	mg/kg	10.8	1	08/26/15 00:00	08/28/15 05:53		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	08/26/15 00:00	08/28/15 05:53	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	08/26/15 00:00	08/28/15 05:53	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.8	1	08/25/15 00:00	08/27/15 17:42		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	08/25/15 00:00	08/27/15 17:42	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/26/15 08:23	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/26/15 08:23	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/26/15 08:23	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/26/15 08:23	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		08/26/15 08:23	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/26/15 08:23	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-142	1		08/26/15 08:23	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**324**	mg/kg	108	10	08/27/15 15:00	08/28/15 23:06	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS13(6") **Lab ID: 60201209013** Collected: 08/19/15 13:40 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**95.0**	mg/kg	11.1	1	08/26/15 00:00	08/28/15 06:16		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	08/26/15 00:00	08/28/15 06:16	646-31-1	
p-Terphenyl (S)	84	%	51-120	1	08/26/15 00:00	08/28/15 06:16	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	08/25/15 00:00	08/27/15 18:32		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 18:32	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/26/15 08:38	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/26/15 08:38	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/26/15 08:38	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/26/15 08:38	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/26/15 08:38	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/26/15 08:38	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	1		08/26/15 08:38	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.3**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**934**	mg/kg	112	10	08/27/15 15:00	08/28/15 23:20	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS14(6") **Lab ID: 60201209014** Collected: 08/19/15 14:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**14.6**	mg/kg	10.5	1	08/26/15 00:00	08/28/15 06:24		
Surrogates								
n-Tetracosane (S)	92	%	18-139	1	08/26/15 00:00	08/28/15 06:24	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	08/26/15 00:00	08/28/15 06:24	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	08/25/15 00:00	08/27/15 18:49		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 18:49	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/26/15 08:53	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/26/15 08:53	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/26/15 08:53	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/26/15 08:53	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	1		08/26/15 08:53	2037-26-5	
4-Bromofluorobenzene (S)	94	%	82-119	1		08/26/15 08:53	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/26/15 08:53	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**131**	mg/kg	107	10	08/27/15 15:00	08/28/15 23:33	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS15(6") **Lab ID: 60201209015** Collected: 08/19/15 14:25 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.4	1	08/26/15 00:00	08/28/15 06:31		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	08/26/15 00:00	08/28/15 06:31	646-31-1	
p-Terphenyl (S)	82	%	51-120	1	08/26/15 00:00	08/28/15 06:31	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	08/25/15 00:00	08/27/15 19:05		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 19:05	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.1	1		08/26/15 09:08	71-43-2	
Ethylbenzene	ND	ug/kg	5.1	1		08/26/15 09:08	100-41-4	
Toluene	ND	ug/kg	5.1	1		08/26/15 09:08	108-88-3	
Xylene (Total)	ND	ug/kg	5.1	1		08/26/15 09:08	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/26/15 09:08	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/26/15 09:08	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/26/15 09:08	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.5**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	103	10	08/27/15 15:00	08/28/15 23:47	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS16(6") **Lab ID: 60201209016** Collected: 08/19/15 14:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**14.1**	mg/kg	10.5	1	08/26/15 00:00	08/28/15 06:39		
Surrogates								
n-Tetracosane (S)	97	%	18-139	1	08/26/15 00:00	08/28/15 06:39	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	08/26/15 00:00	08/28/15 06:39	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	08/25/15 00:00	08/27/15 19:22		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 19:22	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/26/15 09:24	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/26/15 09:24	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/26/15 09:24	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/26/15 09:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/26/15 09:24	2037-26-5	
4-Bromofluorobenzene (S)	92	%	82-119	1		08/26/15 09:24	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/26/15 09:24	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	103	10	08/27/15 15:00	08/29/15 00:01	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS17(6") **Lab ID: 60201209017** Collected: 08/19/15 14:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.1	1	08/26/15 00:00	08/28/15 06:46		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	08/26/15 00:00	08/28/15 06:46	646-31-1	
p-Terphenyl (S)	82	%	51-120	1	08/26/15 00:00	08/28/15 06:46	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.2	1	08/25/15 00:00	08/27/15 19:39		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 19:39	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/25/15 19:21	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/25/15 19:21	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/25/15 19:21	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/25/15 19:21	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/25/15 19:21	2037-26-5	
4-Bromofluorobenzene (S)	106	%	82-119	1		08/25/15 19:21	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-142	1		08/25/15 19:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.5**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	112	10	08/27/15 15:00	08/29/15 00:14	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS18(6") **Lab ID: 60201209018** Collected: 08/19/15 15:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**116**	mg/kg	10.4	1	08/26/15 00:00	08/28/15 06:54		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	08/26/15 00:00	08/28/15 06:54	646-31-1	
p-Terphenyl (S)	82	%	51-120	1	08/26/15 00:00	08/28/15 06:54	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	08/25/15 00:00	08/27/15 19:55		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/25/15 00:00	08/27/15 19:55	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.2	1		08/25/15 20:07	71-43-2	
Ethylbenzene	ND	ug/kg	5.2	1		08/25/15 20:07	100-41-4	
Toluene	ND	ug/kg	5.2	1		08/25/15 20:07	108-88-3	
Xylene (Total)	ND	ug/kg	5.2	1		08/25/15 20:07	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/25/15 20:07	2037-26-5	
4-Bromofluorobenzene (S)	105	%	82-119	1		08/25/15 20:07	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/25/15 20:07	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	103	10	08/27/15 15:00	08/29/15 00:28	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS19(6") **Lab ID: 60201209019** Collected: 08/19/15 15:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**40.1**	mg/kg	10.4	1	08/26/15 00:00	08/28/15 07:01		
Surrogates								
n-Tetracosane (S)	109	%	18-139	1	08/26/15 00:00	08/28/15 07:01	646-31-1	
p-Terphenyl (S)	100	%	51-120	1	08/26/15 00:00	08/28/15 07:01	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	08/28/15 00:00	08/28/15 14:33		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/28/15 00:00	08/28/15 14:33	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/25/15 20:22	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/25/15 20:22	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/25/15 20:22	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/25/15 20:22	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/25/15 20:22	2037-26-5	
4-Bromofluorobenzene (S)	110	%	82-119	1		08/25/15 20:22	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-142	1		08/25/15 20:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	ND	mg/kg	108	10	08/27/15 15:00	08/29/15 00:42	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS20(6") **Lab ID: 60201209020** Collected: 08/19/15 15:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**20.4**	mg/kg	10.6	1	08/26/15 00:00	08/28/15 07:09		
Surrogates								
n-Tetracosane (S)	98	%	18-139	1	08/26/15 00:00	08/28/15 07:09	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	08/26/15 00:00	08/28/15 07:09	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.8	1	08/28/15 00:00	08/28/15 15:23		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/28/15 00:00	08/28/15 15:23	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.5	1		08/25/15 20:38	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		08/25/15 20:38	100-41-4	
Toluene	ND	ug/kg	5.5	1		08/25/15 20:38	108-88-3	
Xylene (Total)	ND	ug/kg	5.5	1		08/25/15 20:38	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	82-137	1		08/25/15 20:38	2037-26-5	
4-Bromofluorobenzene (S)	107	%	82-119	1		08/25/15 20:38	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-142	1		08/25/15 20:38	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.7**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2720**	mg/kg	219	20	08/27/15 15:00	08/29/15 12:41	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-081915-MM-SS21(6") **Lab ID: 60201209021** Collected: 08/19/15 15:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**18.9**	mg/kg	10.6	1	08/26/15 00:00	08/27/15 20:56		
Surrogates								
n-Tetracosane (S)	99	%	18-139	1	08/26/15 00:00	08/27/15 20:56	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	08/26/15 00:00	08/27/15 20:56	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	08/28/15 00:00	08/28/15 15:40		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	08/28/15 00:00	08/28/15 15:40	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/25/15 20:53	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/25/15 20:53	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/25/15 20:53	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/25/15 20:53	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/25/15 20:53	2037-26-5	
4-Bromofluorobenzene (S)	108	%	82-119	1		08/25/15 20:53	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/25/15 20:53	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1010**	mg/kg	107	10	08/27/15 16:30	08/29/15 14:17	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS35(6") **Lab ID: 60201209022** Collected: 08/20/15 08:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**82.5**	mg/kg	13.4	1	08/26/15 00:00	08/27/15 21:04		
Surrogates								
n-Tetracosane (S)	117	%	18-139	1	08/26/15 00:00	08/27/15 21:04	646-31-1	
p-Terphenyl (S)	97	%	51-120	1	08/26/15 00:00	08/27/15 21:04	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	13.5	1	08/28/15 00:00	08/28/15 15:56		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	08/28/15 00:00	08/28/15 15:56	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.7	1		08/25/15 21:08	71-43-2	
Ethylbenzene	ND	ug/kg	6.7	1		08/25/15 21:08	100-41-4	
Toluene	ND	ug/kg	6.7	1		08/25/15 21:08	108-88-3	
Xylene (Total)	ND	ug/kg	6.7	1		08/25/15 21:08	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/25/15 21:08	2037-26-5	
4-Bromofluorobenzene (S)	108	%	82-119	1		08/25/15 21:08	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-142	1		08/25/15 21:08	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**26.6**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1800**	mg/kg	137	10	08/27/15 16:30	08/29/15 15:26	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS35(18-24") **Lab ID: 60201209023** Collected: 08/20/15 08:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**16.0**	mg/kg	12.7	1	08/26/15 00:00	08/27/15 21:11		
Surrogates								
n-Tetracosane (S)	99	%	18-139	1	08/26/15 00:00	08/27/15 21:11	646-31-1	
p-Terphenyl (S)	93	%	51-120	1	08/26/15 00:00	08/27/15 21:11	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.7	1	08/28/15 00:00	08/28/15 16:13		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/28/15 00:00	08/28/15 16:13	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.3	1		08/25/15 21:23	71-43-2	
Ethylbenzene	ND	ug/kg	6.3	1		08/25/15 21:23	100-41-4	
Toluene	ND	ug/kg	6.3	1		08/25/15 21:23	108-88-3	
Xylene (Total)	ND	ug/kg	6.3	1		08/25/15 21:23	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%	82-137	1		08/25/15 21:23	2037-26-5	
4-Bromofluorobenzene (S)	107	%	82-119	1		08/25/15 21:23	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	1		08/25/15 21:23	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**21.7**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**629**	mg/kg	127	10	08/27/15 16:30	08/29/15 15:53	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS35(32-36") **Lab ID: 60201209024** Collected: 08/20/15 08:25 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	12.1	1	08/26/15 00:00	08/27/15 21:19		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	08/26/15 00:00	08/27/15 21:19	646-31-1	
p-Terphenyl (S)	85	%	51-120	1	08/26/15 00:00	08/27/15 21:19	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.2	1	08/28/15 00:00	08/28/15 16:30		
Surrogates								
4-Bromofluorobenzene (S)	104	%	68-144	1	08/28/15 00:00	08/28/15 16:30	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.1	1		08/25/15 21:39	71-43-2	
Ethylbenzene	ND	ug/kg	6.1	1		08/25/15 21:39	100-41-4	
Toluene	ND	ug/kg	6.1	1		08/25/15 21:39	108-88-3	
Xylene (Total)	ND	ug/kg	6.1	1		08/25/15 21:39	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/25/15 21:39	2037-26-5	
4-Bromofluorobenzene (S)	99	%	82-119	1		08/25/15 21:39	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	1		08/25/15 21:39	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1920**	mg/kg	123	10	08/27/15 16:30	08/29/15 16:07	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS34(6") **Lab ID: 60201209025** Collected: 08/20/15 08:40 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**164**	mg/kg	12.5	1	08/26/15 00:00	08/27/15 21:42		
Surrogates								
n-Tetracosane (S)	101	%	18-139	1	08/26/15 00:00	08/27/15 21:42	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	08/26/15 00:00	08/27/15 21:42	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.9	1	08/28/15 00:00	08/28/15 17:20		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	08/28/15 00:00	08/28/15 17:20	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.5	1		08/25/15 21:54	71-43-2	
Ethylbenzene	ND	ug/kg	6.5	1		08/25/15 21:54	100-41-4	
Toluene	ND	ug/kg	6.5	1		08/25/15 21:54	108-88-3	
Xylene (Total)	ND	ug/kg	6.5	1		08/25/15 21:54	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/25/15 21:54	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		08/25/15 21:54	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	1		08/25/15 21:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**22.3**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1420**	mg/kg	126	10	08/27/15 16:30	08/29/15 16:20	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS34(18-24") **Lab ID: 60201209026** Collected: 08/20/15 08:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**653**	mg/kg	12.8	1	08/26/15 00:00	08/27/15 21:49		
Surrogates								
n-Tetracosane (S)	111	%	18-139	1	08/26/15 00:00	08/27/15 21:49	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	08/26/15 00:00	08/27/15 21:49	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.7	1	08/28/15 00:00	08/28/15 17:36		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/28/15 00:00	08/28/15 17:36	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.5	1		08/25/15 22:09	71-43-2	
Ethylbenzene	**13.8**	ug/kg	6.5	1		08/25/15 22:09	100-41-4	
Toluene	ND	ug/kg	6.5	1		08/25/15 22:09	108-88-3	
Xylene (Total)	ND	ug/kg	6.5	1		08/25/15 22:09	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%	82-137	1		08/25/15 22:09	2037-26-5	
4-Bromofluorobenzene (S)	101	%	82-119	1		08/25/15 22:09	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/25/15 22:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**22.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1410**	mg/kg	127	10	08/27/15 16:30	08/29/15 16:34	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS34(32-36") **Lab ID: 60201209027** Collected: 08/20/15 08:50 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**8480**	mg/kg	234	20	08/26/15 00:00	09/01/15 13:04		
Surrogates								
n-Tetracosane (S)	0	%	18-139	20	08/26/15 00:00	09/01/15 13:04	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	20	08/26/15 00:00	09/01/15 13:04	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**439**	mg/kg	11.9	1	08/28/15 00:00	08/28/15 17:53		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/28/15 00:00	08/28/15 17:53	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	294	50		08/25/15 23:56	71-43-2	
Ethylbenzene	**11500**	ug/kg	294	50		08/25/15 23:56	100-41-4	
Toluene	ND	ug/kg	294	50		08/25/15 23:56	108-88-3	
Xylene (Total)	**22300**	ug/kg	294	50		08/25/15 23:56	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	50		08/25/15 23:56	2037-26-5	
4-Bromofluorobenzene (S)	111	%	82-119	50		08/25/15 23:56	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-142	50		08/25/15 23:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**673**	mg/kg	117	10	08/27/15 16:30	08/29/15 16:48	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS32(6") **Lab ID: 60201209028** Collected: 08/20/15 09:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**982**	mg/kg	122	10	08/26/15 00:00	09/01/15 13:12		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 13:12	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 13:12	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**18.9**	mg/kg	12.5	1	08/28/15 00:00	08/28/15 18:10		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	08/28/15 00:00	08/28/15 18:10	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.2	1		08/25/15 22:25	71-43-2	
Ethylbenzene	ND	ug/kg	6.2	1		08/25/15 22:25	100-41-4	
Toluene	ND	ug/kg	6.2	1		08/25/15 22:25	108-88-3	
Xylene (Total)	ND	ug/kg	6.2	1		08/25/15 22:25	1330-20-7	
Surrogates								
Toluene-d8 (S)	102	%	82-137	1		08/25/15 22:25	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/25/15 22:25	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	81-142	1		08/25/15 22:25	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**20.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1560**	mg/kg	126	10	08/27/15 16:30	08/29/15 17:01	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS32(18-24") **Lab ID: 60201209029** Collected: 08/20/15 09:05 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**30.5**	mg/kg	12.4	1	08/26/15 00:00	08/27/15 22:12		
Surrogates								
n-Tetracosane (S)	102	%	18-139	1	08/26/15 00:00	08/27/15 22:12	646-31-1	
p-Terphenyl (S)	96	%	51-120	1	08/26/15 00:00	08/27/15 22:12	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.3	1	08/28/15 00:00	08/28/15 18:26		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	08/28/15 00:00	08/28/15 18:26	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.3	1		08/25/15 22:40	71-43-2	
Ethylbenzene	ND	ug/kg	6.3	1		08/25/15 22:40	100-41-4	
Toluene	ND	ug/kg	6.3	1		08/25/15 22:40	108-88-3	
Xylene (Total)	ND	ug/kg	6.3	1		08/25/15 22:40	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%	82-137	1		08/25/15 22:40	2037-26-5	
4-Bromofluorobenzene (S)	105	%	82-119	1		08/25/15 22:40	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	81-142	1		08/25/15 22:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**20.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1200**	mg/kg	124	10	08/27/15 16:30	08/29/15 17:43	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS32(32-36") **Lab ID: 60201209030** Collected: 08/20/15 09:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**15.3**	mg/kg	12.2	1	08/26/15 00:00	08/27/15 22:19		
Surrogates								
n-Tetracosane (S)	81	%	18-139	1	08/26/15 00:00	08/27/15 22:19	646-31-1	
p-Terphenyl (S)	74	%	51-120	1	08/26/15 00:00	08/27/15 22:19	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.1	1	08/28/15 00:00	08/28/15 18:43		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	08/28/15 00:00	08/28/15 18:43	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.0	1		08/25/15 22:55	71-43-2	
Ethylbenzene	ND	ug/kg	6.0	1		08/25/15 22:55	100-41-4	
Toluene	ND	ug/kg	6.0	1		08/25/15 22:55	108-88-3	
Xylene (Total)	ND	ug/kg	6.0	1		08/25/15 22:55	1330-20-7	
Surrogates								
Toluene-d8 (S)	92	%	82-137	1		08/25/15 22:55	2037-26-5	
4-Bromofluorobenzene (S)	106	%	82-119	1		08/25/15 22:55	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	81-142	1		08/25/15 22:55	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**17.7**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1520**	mg/kg	120	10	08/27/15 16:30	08/29/15 17:56	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS31(6") **Lab ID: 60201209031** Collected: 08/20/15 09:25 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**2220**	mg/kg	125	1	08/26/15 00:00	08/27/15 22:27		
Surrogates								
n-Tetracosane (S)	0	%	18-139	1	08/26/15 00:00	08/27/15 22:27	646-31-1	
p-Terphenyl (S)	0	%	51-120	1	08/26/15 00:00	08/27/15 22:27	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**64.6**	mg/kg	12.1	1	08/28/15 00:00	08/28/15 19:00		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	08/28/15 00:00	08/28/15 19:00	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	**718**	ug/kg	305	50		08/26/15 00:12	71-43-2	
Ethylbenzene	**1630**	ug/kg	305	50		08/26/15 00:12	100-41-4	
Toluene	**387**	ug/kg	305	50		08/26/15 00:12	108-88-3	
Xylene (Total)	**1840**	ug/kg	305	50		08/26/15 00:12	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	50		08/26/15 00:12	2037-26-5	
4-Bromofluorobenzene (S)	97	%	82-119	50		08/26/15 00:12	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	50		08/26/15 00:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1740**	mg/kg	120	10	08/27/15 16:30	08/29/15 18:10	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS31(18-24") **Lab ID: 60201209032** Collected: 08/20/15 09:30 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**9400**	mg/kg	157	1	08/26/15 00:00	08/27/15 22:35		
Surrogates								
n-Tetracosane (S)	139	%	18-139	1	08/26/15 00:00	08/27/15 22:35	646-31-1	
p-Terphenyl (S)	98	%	51-120	1	08/26/15 00:00	08/27/15 22:35	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**28.6**	mg/kg	12.3	1	08/28/15 00:00	08/28/15 19:16		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	08/28/15 00:00	08/28/15 19:16	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	311	50		08/26/15 00:27	71-43-2	
Ethylbenzene	**648**	ug/kg	311	50		08/26/15 00:27	100-41-4	
Toluene	ND	ug/kg	311	50		08/26/15 00:27	108-88-3	
Xylene (Total)	ND	ug/kg	311	50		08/26/15 00:27	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	50		08/26/15 00:27	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	50		08/26/15 00:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-142	50		08/26/15 00:27	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1700**	mg/kg	123	10	08/27/15 16:30	08/29/15 18:24	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS31(32-36") **Lab ID: 60201209033** Collected: 08/20/15 09:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**27500**	mg/kg	1520	10	08/26/15 00:00	09/01/15 13:20		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 13:20	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 13:20	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**102**	mg/kg	12.2	1	08/28/15 00:00	08/28/15 19:33		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	08/28/15 00:00	08/28/15 19:33	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	**1080**	ug/kg	306	50		08/26/15 00:42	71-43-2	
Ethylbenzene	**2410**	ug/kg	306	50		08/26/15 00:42	100-41-4	
Toluene	ND	ug/kg	306	50		08/26/15 00:42	108-88-3	
Xylene (Total)	**1090**	ug/kg	306	50		08/26/15 00:42	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	50		08/26/15 00:42	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	50		08/26/15 00:42	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-142	50		08/26/15 00:42	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.5**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1550**	mg/kg	123	10	08/27/15 16:30	08/29/15 18:37	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS30(6") **Lab ID: 60201209034** Collected: 08/20/15 09:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**18200**	mg/kg	2330	200	08/26/15 00:00	08/27/15 23:05		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	08/27/15 23:05	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	08/27/15 23:05	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.6	1	08/28/15 00:00	08/28/15 19:49		
Surrogates								
4-Bromofluorobenzene (S)	93	%	68-144	1	08/28/15 00:00	08/28/15 19:49	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.9	1		08/26/15 23:14	71-43-2	
Ethylbenzene	ND	ug/kg	5.9	1		08/26/15 23:14	100-41-4	
Toluene	ND	ug/kg	5.9	1		08/26/15 23:14	108-88-3	
Xylene (Total)	ND	ug/kg	5.9	1		08/26/15 23:14	1330-20-7	
Surrogates								
Toluene-d8 (S)	116	%	82-137	1		08/26/15 23:14	2037-26-5	
4-Bromofluorobenzene (S)	74	%	82-119	1		08/26/15 23:14	460-00-4	S0
1,2-Dichloroethane-d4 (S)	113	%	81-142	1		08/26/15 23:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**14.5**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2130**	mg/kg	115	10	08/27/15 16:30	08/29/15 18:51	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS30(18-24") **Lab ID: 60201209035** Collected: 08/20/15 10:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**5870**	mg/kg	116	10	08/26/15 00:00	08/27/15 23:12		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	08/27/15 23:12	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	08/27/15 23:12	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.7	1	08/28/15 00:00	08/28/15 20:39		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/28/15 00:00	08/28/15 20:39	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.9	1		08/25/15 23:26	71-43-2	
Ethylbenzene	**16.2**	ug/kg	5.9	1		08/25/15 23:26	100-41-4	
Toluene	ND	ug/kg	5.9	1		08/25/15 23:26	108-88-3	
Xylene (Total)	ND	ug/kg	5.9	1		08/25/15 23:26	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	82-137	1		08/25/15 23:26	2037-26-5	
4-Bromofluorobenzene (S)	91	%	82-119	1		08/25/15 23:26	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	81-142	1		08/25/15 23:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.6**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**4270**	mg/kg	235	20	08/27/15 16:30	08/30/15 09:22	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS30(32-36") **Lab ID: 60201209036** Collected: 08/20/15 10:05 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1750**	mg/kg	110	10	08/26/15 00:00	09/01/15 13:28		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 13:28	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 13:28	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	08/28/15 00:00	08/28/15 20:56		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	08/28/15 00:00	08/28/15 20:56	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/25/15 23:41	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/25/15 23:41	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/25/15 23:41	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/25/15 23:41	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	1		08/25/15 23:41	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	1		08/25/15 23:41	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	81-142	1		08/25/15 23:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.8**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**3750**	mg/kg	228	20	08/27/15 16:30	08/30/15 09:36	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS33(6") **Lab ID: 60201209037** Collected: 08/20/15 10:50 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1440**	mg/kg	60.8	5	08/26/15 00:00	09/01/15 13:36		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/26/15 00:00	09/01/15 13:36	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/26/15 00:00	09/01/15 13:36	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.3	1	08/28/15 00:00	08/28/15 21:13		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	08/28/15 00:00	08/28/15 21:13	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.1	1		08/26/15 23:30	71-43-2	
Ethylbenzene	ND	ug/kg	6.1	1		08/26/15 23:30	100-41-4	
Toluene	ND	ug/kg	6.1	1		08/26/15 23:30	108-88-3	
Xylene (Total)	ND	ug/kg	6.1	1		08/26/15 23:30	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/26/15 23:30	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		08/26/15 23:30	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	81-142	1		08/26/15 23:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2060**	mg/kg	122	10	08/27/15 16:30	08/29/15 19:32	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS33(18-24") **Lab ID: 60201209038** Collected: 08/20/15 10:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**420**	mg/kg	11.5	1	08/26/15 00:00	09/01/15 13:43		
Surrogates								
n-Tetracosane (S)	94	%	18-139	1	08/26/15 00:00	09/01/15 13:43	646-31-1	
p-Terphenyl (S)	93	%	51-120	1	08/26/15 00:00	09/01/15 13:43	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.7	1	08/28/15 00:00	08/28/15 21:29		
Surrogates								
4-Bromofluorobenzene (S)	104	%	68-144	1	08/28/15 00:00	08/28/15 21:29	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.9	1		08/27/15 00:16	71-43-2	
Ethylbenzene	ND	ug/kg	5.9	1		08/27/15 00:16	100-41-4	
Toluene	ND	ug/kg	5.9	1		08/27/15 00:16	108-88-3	
Xylene (Total)	ND	ug/kg	5.9	1		08/27/15 00:16	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/27/15 00:16	2037-26-5	
4-Bromofluorobenzene (S)	101	%	82-119	1		08/27/15 00:16	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	81-142	1		08/27/15 00:16	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2250**	mg/kg	117	10	08/27/15 16:30	08/29/15 19:46	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS33(32-36") **Lab ID: 60201209039** Collected: 08/20/15 11:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**411**	mg/kg	11.4	1	08/26/15 00:00	08/27/15 23:43		
Surrogates								
n-Tetracosane (S)	97	%	18-139	1	08/26/15 00:00	08/27/15 23:43	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	08/26/15 00:00	08/27/15 23:43	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	08/27/15 00:00	08/31/15 18:22		
Surrogates								
4-Bromofluorobenzene (S)	94	%	68-144	1	08/27/15 00:00	08/31/15 18:22	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.6	1		08/27/15 00:31	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/27/15 00:31	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/27/15 00:31	108-88-3	
Xylene (Total)	ND	ug/kg	5.6	1		08/27/15 00:31	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	1		08/27/15 00:31	2037-26-5	
4-Bromofluorobenzene (S)	97	%	82-119	1		08/27/15 00:31	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	81-142	1		08/27/15 00:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1710**	mg/kg	114	10	08/27/15 16:30	08/29/15 20:27	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS22(6") **Lab ID: 60201209040** Collected: 08/20/15 11:25 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**8130**	mg/kg	112	10	08/26/15 00:00	08/27/15 23:50		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	08/27/15 23:50	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	08/27/15 23:50	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	08/27/15 00:00	08/31/15 19:12		
Surrogates								
4-Bromofluorobenzene (S)	94	%	68-144	1	08/27/15 00:00	08/31/15 19:12	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	288	50		08/27/15 00:46	71-43-2	
Ethylbenzene	ND	ug/kg	288	50		08/27/15 00:46	100-41-4	
Toluene	ND	ug/kg	288	50		08/27/15 00:46	108-88-3	
Xylene (Total)	ND	ug/kg	288	50		08/27/15 00:46	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	82-137	50		08/27/15 00:46	2037-26-5	D3
4-Bromofluorobenzene (S)	93	%	82-119	50		08/27/15 00:46	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-142	50		08/27/15 00:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1810**	mg/kg	113	10	08/27/15 16:30	08/29/15 20:40	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS22(18-24") **Lab ID: 60201209041** Collected: 08/20/15 11:30 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**51300**	mg/kg	633	10	08/26/15 00:00	08/30/15 20:40		M1
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	08/30/15 20:40	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	08/30/15 20:40	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**107**	mg/kg	11.2	1	08/27/15 00:00	08/31/15 19:29		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	08/27/15 00:00	08/31/15 19:29	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	287	50		08/27/15 01:02	71-43-2	
Ethylbenzene	**2290**	ug/kg	287	50		08/27/15 01:02	100-41-4	
Toluene	ND	ug/kg	287	50		08/27/15 01:02	108-88-3	
Xylene (Total)	**1990**	ug/kg	287	50		08/27/15 01:02	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	50		08/27/15 01:02	2037-26-5	
4-Bromofluorobenzene (S)	98	%	82-119	50		08/27/15 01:02	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	81-142	50		08/27/15 01:02	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.0**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**886**	mg/kg	112	10	08/27/15 17:00	08/30/15 10:44	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS22(32-36") **Lab ID: 60201209042** Collected: 08/20/15 11:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**34200**	mg/kg	683	10	08/26/15 00:00	08/30/15 20:48		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	08/30/15 20:48	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	08/30/15 20:48	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**126**	mg/kg	11.7	1	08/27/15 00:00	08/31/15 19:46		
Surrogates								
4-Bromofluorobenzene (S)	83	%	68-144	1	08/27/15 00:00	08/31/15 19:46	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	295	50		08/27/15 01:17	71-43-2	
Ethylbenzene	**2650**	ug/kg	295	50		08/27/15 01:17	100-41-4	
Toluene	ND	ug/kg	295	50		08/27/15 01:17	108-88-3	
Xylene (Total)	**2120**	ug/kg	295	50		08/27/15 01:17	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	50		08/27/15 01:17	2037-26-5	
4-Bromofluorobenzene (S)	92	%	82-119	50		08/27/15 01:17	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	50		08/27/15 01:17	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.5**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1150**	mg/kg	118	10	08/27/15 17:00	08/30/15 11:25	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS25(6") **Lab ID: 60201209043** Collected: 08/20/15 12:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**5960**	mg/kg	123	10	08/26/15 00:00	08/30/15 20:55		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	08/30/15 20:55	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	08/30/15 20:55	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**390**	mg/kg	12.2	1	08/27/15 00:00	08/31/15 20:02		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/27/15 00:00	08/31/15 20:02	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	306	50		08/27/15 01:32	71-43-2	
Ethylbenzene	**5720**	ug/kg	306	50		08/27/15 01:32	100-41-4	
Toluene	**806**	ug/kg	306	50		08/27/15 01:32	108-88-3	
Xylene (Total)	**9430**	ug/kg	306	50		08/27/15 01:32	1330-20-7	
Surrogates								
Toluene-d8 (S)	108	%	82-137	50		08/27/15 01:32	2037-26-5	
4-Bromofluorobenzene (S)	112	%	82-119	50		08/27/15 01:32	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	50		08/27/15 01:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1010**	mg/kg	123	10	08/27/15 17:00	08/30/15 11:52	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS26(6") **Lab ID: 60201209044** Collected: 08/20/15 13:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**54.3**	mg/kg	11.8	1	08/26/15 00:00	08/30/15 21:03		
Surrogates								
n-Tetracosane (S)	108	%	18-139	1	08/26/15 00:00	08/30/15 21:03	646-31-1	
p-Terphenyl (S)	94	%	51-120	1	08/26/15 00:00	08/30/15 21:03	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**16.8**	mg/kg	12.0	1	08/27/15 00:00	08/31/15 20:19		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	08/27/15 00:00	08/31/15 20:19	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.0	1		08/27/15 01:48	71-43-2	
Ethylbenzene	ND	ug/kg	6.0	1		08/27/15 01:48	100-41-4	
Toluene	ND	ug/kg	6.0	1		08/27/15 01:48	108-88-3	
Xylene (Total)	ND	ug/kg	6.0	1		08/27/15 01:48	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	82-137	1		08/27/15 01:48	2037-26-5	
4-Bromofluorobenzene (S)	98	%	82-119	1		08/27/15 01:48	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/27/15 01:48	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**16.8**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**360**	mg/kg	118	10	08/27/15 17:00	08/30/15 12:06	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS27(6") **Lab ID: 60201209045** Collected: 08/20/15 13:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1560**	mg/kg	109	10	08/26/15 00:00	09/01/15 14:15		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 14:15	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 14:15	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.0	1	08/27/15 00:00	08/31/15 21:09		
Surrogates								
4-Bromofluorobenzene (S)	98	%	68-144	1	08/27/15 00:00	08/31/15 21:09	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.5	1		08/27/15 02:03	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		08/27/15 02:03	100-41-4	
Toluene	ND	ug/kg	5.5	1		08/27/15 02:03	108-88-3	
Xylene (Total)	ND	ug/kg	5.5	1		08/27/15 02:03	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	1		08/27/15 02:03	2037-26-5	
4-Bromofluorobenzene (S)	97	%	82-119	1		08/27/15 02:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	81-142	1		08/27/15 02:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**9.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2740**	mg/kg	221	20	08/27/15 17:00	08/30/15 12:20	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS28(6") **Lab ID: 60201209046** Collected: 08/20/15 13:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**36.1**	mg/kg	11.3	1	08/26/15 00:00	09/01/15 14:23		
Surrogates								
n-Tetracosane (S)	90	%	18-139	1	08/26/15 00:00	09/01/15 14:23	646-31-1	
p-Terphenyl (S)	79	%	51-120	1	08/26/15 00:00	09/01/15 14:23	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	08/27/15 00:00	08/31/15 21:25		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	08/27/15 00:00	08/31/15 21:25	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/27/15 02:18	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/27/15 02:18	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/27/15 02:18	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/27/15 02:18	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/27/15 02:18	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		08/27/15 02:18	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/27/15 02:18	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1670**	mg/kg	112	10	08/27/15 17:00	08/30/15 12:33	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS29(6") **Lab ID: 60201209047** Collected: 08/20/15 13:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**4290**	mg/kg	57.4	5	08/26/15 00:00	08/30/15 21:40		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/26/15 00:00	08/30/15 21:40	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/26/15 00:00	08/30/15 21:40	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	08/27/15 00:00	08/31/15 21:42		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	08/27/15 00:00	08/31/15 21:42	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/27/15 02:34	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/27/15 02:34	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/27/15 02:34	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/27/15 02:34	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	82-137	1		08/27/15 02:34	2037-26-5	
4-Bromofluorobenzene (S)	92	%	82-119	1		08/27/15 02:34	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/27/15 02:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2940**	mg/kg	230	20	08/27/15 17:00	08/30/15 12:47	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS36(6") **Lab ID: 60201209048** Collected: 08/20/15 14:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**94.7**	mg/kg	11.2	1	08/26/15 00:00	09/02/15 09:04		
Surrogates								
n-Tetracosane (S)	80	%	18-139	1	08/26/15 00:00	09/02/15 09:04	646-31-1	
p-Terphenyl (S)	77	%	51-120	1	08/26/15 00:00	09/02/15 09:04	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.2	1	08/27/15 00:00	08/31/15 21:59		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/27/15 00:00	08/31/15 21:59	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.6	1		08/27/15 02:49	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/27/15 02:49	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/27/15 02:49	108-88-3	
Xylene (Total)	ND	ug/kg	5.6	1		08/27/15 02:49	1330-20-7	
Surrogates								
Toluene-d8 (S)	104	%	82-137	1		08/27/15 02:49	2037-26-5	
4-Bromofluorobenzene (S)	88	%	82-119	1		08/27/15 02:49	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-142	1		08/27/15 02:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**606**	mg/kg	113	10	08/27/15 17:00	08/30/15 13:28	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS36(18-24") **Lab ID: 60201209049** Collected: 08/20/15 14:50 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**3170**	mg/kg	114	10	08/26/15 00:00	09/01/15 14:31		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 14:31	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 14:31	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.6	1	08/27/15 00:00	08/31/15 22:15		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	08/27/15 00:00	08/31/15 22:15	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.8	1		08/27/15 03:05	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/27/15 03:05	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/27/15 03:05	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/27/15 03:05	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	1		08/27/15 03:05	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/27/15 03:05	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	81-142	1		08/27/15 03:05	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.6**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**825**	mg/kg	116	10	08/27/15 17:00	08/30/15 13:42	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS37(6") **Lab ID: 60201209050** Collected: 08/20/15 15:05 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**28400**	mg/kg	2200	200	08/26/15 00:00	09/01/15 14:39		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	09/01/15 14:39	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	09/01/15 14:39	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**52.1**	mg/kg	11.1	1	08/27/15 00:00	08/31/15 22:32		
Surrogates								
4-Bromofluorobenzene (S)	88	%	68-144	1	08/27/15 00:00	08/31/15 22:32	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	275	50		08/27/15 16:07	71-43-2	
Ethylbenzene	**1000**	ug/kg	275	50		08/27/15 16:07	100-41-4	
Toluene	**2080**	ug/kg	275	50		08/27/15 16:07	108-88-3	
Xylene (Total)	**2140**	ug/kg	275	50		08/27/15 16:07	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	82-137	50		08/27/15 16:07	2037-26-5	
4-Bromofluorobenzene (S)	96	%	82-119	50		08/27/15 16:07	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	81-142	50		08/27/15 16:07	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.3**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1700**	mg/kg	110	10	08/27/15 17:00	08/30/15 13:55	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS37(18-24") **Lab ID: 60201209051** Collected: 08/20/15 15:10 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**6180**	mg/kg	1240	100	08/26/15 00:00	09/01/15 14:47		
Surrogates								
n-Tetracosane (S)	0	%	18-139	100	08/26/15 00:00	09/01/15 14:47	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	100	08/26/15 00:00	09/01/15 14:47	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.3	1	08/27/15 00:00	08/31/15 22:49		
Surrogates								
4-Bromofluorobenzene (S)	94	%	68-144	1	08/27/15 00:00	08/31/15 22:49	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.2	1		08/27/15 03:35	71-43-2	
Ethylbenzene	ND	ug/kg	6.2	1		08/27/15 03:35	100-41-4	
Toluene	ND	ug/kg	6.2	1		08/27/15 03:35	108-88-3	
Xylene (Total)	ND	ug/kg	6.2	1		08/27/15 03:35	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	82-137	1		08/27/15 03:35	2037-26-5	
4-Bromofluorobenzene (S)	88	%	82-119	1		08/27/15 03:35	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-142	1		08/27/15 03:35	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**19.4**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**4580**	mg/kg	616	50	08/27/15 17:00	08/30/15 14:09	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-SS37(32-36") **Lab ID: 60201209052** Collected: 08/20/15 15:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**2130**	mg/kg	121	10	08/26/15 00:00	09/01/15 14:55		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 14:55	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 14:55	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.1	1	08/27/15 00:00	08/31/15 23:05		
Surrogates								
4-Bromofluorobenzene (S)	95	%	68-144	1	08/27/15 00:00	08/31/15 23:05	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.0	1		08/27/15 03:51	71-43-2	
Ethylbenzene	ND	ug/kg	6.0	1		08/27/15 03:51	100-41-4	
Toluene	ND	ug/kg	6.0	1		08/27/15 03:51	108-88-3	
Xylene (Total)	ND	ug/kg	6.0	1		08/27/15 03:51	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/27/15 03:51	2037-26-5	
4-Bromofluorobenzene (S)	98	%	82-119	1		08/27/15 03:51	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/27/15 03:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**17.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2710**	mg/kg	238	20	08/27/15 17:00	08/30/15 14:23	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082015-MM-DUP02 **Lab ID: 60201209053** Collected: 08/20/15 08:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**11200**	mg/kg	228	20	08/26/15 00:00	09/01/15 15:18		
Surrogates								
n-Tetracosane (S)	0	%	18-139	20	08/26/15 00:00	09/01/15 15:18	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	20	08/26/15 00:00	09/01/15 15:18	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**638**	mg/kg	57.4	5	08/27/15 00:00	09/01/15 15:38		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	5	08/27/15 00:00	09/01/15 15:38	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	288	50		08/27/15 16:22	71-43-2	
Ethylbenzene	**16800**	ug/kg	288	50		08/27/15 16:22	100-41-4	
Toluene	ND	ug/kg	288	50		08/27/15 16:22	108-88-3	
Xylene (Total)	**31800**	ug/kg	288	50		08/27/15 16:22	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	82-137	50		08/27/15 16:22	2037-26-5	
4-Bromofluorobenzene (S)	118	%	82-119	50		08/27/15 16:22	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	81-142	50		08/27/15 16:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**708**	mg/kg	114	10	08/27/15 17:00	08/30/15 14:36	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS38(6") **Lab ID: 60201209054** Collected: 08/21/15 07:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**130**	mg/kg	10.9	1	08/26/15 00:00	09/01/15 15:26		
Surrogates								
n-Tetracosane (S)	80	%	18-139	1	08/26/15 00:00	09/01/15 15:26	646-31-1	
p-Terphenyl (S)	112	%	51-120	1	08/26/15 00:00	09/01/15 15:26	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**14.3**	mg/kg	10.9	1	08/27/15 00:00	08/31/15 23:38		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/27/15 00:00	08/31/15 23:38	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.4	1		08/27/15 13:17	71-43-2	
Ethylbenzene	ND	ug/kg	5.4	1		08/27/15 13:17	100-41-4	
Toluene	ND	ug/kg	5.4	1		08/27/15 13:17	108-88-3	
Xylene (Total)	ND	ug/kg	5.4	1		08/27/15 13:17	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%	82-137	1		08/27/15 13:17	2037-26-5	
4-Bromofluorobenzene (S)	106	%	82-119	1		08/27/15 13:17	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	81-142	1		08/27/15 13:17	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.9**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**986**	mg/kg	108	10	08/27/15 17:00	08/30/15 14:50	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS38(18-24") **Lab ID: 60201209055** Collected: 08/21/15 07:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**33600**	mg/kg	713	10	08/26/15 00:00	09/01/15 15:34		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/26/15 00:00	09/01/15 15:34	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/26/15 00:00	09/01/15 15:34	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**87.8**	mg/kg	12.1	1	08/27/15 00:00	09/01/15 00:28		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	08/27/15 00:00	09/01/15 00:28	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	**442**	ug/kg	303	50		08/27/15 17:08	71-43-2	
Ethylbenzene	**874**	ug/kg	303	50		08/27/15 17:08	100-41-4	
Toluene	ND	ug/kg	303	50		08/27/15 17:08	108-88-3	
Xylene (Total)	**318**	ug/kg	303	50		08/27/15 17:08	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	50		08/27/15 17:08	2037-26-5	
4-Bromofluorobenzene (S)	98	%	82-119	50		08/27/15 17:08	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-142	50		08/27/15 17:08	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1500**	mg/kg	120	10	08/27/15 17:00	08/30/15 15:04	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS38(32-36") **Lab ID: 60201209056** Collected: 08/21/15 07:35 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**5110**	mg/kg	341	5	08/26/15 00:00	09/01/15 15:42		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/26/15 00:00	09/01/15 15:42	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/26/15 00:00	09/01/15 15:42	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**80.0**	mg/kg	12.0	1	08/27/15 00:00	09/01/15 00:45		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	08/27/15 00:00	09/01/15 00:45	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	303	50		08/27/15 17:24	71-43-2	
Ethylbenzene	**2680**	ug/kg	303	50		08/27/15 17:24	100-41-4	
Toluene	ND	ug/kg	303	50		08/27/15 17:24	108-88-3	
Xylene (Total)	**1580**	ug/kg	303	50		08/27/15 17:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	82-137	50		08/27/15 17:24	2037-26-5	
4-Bromofluorobenzene (S)	91	%	82-119	50		08/27/15 17:24	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	81-142	50		08/27/15 17:24	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**16.6**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**3000**	mg/kg	240	20	08/27/15 17:00	08/30/15 15:17	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS39(6") **Lab ID: 60201209057** Collected: 08/21/15 08:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**23100**	mg/kg	2270	200	08/26/15 00:00	09/01/15 15:50		
Surrogates								
n-Tetracosane (S)	0	%	18-139	200	08/26/15 00:00	09/01/15 15:50	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	200	08/26/15 00:00	09/01/15 15:50	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	08/27/15 00:00	09/01/15 01:02		
Surrogates								
4-Bromofluorobenzene (S)	93	%	68-144	1	08/27/15 00:00	09/01/15 01:02	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	**12.0**	ug/kg	5.8	1		08/28/15 18:03	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/28/15 18:03	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/28/15 18:03	108-88-3	
Xylene (Total)	ND	ug/kg	5.8	1		08/28/15 18:03	1330-20-7	
Surrogates								
Toluene-d8 (S)	116	%	82-137	1		08/28/15 18:03	2037-26-5	IO
4-Bromofluorobenzene (S)	75	%	82-119	1		08/28/15 18:03	460-00-4	S0
1,2-Dichloroethane-d4 (S)	112	%	81-142	1		08/28/15 18:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**933**	mg/kg	113	10	08/27/15 17:00	08/30/15 15:31	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS39(18-24") **Lab ID: 60201209058** Collected: 08/21/15 08:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**4630**	mg/kg	362	5	08/26/15 00:00	09/02/15 09:12		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/26/15 00:00	09/02/15 09:12	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/26/15 00:00	09/02/15 09:12	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**16.9**	mg/kg	12.4	1	08/27/15 00:00	09/01/15 01:18		
Surrogates								
4-Bromofluorobenzene (S)	95	%	68-144	1	08/27/15 00:00	09/01/15 01:18	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	313	50		08/27/15 17:39	71-43-2	
Ethylbenzene	ND	ug/kg	313	50		08/27/15 17:39	100-41-4	
Toluene	ND	ug/kg	313	50		08/27/15 17:39	108-88-3	
Xylene (Total)	ND	ug/kg	313	50		08/27/15 17:39	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	50		08/27/15 17:39	2037-26-5	D3
4-Bromofluorobenzene (S)	98	%	82-119	50		08/27/15 17:39	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	81-142	50		08/27/15 17:39	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**20.2**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**3390**	mg/kg	251	20	08/27/15 17:00	08/30/15 16:12	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS40(6") **Lab ID: 60201209059** Collected: 08/21/15 08:40 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**9490**	mg/kg	226	20	08/26/15 00:00	09/01/15 20:12		
Surrogates								
n-Tetracosane (S)	0	%	18-139	20	08/26/15 00:00	09/01/15 20:12	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	20	08/26/15 00:00	09/01/15 20:12	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	09/01/15 00:00	09/01/15 15:54		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	09/01/15 00:00	09/01/15 15:54	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.6	1		09/01/15 12:32	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		09/01/15 12:32	100-41-4	
Toluene	ND	ug/kg	5.6	1		09/01/15 12:32	108-88-3	
Xylene (Total)	ND	ug/kg	5.6	1		09/01/15 12:32	1330-20-7	
Surrogates								
Toluene-d8 (S)	87	%	82-137	1		09/01/15 12:32	2037-26-5	1e
4-Bromofluorobenzene (S)	80	%	82-119	1		09/01/15 12:32	460-00-4	S1
1,2-Dichloroethane-d4 (S)	98	%	81-142	1		09/01/15 12:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.1**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**2230**	mg/kg	227	20	08/27/15 17:00	08/30/15 16:26	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS46(6") **Lab ID: 60201209060** Collected: 08/21/15 09:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**20.0**	mg/kg	11.3	1	08/26/15 00:00	09/01/15 20:20		
Surrogates								
n-Tetracosane (S)	90	%	18-139	1	08/26/15 00:00	09/01/15 20:20	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	08/26/15 00:00	09/01/15 20:20	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	09/01/15 00:00	09/01/15 16:44		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	09/01/15 00:00	09/01/15 16:44	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.6	1		08/27/15 14:04	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/27/15 14:04	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/27/15 14:04	108-88-3	
Xylene (Total)	ND	ug/kg	5.6	1		08/27/15 14:04	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	82-137	1		08/27/15 14:04	2037-26-5	
4-Bromofluorobenzene (S)	92	%	82-119	1		08/27/15 14:04	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-142	1		08/27/15 14:04	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.8**	%	0.50	1		08/26/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**673**	mg/kg	114	10	08/27/15 17:00	08/30/15 16:40	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS46(18-24") **Lab ID: 60201209061** Collected: 08/21/15 09:05 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**27.8**	mg/kg	11.2	1	08/27/15 00:00	08/30/15 18:10		
Surrogates								
n-Tetracosane (S)	106	%	18-139	1	08/27/15 00:00	08/30/15 18:10	646-31-1	
p-Terphenyl (S)	95	%	51-120	1	08/27/15 00:00	08/30/15 18:10	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.6	1	09/01/15 00:00	09/01/15 17:01		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	09/01/15 00:00	09/01/15 17:01	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/27/15 14:19	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/27/15 14:19	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/27/15 14:19	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/27/15 14:19	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%	82-137	1		08/27/15 14:19	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		08/27/15 14:19	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/27/15 14:19	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**13.5**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**622**	mg/kg	114	10	08/27/15 17:30	08/29/15 02:04	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS41(6") **Lab ID: 60201209062** Collected: 08/21/15 09:20 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1590**	mg/kg	112	10	08/27/15 00:00	08/30/15 18:17		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	08/27/15 00:00	08/30/15 18:17	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	08/27/15 00:00	08/30/15 18:17	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.7	1	09/01/15 00:00	09/01/15 17:17		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	09/01/15 00:00	09/01/15 17:17	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.9	1		08/27/15 14:34	71-43-2	
Ethylbenzene	ND	ug/kg	5.9	1		08/27/15 14:34	100-41-4	
Toluene	ND	ug/kg	5.9	1		08/27/15 14:34	108-88-3	
Xylene (Total)	ND	ug/kg	5.9	1		08/27/15 14:34	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	82-137	1		08/27/15 14:34	2037-26-5	
4-Bromofluorobenzene (S)	93	%	82-119	1		08/27/15 14:34	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	81-142	1		08/27/15 14:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**14.9**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1840**	mg/kg	118	10	08/27/15 17:30	08/29/15 02:18	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS42(6") **Lab ID: 60201209063** Collected: 08/21/15 09:50 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1210**	mg/kg	56.4	5	08/27/15 00:00	08/30/15 18:25		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/27/15 00:00	08/30/15 18:25	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/27/15 00:00	08/30/15 18:25	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	09/01/15 00:00	09/01/15 17:34		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	09/01/15 00:00	09/01/15 17:34	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.7	1		08/27/15 14:50	71-43-2	
Ethylbenzene	ND	ug/kg	5.7	1		08/27/15 14:50	100-41-4	
Toluene	ND	ug/kg	5.7	1		08/27/15 14:50	108-88-3	
Xylene (Total)	ND	ug/kg	5.7	1		08/27/15 14:50	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/27/15 14:50	2037-26-5	
4-Bromofluorobenzene (S)	100	%	82-119	1		08/27/15 14:50	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	81-142	1		08/27/15 14:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.0**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1760**	mg/kg	112	10	08/27/15 17:30	08/29/15 02:45	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS43(6") **Lab ID: 60201209064** Collected: 08/21/15 10:15 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**93.9**	mg/kg	10.9	1	08/27/15 00:00	08/30/15 18:33		
Surrogates								
n-Tetracosane (S)	84	%	18-139	1	08/27/15 00:00	08/30/15 18:33	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	08/27/15 00:00	08/30/15 18:33	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.4	1	09/01/15 00:00	09/01/15 18:24		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	09/01/15 00:00	09/01/15 18:24	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.6	1		08/27/15 15:05	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/27/15 15:05	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/27/15 15:05	108-88-3	
Xylene (Total)	ND	ug/kg	5.6	1		08/27/15 15:05	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%	82-137	1		08/27/15 15:05	2037-26-5	
4-Bromofluorobenzene (S)	102	%	82-119	1		08/27/15 15:05	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	81-142	1		08/27/15 15:05	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.5**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**220**	mg/kg	113	10	08/27/15 17:30	08/29/15 02:59	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS44(6") **Lab ID: 60201209065** Collected: 08/21/15 10:45 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**34.5**	mg/kg	12.0	1	08/27/15 00:00	08/30/15 18:56		
Surrogates								
n-Tetracosane (S)	98	%	18-139	1	08/27/15 00:00	08/30/15 18:56	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	08/27/15 00:00	08/30/15 18:56	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.3	1	09/01/15 00:00	09/01/15 18:41		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	09/01/15 00:00	09/01/15 18:41	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.2	1		08/27/15 15:21	71-43-2	
Ethylbenzene	ND	ug/kg	6.2	1		08/27/15 15:21	100-41-4	
Toluene	ND	ug/kg	6.2	1		08/27/15 15:21	108-88-3	
Xylene (Total)	ND	ug/kg	6.2	1		08/27/15 15:21	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%	82-137	1		08/27/15 15:21	2037-26-5	
4-Bromofluorobenzene (S)	108	%	82-119	1		08/27/15 15:21	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	81-142	1		08/27/15 15:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.7**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**1300**	mg/kg	123	10	08/27/15 17:30	08/29/15 03:13	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-SS45(6") **Lab ID: 60201209066** Collected: 08/21/15 10:55 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**208**	mg/kg	10.7	1	08/27/15 00:00	08/30/15 19:03		
Surrogates								
n-Tetracosane (S)	118	%	18-139	1	08/27/15 00:00	08/30/15 19:03	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	08/27/15 00:00	08/30/15 19:03	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.9	1	09/01/15 00:00	09/01/15 18:57		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	09/01/15 00:00	09/01/15 18:57	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.4	1		08/27/15 15:36	71-43-2	
Ethylbenzene	ND	ug/kg	5.4	1		08/27/15 15:36	100-41-4	
Toluene	ND	ug/kg	5.4	1		08/27/15 15:36	108-88-3	
Xylene (Total)	ND	ug/kg	5.4	1		08/27/15 15:36	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	82-137	1		08/27/15 15:36	2037-26-5	
4-Bromofluorobenzene (S)	95	%	82-119	1		08/27/15 15:36	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	81-142	1		08/27/15 15:36	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.0**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**449**	mg/kg	108	10	08/27/15 17:30	08/29/15 03:26	16887-00-6	

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-DUP01 **Lab ID: 60201209067** Collected: 08/21/15 08:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**4640**	mg/kg	171	5	08/27/15 00:00	09/01/15 20:44		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	08/27/15 00:00	09/01/15 20:44	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	08/27/15 00:00	09/01/15 20:44	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**38.8**	mg/kg	12.1	1	09/01/15 00:00	09/01/15 19:14		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	09/01/15 00:00	09/01/15 19:14	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	302	50		08/27/15 17:55	71-43-2	
Ethylbenzene	**2470**	ug/kg	302	50		08/27/15 17:55	100-41-4	
Toluene	ND	ug/kg	302	50		08/27/15 17:55	108-88-3	
Xylene (Total)	**1460**	ug/kg	302	50		08/27/15 17:55	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	82-137	50		08/27/15 17:55	2037-26-5	
4-Bromofluorobenzene (S)	97	%	82-119	50		08/27/15 17:55	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	81-142	50		08/27/15 17:55	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**16.7**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**3010**	mg/kg	240	20	08/27/15 17:30	08/29/15 12:55	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Sample: 089467-082115-MM-DUP03 **Lab ID: 60201209068** Collected: 08/21/15 08:00 Received: 08/22/15 08:25 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**22.5**	mg/kg	11.7	1	08/27/15 00:00	09/01/15 20:52		
Surrogates								
n-Tetracosane (S)	96	%	18-139	1	08/27/15 00:00	09/01/15 20:52	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	08/27/15 00:00	09/01/15 20:52	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.2	1	09/01/15 00:00	09/01/15 19:31		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	09/01/15 00:00	09/01/15 19:31	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.0	1		08/27/15 15:51	71-43-2	
Ethylbenzene	ND	ug/kg	6.0	1		08/27/15 15:51	100-41-4	
Toluene	ND	ug/kg	6.0	1		08/27/15 15:51	108-88-3	
Xylene (Total)	ND	ug/kg	6.0	1		08/27/15 15:51	1330-20-7	
Surrogates								
Toluene-d8 (S)	94	%	82-137	1		08/27/15 15:51	2037-26-5	
4-Bromofluorobenzene (S)	106	%	82-119	1		08/27/15 15:51	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	81-142	1		08/27/15 15:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**17.6**	%	0.50	1		08/27/15 00:00		
9056 IC Anions	Analytical Method: EPA 9056 Preparation Method: EPA 9056							
Chloride	**742**	mg/kg	119	10	08/27/15 17:30	08/30/15 03:31	16887-00-6	M1

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: GCV/5171 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018

METHOD BLANK: 1622179 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	08/25/15 11:22	
4-Bromofluorobenzene (S)	%	105	68-144	08/25/15 11:22	

METHOD BLANK: 1624078 Matrix: Solid
Associated Lab Samples: 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	08/27/15 14:55	
4-Bromofluorobenzene (S)	%	108	68-144	08/27/15 14:55	

LABORATORY CONTROL SAMPLE: 1622180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	56.2	112	67-115	
4-Bromofluorobenzene (S)	%			107	68-144	

LABORATORY CONTROL SAMPLE: 1624079

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	56.5	113	67-115	
4-Bromofluorobenzene (S)	%			107	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1622181 1622182

Parameter	Units	60201209001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	52.7	52.7	56.4	55.0	106	104	49-122	2	14	
4-Bromofluorobenzene (S)	%						100	102	68-144			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: GCV/5175 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60201209019, 60201209020, 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038

METHOD BLANK: 1623866 Matrix: Solid
Associated Lab Samples: 60201209019, 60201209020, 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	08/28/15 11:31	
4-Bromofluorobenzene (S)	%	106	68-144	08/28/15 11:31	

LABORATORY CONTROL SAMPLE: 1623867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	55.5	111	67-115	
4-Bromofluorobenzene (S)	%			107	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623868 1623869

Parameter	Units	60201209019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	53.5	53.5	61.7	56.0	113	102	49-122	10	14	
4-Bromofluorobenzene (S)	%						104	105	68-144			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: GCV/5176 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60201209039, 60201209040, 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058

METHOD BLANK: 1623890 Matrix: Solid
Associated Lab Samples: 60201209039, 60201209040, 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	08/31/15 16:05	
4-Bromofluorobenzene (S)	%	103	68-144	08/31/15 16:05	

METHOD BLANK: 1626857 Matrix: Solid
Associated Lab Samples: 60201209053

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	09/01/15 14:38	
4-Bromofluorobenzene (S)	%	105	68-144	09/01/15 14:38	

LABORATORY CONTROL SAMPLE: 1623891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	52.7	105	67-115	
4-Bromofluorobenzene (S)	%			106	68-144	

LABORATORY CONTROL SAMPLE: 1626858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	53.0	106	67-115	
4-Bromofluorobenzene (S)	%			106	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623892 1623893

Parameter	Units	60201209039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	56.3	56.3	62.9	59.4	108	102	49-122	6	14	
4-Bromofluorobenzene (S)	%						102	104	68-144			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: GCV/5179 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60201209059, 60201209060, 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

METHOD BLANK: 1626140 Matrix: Solid
Associated Lab Samples: 60201209059, 60201209060, 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	09/01/15 14:38	
4-Bromofluorobenzene (S)	%	105	68-144	09/01/15 14:38	

LABORATORY CONTROL SAMPLE: 1626141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	53.0	106	67-115	
4-Bromofluorobenzene (S)	%			106	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1626142 1626143

Parameter	Units	60201209059 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	57.2	57.2	66.6	67.7	105	107	49-122	2	14	
4-Bromofluorobenzene (S)	%						98	95	68-144			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71341 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016

METHOD BLANK: 1622333 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/26/15 04:47	
Ethylbenzene	ug/kg	ND	5.0	08/26/15 04:47	
Toluene	ug/kg	ND	5.0	08/26/15 04:47	
Xylene (Total)	ug/kg	ND	5.0	08/26/15 04:47	
1,2-Dichloroethane-d4 (S)	%	93	81-142	08/26/15 04:47	
4-Bromofluorobenzene (S)	%	96	82-119	08/26/15 04:47	
Toluene-d8 (S)	%	100	82-137	08/26/15 04:47	

LABORATORY CONTROL SAMPLE: 1622334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	90.1	90	74-121	
Ethylbenzene	ug/kg	100	86.5	86	77-121	
Toluene	ug/kg	100	86.2	86	77-117	
Xylene (Total)	ug/kg	300	258	86	77-121	
1,2-Dichloroethane-d4 (S)	%			94	81-142	
4-Bromofluorobenzene (S)	%			99	82-119	
Toluene-d8 (S)	%			100	82-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1622335 1622336

Parameter	Units	60201209001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	105	106	70.0	74.3	67	70	32-137	6	27	
Ethylbenzene	ug/kg	ND	105	106	57.9	59.7	55	56	18-149	3	28	
Toluene	ug/kg	ND	105	106	62.6	65.1	60	61	26-141	4	28	
Xylene (Total)	ug/kg	ND	315	319	165	174	52	55	11-154	5	33	
1,2-Dichloroethane-d4 (S)	%						102	107	81-142			
4-Bromofluorobenzene (S)	%						98	100	82-119			
Toluene-d8 (S)	%						99	101	82-137			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71343 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209017, 60201209018, 60201209019, 60201209020, 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209035, 60201209036

METHOD BLANK: 1622418 Matrix: Solid
Associated Lab Samples: 60201209017, 60201209018, 60201209019, 60201209020, 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209035, 60201209036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/25/15 19:06	
Ethylbenzene	ug/kg	ND	5.0	08/25/15 19:06	
Toluene	ug/kg	ND	5.0	08/25/15 19:06	
Xylene (Total)	ug/kg	ND	5.0	08/25/15 19:06	
1,2-Dichloroethane-d4 (S)	%	96	81-142	08/25/15 19:06	
4-Bromofluorobenzene (S)	%	109	82-119	08/25/15 19:06	
Toluene-d8 (S)	%	94	82-137	08/25/15 19:06	

LABORATORY CONTROL SAMPLE: 1622419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	97.8	98	74-121	
Ethylbenzene	ug/kg	100	94.1	94	77-121	
Toluene	ug/kg	100	92.4	92	77-117	
Xylene (Total)	ug/kg	300	281	94	77-121	
1,2-Dichloroethane-d4 (S)	%			96	81-142	
4-Bromofluorobenzene (S)	%			101	82-119	
Toluene-d8 (S)	%			97	82-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1622420 1622421

Parameter	Units	60201209017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	114	112	87.8	85.8	77	77	32-137	2	27	
Ethylbenzene	ug/kg	ND	114	112	73.8	74.6	65	67	18-149	1	28	
Toluene	ug/kg	ND	114	112	79.3	78.9	69	71	26-141	0	28	
Xylene (Total)	ug/kg	ND	342	335	218	222	64	66	11-154	2	33	
1,2-Dichloroethane-d4 (S)	%						104	100	81-142			
4-Bromofluorobenzene (S)	%						97	98	82-119			
Toluene-d8 (S)	%						98	97	82-137			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71367 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209008, 60201209009, 60201209010, 60201209034, 60201209037, 60201209038, 60201209039, 60201209040, 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209051, 60201209052

METHOD BLANK: 1623161 Matrix: Solid
Associated Lab Samples: 60201209008, 60201209009, 60201209010, 60201209034, 60201209037, 60201209038, 60201209039, 60201209040, 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209051, 60201209052

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/26/15 22:13	
Ethylbenzene	ug/kg	ND	5.0	08/26/15 22:13	
Toluene	ug/kg	ND	5.0	08/26/15 22:13	
Xylene (Total)	ug/kg	ND	5.0	08/26/15 22:13	
1,2-Dichloroethane-d4 (S)	%	98	81-142	08/26/15 22:13	
4-Bromofluorobenzene (S)	%	98	82-119	08/26/15 22:13	
Toluene-d8 (S)	%	97	82-137	08/26/15 22:13	

LABORATORY CONTROL SAMPLE: 1623162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	101	101	74-121	
Ethylbenzene	ug/kg	100	92.3	92	77-121	
Toluene	ug/kg	100	95.7	96	77-117	
Xylene (Total)	ug/kg	300	271	90	77-121	
1,2-Dichloroethane-d4 (S)	%			108	81-142	
4-Bromofluorobenzene (S)	%			93	82-119	
Toluene-d8 (S)	%			101	82-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623164 1623165

Parameter	Units	60201209037 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	122	122	66.1	70.3	54	58	32-137	6	27	
Ethylbenzene	ug/kg	ND	122	122	43.7	46.9	36	38	18-149	7	28	
Toluene	ug/kg	ND	122	122	52.6	54.8	43	45	26-141	4	28	
Xylene (Total)	ug/kg	ND	366	366	125	135	34	37	11-154	8	33	
1,2-Dichloroethane-d4 (S)	%						107	104	81-142			
4-Bromofluorobenzene (S)	%						97	100	82-119			
Toluene-d8 (S)	%						97	96	82-137			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71387 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209050, 60201209053, 60201209054, 60201209055, 60201209056, 60201209058, 60201209060, 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

METHOD BLANK: 1623861 Matrix: Solid
Associated Lab Samples: 60201209050, 60201209053, 60201209054, 60201209055, 60201209056, 60201209058, 60201209060, 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/27/15 12:15	
Ethylbenzene	ug/kg	ND	5.0	08/27/15 12:15	
Toluene	ug/kg	ND	5.0	08/27/15 12:15	
Xylene (Total)	ug/kg	ND	5.0	08/27/15 12:15	
1,2-Dichloroethane-d4 (S)	%	101	81-142	08/27/15 12:15	
4-Bromofluorobenzene (S)	%	94	82-119	08/27/15 12:15	
Toluene-d8 (S)	%	104	82-137	08/27/15 12:15	

LABORATORY CONTROL SAMPLE: 1623862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	96.3	96	74-121	
Ethylbenzene	ug/kg	100	91.1	91	77-121	
Toluene	ug/kg	100	89.3	89	77-117	
Xylene (Total)	ug/kg	300	285	95	77-121	
1,2-Dichloroethane-d4 (S)	%			100	81-142	
4-Bromofluorobenzene (S)	%			99	82-119	
Toluene-d8 (S)	%			97	82-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623863 1623864

Parameter	Units	60201209053 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	5770	5770	5220	5440	91	94	32-137	4	27	
Ethylbenzene	ug/kg	16800	5770	5770	24600	24400	135	132	18-149	1	28	
Toluene	ug/kg	ND	5770	5770	4610	4940	76	82	26-141	7	28	
Xylene (Total)	ug/kg	31800	17300	17300	53700	53400	126	125	11-154	0	33	
1,2-Dichloroethane-d4 (S)	%						94	94	81-142			
4-Bromofluorobenzene (S)	%						126	127	82-119			S0
Toluene-d8 (S)	%						93	94	82-137			S1

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71418
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209057

METHOD BLANK: 1624886
Matrix: Solid
Associated Lab Samples: 60201209057

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/28/15 16:01	
Ethylbenzene	ug/kg	ND	5.0	08/28/15 16:01	
Toluene	ug/kg	ND	5.0	08/28/15 16:01	
Xylene (Total)	ug/kg	ND	5.0	08/28/15 16:01	
1,2-Dichloroethane-d4 (S)	%	99	81-142	08/28/15 16:01	
4-Bromofluorobenzene (S)	%	96	82-119	08/28/15 16:01	
Toluene-d8 (S)	%	102	82-137	08/28/15 16:01	

LABORATORY CONTROL SAMPLE: 1624887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	98.2	98	74-121	
Ethylbenzene	ug/kg	100	93.0	93	77-121	
Toluene	ug/kg	100	90.8	91	77-117	
Xylene (Total)	ug/kg	300	285	95	77-121	
1,2-Dichloroethane-d4 (S)	%			99	81-142	
4-Bromofluorobenzene (S)	%			99	82-119	
Toluene-d8 (S)	%			97	82-137	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: MSV/71453
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60201209059

METHOD BLANK: 1625912 Matrix: Solid
Associated Lab Samples: 60201209059

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	09/01/15 11:44	
Ethylbenzene	ug/kg	ND	5.0	09/01/15 11:44	
Toluene	ug/kg	ND	5.0	09/01/15 11:44	
Xylene (Total)	ug/kg	ND	5.0	09/01/15 11:44	
1,2-Dichloroethane-d4 (S)	%	93	81-142	09/01/15 11:44	
4-Bromofluorobenzene (S)	%	95	82-119	09/01/15 11:44	
Toluene-d8 (S)	%	99	82-137	09/01/15 11:44	

LABORATORY CONTROL SAMPLE: 1625913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	97.0	97	74-121	
Ethylbenzene	ug/kg	100	100	100	77-121	
Toluene	ug/kg	100	97.2	97	77-117	
Xylene (Total)	ug/kg	300	293	98	77-121	
1,2-Dichloroethane-d4 (S)	%			93	81-142	
4-Bromofluorobenzene (S)	%			96	82-119	
Toluene-d8 (S)	%			101	82-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1625914 1625915

Parameter	Units	60201668001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	127	127	94.3	107	74	84	32-137	13	27	
Ethylbenzene	ug/kg	ND	127	127	86.4	102	68	80	18-149	16	28	
Toluene	ug/kg	ND	127	127	90.3	102	71	80	26-141	12	28	
Xylene (Total)	ug/kg	ND	381	381	253	295	66	77	11-154	15	33	
1,2-Dichloroethane-d4 (S)	%						94	90	81-142			
4-Bromofluorobenzene (S)	%						98	98	82-119			
Toluene-d8 (S)	%						101	100	82-137			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: OEXT/50864 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

METHOD BLANK: 1623215 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.9	08/28/15 03:45	
n-Tetracosane (S)	%	93	18-139	08/28/15 03:45	
p-Terphenyl (S)	%	92	51-120	08/28/15 03:45	

LABORATORY CONTROL SAMPLE: 1623216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	82.8	83.0	100	76-115	
n-Tetracosane (S)	%			98	18-139	
p-Terphenyl (S)	%			98	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623217 1623218

Parameter	Units	60201209001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	ND	87.3	87.6	89.1	89.6	96	96	12-159	1	37	
n-Tetracosane (S)	%						94	97	18-139			
p-Terphenyl (S)	%						91	92	51-120			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: OEXT/50865 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

METHOD BLANK: 1623223 Matrix: Solid
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.8	08/27/15 20:26	
n-Tetracosane (S)	%	87	18-139	08/27/15 20:26	
p-Terphenyl (S)	%	86	51-120	08/27/15 20:26	

LABORATORY CONTROL SAMPLE: 1623224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	83	81.6	98	76-115	
n-Tetracosane (S)	%			94	18-139	
p-Terphenyl (S)	%			92	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623225 1623226

Parameter	Units	60201209021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	18.9	88.3	88.8	107	108	100	101	12-159	1	37	
n-Tetracosane (S)	%						103	106	18-139			
p-Terphenyl (S)	%						91	99	51-120			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: OEXT/50867 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

METHOD BLANK: 1623322 Matrix: Solid
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.9	08/30/15 20:10	
n-Tetracosane (S)	%	83	18-139	08/30/15 20:10	
p-Terphenyl (S)	%	82	51-120	08/30/15 20:10	

LABORATORY CONTROL SAMPLE: 1623323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	82.7	80.1	97	76-115	
n-Tetracosane (S)	%			79	18-139	
p-Terphenyl (S)	%			79	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623324 1623325

Parameter	Units	60201209041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	51300	549	532	47300	48500	-742	-523	12-159	3	37	M1
n-Tetracosane (S)	%						0	0	18-139			S4
p-Terphenyl (S)	%						0	0	51-120			S4

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: OEXT/50872 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

METHOD BLANK: 1623490 Matrix: Solid
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.8	08/30/15 17:40	
n-Tetracosane (S)	%	94	18-139	08/30/15 17:40	
p-Terphenyl (S)	%	92	51-120	08/30/15 17:40	

LABORATORY CONTROL SAMPLE: 1623491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	80.4	79.7	99	76-115	
n-Tetracosane (S)	%			99	18-139	
p-Terphenyl (S)	%			93	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623493 1623494

Parameter	Units	60201209061 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	27.8	95.6	95.7	104	117	79	93	12-159	12	37	
n-Tetracosane (S)	%						94	107	18-139			
p-Terphenyl (S)	%						83	94	51-120			

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: PMST/11054 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

METHOD BLANK: 1622760 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	08/26/15 00:00	

SAMPLE DUPLICATE: 1622761

Parameter	Units	60201209001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.6	5.5	1	20	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: PMST/11055 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

METHOD BLANK: 1622762 Matrix: Solid
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	08/26/15 00:00	

SAMPLE DUPLICATE: 1622763

Parameter	Units	60201209021 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.2	6.9	3	20	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: PMST/11056 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

METHOD BLANK: 1622764 Matrix: Solid
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	08/26/15 00:00	

SAMPLE DUPLICATE: 1622765

Parameter	Units	60201209041 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.0	11.4	5	20	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: PMST/11058 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

METHOD BLANK: 1623464 Matrix: Solid
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	08/27/15 00:00	

SAMPLE DUPLICATE: 1623683

Parameter	Units	60201209061 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.5	13.1	3	20	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: WETA/35641 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

METHOD BLANK: 1623261 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/28/15 18:33	

METHOD BLANK: 1625034 Matrix: Solid
Associated Lab Samples: 60201209001, 60201209002, 60201209003, 60201209004, 60201209005, 60201209006, 60201209007, 60201209008, 60201209009, 60201209010, 60201209011, 60201209012, 60201209013, 60201209014, 60201209015, 60201209016, 60201209017, 60201209018, 60201209019, 60201209020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/29/15 10:25	

LABORATORY CONTROL SAMPLE: 1623262

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	485	97	80-120	

LABORATORY CONTROL SAMPLE: 1625035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	460	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623263 1623264

Parameter	Units	60201209001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	2130	522	529	2490	2520	69	74	80-120	1	15	M1

SAMPLE DUPLICATE: 1623265

Parameter	Units	60201209002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/kg	1110	1120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: WETA/35642 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

METHOD BLANK: 1623266 Matrix: Solid
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/29/15 13:50	

METHOD BLANK: 1625114 Matrix: Solid
Associated Lab Samples: 60201209021, 60201209022, 60201209023, 60201209024, 60201209025, 60201209026, 60201209027, 60201209028, 60201209029, 60201209030, 60201209031, 60201209032, 60201209033, 60201209034, 60201209035, 60201209036, 60201209037, 60201209038, 60201209039, 60201209040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/30/15 08:55	

LABORATORY CONTROL SAMPLE: 1623267

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	492	98	80-120	

LABORATORY CONTROL SAMPLE: 1625115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	488	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623268 1623269

Parameter	Units	60201209021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	1010	541	530	1540	1510	99	95	80-120	2	15	

SAMPLE DUPLICATE: 1623270

Parameter	Units	60201209022 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/kg	1800	1800	0	15	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: WETA/35643 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

METHOD BLANK: 1623271 Matrix: Solid
Associated Lab Samples: 60201209041, 60201209042, 60201209043, 60201209044, 60201209045, 60201209046, 60201209047, 60201209048, 60201209049, 60201209050, 60201209051, 60201209052, 60201209053, 60201209054, 60201209055, 60201209056, 60201209057, 60201209058, 60201209059, 60201209060

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/30/15 09:49	

LABORATORY CONTROL SAMPLE: 1623272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	495	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623273 1623274

Parameter	Units	60201209041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	886	558	561	1390	1400	90	91	80-120	1	15	

SAMPLE DUPLICATE: 1623275

Parameter	Units	60201209042 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/kg	1150	1190	3	15	

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QUALITY CONTROL DATA

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

QC Batch: WETA/35644 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

METHOD BLANK: 1623276 Matrix: Solid
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/29/15 01:09	

METHOD BLANK: 1625036 Matrix: Solid
Associated Lab Samples: 60201209061, 60201209062, 60201209063, 60201209064, 60201209065, 60201209066, 60201209067, 60201209068

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/29/15 10:25	

LABORATORY CONTROL SAMPLE: 1623277

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	493	99	80-120	

LABORATORY CONTROL SAMPLE: 1625037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	460	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1623278 1623279

Parameter	Units	60201209068 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	742	604	607	996	1010	42	44	80-120	1	15	M1

SAMPLE DUPLICATE: 1623280

Parameter	Units	60201209062 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/kg	1840	2020	10	15	

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QUALIFIERS

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: GCV/5177

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1e	The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
IO	The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.
S1	Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209001	089467-081915-MM-SS01(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209002	089467-081915-MM-SS02(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209003	089467-081915-MM-SS03(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209004	089467-081915-MM-SS04(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209005	089467-081915-MM-SS05(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209006	089467-081915-MM-SS06(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209007	089467-081915-MM-SS07(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209008	089467-081915-MM-SS08(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209009	089467-081915-MM-SS09(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209010	089467-081915-MM-SS10(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209011	089467-081915-MM-SS11(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209012	089467-081915-MM-SS12(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209013	089467-081915-MM-SS13(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209014	089467-081915-MM-SS14(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209015	089467-081915-MM-SS15(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209016	089467-081915-MM-SS16(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209017	089467-081915-MM-SS17(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209018	089467-081915-MM-SS18(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209019	089467-081915-MM-SS19(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209020	089467-081915-MM-SS20(6")	EPA 3546	OEXT/50864	EPA 8015B	GCSV/19579
60201209021	089467-081915-MM-SS21(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209022	089467-082015-MM-SS35(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209023	089467-082015-MM-SS35(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209024	089467-082015-MM-SS35(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209025	089467-082015-MM-SS34(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209026	089467-082015-MM-SS34(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209027	089467-082015-MM-SS34(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209028	089467-082015-MM-SS32(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209029	089467-082015-MM-SS32(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209030	089467-082015-MM-SS32(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209031	089467-082015-MM-SS31(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209032	089467-082015-MM-SS31(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209033	089467-082015-MM-SS31(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209034	089467-082015-MM-SS30(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209035	089467-082015-MM-SS30(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209036	089467-082015-MM-SS30(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209037	089467-082015-MM-SS33(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209038	089467-082015-MM-SS33(18-24")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209039	089467-082015-MM-SS33(32-36")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209040	089467-082015-MM-SS22(6")	EPA 3546	OEXT/50865	EPA 8015B	GCSV/19572
60201209041	089467-082015-MM-SS22(18-24")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209042	089467-082015-MM-SS22(32-36")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209043	089467-082015-MM-SS25(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209044	089467-082015-MM-SS26(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209045	089467-082015-MM-SS27(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209046	089467-082015-MM-SS28(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209047	089467-082015-MM-SS29(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209048	089467-082015-MM-SS36(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209049	089467-082015-MM-SS36(18-24")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209050	089467-082015-MM-SS37(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209051	089467-082015-MM-SS37(18-24")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209052	089467-082015-MM-SS37(32-36")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209053	089467-082015-MM-DUP02	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209054	089467-082115-MM-SS38(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209055	089467-082115-MM-SS38(18-24")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209056	089467-082115-MM-SS38(32-36")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209057	089467-082115-MM-SS39(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209058	089467-082115-MM-SS39(18-24")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209059	089467-082115-MM-SS40(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209060	089467-082115-MM-SS46(6")	EPA 3546	OEXT/50867	EPA 8015B	GCSV/19588
60201209061	089467-082115-MM-SS46(18-24")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209062	089467-082115-MM-SS41(6")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209063	089467-082115-MM-SS42(6")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209064	089467-082115-MM-SS43(6")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209065	089467-082115-MM-SS44(6")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209066	089467-082115-MM-SS45(6")	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209067	089467-082115-MM-DUP01	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209068	089467-082115-MM-DUP03	EPA 3546	OEXT/50872	EPA 8015B	GCSV/19587
60201209001	089467-081915-MM-SS01(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5172
60201209002	089467-081915-MM-SS02(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5172
60201209003	089467-081915-MM-SS03(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5172
60201209004	089467-081915-MM-SS04(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5172
60201209005	089467-081915-MM-SS05(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209006	089467-081915-MM-SS06(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209007	089467-081915-MM-SS07(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209008	089467-081915-MM-SS08(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209009	089467-081915-MM-SS09(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209010	089467-081915-MM-SS10(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209011	089467-081915-MM-SS11(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209012	089467-081915-MM-SS12(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209013	089467-081915-MM-SS13(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209014	089467-081915-MM-SS14(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209015	089467-081915-MM-SS15(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209016	089467-081915-MM-SS16(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209017	089467-081915-MM-SS17(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209018	089467-081915-MM-SS18(6")	EPA 5035A/5030B	GCV/5171	EPA 8015B	GCV/5177
60201209019	089467-081915-MM-SS19(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209020	089467-081915-MM-SS20(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209021	089467-081915-MM-SS21(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209022	089467-082015-MM-SS35(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209023	089467-082015-MM-SS35(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209024	089467-082015-MM-SS35(32-36")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209025	089467-082015-MM-SS34(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209026	089467-082015-MM-SS34(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209027	089467-082015-MM-SS34(32-36")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209028	089467-082015-MM-SS32(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209029	089467-082015-MM-SS32(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209030	089467-082015-MM-SS32(32-36")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209031	089467-082015-MM-SS31(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209032	089467-082015-MM-SS31(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209033	089467-082015-MM-SS31(32-36")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209034	089467-082015-MM-SS30(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209035	089467-082015-MM-SS30(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209036	089467-082015-MM-SS30(32-36")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209037	089467-082015-MM-SS33(6")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209038	089467-082015-MM-SS33(18-24")	EPA 5035A/5030B	GCV/5175	EPA 8015B	GCV/5178
60201209039	089467-082015-MM-SS33(32-36")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209040	089467-082015-MM-SS22(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209041	089467-082015-MM-SS22(18-24")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209042	089467-082015-MM-SS22(32-36")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209043	089467-082015-MM-SS25(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209044	089467-082015-MM-SS26(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209045	089467-082015-MM-SS27(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209046	089467-082015-MM-SS28(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209047	089467-082015-MM-SS29(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209048	089467-082015-MM-SS36(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209049	089467-082015-MM-SS36(18-24")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209050	089467-082015-MM-SS37(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209051	089467-082015-MM-SS37(18-24")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209052	089467-082015-MM-SS37(32-36")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209053	089467-082015-MM-DUP02	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5181
60201209054	089467-082115-MM-SS38(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209055	089467-082115-MM-SS38(18-24")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209056	089467-082115-MM-SS38(32-36")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209057	089467-082115-MM-SS39(6")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209058	089467-082115-MM-SS39(18-24")	EPA 5035A/5030B	GCV/5176	EPA 8015B	GCV/5180
60201209059	089467-082115-MM-SS40(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209060	089467-082115-MM-SS46(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209061	089467-082115-MM-SS46(18-24")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209062	089467-082115-MM-SS41(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209063	089467-082115-MM-SS42(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209064	089467-082115-MM-SS43(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209065	089467-082115-MM-SS44(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209066	089467-082115-MM-SS45(6")	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209067	089467-082115-MM-DUP01	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209068	089467-082115-MM-DUP03	EPA 5035A/5030B	GCV/5179	EPA 8015B	GCV/5182
60201209001	089467-081915-MM-SS01(6")	EPA 8260	MSV/71341		
60201209002	089467-081915-MM-SS02(6")	EPA 8260	MSV/71341		
60201209003	089467-081915-MM-SS03(6")	EPA 8260	MSV/71341		
60201209004	089467-081915-MM-SS04(6")	EPA 8260	MSV/71341		
60201209005	089467-081915-MM-SS05(6")	EPA 8260	MSV/71341		
60201209006	089467-081915-MM-SS06(6")	EPA 8260	MSV/71341		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209007	089467-081915-MM-SS07(6")	EPA 8260	MSV/71341		
60201209008	089467-081915-MM-SS08(6")	EPA 8260	MSV/71367		
60201209009	089467-081915-MM-SS09(6")	EPA 8260	MSV/71367		
60201209010	089467-081915-MM-SS10(6")	EPA 8260	MSV/71367		
60201209011	089467-081915-MM-SS11(6")	EPA 8260	MSV/71341		
60201209012	089467-081915-MM-SS12(6")	EPA 8260	MSV/71341		
60201209013	089467-081915-MM-SS13(6")	EPA 8260	MSV/71341		
60201209014	089467-081915-MM-SS14(6")	EPA 8260	MSV/71341		
60201209015	089467-081915-MM-SS15(6")	EPA 8260	MSV/71341		
60201209016	089467-081915-MM-SS16(6")	EPA 8260	MSV/71341		
60201209017	089467-081915-MM-SS17(6")	EPA 8260	MSV/71343		
60201209018	089467-081915-MM-SS18(6")	EPA 8260	MSV/71343		
60201209019	089467-081915-MM-SS19(6")	EPA 8260	MSV/71343		
60201209020	089467-081915-MM-SS20(6")	EPA 8260	MSV/71343		
60201209021	089467-081915-MM-SS21(6")	EPA 8260	MSV/71343		
60201209022	089467-082015-MM-SS35(6")	EPA 8260	MSV/71343		
60201209023	089467-082015-MM-SS35(18-24")	EPA 8260	MSV/71343		
60201209024	089467-082015-MM-SS35(32-36")	EPA 8260	MSV/71343		
60201209025	089467-082015-MM-SS34(6")	EPA 8260	MSV/71343		
60201209026	089467-082015-MM-SS34(18-24")	EPA 8260	MSV/71343		
60201209027	089467-082015-MM-SS34(32-36")	EPA 8260	MSV/71343		
60201209028	089467-082015-MM-SS32(6")	EPA 8260	MSV/71343		
60201209029	089467-082015-MM-SS32(18-24")	EPA 8260	MSV/71343		
60201209030	089467-082015-MM-SS32(32-36")	EPA 8260	MSV/71343		
60201209031	089467-082015-MM-SS31(6")	EPA 8260	MSV/71343		
60201209032	089467-082015-MM-SS31(18-24")	EPA 8260	MSV/71343		
60201209033	089467-082015-MM-SS31(32-36")	EPA 8260	MSV/71343		
60201209034	089467-082015-MM-SS30(6")	EPA 8260	MSV/71367		
60201209035	089467-082015-MM-SS30(18-24")	EPA 8260	MSV/71343		
60201209036	089467-082015-MM-SS30(32-36")	EPA 8260	MSV/71343		
60201209037	089467-082015-MM-SS33(6")	EPA 8260	MSV/71367		
60201209038	089467-082015-MM-SS33(18-24")	EPA 8260	MSV/71367		
60201209039	089467-082015-MM-SS33(32-36")	EPA 8260	MSV/71367		
60201209040	089467-082015-MM-SS22(6")	EPA 8260	MSV/71367		
60201209041	089467-082015-MM-SS22(18-24")	EPA 8260	MSV/71367		
60201209042	089467-082015-MM-SS22(32-36")	EPA 8260	MSV/71367		
60201209043	089467-082015-MM-SS25(6")	EPA 8260	MSV/71367		
60201209044	089467-082015-MM-SS26(6")	EPA 8260	MSV/71367		
60201209045	089467-082015-MM-SS27(6")	EPA 8260	MSV/71367		
60201209046	089467-082015-MM-SS28(6")	EPA 8260	MSV/71367		
60201209047	089467-082015-MM-SS29(6")	EPA 8260	MSV/71367		
60201209048	089467-082015-MM-SS36(6")	EPA 8260	MSV/71367		
60201209049	089467-082015-MM-SS36(18-24")	EPA 8260	MSV/71367		
60201209050	089467-082015-MM-SS37(6")	EPA 8260	MSV/71387		
60201209051	089467-082015-MM-SS37(18-24")	EPA 8260	MSV/71367		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209052	089467-082015-MM-SS37(32-36")	EPA 8260	MSV/71367		
60201209053	089467-082015-MM-DUP02	EPA 8260	MSV/71387		
60201209054	089467-082115-MM-SS38(6")	EPA 8260	MSV/71387		
60201209055	089467-082115-MM-SS38(18-24")	EPA 8260	MSV/71387		
60201209056	089467-082115-MM-SS38(32-36")	EPA 8260	MSV/71387		
60201209057	089467-082115-MM-SS39(6")	EPA 8260	MSV/71418		
60201209058	089467-082115-MM-SS39(18-24")	EPA 8260	MSV/71387		
60201209059	089467-082115-MM-SS40(6")	EPA 8260	MSV/71453		
60201209060	089467-082115-MM-SS46(6")	EPA 8260	MSV/71387		
60201209061	089467-082115-MM-SS46(18-24")	EPA 8260	MSV/71387		
60201209062	089467-082115-MM-SS41(6")	EPA 8260	MSV/71387		
60201209063	089467-082115-MM-SS42(6")	EPA 8260	MSV/71387		
60201209064	089467-082115-MM-SS43(6")	EPA 8260	MSV/71387		
60201209065	089467-082115-MM-SS44(6")	EPA 8260	MSV/71387		
60201209066	089467-082115-MM-SS45(6")	EPA 8260	MSV/71387		
60201209067	089467-082115-MM-DUP01	EPA 8260	MSV/71387		
60201209068	089467-082115-MM-DUP03	EPA 8260	MSV/71387		
60201209001	089467-081915-MM-SS01(6")	ASTM D2974	PMST/11054		
60201209002	089467-081915-MM-SS02(6")	ASTM D2974	PMST/11054		
60201209003	089467-081915-MM-SS03(6")	ASTM D2974	PMST/11054		
60201209004	089467-081915-MM-SS04(6")	ASTM D2974	PMST/11054		
60201209005	089467-081915-MM-SS05(6")	ASTM D2974	PMST/11054		
60201209006	089467-081915-MM-SS06(6")	ASTM D2974	PMST/11054		
60201209007	089467-081915-MM-SS07(6")	ASTM D2974	PMST/11054		
60201209008	089467-081915-MM-SS08(6")	ASTM D2974	PMST/11054		
60201209009	089467-081915-MM-SS09(6")	ASTM D2974	PMST/11054		
60201209010	089467-081915-MM-SS10(6")	ASTM D2974	PMST/11054		
60201209011	089467-081915-MM-SS11(6")	ASTM D2974	PMST/11054		
60201209012	089467-081915-MM-SS12(6")	ASTM D2974	PMST/11054		
60201209013	089467-081915-MM-SS13(6")	ASTM D2974	PMST/11054		
60201209014	089467-081915-MM-SS14(6")	ASTM D2974	PMST/11054		
60201209015	089467-081915-MM-SS15(6")	ASTM D2974	PMST/11054		
60201209016	089467-081915-MM-SS16(6")	ASTM D2974	PMST/11054		
60201209017	089467-081915-MM-SS17(6")	ASTM D2974	PMST/11054		
60201209018	089467-081915-MM-SS18(6")	ASTM D2974	PMST/11054		
60201209019	089467-081915-MM-SS19(6")	ASTM D2974	PMST/11054		
60201209020	089467-081915-MM-SS20(6")	ASTM D2974	PMST/11054		
60201209021	089467-081915-MM-SS21(6")	ASTM D2974	PMST/11055		
60201209022	089467-082015-MM-SS35(6")	ASTM D2974	PMST/11055		
60201209023	089467-082015-MM-SS35(18-24")	ASTM D2974	PMST/11055		
60201209024	089467-082015-MM-SS35(32-36")	ASTM D2974	PMST/11055		
60201209025	089467-082015-MM-SS34(6")	ASTM D2974	PMST/11055		
60201209026	089467-082015-MM-SS34(18-24")	ASTM D2974	PMST/11055		
60201209027	089467-082015-MM-SS34(32-36")	ASTM D2974	PMST/11055		
60201209028	089467-082015-MM-SS32(6")	ASTM D2974	PMST/11055		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209029	089467-082015-MM-SS32(18-24")	ASTM D2974	PMST/11055		
60201209030	089467-082015-MM-SS32(32-36")	ASTM D2974	PMST/11055		
60201209031	089467-082015-MM-SS31(6")	ASTM D2974	PMST/11055		
60201209032	089467-082015-MM-SS31(18-24")	ASTM D2974	PMST/11055		
60201209033	089467-082015-MM-SS31(32-36")	ASTM D2974	PMST/11055		
60201209034	089467-082015-MM-SS30(6")	ASTM D2974	PMST/11055		
60201209035	089467-082015-MM-SS30(18-24")	ASTM D2974	PMST/11055		
60201209036	089467-082015-MM-SS30(32-36")	ASTM D2974	PMST/11055		
60201209037	089467-082015-MM-SS33(6")	ASTM D2974	PMST/11055		
60201209038	089467-082015-MM-SS33(18-24")	ASTM D2974	PMST/11055		
60201209039	089467-082015-MM-SS33(32-36")	ASTM D2974	PMST/11055		
60201209040	089467-082015-MM-SS22(6")	ASTM D2974	PMST/11055		
60201209041	089467-082015-MM-SS22(18-24")	ASTM D2974	PMST/11056		
60201209042	089467-082015-MM-SS22(32-36")	ASTM D2974	PMST/11056		
60201209043	089467-082015-MM-SS25(6")	ASTM D2974	PMST/11056		
60201209044	089467-082015-MM-SS26(6")	ASTM D2974	PMST/11056		
60201209045	089467-082015-MM-SS27(6")	ASTM D2974	PMST/11056		
60201209046	089467-082015-MM-SS28(6")	ASTM D2974	PMST/11056		
60201209047	089467-082015-MM-SS29(6")	ASTM D2974	PMST/11056		
60201209048	089467-082015-MM-SS36(6")	ASTM D2974	PMST/11056		
60201209049	089467-082015-MM-SS36(18-24")	ASTM D2974	PMST/11056		
60201209050	089467-082015-MM-SS37(6")	ASTM D2974	PMST/11056		
60201209051	089467-082015-MM-SS37(18-24")	ASTM D2974	PMST/11056		
60201209052	089467-082015-MM-SS37(32-36")	ASTM D2974	PMST/11056		
60201209053	089467-082015-MM-DUP02	ASTM D2974	PMST/11056		
60201209054	089467-082115-MM-SS38(6")	ASTM D2974	PMST/11056		
60201209055	089467-082115-MM-SS38(18-24")	ASTM D2974	PMST/11056		
60201209056	089467-082115-MM-SS38(32-36")	ASTM D2974	PMST/11056		
60201209057	089467-082115-MM-SS39(6")	ASTM D2974	PMST/11056		
60201209058	089467-082115-MM-SS39(18-24")	ASTM D2974	PMST/11056		
60201209059	089467-082115-MM-SS40(6")	ASTM D2974	PMST/11056		
60201209060	089467-082115-MM-SS46(6")	ASTM D2974	PMST/11056		
60201209061	089467-082115-MM-SS46(18-24")	ASTM D2974	PMST/11058		
60201209062	089467-082115-MM-SS41(6")	ASTM D2974	PMST/11058		
60201209063	089467-082115-MM-SS42(6")	ASTM D2974	PMST/11058		
60201209064	089467-082115-MM-SS43(6")	ASTM D2974	PMST/11058		
60201209065	089467-082115-MM-SS44(6")	ASTM D2974	PMST/11058		
60201209066	089467-082115-MM-SS45(6")	ASTM D2974	PMST/11058		
60201209067	089467-082115-MM-DUP01	ASTM D2974	PMST/11058		
60201209068	089467-082115-MM-DUP03	ASTM D2974	PMST/11058		
60201209001	089467-081915-MM-SS01(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209002	089467-081915-MM-SS02(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209003	089467-081915-MM-SS03(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209004	089467-081915-MM-SS04(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209005	089467-081915-MM-SS05(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209006	089467-081915-MM-SS06(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209007	089467-081915-MM-SS07(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209008	089467-081915-MM-SS08(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209009	089467-081915-MM-SS09(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209010	089467-081915-MM-SS10(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209011	089467-081915-MM-SS11(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209012	089467-081915-MM-SS12(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209013	089467-081915-MM-SS13(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209014	089467-081915-MM-SS14(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209015	089467-081915-MM-SS15(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209016	089467-081915-MM-SS16(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209017	089467-081915-MM-SS17(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209018	089467-081915-MM-SS18(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209019	089467-081915-MM-SS19(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209020	089467-081915-MM-SS20(6")	EPA 9056	WETA/35641	EPA 9056	WETA/35669
60201209021	089467-081915-MM-SS21(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209022	089467-082015-MM-SS35(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209023	089467-082015-MM-SS35(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209024	089467-082015-MM-SS35(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209025	089467-082015-MM-SS34(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209026	089467-082015-MM-SS34(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209027	089467-082015-MM-SS34(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209028	089467-082015-MM-SS32(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209029	089467-082015-MM-SS32(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209030	089467-082015-MM-SS32(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209031	089467-082015-MM-SS31(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209032	089467-082015-MM-SS31(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209033	089467-082015-MM-SS31(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209034	089467-082015-MM-SS30(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209035	089467-082015-MM-SS30(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209036	089467-082015-MM-SS30(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209037	089467-082015-MM-SS33(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209038	089467-082015-MM-SS33(18-24")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209039	089467-082015-MM-SS33(32-36")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209040	089467-082015-MM-SS22(6")	EPA 9056	WETA/35642	EPA 9056	WETA/35673
60201209041	089467-082015-MM-SS22(18-24")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209042	089467-082015-MM-SS22(32-36")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209043	089467-082015-MM-SS25(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209044	089467-082015-MM-SS26(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209045	089467-082015-MM-SS27(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209046	089467-082015-MM-SS28(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209047	089467-082015-MM-SS29(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209048	089467-082015-MM-SS36(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209049	089467-082015-MM-SS36(18-24")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209050	089467-082015-MM-SS37(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209051	089467-082015-MM-SS37(18-24")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209052	089467-082015-MM-SS37(32-36")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209053	089467-082015-MM-DUP02	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209054	089467-082115-MM-SS38(6")	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209055	089467-082115-MM-SS38(18-24")	EPA 9056	WETA/35643	EPA 9056	WETA/35674

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com
Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 089467 VACUUM ABO BATTERY #3
Pace Project No.: 60201209

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60201209056	**089467-082115-MM-SS38(32-36")**	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209057	**089467-082115-MM-SS39(6")**	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209058	**089467-082115-MM-SS39(18-24")**	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209059	**089467-082115-MM-SS40(6")**	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209060	**089467-082115-MM-SS46(6")**	EPA 9056	WETA/35643	EPA 9056	WETA/35674
60201209061	**089467-082115-MM-SS46(18-24")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209062	**089467-082115-MM-SS41(6")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209063	**089467-082115-MM-SS42(6")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209064	**089467-082115-MM-SS43(6")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209065	**089467-082115-MM-SS44(6")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209066	**089467-082115-MM-SS45(6")**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209067	**089467-082115-MM-DUP01**	EPA 9056	WETA/35644	EPA 9056	WETA/35670
60201209068	**089467-082115-MM-DUP03**	EPA 9056	WETA/35644	EPA 9056	WETA/35670

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Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60201209

60201209

Client Name: GHD

Optional
Proj Due Date:
Proj Name:

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Other ☐ Client ☐

Tracking #: 7811 9693 0157 7811 9701 8283 - 7811 9694 4576
7811 9699 7282 - 7811 9694 3010
Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: CF +1.4 T-239 / CF +0.5 T-262 **Type of Ice:** Wet Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 2.4/3.6 | 2.4/4.6/4.9

Date and initials of person examining contents: pvb 8/25/15

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	1. Sample 051 ID should be SS37(18-24)
Chain of Custody filled out:	☒Yes ☐No ☐N/A	2. Sample 052 ID ~~should~~ should be SS37(32-36) pvb 8/22/15
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☒Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☒Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	7.
Sufficient volume:	☒Yes ☐No ☐N/A	8.
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	9.
Containers intact:	☒Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	12. Samples receive with TB
Sample labels match COC:	☒Yes ☐No ☐N/A	1 = TB1
Includes date/time/ID/analyses Matrix: SL		13. 11 = TB2
All containers needing preservation have been checked.	☐Yes ☐No ☒N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☒N/A	14.
Exceptions: VOA, Coliform, O&G, WI-DRO (water)	☐Yes ☒No	Initial when completed / Lot # of added preservative
Trip Blank present:	☒Yes ☐No ~~☐N/A~~	
Pace Trip Blank lot # (if purchased): 042015-3	pvb 8/22/15	15.
Headspace in VOA vials (>6mm):	☐Yes ☐No ☒N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☒N/A	17. List State:
Additional labels attached to 5035A vials in the field?	☐Yes ☐No ☒N/A	18.

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AAF Date: 08/24/15

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1000	Start:
End: 1020	End:
Temp:	Temp:

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Page 123 of 130

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 7

Section A — **Required** Client Information:

Company:	GHD Services COP TX
Address:	1755 Wittington Place Suite 500
	Dallas, TX 75234
Email To:	moshghan.mansoori@ghd.com
Phone: 972-331-8500	Fax:
Requested Due Date/TAT:	

Section B — **Required** Project Information:

Report To:	Moshghan Mansoori
Copy To:	Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:	
Project Name:	Vacuum ABO Battery #3
Project Number:	89467

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D — Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-081915-MM-SS01(6")	SL	G	8/19/15	10:30				2	2									X	X	X	X	N	6001209 See SSOW a1
2	089467-081915-MM-SS02(6")	SL	G	8/19/15	10:45				2	2									X	X	X	X	N	a2
3	089467-081915-MM-SS03(6")	SL	G	8/19/15	11:05				2	2									X	X	X	X	N	a3
4	089467-081915-MM-SS04(6")	SL	G	8/19/15	11:15				2	2									X	X	X	X	N	a4
5	089467-081915-MM-SS05(6")	SL	G	8/19/15	11:30				2	2									X	X	X	X	N	a5
6	089467-081915-MM-SS06(6")	SL	G	8/19/15	11:45				2	2									X	X	X	X	N	a6
7	089467-081915-MM-SS07(6")	SL	G	8/19/15	12:00				2	2									X	X	X	X	N	a7
8	089467-081915-MM-SS08(6")	SL	G	8/19/15	12:15				2	2									X	X	X	X	N	a8
9	089467-081915-MM-SS09(6")	SL	G	8/19/15	12:20				2	2									X	X	X	X	N	a9
10	089467-081915-MM-SS10(6")	SL	G	8/19/15	13:10				2	2									X	X	X	X	N	a10
11	089467-081915-MM-SS11(6")	SL	G	8/19/15	13:25				2	2									X	X	X	X	N	a11
12	089467-081915-MM-SS12(6")	SL	G	8/19/15	13:35				2	2									X	X	X	X	N	a12

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	GHD	8/21/15	13:30	PASE	8/22/15	0825	2.4
							3.0
							2.4
							4.6

SAMPLE CONDITIONS	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	4.9	X	X	X

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Morgan McCall

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 05/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

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Address:	1755 Wittington Place Suite 500
	Dallas, TX 75234
Email To:	moshghan.mansoori@ghd.com
Phone: 972-331-8500	Fax:
Requested Due Date/TAT:	

Section B — Required Project Information:

Report To:	Moshghan Mansoori
Copy To:	Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:	
Project Name:	Vacuum ABO Battery #3
Project Number:	89467

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D — Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260								Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-081915-MM-SS13(6")	SL	G	8/19/15	13:40				2	2								X	X	X	X								N	See SSOW 013
2	089467-081915-MM-SS14(6")	SL	G	8/19/15	14:10				2	2								X	X	X	X								N	014
3	089467-081915-MM-SS15(6")	SL	G	8/19/15	14:25				2	2								X	X	X	X								N	015
4	089467-081915-MM-SS16(6")	SL	G	8/19/15	14:35				2	2								X	X	X	X								N	016
5	089467-081915-MM-SS17(6")	SL	G	8/19/15	14:55				2	2								X	X	X	X								N	017
6	089467-081915-MM-SS18(6")	SL	G	8/19/15	15:10				2	2								X	X	X	X								N	018
7	089467-081915-MM-SS19(6")	SL	G	8/19/15	15:20				2	2								X	X	X	X								N	019
8	089467-081915-MM-SS20(6")	SL	G	8/19/15	15:35				2	2								X	X	X	X								N	020
9	089467-081915-MM-SS21(6")	SL	G	8/19/15	15:55				2	2								X	X	X	X								N	021
10																														
11																														
12																														

Requested Analysis Filtered (Y/N)

2W6Fu

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	GHD	8/21/15	13:30		8/22/15	0825	2.4	Y	Y	Y
							3.0			
							2.4			
							4.6			
							4.9			
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Morgan McCall

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 08/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Address: 1755 Wittington Place Suite 500
Dallas, TX 75234
Email To: moshghan.mansoori@ghd.com
Phone: 972-331-8500 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Moshghan Mansoori
Copy To: Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:
Project Name: Vacuum ABO Battery #3
Project Number: 89467

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Alice Flanagan
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260							Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-082015-MM-SS35(6")	SL	G	8/20/15	8:15				2	2								X	X	X	X								N	See SSOW 022
2	089467-082015-MM-SS35(18-24")	SL	G	8/20/15	8:20				2	2								X	X	X	X								N	023
3	089467-082015-MM-SS35(32-36")	SL	G	8/20/15	8:25				2	2								X	X	X	X								N	024
4	089467-082015-MM-SS34(6")	SL	G	8/20/15	8:40				2	2								X	X	X	X								N	025
5	089467-082015-MM-SS34(18-24")	SL	G	8/20/15	8:45				2	2								X	X	X	X								N	026
6	089467-082015-MM-SS34(32-36")	SL	G	8/20/15	8:50				2	2								X	X	X	X								N	027
7	089467-082015-MM-SS32(6")	SL	G	8/20/15	9:00				2	2								X	X	X	X								N	028
8	089467-082015-MM-SS32(18-24")	SL	G	8/20/15	9:05				2	2								X	X	X	X								N	029
9	089467-082015-MM-SS32(32-36")	SL	G	8/20/15	9:10				2	2								X	X	X	X								N	030
10	089467-082015-MM-SS31(6")	SL	G	8/20/15	9:25				2	2								X	X	X	X								N	031
11	089467-082015-MM-SS31(18-24")	SL	G	8/20/15	9:30				2	2								X	X	X	X								N	032
12	089467-082015-MM-SS31(32-36")	SL	G	8/20/15	9:35				2	2								X	X	X	X								N	033

2W5FCl

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	GHD	8/21/15	13:30		8/22/15	0825

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2-4	Y	Y	Y
3-0			
2-4			
4-6			
4-9			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Morgan McCall
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 08/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	GHD Services COP TX
Address:	1755 Wittington Place Suite 500
	Dallas, TX 75234
Email To:	moshghan.mansoori@ghd.com
Phone: 972-331-8500	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Moshghan Mansoori
Copy To:	Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:	
Project Name:	Vacuum ABO Battery #3
Project Number:	89467

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-082015-MM-SS30(6")	SL	G	8/20/15	9:55				2	2									X	X	X	X	N	See SSOW 034
2	089467-082015-MM-SS30(18-24")	SL	G	8/20/15	10:00				2	2									X	X	X	X	N	035
3	089467-082015-MM-SS30(32-36")	SL	G	8/20/15	10:05				2	2									X	X	X	X	N	036
4	089467-082015-MM-SS33(6")	SL	G	8/20/15	10:50				2	2									X	X	X	X	N	037
5	089467-082015-MM-SS33(18-24")	SL	G	8/20/15	10:55				2	2									X	X	X	X	N	038
6	089467-082015-MM-SS33(32-36")	SL	G	8/20/15	11:00				2	2									X	X	X	X	N	039
7	089467-082015-MM-SS22(6")	SL	G	8/20/15	11:25				2	2									X	X	X	X	N	040
8	089467-082015-MM-SS22(18-24")	SL	G	8/20/15	11:30				2	2									X	X	X	X	N	041
9	089467-082015-MM-SS22(32-36")	SL	G	8/20/15	11:35				2	2									X	X	X	X	N	042
10	089467-082015-MM-SS25(6")	SL	G	8/20/15	12:10				2	2									X	X	X	X	N	043
11	089467-082015-MM-SS26(6")	SL	G	8/20/15	13:10				2	2									X	X	X	X	N	044
12	089467-082015-MM-SS27(6")	SL	G	8/20/15	13:20				2	2									X	X	X	X	N	045

2W 6FU

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	GHD	8/21/15	13:30		8/22/15	0825	2-4
							3-0
							2-4
							4-6

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Morgan McCall

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 08/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: GHD Services COP TX	Report To: Moshghan Mansoori	Attention:
Address: 1755 Wittington Place Suite 500	Copy To: Morgan McCall morgan.mccall@ghd.com	Company Name:
Dallas, TX 75234		Address:
Email To: moshghan.mansoori@ghd.com	Purchase Order No.:	Pace Quote Reference:
Phone: 972-331-8500 Fax:	Project Name: Vacuum ABO Battery #3	Pace Project Manager: Alice Flanagan
Requested Due Date/TAT:	Project Number: 89467	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Requested Analysis Filtered (Y/N)

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260									Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-082015-MM-SS28(6")	SL	G	8/20/15	13:45				2	2									X	X	X	X	2W6Fm							N	See SSOW 046
2	089467-082015-MM-SS29(6")	SL	G	8/20/15	13:55				2	2									X	X	X	X								N	047
3	089467-082015-MM-SS36(6")	SL	G	8/20/15	14:45				2	2									X	X	X	X								N	048
4	089467-082015-MM-SS36(18-24")	SL	G	8/20/15	14:50				2	2									X	X	X	X								N	049
5	089467-082015-MM-SS37(6")	SL	G	8/20/15	15:05				2	2									X	X	X	X								N	050
6	089467-082015-MM-SS33(18-24")	SL	G	8/20/15	15:10				2	2									X	X	X	X								N	051
7	089467-082015-MM-SS22(32-36")	SL	G	8/20/15	15:15				2	2									X	X	X	X								N	052
8	089467-082015-MM-DUP02	SL	G	8/20/15					2	2									X	X	X	X								N	053
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] / GHD	05/21/15	13:30	[signature] PACE	5/22/15	0825	2.4	Y	Y	Y
							3.0			
							2.4			
							4.6			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Morgan McCall

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 05/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
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Page: 6 of 7

Section A
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Address: 1755 Wittington Place Suite 500
Dallas, TX 75234
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Phone: 972-331-8500 Fax:
Requested Due Date/TAT:

Section B
Required Project Information:
Report To: Moshghan Mansoori
Copy To: Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:
Project Name: Vacuum ABO Battery #3
Project Number: 89467

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Alice Flanagan
Pace Profile #:

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER
Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-082115-MM-SS38(6")	SL	G	8/21/15	7:15				2	2									X	X	X	X	2 wk / F-4	N	See SSOW 054
2	089467-082115-MM-SS38(18-24")	SL	G	8/21/15	7:20				2	2									X	X	X	X		N	055
3	089467-082115-MM-SS38(22-36")	SL	G	8/21/15	7:35				2	2									X	X	X	X		N	056
4	089467-082115-MM-SS39(6")	SL	G	8/21/15	8:15				2	2									X	X	X	X		N	057
5	089467-082115-MM-SS39(18-24")	SL	G	8/21/15	8:20				2	2									X	X	X	X		N	058
6	089467-082115-MM-SS40(6")	SL	G	8/21/15	8:40				2	2									X	X	X	X		N	059
7	089467-082115-MM-SS46(6")	SL	G	8/21/15	0900				2	2									X	X	X	X		N	060
8	089467-082115-MM-SS46(18-24")	SL	G	8/21/15	9:05				2	2									X	X	X	X		N	061
9	089467-082115-MM-SS41(6")	SL	G	8/21/15	9:20				2	2									X	X	X	X		N	062
10	089467-082115-MM-SS42(6")	SL	G	8/21/15	9:50				2	2									X	X	X	X		N	063
11	089467-082115-MM-SS43(6")	SL	G	8/21/15	10:15				2	2									X	X	X	X		N	064
12	089467-082115-MM-SS44(6")	SL	G	8/21/15	10:45				2	2									X	X	X	X		N	065

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] / GHD	8/21/15	13:30	[signature]	8/22/15	0825	2-4	Y	Y	Y
							3.0			
							2-4			
							4-6			
							4.9			

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Morgan McCall
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 08/21/15

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F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical
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Phone: 972-331-8500 Fax:
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Copy To: Morgan McCall morgan.mccall@ghd.com
Purchase Order No.:
Project Name: Vacuum ABO Battery #3
Project Number: 89467

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Alice Flanagan
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

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WASTE WATER	WW
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AIR	AR
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ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DRO 8015	GRO 8015	Chloride/Moisture	BTEX 8260					Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	089467-082115-MM-SS45 (6")	SL	G	8/21/15	10:55				2	2								X	X	X	X		2W	GFU		N	See SSOW 066
2	089467-082115-MM-DuP01	SL	G	8/21/15					2	2								X	X	X	X					N	067
3	089467-082115-MM-DuP03	SL	G	8/21/15					2	2								X	X	X	X					N	068
4																											2W FAU TB 1 069
5																											2W GAU TB 2 070
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	GHD	8/21/15	13:30		8/25/15	0825	2.4
							3.0
						08/22/15	2.4
							4.6 4.6
							4.9

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Morgan McCall
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 08/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

APPENDIX D
Corrective Action Plan

ConocoPhillips

CONOCOPHILLIPS
P.O. Box 2197
Houston, TX 77252-2197
Phone 281.293.1000

Vac Abo Battery #03

(1RP-3555)

Corrective Action Plan

API No. 30-025-26521

Release Date: March 3rd, 2015

Unit Letter L, Section 34, Township 17S, Range 35E

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

February 19, 2016

Jamie Keyes
Environmental Specialist – New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240

RE: **Corrective Action Plan**
ConocoPhillips Vac Abo Battery #03 (1RP-3555)
UL/L sec. 34 T17S R35E
API No. 30-025-26521

Mr. Keyes:

ConocoPhillips (CoP) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 3.4 miles east south east of Buckeye, New Mexico at UL/L sec. 34 T17S R35E. NM OSE and Basin installed monitor well records indicate that groundwater will likely be encountered at a depth of approximately 71 +/- feet.

On March 3, 2015, CoP was notified that a tank was overflowing. A total of ~34 barrels of oil and ~2,240 barrels of produced water was released over ~50,000 sq ft of caliche pad and pasture land. 28 barrels of oil and 1,837 barrels of produced water were recovered. NMOCD was notified of the release on March 4, 2015, and an initial C-141 was submitted same day. NMOCD approved the initial C-141 on March 5th, 2015 (Appendix A).

Basin personnel were on site to assess the release March 4, 2015. The release was mapped and photographed (Figure 1). Previous sampling determined that further delineation was needed. On February 9, 2016, four Verticals were installed and soil samples were taken at regular intervals with depth representative samples from the verticals were taken to a commercial laboratory for analysis (Appendix B). Then on February 11, 2016 two soil bores were installed and soil samples were taken at regular intervals and taken with depth, representative samples from the Soil Bores were taken to a commercial laboratory for analysis (Appendix C).

Photo Documentation of these activities may be found in Appendix F.

Corrective Action Plan

Based on the laboratory analysis, the area around Soil Bores 1 and 2 and Verticals 1 and 2 will be excavated to a depth of 2.5 ft bgs. At the base of the excavation, a 20-mil reinforced poly liner will be installed and properly seated. The excavation will then be backfilled with clean soil. The area around Verticals 3 and 4 will be excavated to a depth of 1 ft. bgs and backfilled with clean soil (Figure 2). Any impact within the lease pad area will be in the facility cleanup upon abandonment.

There are buried lines running throughout the release. To provide for the safety of people and equipment at the site, both excavations will remain 5 ft away from the buried lines.

Also, to determine if the residual chloride in the vadose zone pose a threat to groundwater quality, Basin ran the U.S. Environmental Protection Agency Exposure Assessment Multimedia Model (MULTIMED Version 1.5, 2005) (Appendix D). The model prediction concludes that the peak concentration of chloride in groundwater contributed by the vadose zone soils would be approximately 125 mg/L in 232 years. Since the predicted increase in chloride concentrations in groundwater from residual chloride migration is below the WQCC standard of 250 mg/L using a liner at the site, Basin recommends proceeding with the proposed CAP.

All excavated soil will be taken to a NMOCD approved facility for disposal. Clean soil will be imported to the site to serve as backfill. A sample of the backfill soil will be taken to a commercial laboratory to confirm that the chloride reading is below regulatory standards. The lease pad will be backfilled with clean, imported caliche and the pasture will be backfilled with clean, imported top soil. The site will be contoured to the surrounding location. The pasture area will be seeded with a blend of native vegetation.

Once these activities have been completed, a report will be sent to NMOCD requesting 'remediation termination' and site closure.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

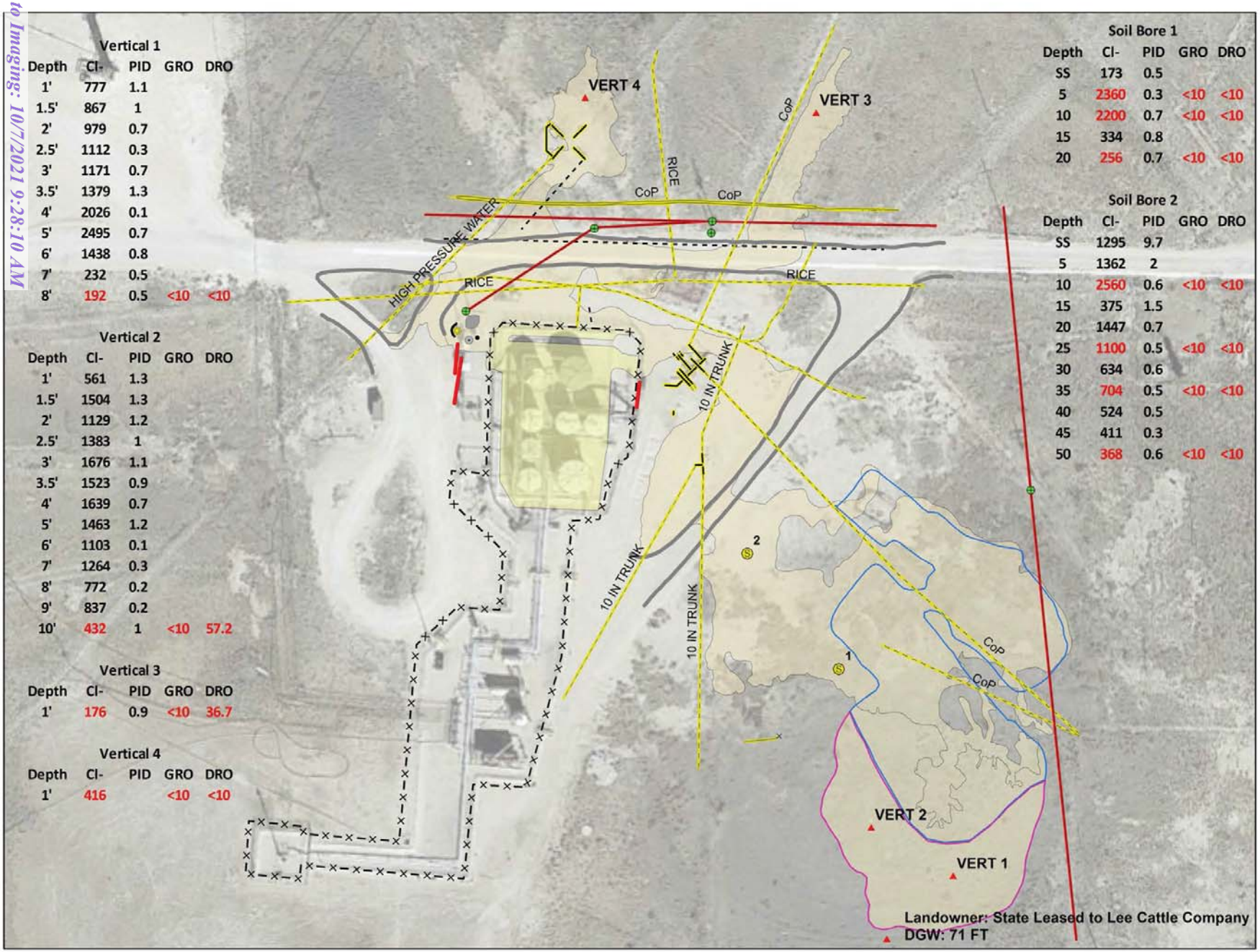
Kyle Norman
Project Lead
Basin Environmental Service Technologies
(575) 942-8542

Attachments:

Figure 1 – Vertical and Soil Bore Sampling Data
Figure 2 – Proposed Excavation and Liner Installation
Appendix A – Initial C-141
Appendix B – Vertical Laboratory Analysis
Appendix C – Soil Bore Installation Documentation & Laboratory Analysis
Appendix D – EPA Exposure Assessment Multimedia Model
Appendix F – Photo Documentation

Figures

Basin Environmental Service Technologies, LLC
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967



Basin Environmental Service Technologies
Effective Solutions

CONOCOPHILLIPS VACUUM ABO BATTERY #3

1RP-3555

UL K,L,M & N SECTION 34
T-17-S R-35-E
LEA COUNTY, NM

Legend
- SOIL BORE
- VERTICAL POINT
- COMUNICATION DISH
- LIGHT POLE
- POLE @ 4 FT
- ELECTRIC POLE
- PIPE END
- BARRIER
- ELECTRICAL BOX
- BATTERY FENCE
- BURIED PIPELINE
- OVERHEAD ELECTRIC LINE
- PAD/ROAD EDGE
- RISER
- SURFACE PIPELINE
- PAINT MARKED LINE
- EXCAVATION 1 FT
- EXCAVATION 6 IN
- CONCRETE PAD
- OIL STAIN INSIDE BATTERY FENCE - 8,345 SQ FT
- OIL STAIN OUTSIDE BATTERY FENCE - 63,563 SQ FT

Figure 1

0 50 100 Feet

N W E

GPS date: 3/4/15 TG & KS, 6/10/15 KS
Drawing date: 2/18/16
Drafted by: T. Grieco, B. Cooper

Basin Environmental
Effective Solutions
Service Technologies

CONOCOPHILLIPS
VACUUM ABO
BATTERY #3

1RP-3555

UL K,L,M & N SECTION 34
T-17-S R-35-E
LEA COUNTY, NM

Legend

- SOIL BORE
- VERTICAL POINT
- COMUNICATION DISH
- LIGHT POLE
- POLE @ 4 FT
- ELECTRIC POLE
- PIPE END
- BARRIER
- ELECTRICAL BOX
- BATTERY FENCE
- BURIED PIPELINE
- OVERHEAD ELECTRIC LINE
- PAD/ROAD EDGE
- RISER
- SURFACE PIPELINE
- PAINT MARKED LINE
- EXCAVATION 1 FT
- EXCAVATION 6 IN
- CONCRETE PAD
- OIL STAIN INSIDE BATTERY FENCE - 8,345 SQ FT
- OIL STAIN OUTSIDE BATTERY FENCE - 63,563 SQ FT
- EXCAVATION @ 1 FT
- EXCAVATION @ 2.5 FT WITH 20 MIL REINFORCED POLY LINER

Figure 2

0 50 100 Feet

N W E

GPS date: 3/4/15 TG & KS, 6/10/15 KS
Drawing date: 2/18/16
Drafted by: T. Grieco, B. Cooper

Appendix A

Intial C-141

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Jay Garcia**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-704-2455**
Facility Name: **Vac Abo Battery #03**	Facility Type: **Well**

Surface Owner: NMOCD	Mineral Owner:	API No. 30-025-26521

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	34	17S	35E	1600	North	900	East	**LEA**

Latitude 32.7884411982176,- **Longitude** 103.451152598831

NATURE OF RELEASE

2240 water & 34 oil

1837 water & 28 oil

Type of Release: **Spill**	Volume of Release: ~~8.5 BBLS~~	Volume Recovered. ~~0 BBLS~~
Source of Release: overflowing tank battery.	Date and Hour of Occurrence 03/03/2015 07:30 am	Date and Hour of Discovery 03/03/2015 07:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Tomas Oberding- NMOCD**	
By Whom? **Jay Garcia**	Date and Hour: **03/04/2015 12:30 pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

RECEIVED
By OCD; Dr. Oberding at 8:07 am, Mar 05, 2015

ENV – Corporate / Agency Reportable – 34 BO & 2240 BPW – Vac ABO Battery 3 – RR III – MCBU – Buckeye – On Tuesday, March 3, 2015 at 07:30 MST, a MSO was notified that a tank was overflowing at Vac ABO Battery 3 resulting in a release of 34 bbls of oil and 2240 bbls of produced water, with 28 bbls of oil and 1837 bbls of produced water recovered. Immediate action was to shut down and isolate all incoming fluids and begin recovering the fluids. Notifications were made to Crisis Hotline and Management. The investigation is in progress. The area will be remediated according to NMOCD guidelines.
Consequence: 4, Likelihood: 4, RR: III, PSE Tier 2

On Tuesday, March 3rd, 2015 @ 07:30 hrs, a COPC MSO was notified that a leak was observed at the Vac Abo 3 Battery. The release at the Vac Abo 3 facility originated from the produced water overflow tank. All Abo area production was shut in to stop the spill, and containment and cleanup activities started immediately. Surface area affected by the spill was 154' x 230' of pasture, 114' x 69' of diked area, and 625' x 123' of a mix of caliche pad and pasture. Total volume spilled was 2274 bbls (2240 water & 34 oil). 1895 bbls were recovered by vacuum trucks (1837 water & 28 oil). The area will be remediated according to NMOCD guidelines and the investigation is in progress.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: *Jay Garcia*

Printed Name: Jay Garcia

Title: LEAD HSE

OIL CONSERVATION DIVISION

Hydrologist
Approved by ~~Environmental Specialist~~:

Approval Date: 03/05/2015 Expiration Date: 05/05/2015

E-mail Address: ***jay.c.garcia@conocophillips.com***	Conditions of Approval: Site samples required. Delineate and remeate are as per NMOCD guides.	Attached ☐
Date: 01/06/2015 Phone:575-704-2455		1RP-3555 217817 nTO1506430213 pTO1506430397

* Attach Additional Sheets If Necessary

Appendix B

Vertical Laboratory Analysis

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 10, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: VACUUM ABO BATTERY #3

Enclosed are the results of analyses for samples received by the laboratory on 02/09/16 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERT 1 @ 8' (H600289-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	02/10/2016	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*85.6 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.3 %*	*28-171*

Sample ID: VERT 2 @ 10' (H600289-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	02/10/2016	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	**57.2**	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*80.3 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*90.4 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERT 3 @ 1' (H600289-03)

Chloride, SM4500Cl-B mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	02/10/2016	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	**36.7**	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*82.4 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*91.7 %*	*28-171*

Sample ID: VERT 4 @ 1' (H600289-04)

Chloride, SM4500Cl-B mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	02/10/2016	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*85.7 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.0 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: POINT 3 @ 1' (H600289-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	02/10/2016	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*84.1 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*91.2 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Rush!!

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: ConocoPhillips	**BILL TO**
Project Manager: Kyle Norman	**P.O. #:**
Address: 419 W Cain	**Company:** Basin
City: Hobbs **State:** NM **Zip:** 88240	**Attn:**
Phone #: 575-393-2967 **Fax #:** 575-393-0293	**Address:** 419 W Cain
Project #: **Project Owner:**	**City:** Hobbs
Project Name:	**State:** NM **Zip:** 88240
Project Location: Vacuum Abo Battery #3	**Phone #:** 575-393-2967
Sampler Name: Jkamplain	**Fax #:** 575-393-0293

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS							
H600288																											
1	Vert 1 @ 8'	G	1			✓					✓		2-9-16	10:10	✓	✓											
2	Vert 2 @ 10'	G	1			✓					✓			1:30	✓	✓											
3	Vert 3 @ 1'	G	1			✓					✓			1:45	✓	✓											
4	Vert 4 @ 1'	G	1			✓					✓			1:50	✓	✓											
5	Hor. 3 @ 1'	G	1			✓					✓			9:00	✓	✓											

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 2-9-16 **Time:** 4:10	**Received By:** Jodi Henson	**Phone Result:** ☐ Yes ☑ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**Fax Result:** ☐ Yes ☑ No **Add'l Fax #:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.4°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY:** (Initials)	**REMARKS:** email results: [redacted], knorman@basinenv.com; jkamplain@basinenv

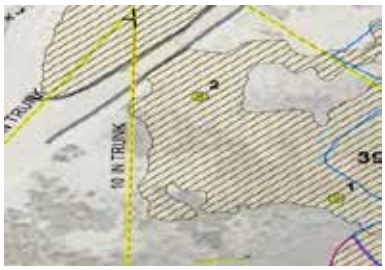
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

Appendix C

Soil Bore Installation Documentation And Laboratory Analysis

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

Logger:	Jacob Kamplain		**Company:** ConocoPhillips
Driller:	White Drilling		**Project Name:** Vac ABO Battery #3 **Well ID:** SB-1
Drilling Method:	Air Rotary		**Project Consultant:** Basin
Start Date:	2/11/2016		
End Date:	2/11/2016		

Comments: All Samples were taken from cuttings.

DRAFTED BY:

TD = 20' GW = 71'

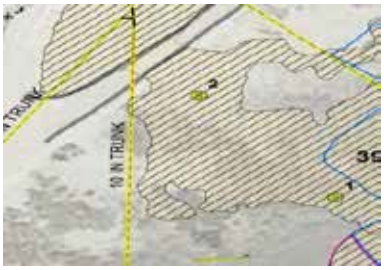
Location: U/L N Sec 34 T-17-S R-35-E

Lat: 32.787348 **County**: Lea

Long: -103.449556 **State**:NM

Depth (feet)	Chloride field tests	LAB	PID	Description
SS	173		0.5	dark brown clay w/ sandy clay
5 ft	1867	CL-2360	0.3	
		GRO <10		
		DRO <10		
10 ft	1350	CL-2200	0.7	caliche/limestone
		GRO <10		
		DRO <10		
15 ft	334		0.8	limestone
20 ft	237	CL-256	0.7	tanish silt sand w/ sand stone
		GRO <10		
		DRO <10		

Lithology / Well Construction: Bentonite Seal

Logger:	Jacob Kamplain		**Company:** ConocoPhillips
Driller:	White Drilling		**Project Name:** Vac ABO Battery #3 **Well ID:** SB-2
Drilling Method:	Air Rotary		**Project Consultant:** Basin
Start Date:	2/11/2016		
End Date:	2/11/2016		

Comments: All Samples were taken from cuttings.

DRAFTED BY:

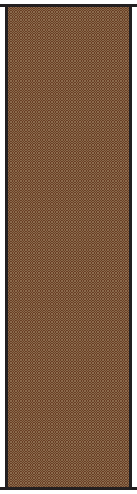
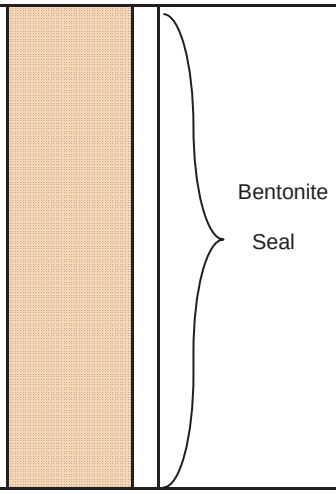
TD = 50' GW = 71'

Location: U/L N Sec 34 T-17-S R-35-E

Lat: 32.787554 **County**: Lea

Long: -103.449746 **State**:NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
SS	1295		9.7	dark brown clay w/ sandy clay		Bentonite Seal
5 ft	1362		2			
10 ft	1125	CL-2560	0.6	caliche/limestone		
		GRO <10				
		DRO <10				
15 ft	375		1.5	limestone		
20 ft	1447		0.7	brown sand/sand stone		
25 ft	1007	CL-1100	0.5			
		GRO <10				
		DRO <10				
30 ft	634		0.6			
35 ft	716	CL-704	0.5			
		GRO <10				
		DRO <10				

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
40 ft	524		0.5	brown sand/sand stone		
45 ft	411		0.3			
50 ft	284	CL-368	0.6			
		GRO <10				
		DRO <10				

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 15, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: VACUUM ABO BATTERY #3

Enclosed are the results of analyses for samples received by the laboratory on 02/11/16 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 1 @ 5' (H600321-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2360**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*74.1 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*86.8 %*	*28-171*

Sample ID: SB 1 @ 10' (H600321-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2200**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*82.0 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*94.1 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 1 @ 20' (H600321-03)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*78.2 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*89.7 %*	*28-171*

Sample ID: SB 2 @ 10' (H600321-04)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2560**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*74.0 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*87.5 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 25' (H600321-05)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*83.5 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.4 %*	*28-171*

Sample ID: SB 2 @ 35' (H600321-06)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*82.2 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*93.7 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 50' (H600321-07)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	02/15/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*81.5 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.2 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: ConocoPhillips	BILL TO
Project Manager: Kyle Norman	P.O. #:
Address: 419 W Cain	Company: Basin
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: 575-393-2967 Fax #: 575-393-0293	Address: 419 W Cain
Project #: Project Owner:	City: Hobbs
Project Name:	State: NM Zip: 88240
Project Location: Vacuum Abo Battery #3	Phone #: 575-393-2967
Sampler Name: JKamplain	Fax #: 575-393-0293

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
H600321																				
1	SB1 @ 5'	G	1			X					X		2-16-16	10:00	X	X				
2	SB1 @ 10'	G	1			X					X			10:15	X	X				
3	SB1 @ 20'	G	1			X					X			10:30	X	X				
4	SB 2 @ 10'	G	1			X					X			11:00	X	X				
5	SB 2 @ 25'	G	1			X					X			11:15	X	X				
6	SB 2 @ 35'	G	1			X					X			11:20	X	X				
7	SB 2 @ 50'	G	1			X					X			11:30	X	X				

ANALYSIS REQUEST

Relinquished By:	Date: 2-16	Received By: Jodi Henson	
Relinquished By:	Time: 3:30	Received By:	
	Date:		
	Time:		

Phone Result: ☐ Yes ☑ No Add'l Phone #:
Fax Result: ☐ Yes ☑ No Add'l Fax #:
REMARKS:
email results:
hconder@basinenv.com; knorman@basinenv.com;
jkamplain@basinenv; lflores@basinenv; lweinheimer@basinenv;
cursanic@basinenv; sedwards@basinenv
environmental tech: @basinenv

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials) JH

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

Appendix D

EPA Exposure Assessment Multimedia

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

MULTIMED V1.01 DATE OF CALCULATIONS: 17-FEB-2016 TIME: 20: 1:11

U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

1
Run options
--- -------

C-P Vacuum Abo Battery #3

1R-3555
Chemical simulated is Chloride

Option Chosen — Saturated and unsaturated zone models
Run was — DETERMIN
Infiltration Specified By User: 1.524E-02 m/yr
Run was transient
Well Times: Find Maximium Concentration
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)

NP	- Total number of nodal points	240
NMAT	- Number of different porous materials	1
KPROP	- Van Genuchten or Brooks and Corey	1
IMSHGN	- Spatial discretization option	1
NVFLAYR	- Number of layers in flow model	1

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	14.00	1

DATA FOR MATERIAL 1

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	14.0	0.000	0.000	0.000

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		2
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN

Convolution integral approach
Exponentially decaying continuous source
Computer generated times for computing concentrations

1

DATA FOR LAYER 1

VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	14.0	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

1

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

1

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS	LIMITS

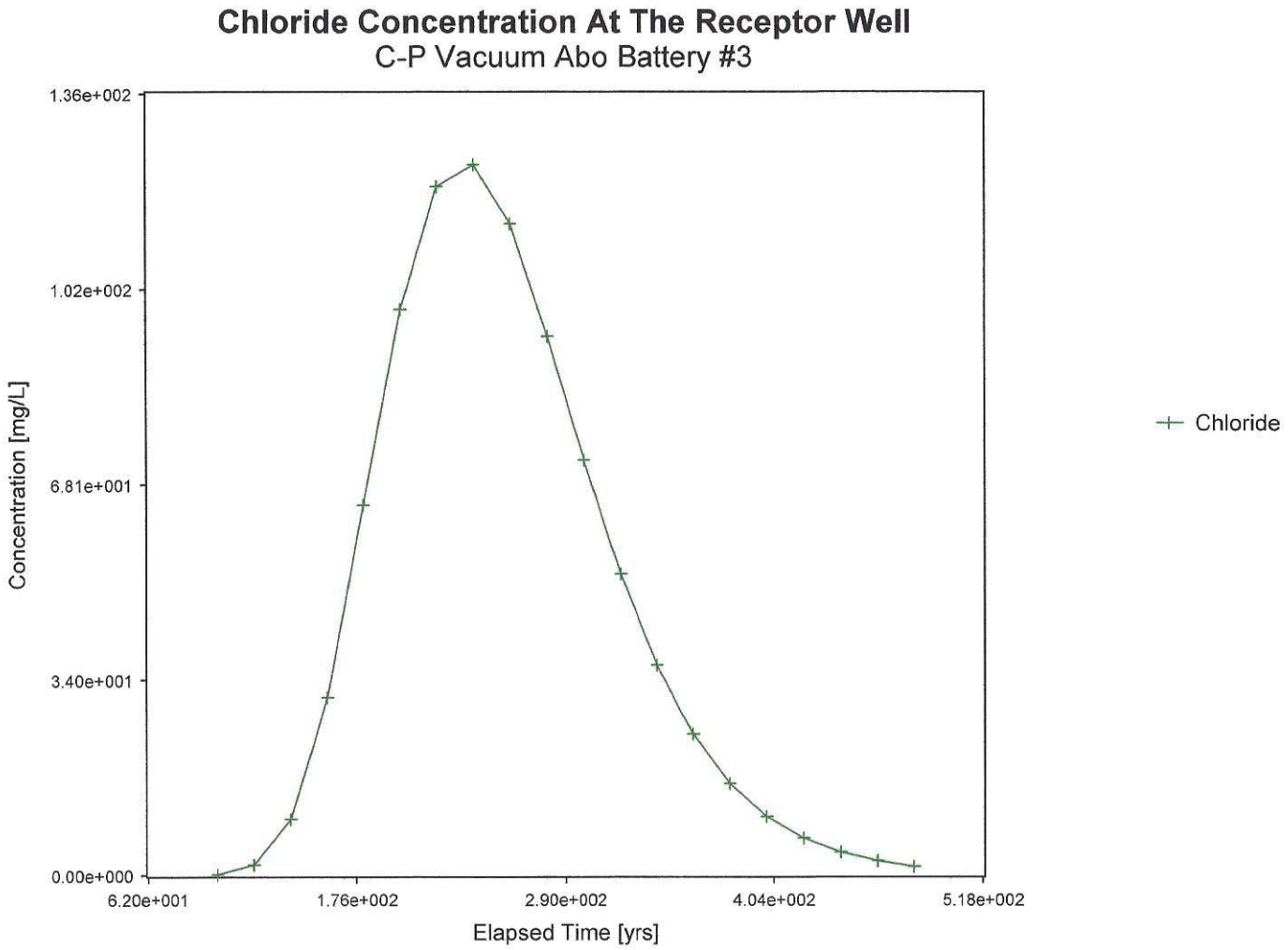
			MEAN	STD DEV	MIN	MAX
Infiltration rate	m/yr	CONSTANT	0.152E-01	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.372E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.115E+04	-999.	-999.	-999.
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

1

AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

MAXIMUM WELL CONCENTRATION IS 125.3 AT 0.232E+03 YEARS



Appendix F

Photo Documentation

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

ConocoPhillips Vacuum Abo Battery #3

UL/K,L,M & N, Section 34, T17S, R35E

Initial release area, facing southwest 3/4/15

Initial release area, facing west 3/4/15

Initial release area, facing southeast 3/4/15

Initial release area, facing southwest 3/4/15

Initial release area, facing south 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing south 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing north 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing north 3/4/15

Installing vertical #1, facing north west 2/9/16

Installing vertical #2, facing north east 2/9/16

Installing soil bore #2, facing west 2/11/16

Collecting sample, facing south east 2/11/16

Plugging soil bore #2, facing west 2/11/16

Soil bore #2 plugged, facing west 2/11/16

APPENDIX E
CAP Addendum and Approval

From: Kyle Norman
To: "Kyle Norman"
Subject: FW: Addendum to the ConocoPhillips Vac ABO Battery 3 (1RP-3555) CAP
Date: Monday, August 15, 2016 10:11:03 AM

From: Oberding, Tomas, EMNRD [mailto:Tomas.Oberding@state.nm.us]
Sent: Wednesday, March 30, 2016 10:54 AM
To: Kyle Norman; Keyes, Jamie, EMNRD
Cc: 'Wright, Justin K'; 'Groves, Amber'; jkamplain@basinenv.com
Subject: RE: Addendum to the ConocoPhillips Vac ABO Battery 3 (1RP-3555) CAP

Aloha Mr. Norman et al,

Upon review of the addendum and documentation the OCD approves the plan with the highlighted changes.
Please ensure concurrence from the SLO.
Mahalo
-Doc

Tomáš 'Doc' Oberding PhD
Hydrologist, Adv-District 1
Oil Conservation Division, EMNRD
(505) 476-3403
E-Mail: tomas.oberding@state.nm.us
一期一会

From: Kyle Norman [mailto:knorman@basinenv.com]
Sent: Wednesday, March 30, 2016 8:07 AM
To: 'Kyle Norman' <knorman@basinenv.com>; Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Keyes, Jamie, EMNRD <Jamie.Keyes@state.nm.us>
Cc: 'Wright, Justin K' <Justin.Wright@conocophillips.com>; 'Groves, Amber' <agroves@slo.state.nm.us>; jkamplain@basinenv.com
Subject: RE: Addendum to the ConocoPhillips Vac ABO Battery 3 (1RP-3555) CAP

Mr. Oberding,

Can you look at this when you get a chance. Thank you for your time. Have a blessed day.

From: Kyle Norman [mailto:knorman@basinenv.com]
Sent: Friday, March 11, 2016 9:41 AM
To: 'Oberding, Tomas, EMNRD'; 'jamie.keyes@state.nm.us'

Cc: 'Wright, Justin K'; 'Groves, Amber'; 'jkamplain@basinenv.com'
Subject: Addendum to the ConocoPhillips Vac ABO Battery 3 (1RP-3555) CAP

Mr. Oberding,

The following is an Addendum to the ConocoPhillips Vac ABO Battery 3 (1RP-3555) CAP submitted to NMOCD on February 19, 2016 and approved by NMOCD on February 22, 2016.

Page 2, Section: red lettering will be deleted from the paragraph and blue lettering should be added to the paragraph.

Based on the laboratory analysis, the area around Soil Bores 1 and 2 and Verticals 1 and 2 will be excavated to a depth of 4 ft. bgs ~~2.5 ft bgs~~. At the base of the excavation, a 20-mil reinforced poly liner will be installed and properly seated. The excavation will then be backfilled with clean soil. The area around Verticals 3 and 4 will be excavated to a depth of 1 ft. bgs and conformation samples will be collected and sent to the lab and backfilled with clean soil (Figure 2). Any impact within the lease pad area will be in the facility cleanup upon abandonment.

Let me know if you have any questions. Have a great weekend. Thanks

Kyle Norman
Project Lead
419 W. Cain
Hobbs NM 88240
Cell # (575)942-8542
Fax # (575)393-0293

APPENDIX F
Confirmation Laboratory Analytical Reports

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 24, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: VACUUM ABO BATTERY #3

Enclosed are the results of analyses for samples received by the laboratory on 02/19/16 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/19/2016	Sampling Date:	02/17/2016
Reported:	02/24/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: IMPORTED SOIL (H600390-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/22/2016	ND	416	104	400	7.41	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	ConocoPhillips	**BILL TO**	
Project Manager:	Kyle Norman	**P.O. #:**	
Address:	419 W Cain	**Company:**	Basin
City:	Hobbs	**State:** NM **Zip:** 88240	**Attn:**
Phone #:	575-393-2967	**Fax #:** 575-393-0293	**Address:** 419 W Cain
Project #:		**Project Owner:**	**City:** Hobbs
Project Name:			**State:** NM **Zip:** 88240
Project Location:	Vac Abo Battery #3		**Phone #:** 575-393-2967
Sampler Name:	JKamplain		**Fax #:** 575-393-0293

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS					
H600390																									
1	Imported soil	G	1			✓					✓		2-17-16	3:00	✓										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 2-19-16 **Time:** 11:30	**Received By:** Jodi Henson	**Phone Result:** ☐ Yes ☑ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**Fax Result:** ☐ Yes ☑ No **Add'l Fax #:**
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	-7.8°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY:** (Initials)

REMARKS:

email results:
knorman@basinenv.com; jkamplain@basinenv;

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 07, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: ABO #3 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 07/06/16 9:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/06/2016	Sampling Date:	07/01/2016
Reported:	07/07/2016	Sampling Type:	Soil
Project Name:	ABO #3 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: NW SCRAPE BOTTOM 1 @ 6" (H601507-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/06/2016	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/06/2016	ND	189	94.4	200	1.53	
DRO >C10-C28	**18.1**	10.0	07/06/2016	ND	194	96.8	200	9.19	

Surrogate: 1-Chlorooctane	*71.1 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*72.2 %*	*28-171*

Sample ID: NW SCRAPE BOTTOM 2 @ 6" (H601507-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	07/06/2016	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/06/2016	ND	189	94.4	200	1.53	
DRO >C10-C28	**438**	10.0	07/06/2016	ND	194	96.8	200	9.19	

Surrogate: 1-Chlorooctane	*72.2 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*94.7 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/06/2016	Sampling Date:	07/01/2016
Reported:	07/07/2016	Sampling Type:	Soil
Project Name:	ABO #3 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: NE SCRAPE BOTTOM 1 @ 6'' (H601507-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	07/06/2016	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/06/2016	ND	189	94.4	200	1.53	
DRO >C10-C28	**232**	10.0	07/06/2016	ND	194	96.8	200	9.19	

Surrogate: 1-Chlorooctane	*52.5 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*58.2 %*	*28-171*

Sample ID: NE SCRAPE BOTTOM 2 @ 6'' (H601507-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/06/2016	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/06/2016	ND	189	94.4	200	1.53	
DRO >C10-C28	**36.3**	10.0	07/06/2016	ND	194	96.8	200	9.19	

Surrogate: 1-Chlorooctane	*71.0 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*64.9 %*	*28-171*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Rush!!

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: ConocoPhillips	**BILL TO**
Project Manager: Kyle Norman	**P.O. #:**
Address: 419 W Cain	**Company:** Basin
City: Hobbs **State:** NM **Zip:** 88240	**Attn:**
Phone #: 575-393-2967 **Fax #:** 575-393-0293	**Address:** 419 W Cain
Project #: **Project Owner:**	**City:** Hobbs
Project Name:	**State:** NM **Zip:** 88240
Project Location: ABO 3 Battery	**Phone #:** 575-393-2967
Sampler Name: Jacob Kamplain	**Fax #:** 575-393-0293

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS									
H601507																												
1	N.W. Scrape Bttm 1@6"	G	1			✓					✓		7-1-16	10:00	✓	✓													
2	N.W. Scrape Bttm 2 @6"	G	1			✓					✓			10:10	✓	✓													
3	N.E. Scrape Bttm 1@6"	G	1			✓					✓			10:20	✓	✓													
4	N.E. Scrape Bttm 2@6"	G	1			✓					✓			10:30	✓	✓													

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	**Date:** 7/6/16 **Time:** 9:45	**Received By:** Jodi Henson	
Relinquished By:	**Date:** **Time:**	**Received By:**	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	-2.9°c	**Sample Condition** Cool: ☐ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)**

Phone Result: ☐ Yes ☑ No **Add'l Phone #:**
Fax Result: ☐ Yes ☑ No **Add'l Fax #:**
REMARKS:

email results:
knorman@basinenv.com; jkamplain@basinenv;

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#75

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 22, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: ABO #3 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 07/19/16 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/19/2016	Sampling Date:	07/18/2016
Reported:	07/22/2016	Sampling Type:	Soil
Project Name:	ABO #3 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: NORTH EAST EXC. BOTTOM @8'' (H601602-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/20/2016	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/20/2016	ND	185	92.6	200	3.78	
DRO >C10-C28	<10.0	10.0	07/20/2016	ND	186	92.9	200	9.84	

Surrogate: 1-Chlorooctane	*86.3 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*83.4 %*	*28-171*

Sample ID: IMPORTED SOIL (H601602-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/20/2016	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	ConocoPhillips	P.O. #:	
Project Manager:	Kyle Norman	Company:	Basin
Address:	419 W Cain	Attn:	
City:	Hobbs	Address:	419 W Cain
State:	NM	City:	Hobbs
Zip:	88240	State:	NM
Phone #:	575-393-2967	Zip:	88240
Fax #:	575-393-0293	Phone #:	575-393-2967
Project #:		Fax #:	575-393-0293
Project Owner:			
Project Name:			
Project Location:	Abo Battery 3		
Sampler Name:	JKamplain		

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS							
H601607																											
1	North East Ex. Btm @ 8"	G	1			✓					✓		7-18-16	10:00	✓	✓											
2	Impacted Soil	G	1			✓					✓		7-18-16	10:30	✓												

Relinquished By:	Date: 7-19-16	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
	Time: 12:30	Jodi Henson	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: email results: knorman@basinenv.com; jkamplain@basinenv;
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	2.8°C	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials) CHA

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#75

APPENDIX G
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View south. Impacted area north of lease road.	1
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View west. Release area on lease road.	2
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View west. Release area on northern portion of lease pad.	3
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View east. Release area on eastern portion of lease pad.	4
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View northwest. Release area in pastureland southeast of lease pad.	5
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View southwest. Release area near the tank battery.	6
	SITE NAME	Vacuum ABO #3 Battery	03/04/15

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View north. Excavation activities at southern extent of release area.	7
	SITE NAME	Vacuum ABO #3 Battery	06/13/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View northwest. Excavation activities southeast of lease pad.	8
	SITE NAME	Vacuum ABO #3 Battery	06/13/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View north. Additional excavation southeast of lease pad.	9
	SITE NAME	Vacuum ABO #3 Battery	06/21/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View southeast. Polyethylene liner placement in bottom of excavation.	10
	SITE NAME	Vacuum ABO #3 Battery	07/01/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View south. Excavation north of lease road.	11
	SITE NAME	Vacuum ABO #3 Battery	07/01/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View north. Excavation activities southeast of lease pad.	12
	SITE NAME	Vacuum ABO #3 Battery	07/08/16

TETRA TECH, INC. PROJECT NO. 212C-MD-02109	DESCRIPTION	View south. Polyethylene liner placement in bottom of excavation.	13
	SITE NAME	Vacuum ABO #3 Battery	07/08/16

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 8165

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 8165
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Deferral approved as detailed in report.	10/7/2021