January 23, 2019

Mr. Mike Bratcher
New Mexico Oil Conservation Division – District 2
811 S. First Street
Artesia, NM 88210

and

Ms. Shelly Tucker
Bureau of Land Management
620 E. Green Street
Artesia, NM 88210

RE: Release Closure Request
Percussion Petroleum
Huber Central Tank Battery (CTB) Facility
Eddy County, New Mexico
NMOCD Case Number – 2RP-5159

Mr. Bratcher:

WSP USA, Inc. (WSP) was engaged by Percussion Petroleum, LLC (Percussion) to perform a post release site assessment and remediation at the Huber Central Tank Battery (CTB) facility in Eddy County, New Mexico (Figure 1). WSP is requesting closure on Percussion's behalf for this release under New Mexico Administrative Code (NMAC) 19.59.29, which requires no workplans to be submitted if the remediation and satisfactory confirmation samples are achieved within 90 day of the release. WSP's preliminary soil assessment results, remediation activities, and post remediation assessment results are as follows:

INCIDENT DESCRIPTION

On November 2, 2018 approximately 250 barrels of produced fluids (oil and water) were released from the Huber CTB and approximately 165 barrels were recovered. A newly installed LACT unit circulated oil into a stock tank that overfilled causing spillage from the top of the tanks through the thief hatch, the release was contained to the bermed containment area. The incident was reported to Mr. Mike Bratcher via email at 4:00 PM on November 2, 2018 and via phone to Jim Amos with the Bureau of Land Management (BLM) at 3:30 PM on November 2, 2018.

BACKGROUND INFORMATION

According to the United States Department of Agricultural, Natural Resource Conservation Service, Web Soil

WSP USA
2777 N. Stemmons Freeway
Suite 1600
Dallas, TX 75207

T +1-214-583-3400

wsp.com

Survey, the soil in the vicinity of the facility is Reeves-Gypsum land complex, 0 to 3 percent slopes. Theses soils are described as loams, clay loams, and gypsiferous material.

The United States Geological Survey (USGS), National Water Information System identified the nearest water well is located in Section 34, Township 19S, Range 25E; 2,232 feet to the northeast of the facility (Figure 2). The depth to groundwater was identified at 238 feet below ground surface (bgs) in 1971. Another nearby well to the southeast, measured in 2015, identified the depth to groundwater at 148 bgs. A copy of the referenced groundwater data has been included in the appendix.

According to the USGS Karst in the United States digital map, no karst topography was identified beneath the site (Figure 3).

According to 19.15.29 Table 1 – Closure Criteria for Soils Impacted by a Release the ranking criteria in the Guide, WSP identified the facility with a depth to ground water of greater than 100 feet (148-238 bgs), well head protection area greater than 1,000 feet from a water source and greater than 200 feet from a private domestic water source, and greater than 1,000 feet to a surface body of water (North Seven Rivers is located 400 feet northwest of the site and is typical dry and does not meet the requirements to be considered a surface water). The 19.15.29 Table 1 correlating action levels for this location are 10 parts per million (ppm) for benzene, 50 ppm for benzene, toluene, ethylbenzene, and total xylenes (BTEX), 1,000 ppm for total petroleum hydrocarbons (TPH) Gasoline Range Organics (GRO), TPH Diesel Range Organics (DRO), 2,500 ppm for TPH-GRO/DRO/ oil range organics (ORO), and 20,000 ppm for chlorides. BLM does not accept the NMOCDs position on chlorides; therefore, their limit of 600 ppm was utilized.

ACTION TAKEN

Percussion's initial response included utilizing a vacuum truck to remove free fluids and scraping the top layer of soil with a backhoe. The soils were disposed of at R360 landfill in Lea County, New Mexico. On November 7, 2018 WSP staff collected soil samples from the impacted area to delineate the vertical and horizontal extent of the spill. Soil samples were collected utilizing a decontaminated hand auger and gloved hands. Soil was placed in clean jars supplied by a laboratory, placed in a cooler on ice and shipped to ALS laboratory in Houston, Texas for analysis for total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX) and chlorides. Based on the site inspection the impacts would be classified as Unsaturated Contaminated Soils. Based on the action levels WSP identified elevated levels of TPH, BTEX and chlorides in the upper 1 foot of the sampled locations. The analytical results have been summarized in the attached Table 1 and the attached Figure 4 identifies the sample locations. Beginning the week of November 12, 2018, P2 Construction excavated the upper 2 feet of soil from the impacted areas at the facility. WSP collected additional samples on November 30, 2018, some of which exhibited concentrations of chlorides above action level of 600 ppm. The analytical results have been summarized in the attached Table 1 and the attached Figure 5 identifies the sample locations. P2 performed additional excavation on areas of elevated concentrations. Additional sampling was performed on January 9 and 12, 2018, with excavation occurring prior to the sampling events. The analytical results have been summarized in the attached Table 1 and the attached Figure 5 identifies all sample locations.

POST REMEDIATION SAMPLING RESULTS

On August 14, 2018 the updated action levels from NMAC 19.59.29 became effective and were utilized for this closure request assessment, with the exception of chlorides which the BLM standard was utilized. All sample analytical results are below the required concentration action level.

SUMMARY and CONCLUSIONS

The post remediation analytical results identified all soil samples were found to be below the 19.15.29 Table 1 correlating action levels of 10 ppm for benzene, 50 ppm for BTEX, 1,000 ppm for TPH GRO/DRO, 2,500 ppm for TPH-GRO/DRO/ORO, and the BLM standard of 600 ppm for chlorides. Based on the analytical results, WSP is requesting closure on Percussion's behalf for this release, 21RP-5159.

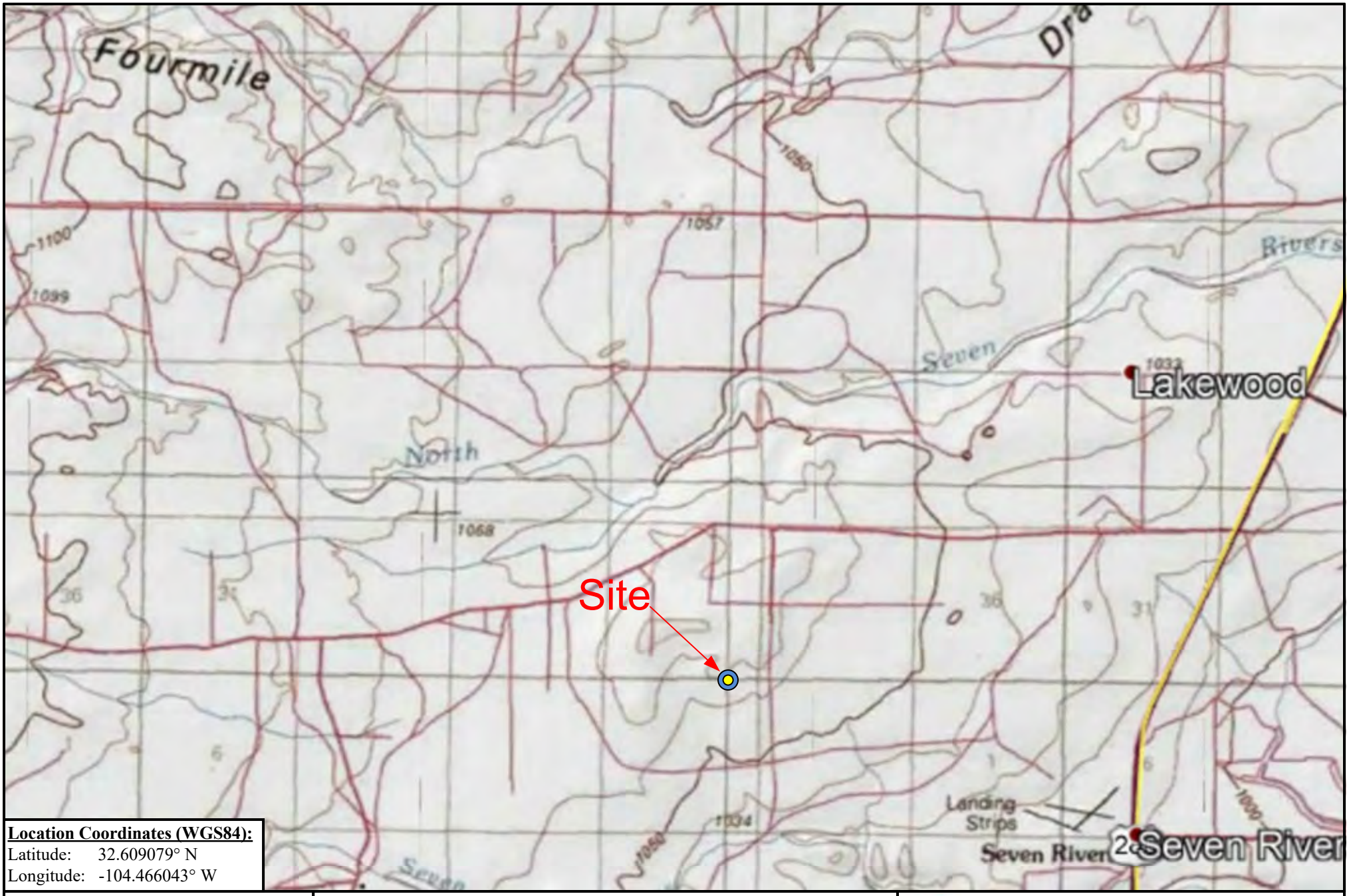
If you have any questions or require additional information, please contact Matthew Boyle at (214) 561-7424 or (817) 713-0262.

Sincerely,

Matthew Boyle
Sr. Environmental Scientist

Charles D. Harlan, P.G.
Director, Business Development – Water & Environment
TX/Mountain Region

Figures



Location Coordinates (WGS84):
Latitude: 32.609079° N
Longitude: -104.466043° W

Percussion Petroleum
Huber CTB
Eddy County, New Mexico

Legend:

Site Location

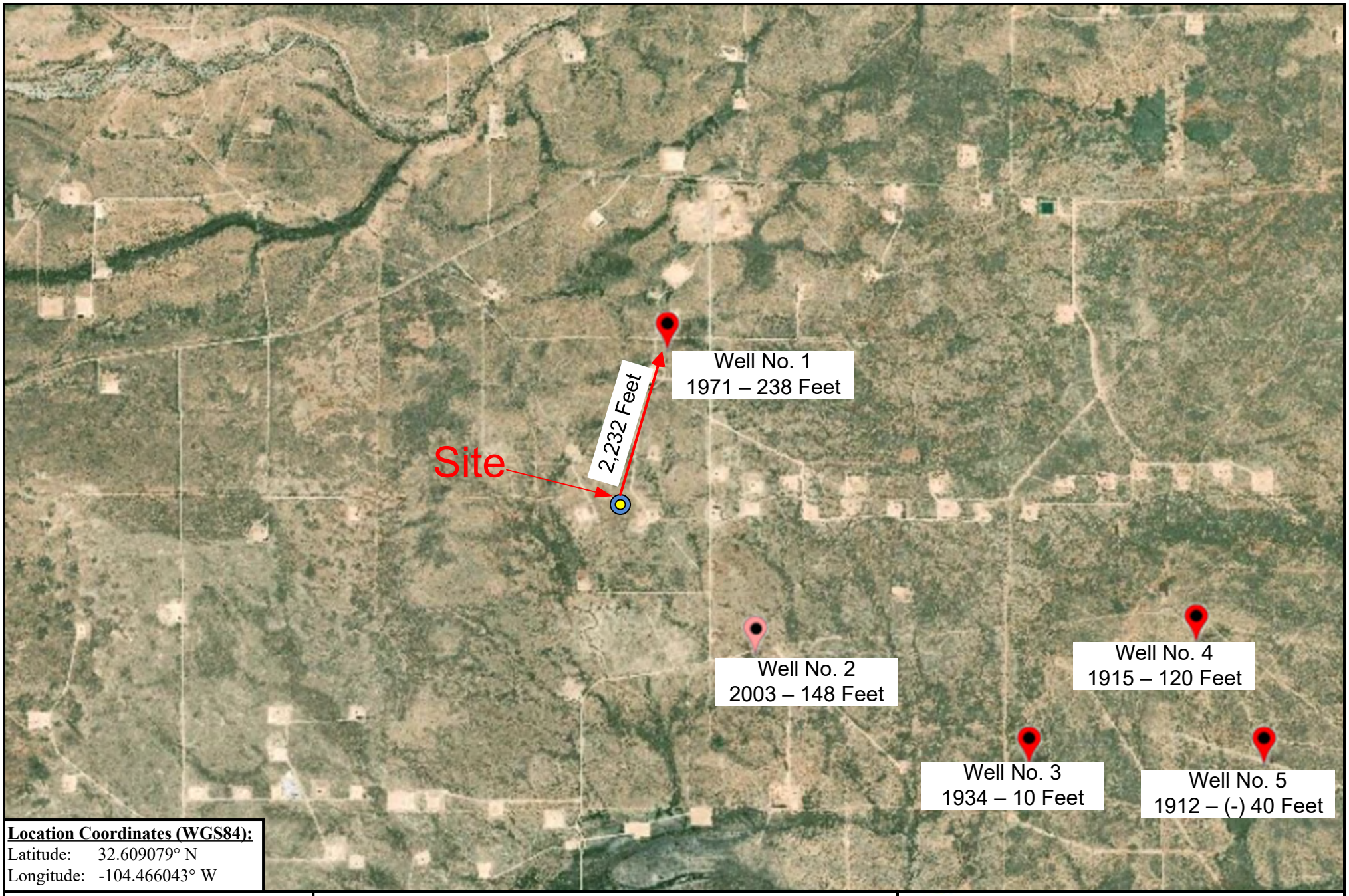
N

(Not to Scale)

WSP

Site Location Map

WSP Project#: 31401117.015	1/17/2019	Figure 1



Location Coordinates (WGS84):
Latitude: 32.609079° N
Longitude: -104.466043° W

Percussion Petroleum
Huber CTB
Eddy County, New Mexico

Legend:

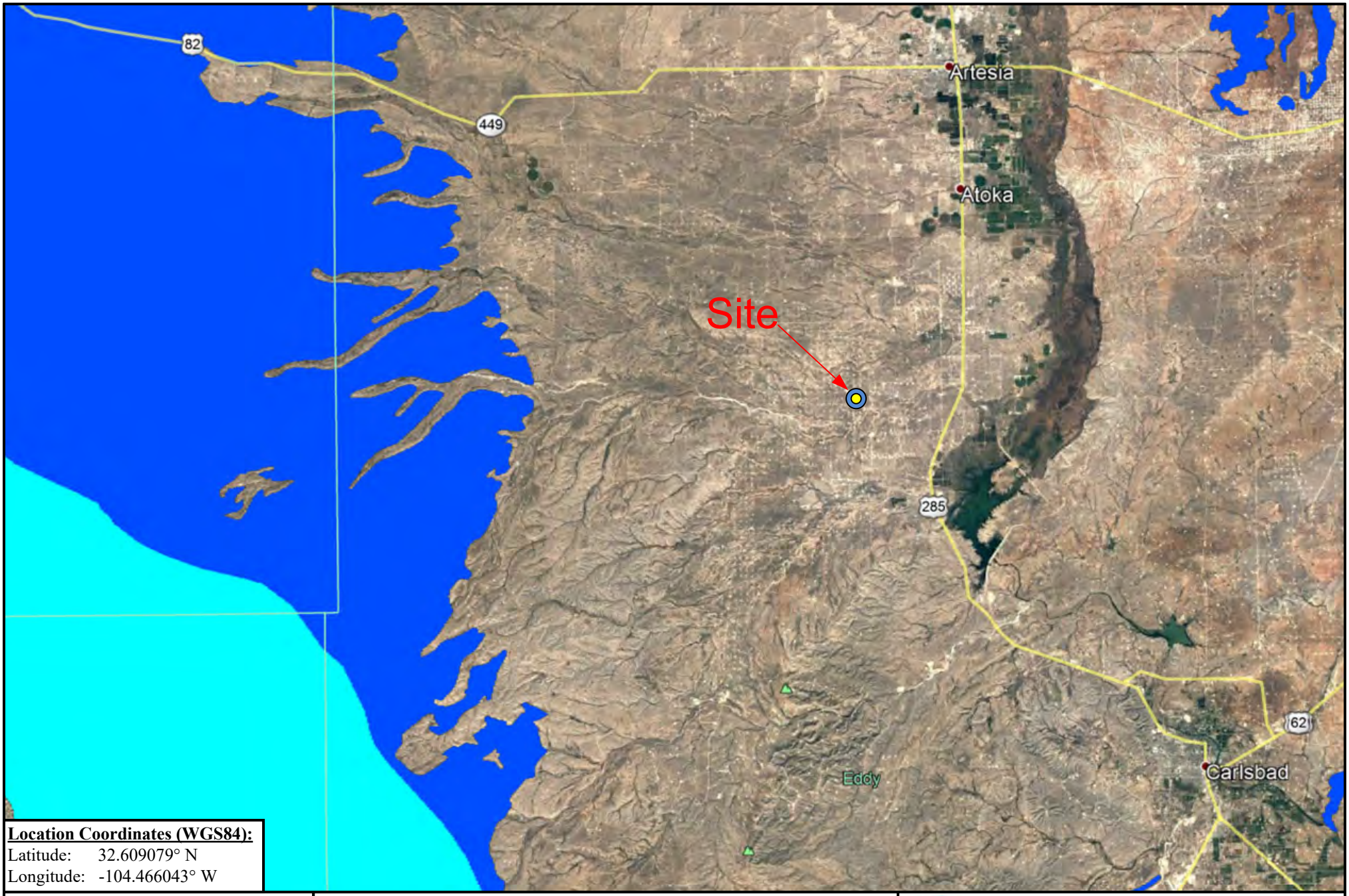
Site Location

N

(Not to Scale)

Water Well Location Map

WSP Project#: 31401117.015	1/17/2019	Figure 2



Location Coordinates (WGS84):
Latitude: 32.609079° N
Longitude: -104.466043° W

Percussion Petroleum
Huber CTB
Eddy County, New Mexico

Legend:
Site Location
Karst Topography

N
(Not to Scale)

wsp

USGS Karst Topography Map

WSP Project#: 31401117.015	1/17/2019	Figure 3

Location Coordinates (WGS84):
Latitude: 32.609079° N
Longitude: -104.466043° W

Percussion Petroleum
Huber CTB
Eddy County, New Mexico

Legend:
Approximate Limits of Impacted Area
Sample Location and Sample Number

N
1"=55'

wsp

Sample Location Map – Post Spill

WSP Project#: 31401117.015	1/17/2019	Figure 4

Location Coordinates (WGS84):
Latitude: 32.609079° N
Longitude: -104.466043° W

Percussion Petroleum
Huber CTB
Eddy County, New Mexico

Legend:
Impacted Area – Area of Excavation
Sample Location and Sample Number

N
(Not to Scale)

wsp

Sample Location Map – Post Remediation

WSP Project#: 31401117.015	1/22/2019	Figure 5

Data Tables

Table 1
Summary of Soil Sample Analytical Results

Sample ID	Sample Depth	Sample Date	Parameter								
			Chloride mg/kg	C6-C12 mg/kg	C12-C28 mg/kg	C28-C35 mg/kg	Total TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylene mg/kg
CAS Number			16887-00-6	PHC612	PHCG1028	PHCG2835	PHC635	71-43-2	108-88-3	100-41-4	1330-20-7
NMOCD			600	1,000				10			
							2,500	50			
S-1	0.5'	11/7/2018	32.5	**1,100**	u	u	1,100	3.60	7.70	10.00	28.00
S-1	1.0'	11/7/2018	465	40	u	u	45	u	u	u	0.089
S-2	0.5'	11/7/2018	195	550	u	u	550	**9.80**	**22.00**	**10.00**	**17.00**
S-2	1.0'	11/7/2018	448	25	14	19	58	u	u	u	0.11
S-3	0.5'	11/7/2018	273	350	u	5	355	**13.00**	**19.00**	**26.00**	**22.00**
S-3	1.0'	11/7/2018	464	500	u	4	504	**57.00**	**79.00**	**30.00**	**51.00**
S-4	0.5'	11/7/2018	u	47	u	u	47	**14.00**	11.00	5.50	3.70
S-4	1.0'	11/7/2018	u	**4,800**	u	u	**4,800**	**37.00**	**77.00**	**57.00**	**140.00**
S-5	0.5'	11/7/2018	51.2	**8,400**	u	13	**8,413**	**92.00**	**180.00**	**140.00**	**260.00**
S-5	1.0'	11/7/2018	227	680	u	u	680	**6.30**	**23.00**	**14.00**	**26.00**
S-1	2'	11/30/2018	440	u	19	18	37	u	u	u	u
S-2	2'	11/30/2018	**952**	u	37	40	77	u	u	u	u
S-3	2'	11/30/2018	**3,220**	u	20	3.7	23.7	u	u	u	u
S-4	2'	11/30/2018	**4,670**	u	130	14	144	u	u	u	u
S-5	2'	11/30/2018	189	u	20	42	62	u	u	u	u
S-6	2'	11/30/2018	516	u	15	33	48	u	u	u	u
S-7	2'	11/30/2018	**1,620**	u	u	4.7	4.7	u	u	u	u
S-8	2'	11/30/2018	**798**	u	2.7	11	13.7	u	u	u	u
S-9	2'	11/30/2018	243	u	77	21	98	u	u	u	u
SW-1	2'	11/30/2018	**1,770**	u	7.4	4.8	12.2	u	u	u	u
SW-2	2'	11/30/2018	241	u	22	3.8	25.8	u	u	u	u
SW-3	2'	11/30/2018	**1,280**	u	160	u	160	u	u	u	u
SW-4	2'	11/30/2018	**2,450**	u	2.1	4.5	6.6	u	u	u	u
SW-5	2'	11/30/2018	**1,870**	u	u	7.8	7.8	u	u	u	u
SW-6	2'	11/30/2018	99.3	u	u	6.2	6.2	u	u	u	u

Table 1

Summary of Soil Sample Analytical Results

Sample ID	Sample Depth	Sample Date	Parameter								
			Chloride mg/kg	TPH-GRO mg/kg	TPH-DRO mg/kg	TPH-ORO mg/kg	Total TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylene mg/kg
CAS Number			16887-00-6	PHC612	PHCG1028	PHCG2835	PHC635	71-43-2	108-88-3	100-41-4	1330-20-7
NMOCD			600	1,000				10			
							2,500	50			
SW-7	2'	11/30/2018	**609**	u	2.2	u	2.2	u	u	u	u
SW-8	2'	11/30/2018	483	u	u	u	u	u	u	u	u
SW-9	2'	11/30/2018	**5,620**	u	12	5	17	u	u	u	u
SW-10	2'	11/30/2018	141	u	14	u	14	u	u	u	u
S-1	3'	12/19/2018	**670**	u	u	4.4	4.4	u	u	u	u
S-2	3'	12/19/2018	**865**	u	67	78	145	u	u	u	u
S-3	3'	12/19/2018	53.2	u	42	59	101	u	u	u	u
S-4	3'	12/19/2018	14.5	u	80	110	190	u	u	u	u
S-5	3'	12/19/2018	121	u	66	52	118	u	u	u	u
S-6	3'	12/19/2018	**1,650**	u	16	46	62	u	u	u	u
S-7	3'	12/19/2018	71	u	48	39	87	u	u	u	u
S-8	3'	12/19/2018	163	u	29	28	57	u	u	u	u
SW-1	3'	12/19/2018	275	u	29	39	68	u	u	u	u
SW-2	3'	12/19/2018	354	u	37	54	91	u	u	u	u
SW-3	3'	12/19/2018	134	u	19	51	70	u	u	u	u
SW-4	3'	12/19/2018	361	u	58	44	102	u	u	u	u
SW-5	3'	12/19/2018	506	u	54	44	98	u	u	u	u
SW-6	3'	12/19/2018	73.1	u	54	61	115	u	u	u	u
SW-7	3'	12/19/2018	161	u	19	49	68	u	u	u	u
SW-8	3'	12/19/2018	12.3	u	u	7.2	7.2	u	u	u	u
S-1R	3.5'	1/9/2019	51.3	u	10	47	u	u	u	u	u
S-2R	3.5'	1/9/2019	65.8	u	11	6.6	u	u	u	u	u
S-6R	3.5'	1/9/2019	**3,700**	u	u	u	25	u	u	u	u
S-6RA	4'	1/17/2018	u	u	4.3	7.8	12.1	u	u	u	u

U - Not Detected - less than Standard Detection Limit

"Action Levels" represents the NMOCD Action Levels which the BLM utilizes

Bold numbers exhibit concentrations above the NMOCD PCL.

Site Photographs

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery** **Eddy County, New Mexico**	**WSP Project #:** **31401117.015**

Photo No.	**Date**
1	November 7, 2018

Impacted soils

Photo No.	**Date**
2	November 7, 2018

Impacted soils from pipe corrosion.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
3	November 7, 2018

Impacted soils in the containment berm.

Photo No.	**Date**
4	November 7, 2018

Impacted soils in the containment berm.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
5	November 7, 2018

Impacted soils in the containment berm.

Photo No.	**Date**
6	November 12, 2018

Initiation of excavation remediation.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
7	November 12, 2018

Initiation of excavation remediation.

Photo No.	**Date**
8	November 12, 2018

Initiation of excavation remediation.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery** **Eddy County, New Mexico**	**WSP Project #:** **31401117.015**

Photo No.	**Date**
9	November 12, 2018

Excavation of impacted soils.

Photo No.	**Date**
10	November 12, 2018

Excavation of impacted soils.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
11	November 12, 2018

Excavation of impacted soils.

Photo No.	**Date**
12	November 12, 2018

Excavation of impacted soils.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery** **Eddy County, New Mexico**	**WSP Project #:** **31401117.015**

Photo No.	**Date**
13	November 12, 2018

Excavation of impacted soils.

Photo No.	**Date**
14	November 12, 2018

Excavation of impacted soils.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
15	November 12, 2018

Excavation of impacted soils.

Photo No.	**Date**
16	November 12, 2018

Excavated area.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
17	November 12, 2018

Excavated area.

Photo No.	**Date**
18	November 12, 2018

Excavated area.

PHOTOGRAPHIC LOG		
Percussion Petroleum	**Huber Central Tank Battery Eddy County, New Mexico**	**WSP Project #: 31401117.015**

Photo No.	**Date**
19	November 12, 2018

Excavated area.

Photo No.	**Date**
20	November 12, 2018

Excavated area.

Groundwater Data

Well No 1

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- Due to a lapse in appropriations, the majority of USGS websites may not be up to date and may not reflect current conditions. Websites displaying real-time data, such as Earthquake and Water and information needed for public health and safety will be updated with limited support. Additionally, USGS will not be able to respond to inquiries until appropriations are enacted. For more information, please see www.doi.gov/shutdown.
- Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 323701104275301

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 323701104275301 19S.25E.34.423224

Eddy County, New Mexico
Latitude 32°37'01", Longitude 104°27'53" NAD27
Land-surface elevation 3,528 feet above NAVD88
The depth of the well is 530 feet below land surface.
This well is completed in the Grayburg Formation (313GRBG) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1955-01-04		D	197.13			2			U	
1957-01-15		D	208.76			2			U	
1958-01-29		D	209.50			2			U	
1959-01-27		D	205.88			2			U	
1960-01-27		D	214.65			2			U	
1961-01-30		D	210.93			2			U	
1962-01-25		D	213.30			2	P		U	
1963-01-07		D	228.06			2	R		U	
1963-07-24		D	263.00			2			U	
1963-08-13		D	267.12			2			U	
1963-09-04		D	266.87			2			U	
1963-10-02		D	267.97			2			U	
1963-11-20		D	253.90			2	P		U	
1964-01-06		D	239.65			2	P		U	
1965-01-13		D	250.00			2			U	
1966-01-27		D	247.85			2			U	
1969-01-13		D	241.52			2			U	
1969-01-30		D	240.12			2			U	

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1969-04-10		D	245.70			2		U		
1969-08-05		D	263.80			2		U		
1970-01-12		D	239.68			2		U		
1971-01-20		D	238.01			2		U		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Status	R	Site had been pumped recently.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-01-16 12:21:12 EST
7.2 0.54 nadww01

Well No 2

Click to hideNews Bulletins

- Due to a lapse in appropriations, the majority of USGS websites may not be up to date and may not reflect current conditions. Websites displaying real-time data, such as Earthquake and Water and information needed for public health and safety will be updated with limited support. Additionally, USGS will not be able to respond to inquiries until appropriations are enacted. For more information, please see www.doi.gov/shutdown.
- Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 323611104273601

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 323611104273601 20S.25E.02.133244

Eddy County, New Mexico
Latitude 32°36'11", Longitude 104°27'36" NAD27
Land-surface elevation 3,438 feet above NAVD88
The depth of the well is 150.0 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1963-01-18		D	116.36			2		U		
1963-07-23		D	145.19			2		U		
1963-09-04		D	147.90			2		U		
1979-03-16		D	142.46			2		U		
1984-02-02		D	145.67			2		U		
1988-10-06		D	138.03			2		U		
1990-02-27		D	129.09			2		S		
1990-03-27		D	129.32			2		S		
1990-04-27		D	135.99			2		S		
1990-05-31		D	139.12			2		S		
1990-06-28		D	143.82			2		S		
1990-07-31		D	146.47			2		S		
1990-08-30		D	148.69			2		U		
1990-09-27		D	148.84			2		U		
1990-10-26		D	144.62			2		U		
1990-12-05		D	143.33			2		U		
1991-01-08		D	134.45			2		U		
1991-02-01		D	132.32			2		U		

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1991-03-06		D	129.93			2		U		
1991-04-05		D	133.81			2		U		
1991-04-30		D	139.89			2		U		
1991-06-04		D	141.99			2		U		
1991-07-16		D	146.77			2		U		
1991-08-12		D	147.88			2		U		
1991-09-06		D	149.91			2		U		
1991-10-08		D	146.87			2		U		
1991-11-04		D	141.05			2		U		
1991-12-04		D	136.57			2		U		
1992-01-08		D	132.41			2		U		
1992-02-04		D	129.73			2		U		
1992-03-03		D	127.07			2		U		
1992-04-01		D	129.41			2		S		
1992-05-05		D	132.54			2		U		
1992-06-03		D	131.09			2		U		
1992-07-01		D	133.22			2		U		
1992-08-04		D	137.87			2		U		
1992-08-28		D	140.50			2		U		
1992-10-02		D	143.81			2		U		
1992-11-03		D	138.95			2		U		
1992-12-04		D	133.72			2		U		
1992-12-31		D	130.84			2		U		
1993-02-04		D	127.46			2		U		
1993-03-02		D	125.24			2		U		
1993-03-31		D	126.49			2		U		
1993-04-30		D	133.73			2		U		
1993-06-02		D	136.23			2		U		
1993-07-02		D	140.09			2		U		
1993-08-03		D	145.14			2		U		
1993-09-02		D	148.85			2		U		
1993-10-01		D	150.33			2		U		
1994-02-01		D	131.76			2		U		
1999-01-27		D	135.87			2		S	USGS	
2003-01-23		D	148.28			2		S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site

Well No 3

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- Due to a lapse in appropriations, the majority of USGS websites may not be up to date and may not reflect current conditions. Websites displaying real-time data, such as Earthquake and Water and information needed for public health and safety will be updated with limited support. Additionally, USGS will not be able to respond to inquiries until appropriations are enacted. For more information, please see www.doi.gov/shutdown.
- Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 323553104264201

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 323553104264201 20S.25E.01.33111

Eddy County, New Mexico
Latitude 32°35'53", Longitude 104°26'42" NAD27
Land-surface elevation 3,390 feet above NAVD88
The depth of the well is 528 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1908-06-23		D	-58.75			2		U		
1908-09-09		D	-65.68			2		U		
1908-12-21		D	-72.61			2		U		
1909-03-20		D	-72.61			2		U		
1909-11-15		D	-58.75			2		U		
1911-01-27		D	-28.72			2		U		
1911-05-17		D	-28.72			2		U		
1912-01-18		D	-28.72			2		U		
1912-06-15		D	-37.96			2		U		
1918-01-29		D	-14.86			2		U		
1926-08-27		D	16.20			2		U		
1934-01-26		D	10.00			2		U		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day

Section	Code	Description
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-01-23 08:47:52 EST
0.49 0.43 nadww01

Well No 4

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- Due to a lapse in appropriations, the majority of USGS websites may not be up to date and may not reflect current conditions. Websites displaying real-time data, such as Earthquake and Water and information needed for public health and safety will be updated with limited support. Additionally, USGS will not be able to respond to inquiries until appropriations are enacted. For more information, please see www.doi.gov/shutdown.
- Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 323613104260901

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 323613104260901 20S.25E.01.233121

Eddy County, New Mexico
Latitude 32°36'13", Longitude 104°26'09" NAD27
Land-surface elevation 3,405 feet above NAVD88
The depth of the well is 200 feet below land surface.
This well is completed in the Artesia Group (313ARTS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1955-01-04		D	84.26			2			U	
1957-01-15		D	112.05			2			U	
1958-01-29		D	87.47			2			U	
1959-01-27		D	100.20			2		P	U	
1960-01-27		D	115.80			2			U	
1963-01-07		D	128.10			2			U	
1963-07-23		D	127.94			2			U	
1963-09-04		D	122.28			2			U	
1963-10-02		D	101.36			2			U	
1963-11-20		D	139.48			2		P	U	
1964-01-06		D	140.10			2		P	U	
1965-01-13		D	118.20			2			U	
1966-01-27		D	109.32			2			U	
1984-02-02		D	114.99			2			U	
1989-02-14		D	110.58			2			U	
1990-02-27		D	106.61			2			S	
1992-02-06		D	103.71			2			S	
1993-02-04		D	115.10			2			S	

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1994-02-11		D	103.56			2		S		
1999-01-27		D	104.17			2		S	USGS	
2003-01-23		D	106.69			2		S	USGS	
2004-02-02		D	117.27			2		S	USGS	
2005-02-03	11:15 MST	m	125.39			2		S	NM001	
2006-02-15	12:00 MST	m	146.90			2	P	S	NM001	
2007-03-06	08:40 MST	m	124.00			2		S	NM001	
2010-01-13	12:55 MST	m	144.43			2		S	NM001	
2011-01-21	09:05 MST	m	135.48			2		S	NM001	
2012-01-10	11:55 MST	m	147.41			2		S	NM001	
2015-01-12	11:50 MST	m	120.45			2		S	NM001	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-01-23 08:49:10 EST
0.53 0.42 nadww01

ALS Environmental Analytical Report - Post Spill

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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November 14, 2018

Matthew Boyle
WSP Environment & Energy
2777 N. Stemmons Fwy. Suite 1600
Dallas, TX 75207

Work Order: **HS18110557**

Laboratory Results for: **Huber CTB**

Dear Matthew,

ALS Environmental received 10 sample(s) on Nov 10, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Bernadette Fini

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18110557

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18110557-01	S-1	Soil		07-Nov-2018 13:45	10-Nov-2018 09:35	☐
HS18110557-02	S-1 1'	Soil		07-Nov-2018 14:15	10-Nov-2018 09:35	☐
HS18110557-03	S-2	Soil		07-Nov-2018 14:30	10-Nov-2018 09:35	☐
HS18110557-04	S-2 1'	Soil		07-Nov-2018 14:55	10-Nov-2018 09:35	☐
HS18110557-05	S-3	Soil		07-Nov-2018 15:10	10-Nov-2018 09:35	☐
HS18110557-06	S-3 1'	Soil		07-Nov-2018 15:45	10-Nov-2018 09:35	☐
HS18110557-07	S-4	Soil		07-Nov-2018 16:00	10-Nov-2018 09:35	☐
HS18110557-08	S-4 1'	Soil		07-Nov-2018 16:30	10-Nov-2018 09:35	☐
HS18110557-09	S-5	Soil		07-Nov-2018 16:40	10-Nov-2018 09:35	☐
HS18110557-10	S-5 1'	Soil		07-Nov-2018 17:05	10-Nov-2018 09:35	☐

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS18110557

GC Semivolatiles by Method SW8015M

Batch ID: 134513

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Volatiles by Method SW8015

Batch ID: R327339

Sample ID: HS18110558-04MS

- MS and MSD are for an unrelated sample

GCMS Volatiles by Method SW8260

Batch ID: R327207,R327309,R327398

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: 134537

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-1
Collection Date: 07-Nov-2018 13:45

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**3.6**		**2.5**	**mg/Kg**	500	12-Nov-2018 12:37
Ethylbenzene	**10**		**2.5**	**mg/Kg**	500	12-Nov-2018 12:37
m,p-Xylene	**17**		**5.0**	**mg/Kg**	500	12-Nov-2018 12:37
o-Xylene	**11**		**2.5**	**mg/Kg**	500	12-Nov-2018 12:37
Toluene	**7.7**		**2.5**	**mg/Kg**	500	12-Nov-2018 12:37
Xylenes, Total	**28**		**2.5**	**mg/Kg**	500	12-Nov-2018 12:37
Surr: 1,2-Dichloroethane-d4	*107*		*70-126*	*%REC*	*500*	*12-Nov-2018 12:37*
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*500*	*12-Nov-2018 12:37*
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	*500*	*12-Nov-2018 12:37*
Surr: Toluene-d8	*97.2*		*70-130*	*%REC*	*500*	*12-Nov-2018 12:37*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**1,100**		**2.5**	**mg/Kg**	50	12-Nov-2018 18:20
Surr: 4-Bromofluorobenzene	*106*		*70-123*	*%REC*	*50*	*12-Nov-2018 18:20*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 12:19
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 12:19
Surr: 2-Fluorobiphenyl	*83.6*		*60-129*	*%REC*	*1*	*13-Nov-2018 12:19*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**32.5**		**4.93**	**mg/Kg**	1	12-Nov-2018 18:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-1 1'
Collection Date: 07-Nov-2018 14:15

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0049	mg/Kg	1	13-Nov-2018 11:01
Ethylbenzene	ND		0.0049	mg/Kg	1	13-Nov-2018 11:01
m,p-Xylene	ND		0.0098	mg/Kg	1	13-Nov-2018 11:01
o-Xylene	**0.089**		**0.0049**	**mg/Kg**	1	13-Nov-2018 11:01
Toluene	ND		0.0049	mg/Kg	1	13-Nov-2018 11:01
Xylenes, Total	**0.089**		**0.0049**	**mg/Kg**	1	13-Nov-2018 11:01
Surr: 1,2-Dichloroethane-d4	*95.7*		*70-126*	*%REC*	*1*	*13-Nov-2018 11:01*
Surr: 4-Bromofluorobenzene	*99.2*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:01*
Surr: Dibromofluoromethane	*97.4*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:01*
Surr: Toluene-d8	*107*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:01*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**40**		**2.5**	**mg/Kg**	50	12-Nov-2018 18:36
Surr: 4-Bromofluorobenzene	*108*		*70-123*	*%REC*	*50*	*12-Nov-2018 18:36*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 13:30
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 13:30
Surr: 2-Fluorobiphenyl	*83.7*		*60-129*	*%REC*	*1*	*13-Nov-2018 13:30*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**465**		**4.92**	**mg/Kg**	1	12-Nov-2018 19:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-2
Collection Date: 07-Nov-2018 14:30

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**9.8**		**2.4**	**mg/Kg**	500	12-Nov-2018 13:20
Ethylbenzene	**10**		**2.4**	**mg/Kg**	500	12-Nov-2018 13:20
m,p-Xylene	**12**		**4.7**	**mg/Kg**	500	12-Nov-2018 13:20
o-Xylene	**4.7**		**2.4**	**mg/Kg**	500	12-Nov-2018 13:20
Toluene	**22**		**2.4**	**mg/Kg**	500	12-Nov-2018 13:20
Xylenes, Total	**17**		**2.4**	**mg/Kg**	500	12-Nov-2018 13:20
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*500*	*12-Nov-2018 13:20*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*500*	*12-Nov-2018 13:20*
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	*500*	*12-Nov-2018 13:20*
Surr: Toluene-d8	*99.6*		*70-130*	*%REC*	*500*	*12-Nov-2018 13:20*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**550**		**2.4**	**mg/Kg**	50	12-Nov-2018 18:52
Surr: 4-Bromofluorobenzene	*87.9*		*70-123*	*%REC*	*50*	*12-Nov-2018 18:52*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 13:54
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 13:54
Surr: 2-Fluorobiphenyl	*82.2*		*60-129*	*%REC*	*1*	*13-Nov-2018 13:54*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**195**		**4.98**	**mg/Kg**	1	12-Nov-2018 19:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-2 1'
Collection Date: 07-Nov-2018 14:55

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	13-Nov-2018 11:25
Ethylbenzene	ND		0.0050	mg/Kg	1	13-Nov-2018 11:25
m,p-Xylene	ND		0.010	mg/Kg	1	13-Nov-2018 11:25
o-Xylene	**0.11**		**0.0050**	**mg/Kg**	1	13-Nov-2018 11:25
Toluene	ND		0.0050	mg/Kg	1	13-Nov-2018 11:25
Xylenes, Total	**0.11**		**0.0050**	**mg/Kg**	1	13-Nov-2018 11:25
Surr: 1,2-Dichloroethane-d4	*86.8*		*70-126*	*%REC*	*1*	*13-Nov-2018 11:25*
Surr: 4-Bromofluorobenzene	*97.3*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:25*
Surr: Dibromofluoromethane	*92.4*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:25*
Surr: Toluene-d8	*106*		*70-130*	*%REC*	*1*	*13-Nov-2018 11:25*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**25**		**2.4**	**mg/Kg**	50	12-Nov-2018 19:08
Surr: 4-Bromofluorobenzene	*100*		*70-123*	*%REC*	*50*	*12-Nov-2018 19:08*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	**14**		**1.7**	**mg/Kg**	1	13-Nov-2018 14:18
TPH (Motor Oil Range)	**19**	n	**3.4**	**mg/Kg**	1	13-Nov-2018 14:18
Surr: 2-Fluorobiphenyl	*80.0*		*60-129*	*%REC*	*1*	*13-Nov-2018 14:18*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**448**		**9.99**	**mg/Kg**	2	12-Nov-2018 19:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-3
Collection Date: 07-Nov-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**13**		**0.50**	**mg/Kg**	100	14-Nov-2018 09:27
Ethylbenzene	**26**		**5.0**	**mg/Kg**	1000	14-Nov-2018 09:05
m,p-Xylene	**3.6**		**1.0**	**mg/Kg**	100	14-Nov-2018 09:27
o-Xylene	**18**		**0.50**	**mg/Kg**	100	14-Nov-2018 09:27
Toluene	**19**		**5.0**	**mg/Kg**	1000	14-Nov-2018 09:05
Xylenes, Total	**22**		**0.50**	**mg/Kg**	100	14-Nov-2018 09:27
Surr: 1,2-Dichloroethane-d4	*111*		*70-126*	*%REC*	*1000*	*14-Nov-2018 09:05*
Surr: 1,2-Dichloroethane-d4	*104*		*70-126*	*%REC*	*100*	*14-Nov-2018 09:27*
Surr: 4-Bromofluorobenzene	*108*		*70-130*	*%REC*	*100*	*14-Nov-2018 09:27*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1000*	*14-Nov-2018 09:05*
Surr: Dibromofluoromethane	*105*		*70-130*	*%REC*	*1000*	*14-Nov-2018 09:05*
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	*100*	*14-Nov-2018 09:27*
Surr: Toluene-d8	*99.6*		*70-130*	*%REC*	*1000*	*14-Nov-2018 09:05*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*100*	*14-Nov-2018 09:27*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**350**		**2.4**	**mg/Kg**	50	12-Nov-2018 19:24
Surr: 4-Bromofluorobenzene	*78.0*		*70-123*	*%REC*	*50*	*12-Nov-2018 19:24*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 14:42
TPH (Motor Oil Range)	**5.0**	n	**3.4**	**mg/Kg**	1	13-Nov-2018 14:42
Surr: 2-Fluorobiphenyl	*104*		*60-129*	*%REC*	*1*	*13-Nov-2018 14:42*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**273**		**4.98**	**mg/Kg**	1	12-Nov-2018 20:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-3 1'
Collection Date: 07-Nov-2018 15:45

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**57**		**2.5**	**mg/Kg**	500	12-Nov-2018 14:26
Ethylbenzene	**30**		**2.5**	**mg/Kg**	500	12-Nov-2018 14:26
m,p-Xylene	**37**		**5.0**	**mg/Kg**	500	12-Nov-2018 14:26
o-Xylene	**14**		**2.5**	**mg/Kg**	500	12-Nov-2018 14:26
Toluene	**79**		**2.5**	**mg/Kg**	500	12-Nov-2018 14:26
Xylenes, Total	**51**		**2.5**	**mg/Kg**	500	12-Nov-2018 14:26
Surr: 1,2-Dichloroethane-d4	*108*		*70-126*	*%REC*	*500*	*12-Nov-2018 14:26*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:26*
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:26*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:26*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**500**		**2.4**	**mg/Kg**	50	12-Nov-2018 19:40
Surr: 4-Bromofluorobenzene	*84.8*		*70-123*	*%REC*	*50*	*12-Nov-2018 19:40*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 15:06
TPH (Motor Oil Range)	**4.0**	n	**3.4**	**mg/Kg**	1	13-Nov-2018 15:06
Surr: 2-Fluorobiphenyl	*91.1*		*60-129*	*%REC*	*1*	*13-Nov-2018 15:06*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**464**		**5.00**	**mg/Kg**	1	12-Nov-2018 21:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-4
Collection Date: 07-Nov-2018 16:00

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**14**		**2.4**	**mg/Kg**	500	12-Nov-2018 14:04
Ethylbenzene	**5.5**		**2.4**	**mg/Kg**	500	12-Nov-2018 14:04
m,p-Xylene	ND		4.9	mg/Kg	500	12-Nov-2018 14:04
o-Xylene	**2.7**		**2.4**	**mg/Kg**	500	12-Nov-2018 14:04
Toluene	**11**		**2.4**	**mg/Kg**	500	12-Nov-2018 14:04
Xylenes, Total	**3.7**		**2.4**	**mg/Kg**	500	12-Nov-2018 14:04
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*500*	*12-Nov-2018 14:04*
Surr: 4-Bromofluorobenzene	*99.5*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:04*
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:04*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*500*	*12-Nov-2018 14:04*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**47**		**2.5**	**mg/Kg**	50	12-Nov-2018 20:44
Surr: 4-Bromofluorobenzene	*105*		*70-123*	*%REC*	*50*	*12-Nov-2018 20:44*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 16:17
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 16:17
Surr: 2-Fluorobiphenyl	*62.4*		*60-129*	*%REC*	*1*	*13-Nov-2018 16:17*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	ND		5.00	mg/Kg	1	12-Nov-2018 21:15

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-4 1'
Collection Date: 07-Nov-2018 16:30

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**37**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:09
Ethylbenzene	**57**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:09
m,p-Xylene	**93**		**5.0**	**mg/Kg**	500	12-Nov-2018 15:09
o-Xylene	**44**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:09
Toluene	**77**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:09
Xylenes, Total	**140**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:09
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*500*	*12-Nov-2018 15:09*
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:09*
Surr: Dibromofluoromethane	*102*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:09*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:09*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**4,800**		**25**	**mg/Kg**	500	13-Nov-2018 10:21
Surr: 4-Bromofluorobenzene	*92.7*		*70-123*	*%REC*	*500*	*13-Nov-2018 10:21*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 16:41
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 16:41
Surr: 2-Fluorobiphenyl	*70.4*		*60-129*	*%REC*	*1*	*13-Nov-2018 16:41*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	ND		4.99	mg/Kg	1	12-Nov-2018 21:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-5
Collection Date: 07-Nov-2018 16:40

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**92**		**4.8**	**mg/Kg**	1000	12-Nov-2018 15:31
Ethylbenzene	**140**		**4.8**	**mg/Kg**	1000	12-Nov-2018 15:31
m,p-Xylene	**180**		**9.5**	**mg/Kg**	1000	12-Nov-2018 15:31
o-Xylene	**73**		**4.8**	**mg/Kg**	1000	12-Nov-2018 15:31
Toluene	**180**		**9.5**	**mg/Kg**	2000	12-Nov-2018 17:21
Xylenes, Total	**260**		**4.8**	**mg/Kg**	1000	12-Nov-2018 15:31
Surr: 1,2-Dichloroethane-d4	*108*		*70-126*	*%REC*	*1000*	*12-Nov-2018 15:31*
Surr: 1,2-Dichloroethane-d4	*108*		*70-126*	*%REC*	*2000*	*12-Nov-2018 17:21*
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*2000*	*12-Nov-2018 17:21*
Surr: 4-Bromofluorobenzene	*103*		*70-130*	*%REC*	*1000*	*12-Nov-2018 15:31*
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	*1000*	*12-Nov-2018 15:31*
Surr: Dibromofluoromethane	*101*		*70-130*	*%REC*	*2000*	*12-Nov-2018 17:21*
Surr: Toluene-d8	*99.7*		*70-130*	*%REC*	*2000*	*12-Nov-2018 17:21*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*1000*	*12-Nov-2018 15:31*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**8,400**		**25**	**mg/Kg**	500	13-Nov-2018 00:28
Surr: 4-Bromofluorobenzene	*81.4*		*70-123*	*%REC*	*500*	*13-Nov-2018 00:28*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 12:19
TPH (Motor Oil Range)	**13**	n	**3.4**	**mg/Kg**	1	13-Nov-2018 12:19
Surr: 2-Fluorobiphenyl	*63.9*		*60-129*	*%REC*	*1*	*13-Nov-2018 12:19*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**51.2**		**4.97**	**mg/Kg**	1	12-Nov-2018 21:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-5 1'
Collection Date: 07-Nov-2018 17:05

ANALYTICAL REPORT
WorkOrder:HS18110557
Lab ID:HS18110557-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	**6.3**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:52
Ethylbenzene	**14**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:52
m,p-Xylene	**18**		**5.0**	**mg/Kg**	500	12-Nov-2018 15:52
o-Xylene	**7.7**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:52
Toluene	**23**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:52
Xylenes, Total	**26**		**2.5**	**mg/Kg**	500	12-Nov-2018 15:52
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*500*	*12-Nov-2018 15:52*
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:52*
Surr: Dibromofluoromethane	*102*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:52*
Surr: Toluene-d8	*99.4*		*70-130*	*%REC*	*500*	*12-Nov-2018 15:52*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	**680**		**2.4**	**mg/Kg**	50	12-Nov-2018 21:32
Surr: 4-Bromofluorobenzene	*97.4*		*70-123*	*%REC*	*50*	*12-Nov-2018 21:32*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 12-Nov-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	13-Nov-2018 12:43
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	13-Nov-2018 12:43
Surr: 2-Fluorobiphenyl	*67.7*		*60-129*	*%REC*	*1*	*13-Nov-2018 12:43*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 12-Nov-2018		Analyst: KMU
Chloride	**227**		**4.98**	**mg/Kg**	1	12-Nov-2018 21:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

Batch ID: 2751 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS18110557-01	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS18110557-02	1	5.06 (g)	5 (mL)	0.99	Bulk (5030B)
HS18110557-03	1	5.09 (g)	5 (mL)	0.98	Bulk (5030B)
HS18110557-04	1	5.19 (g)	5 (mL)	0.96	Bulk (5030B)
HS18110557-05	1	5.14 (g)	5 (mL)	0.97	Bulk (5030B)
HS18110557-06	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18110557-07	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS18110557-08	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18110557-09	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS18110557-10	1	5.17 (g)	5 (mL)	0.97	Bulk (5030B)

Batch ID: 2753 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18110557-01	1	4.997 (g)	5 (mL)	1	Bulk (5030B)
HS18110557-02	2	5.128 (g)	5 (mL)	0.98	Bulk (5030B)
HS18110557-03	1	5.332 (g)	5 (mL)	0.94	Bulk (5030B)
HS18110557-04	2	5.023 (g)	5 (mL)	1	Bulk (5030B)
HS18110557-05	1	4.974 (g)	5 (mL)	1.01	Bulk (5030B)
HS18110557-06	1	4.973 (g)	5 (mL)	1.01	Bulk (5030B)
HS18110557-07	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS18110557-08	1	5.068 (g)	5 (mL)	0.99	Bulk (5030B)
HS18110557-09	1	5.29 (g)	5 (mL)	0.95	Bulk (5030B)
HS18110557-10	1	4.949 (g)	5 (mL)	1.01	Bulk (5030B)

Batch ID: 134513 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18110557-01	1	30.07	1 (mL)	0.03326
HS18110557-02	1	30.04	1 (mL)	0.03329
HS18110557-03	1	30.03	1 (mL)	0.0333
HS18110557-04	1	30.06	1 (mL)	0.03327
HS18110557-05	1	30.02	1 (mL)	0.03331
HS18110557-06	1	30.08	1 (mL)	0.03324
HS18110557-07	1	30.09	1 (mL)	0.03323
HS18110557-08	1	30.03	1 (mL)	0.0333
HS18110557-09	1	30.11	1 (mL)	0.03321
HS18110557-10	1	30.16	1 (mL)	0.03316

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

Batch ID: 134537 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18110557-01	1	5.071	50 (mL)	9.86
HS18110557-02	1	5.0825	50 (mL)	9.838
HS18110557-03	1	5.0181	50 (mL)	9.964
HS18110557-04	1	5.0031	50 (mL)	9.994
HS18110557-05	1	5.0204	50 (mL)	9.959
HS18110557-06	1	5.0029	50 (mL)	9.994
HS18110557-07	1	5.0018	50 (mL)	9.996
HS18110557-08	1	5.0081	50 (mL)	9.984
HS18110557-09	1	5.0331	50 (mL)	9.934
HS18110557-10	1	5.0171	50 (mL)	9.966

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 134513	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS18110557-01	S-1	07 Nov 2018 13:45		12 Nov 2018 11:30	13 Nov 2018 12:19	1
HS18110557-02	S-1 1'	07 Nov 2018 14:15		12 Nov 2018 11:30	13 Nov 2018 13:30	1
HS18110557-03	S-2	07 Nov 2018 14:30		12 Nov 2018 11:30	13 Nov 2018 13:54	1
HS18110557-04	S-2 1'	07 Nov 2018 14:55		12 Nov 2018 11:30	13 Nov 2018 14:18	1
HS18110557-05	S-3	07 Nov 2018 15:10		12 Nov 2018 11:30	13 Nov 2018 14:42	1
HS18110557-06	S-3 1'	07 Nov 2018 15:45		12 Nov 2018 11:30	13 Nov 2018 15:06	1
HS18110557-07	S-4	07 Nov 2018 16:00		12 Nov 2018 11:30	13 Nov 2018 16:17	1
HS18110557-08	S-4 1'	07 Nov 2018 16:30		12 Nov 2018 11:30	13 Nov 2018 16:41	1
HS18110557-09	S-5	07 Nov 2018 16:40		12 Nov 2018 11:30	13 Nov 2018 12:19	1
HS18110557-10	S-5 1'	07 Nov 2018 17:05		12 Nov 2018 11:30	13 Nov 2018 12:43	1
Batch ID 134537	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS18110557-01	S-1	07 Nov 2018 13:45		12 Nov 2018 15:20	12 Nov 2018 18:50	1
HS18110557-02	S-1 1'	07 Nov 2018 14:15		12 Nov 2018 15:20	12 Nov 2018 19:04	1
HS18110557-03	S-2	07 Nov 2018 14:30		12 Nov 2018 15:20	12 Nov 2018 19:19	1
HS18110557-04	S-2 1'	07 Nov 2018 14:55		12 Nov 2018 15:20	12 Nov 2018 19:34	2
HS18110557-05	S-3	07 Nov 2018 15:10		12 Nov 2018 15:20	12 Nov 2018 20:17	1
HS18110557-06	S-3 1'	07 Nov 2018 15:45		12 Nov 2018 15:20	12 Nov 2018 21:01	1
HS18110557-07	S-4	07 Nov 2018 16:00		12 Nov 2018 15:20	12 Nov 2018 21:15	1
HS18110557-08	S-4 1'	07 Nov 2018 16:30		12 Nov 2018 15:20	12 Nov 2018 21:30	1
HS18110557-09	S-5	07 Nov 2018 16:40		12 Nov 2018 15:20	12 Nov 2018 21:44	1
HS18110557-10	S-5 1'	07 Nov 2018 17:05		12 Nov 2018 15:20	12 Nov 2018 21:59	1
Batch ID R327207	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS18110557-01	S-1	07 Nov 2018 13:45			12 Nov 2018 12:37	500
HS18110557-03	S-2	07 Nov 2018 14:30			12 Nov 2018 13:20	500
HS18110557-06	S-3 1'	07 Nov 2018 15:45			12 Nov 2018 14:26	500
HS18110557-07	S-4	07 Nov 2018 16:00			12 Nov 2018 14:04	500
HS18110557-08	S-4 1'	07 Nov 2018 16:30			12 Nov 2018 15:09	500
HS18110557-09	S-5	07 Nov 2018 16:40			12 Nov 2018 17:21	2000
HS18110557-09	S-5	07 Nov 2018 16:40			12 Nov 2018 15:31	1000
HS18110557-10	S-5 1'	07 Nov 2018 17:05			12 Nov 2018 15:52	500
Batch ID R327309	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS18110557-02	S-1 1'	07 Nov 2018 14:15			13 Nov 2018 11:01	1
HS18110557-04	S-2 1'	07 Nov 2018 14:55			13 Nov 2018 11:25	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R327339	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS18110557-01	S-1	07 Nov 2018 13:45			12 Nov 2018 18:20	50
HS18110557-02	S-1 1'	07 Nov 2018 14:15			12 Nov 2018 18:36	50
HS18110557-03	S-2	07 Nov 2018 14:30			12 Nov 2018 18:52	50
HS18110557-04	S-2 1'	07 Nov 2018 14:55			12 Nov 2018 19:08	50
HS18110557-05	S-3	07 Nov 2018 15:10			12 Nov 2018 19:24	50
HS18110557-06	S-3 1'	07 Nov 2018 15:45			12 Nov 2018 19:40	50
HS18110557-07	S-4	07 Nov 2018 16:00			12 Nov 2018 20:44	50
HS18110557-08	S-4 1'	07 Nov 2018 16:30			13 Nov 2018 10:21	500
HS18110557-09	S-5	07 Nov 2018 16:40			13 Nov 2018 00:28	500
HS18110557-10	S-5 1'	07 Nov 2018 17:05			12 Nov 2018 21:32	50
Batch ID R327398	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS18110557-05	S-3	07 Nov 2018 15:10			14 Nov 2018 09:27	100
HS18110557-05	S-3	07 Nov 2018 15:10			14 Nov 2018 09:05	1000

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: 134513 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-134513** Units: **mg/Kg** Analysis Date: **13-Nov-2018 11:31**
Client ID: Run ID: **FID-7_327343** SeqNo: **4819962** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*2.892*	*0.10*	*3.33*	*0*	*86.8*	*70 - 130*				

LCS Sample ID: **LCS-134513** Units: **mg/Kg** Analysis Date: **13-Nov-2018 11:55**
Client ID: Run ID: **FID-7_327343** SeqNo: **4819963** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	28.39	1.7	33.33	0	85.2	70 - 130				
TPH (Motor Oil Range)	34.5	3.4	33.33	0	104	70 - 130				
Surr: 2-Fluorobiphenyl	*2.827*	*0.10*	*3.33*	*0*	*84.9*	*70 - 130*				

MS Sample ID: **HS18110557-01MS** Units: **mg/Kg** Analysis Date: **13-Nov-2018 12:43**
Client ID: **S-1** Run ID: **FID-7_327343** SeqNo: **4819965** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	36.31	1.7	33.23	0.002132	109	70 - 130				
TPH (Motor Oil Range)	37.49	3.4	33.23	0.01264	113	70 - 130				
Surr: 2-Fluorobiphenyl	*3.5*	*0.10*	*3.32*	*0*	*105*	*60 - 129*				

MSD Sample ID: **HS18110557-01MSD** Units: **mg/Kg** Analysis Date: **13-Nov-2018 13:07**
Client ID: **S-1** Run ID: **FID-7_327343** SeqNo: **4819966** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	36.26	1.7	33.26	0.002132	109	70 - 130	36.31	0.151	30	
TPH (Motor Oil Range)	42.9	3.4	33.26	0.01264	129	70 - 130	37.49	13.5	30	
Surr: 2-Fluorobiphenyl	*3.269*	*0.10*	*3.323*	*0*	*98.4*	*60 - 129*	*3.5*	*6.83*	*30*	

The following samples were analyzed in this batch:

HS18110557-01	HS18110557-02	HS18110557-03	HS18110557-04
HS18110557-05	HS18110557-06	HS18110557-07	HS18110557-08
HS18110557-09	HS18110557-10		

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327339 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **GBLKW-181112** Units: **mg/Kg** Analysis Date: **12-Nov-2018 18:04**
Client ID: Run ID: **FID-14_327339** SeqNo: **4819895** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.1092*	*0.0050*	*0.1*	*0*	*109*	*75 - 121*				

LCS Sample ID: **GLCS-181112** Units: **mg/L** Analysis Date: **12-Nov-2018 17:16**
Client ID: Run ID: **FID-14_327339** SeqNo: **4819893** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.08	0.0500	1	0	108	72 - 121				
Surr: 4-Bromofluorobenzene	*0.1131*	*0.00500*	*0.1*	*0*	*113*	*75 - 121*				

LCSD Sample ID: **GLCSD-181112** Units: **mg/L** Analysis Date: **12-Nov-2018 17:32**
Client ID: Run ID: **FID-14_327339** SeqNo: **4819894** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.136	0.0500	1	0	114	70 - 121	1.08	5.1	30	
Surr: 4-Bromofluorobenzene	*0.1127*	*0.00500*	*0.1*	*0*	*113*	*75 - 121*	*0.1131*	*0.394*	*30*	

MS Sample ID: **HS18110558-04MS** Units: **mg/Kg** Analysis Date: **12-Nov-2018 22:52**
Client ID: Run ID: **FID-14_327339** SeqNo: **4819934** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	82.15	2.5	49.5	4.23	157	70 - 130				S
Surr: 4-Bromofluorobenzene	*8.588*	*0.25*	*4.95*	*0*	*173*	*70 - 123*				S

MSD Sample ID: **HS18110558-04MSD** Units: **mg/Kg** Analysis Date: **12-Nov-2018 23:08**
Client ID: Run ID: **FID-14_327339** SeqNo: **4819912** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	74.74	2.5	49.5	4.23	142	70 - 130	82.15	9.44	30	S
Surr: 4-Bromofluorobenzene	*8.148*	*0.25*	*4.95*	*0*	*165*	*70 - 123*	*8.588*	*5.26*	*30*	S

The following samples were analyzed in this batch:

HS18110557-01	HS18110557-02	HS18110557-03	HS18110557-04
HS18110557-05	HS18110557-06	HS18110557-07	HS18110557-08
HS18110557-09	HS18110557-10		

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327207 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **MBLKW1-111218** Units: **ug/Kg** Analysis Date: **12-Nov-2018 08:58**
Client ID: Run ID: **VOA8_327207** SeqNo: **4813275** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	250								
Ethylbenzene	ND	250								
m,p-Xylene	ND	500								
o-Xylene	ND	250								
Toluene	ND	250								
Xylenes, Total	ND	250								
Surr: 1,2-Dichloroethane-d4	*2790*	*0*	*2500*	*0*	*112*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*2353*	*0*	*2500*	*0*	*94.1*	*80 - 120*				
Surr: Dibromofluoromethane	*2610*	*0*	*2500*	*0*	*104*	*80 - 119*				
Surr: Toluene-d8	*2554*	*0*	*2500*	*0*	*102*	*81 - 118*				

LCS Sample ID: **VLCSW1-111218** Units: **ug/Kg** Analysis Date: **12-Nov-2018 08:11**
Client ID: Run ID: **VOA8_327207** SeqNo: **4813274** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.84	5.0	50	0	106	75 - 124				
Ethylbenzene	55.56	5.0	50	0	111	70 - 123				
m,p-Xylene	110	10	100	0	110	77 - 125				
o-Xylene	54.54	5.0	50	0	109	78 - 122				
Toluene	51.05	5.0	50	0	102	76 - 122				
Xylenes, Total	164.5	5.0	150	0	110	77 - 128				
Surr: 1,2-Dichloroethane-d4	*46.49*	*0*	*50*	*0*	*93.0*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*52.13*	*0*	*50*	*0*	*104*	*80 - 120*				
Surr: Dibromofluoromethane	*47.91*	*0*	*50*	*0*	*95.8*	*80 - 119*				
Surr: Toluene-d8	*50.23*	*0*	*50*	*0*	*100*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327207 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS18110319-23MS** Units: **ug/Kg** Analysis Date: **12-Nov-2018 10:48**
Client ID: Run ID: **VOA8_327207** SeqNo: **4813499** PrepDate: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	24190	2000	19750	5194	96.2	70 - 130				
Ethylbenzene	30240	2000	19750	11940	92.7	70 - 130				
m,p-Xylene	73510	4000	39500	40930	82.5	70 - 130				
o-Xylene	32740	2000	19750	15560	87.0	70 - 130				
Toluene	41520	2000	19750	27630	70.3	70 - 130				
Xylenes, Total	106300	2000	59250	56490	84.0	70 - 130				
Surr: 1,2-Dichloroethane-d4	*17940*	*0*	*19750*	*0*	*90.8*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*20550*	*0*	*19750*	*0*	*104*	*70 - 130*				
Surr: Dibromofluoromethane	*18680*	*0*	*19750*	*0*	*94.6*	*70 - 130*				
Surr: Toluene-d8	*19210*	*0*	*19750*	*0*	*97.3*	*70 - 130*				

MSD Sample ID: **HS18110319-23MSD** Units: **ug/Kg** Analysis Date: **12-Nov-2018 11:10**
Client ID: Run ID: **VOA8_327207** SeqNo: **4813500** PrepDate: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	25990	2000	19750	5194	105	70 - 130	24190	7.19	30	
Ethylbenzene	31910	2000	19750	11940	101	70 - 130	30240	5.35	30	
m,p-Xylene	76870	4000	39500	40930	91.0	70 - 130	73510	4.47	30	
o-Xylene	34590	2000	19750	15560	96.4	70 - 130	32740	5.49	30	
Toluene	43250	2000	19750	27630	79.1	70 - 130	41520	4.08	30	
Xylenes, Total	111500	2000	59250	56490	92.8	70 - 130	106300	4.79	30	
Surr: 1,2-Dichloroethane-d4	*18110*	*0*	*19750*	*0*	*91.7*	*70 - 126*	*17940*	*0.937*	*30*	
Surr: 4-Bromofluorobenzene	*20480*	*0*	*19750*	*0*	*104*	*70 - 130*	*20550*	*0.37*	*30*	
Surr: Dibromofluoromethane	*18800*	*0*	*19750*	*0*	*95.2*	*70 - 130*	*18680*	*0.646*	*30*	
Surr: Toluene-d8	*19240*	*0*	*19750*	*0*	*97.4*	*70 - 130*	*19210*	*0.147*	*30*	

The following samples were analyzed in this batch: HS18110557-01 HS18110557-03 HS18110557-06 HS18110557-07 HS18110557-08 HS18110557-09 HS18110557-10

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327309 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKW1-111318** Units: **ug/Kg** Analysis Date: **13-Nov-2018 08:56**
Client ID: Run ID: **VOA8_327309** SeqNo: **4815215** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*43.5*	*0*	*50*	*0*	*87.0*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*47.31*	*0*	*50*	*0*	*94.6*	*80 - 120*				
Surr: Dibromofluoromethane	*47.71*	*0*	*50*	*0*	*95.4*	*80 - 119*				
Surr: Toluene-d8	*53.37*	*0*	*50*	*0*	*107*	*81 - 118*				

LCS Sample ID: **VLCSS1-111318** Units: **ug/Kg** Analysis Date: **13-Nov-2018 08:05**
Client ID: Run ID: **VOA8_327309** SeqNo: **4815214** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	42.12	5.0	50	0	84.2	75 - 124				
Ethylbenzene	40.49	5.0	50	0	81.0	70 - 123				
m,p-Xylene	79.19	10	100	0	79.2	77 - 125				
o-Xylene	40.08	5.0	50	0	80.2	78 - 122				
Toluene	42.24	5.0	50	0	84.5	76 - 122				
Xylenes, Total	119.3	5.0	150	0	79.5	77 - 128				
Surr: 1,2-Dichloroethane-d4	*50.24*	*0*	*50*	*0*	*100*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.87*	*0*	*50*	*0*	*97.7*	*80 - 120*				
Surr: Dibromofluoromethane	*50.04*	*0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*51.73*	*0*	*50*	*0*	*103*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327309 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS18110553-21MS** Units: **ug/Kg** Analysis Date: **13-Nov-2018 10:11**
Client ID: Run ID: **VOA8_327309** SeqNo: **4819599** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.07	4.7	47	0	107	70 - 130				
Ethylbenzene	39.82	4.7	47	0	84.7	70 - 130				
m,p-Xylene	76.65	9.4	94	0.3252	81.2	70 - 130				
o-Xylene	39.01	4.7	47	0	83.0	70 - 130				
Toluene	51.58	4.7	47	0	110	70 - 130				
Xylenes, Total	115.7	4.7	141	0	82.0	70 - 130				
Surr: 1,2-Dichloroethane-d4	*47.32*	*0*	*47*	*0*	*101*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*46.04*	*0*	*47*	*0*	*98.0*	*70 - 130*				
Surr: Dibromofluoromethane	*47.64*	*0*	*47*	*0*	*101*	*70 - 130*				
Surr: Toluene-d8	*47.56*	*0*	*47*	*0*	*101*	*70 - 130*				

MS Sample ID: **HS18110553-21MS** Units: **ug/Kg** Analysis Date: **13-Nov-2018 10:35**
Client ID: Run ID: **VOA8_327309** SeqNo: **4819600** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	40.14	4.7	47	0	85.4	70 - 130				
Ethylbenzene	37.41	4.7	47	0	79.6	70 - 130				
m,p-Xylene	73.89	9.4	94	0.3252	78.3	70 - 130				
o-Xylene	37.49	4.7	47	0	79.8	70 - 130				
Toluene	40.72	4.7	47	0	86.6	70 - 130				
Xylenes, Total	111.4	4.7	141	0	79.0	70 - 130				
Surr: 1,2-Dichloroethane-d4	*47.27*	*0*	*47*	*0*	*101*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*46.89*	*0*	*47*	*0*	*99.8*	*70 - 130*				
Surr: Dibromofluoromethane	*47.94*	*0*	*47*	*0*	*102*	*70 - 130*				
Surr: Toluene-d8	*47.92*	*0*	*47*	*0*	*102*	*70 - 130*				

The following samples were analyzed in this batch: HS18110557-02 HS18110557-04

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327398 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **MBLKW1-111418** Units: **ug/Kg** Analysis Date: **14-Nov-2018 08:22**
Client ID: Run ID: **VOA8_327398** SeqNo: **4821137** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	250								
Ethylbenzene	ND	250								
m,p-Xylene	ND	500								
o-Xylene	ND	250								
Toluene	ND	250								
Xylenes, Total	ND	250								
Surr: 1,2-Dichloroethane-d4	*2770*	*0*	*2500*	*0*	*111*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*2422*	*0*	*2500*	*0*	*96.9*	*80 - 120*				
Surr: Dibromofluoromethane	*2648*	*0*	*2500*	*0*	*106*	*80 - 119*				
Surr: Toluene-d8	*2517*	*0*	*2500*	*0*	*101*	*81 - 118*				

LCS Sample ID: **VLCSS1-111418** Units: **ug/Kg** Analysis Date: **14-Nov-2018 07:38**
Client ID: Run ID: **VOA8_327398** SeqNo: **4821136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.78	5.0	50	0	104	75 - 124				
Ethylbenzene	52.25	5.0	50	0	104	70 - 123				
m,p-Xylene	105	10	100	0	105	77 - 125				
o-Xylene	51.84	5.0	50	0	104	78 - 122				
Toluene	48.19	5.0	50	0	96.4	76 - 122				
Xylenes, Total	156.8	5.0	150	0	105	77 - 128				
Surr: 1,2-Dichloroethane-d4	*57.12*	*0*	*50*	*0*	*114*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*51.97*	*0*	*50*	*0*	*104*	*80 - 120*				
Surr: Dibromofluoromethane	*48.86*	*0*	*50*	*0*	*97.7*	*80 - 119*				
Surr: Toluene-d8	*49.22*	*0*	*50*	*0*	*98.4*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: R327398 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS18110553-02MS** Units: **ug/Kg** Analysis Date: **14-Nov-2018 09:48**
Client ID: Run ID: **VOA8_327398** SeqNo: **4821412** PrepDate: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	23910	2200	22250	69.08	107	70 - 130				
Ethylbenzene	27670	2200	22250	2095	115	70 - 130				
m,p-Xylene	71570	4400	44500	21030	114	70 - 130				
o-Xylene	31250	2200	22250	5671	115	70 - 130				
Toluene	25500	2200	22250	3052	101	70 - 130				
Xylenes, Total	102800	2200	66750	26700	114	70 - 130				
Surr: 1,2-Dichloroethane-d4	*20320*	*0*	*22250*	*0*	*91.3*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*23100*	*0*	*22250*	*0*	*104*	*70 - 130*				
Surr: Dibromofluoromethane	*21310*	*0*	*22250*	*0*	*95.8*	*70 - 130*				
Surr: Toluene-d8	*21680*	*0*	*22250*	*0*	*97.4*	*70 - 130*				

MSD Sample ID: **HS18110553-02MSD** Units: **ug/Kg** Analysis Date: **14-Nov-2018 10:12**
Client ID: Run ID: **VOA8_327398** SeqNo: **4821413** PrepDate: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	28240	2200	22250	69.08	127	70 - 130	23910	16.6	30	
Ethylbenzene	30780	2200	22250	2095	129	70 - 130	27670	10.6	30	
m,p-Xylene	76790	4400	44500	21030	125	70 - 130	71570	7.03	30	
o-Xylene	33890	2200	22250	5671	127	70 - 130	31250	8.11	30	
Toluene	28930	2200	22250	3052	116	70 - 130	25500	12.6	30	
Xylenes, Total	110700	2200	66750	26700	126	70 - 130	102800	7.36	30	
Surr: 1,2-Dichloroethane-d4	*20330*	*0*	*22250*	*0*	*91.3*	*70 - 126*	*20320*	*0.0401*	*30*	
Surr: 4-Bromofluorobenzene	*23070*	*0*	*22250*	*0*	*104*	*70 - 130*	*23100*	*0.122*	*30*	
Surr: Dibromofluoromethane	*21190*	*0*	*22250*	*0*	*95.2*	*70 - 130*	*21310*	*0.605*	*30*	
Surr: Toluene-d8	*21630*	*0*	*22250*	*0*	*97.2*	*70 - 130*	*21680*	*0.241*	*30*	

The following samples were analyzed in this batch: HS18110557-05

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: 134537 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **MBLK-134537** Units: **mg/Kg** Analysis Date: **12-Nov-2018 18:06**
Client ID: Run ID: **ICS2100_327366** SeqNo: **4820399** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

LCS Sample ID: **LCS-134537** Units: **mg/Kg** Analysis Date: **12-Nov-2018 18:21**
Client ID: Run ID: **ICS2100_327366** SeqNo: **4820400** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	203.6	5.00	200	0	102	90 - 110				

LCSD Sample ID: **LCSD-134537** Units: **mg/Kg** Analysis Date: **12-Nov-2018 18:35**
Client ID: Run ID: **ICS2100_327366** SeqNo: **4820401** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	198	5.00	200	0	99.0	90 - 110	203.6	2.81	20	

MS Sample ID: **HS18110558-03MS** Units: **mg/Kg** Analysis Date: **12-Nov-2018 22:57**
Client ID: Run ID: **ICS2100_327366** SeqNo: **4820419** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	104.4	4.98	99.56	2.049	103	75 - 125				

MS Sample ID: **HS18110557-04MS** Units: **mg/Kg** Analysis Date: **12-Nov-2018 19:48**
Client ID: **S-2 1'** Run ID: **ICS2100_327366** SeqNo: **4820406** PrepDate: **12-Nov-2018** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	657.2	9.97	199.5	447.9	105	75 - 125				

MSD Sample ID: **HS18110558-03MSD** Units: **mg/Kg** Analysis Date: **12-Nov-2018 23:12**
Client ID: Run ID: **ICS2100_327366** SeqNo: **4820420** PrepDate: **12-Nov-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	102.2	5.00	99.94	2.049	100	75 - 125	104.4	2.17	20	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18110557

QC BATCH REPORT

Batch ID: 134537 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS18110557-04MSD** Units: **mg/Kg** Analysis Date: **12-Nov-2018 20:03**
Client ID: **S-2 1'** Run ID: **ICS2100_327366** SeqNo: **4820407** PrepDate: **12-Nov-2018** DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	666.2	9.97	199.5	447.9	109	75 - 125	657.2	1.36	20	

The following samples were analyzed in this batch:

HS18110557-01	HS18110557-02	HS18110557-03	HS18110557-04
HS18110557-05	HS18110557-06	HS18110557-07	HS18110557-08
HS18110557-09	HS18110557-10		

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: **HS18110557**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	ANAB L2231	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18110557

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18110557-01	S-1	Login	11/10/2018 11:51:56 AM	DQ	VOA103
HS18110557-02	S-1 1'	Login	11/10/2018 11:51:57 AM	DQ	VOA103
HS18110557-03	S-2	Login	11/10/2018 11:51:57 AM	DQ	VOA103
HS18110557-04	S-2 1'	Login	11/10/2018 11:51:57 AM	DQ	VOA103
HS18110557-05	S-3	Login	11/10/2018 11:51:58 AM	DQ	VOA103
HS18110557-06	S-3 1'	Login	11/10/2018 11:51:58 AM	DQ	VOA103
HS18110557-07	S-4	Login	11/10/2018 11:51:58 AM	DQ	VOA103
HS18110557-08	S-4 1'	Login	11/10/2018 11:51:58 AM	DQ	VOA103
HS18110557-09	S-5	Login	11/10/2018 11:51:59 AM	DQ	VOA103
HS18110557-10	S-5 1'	Login	11/10/2018 11:51:59 AM	DQ	VOA103

Sample Receipt Checklist

Client Name: WSP Dallas
Work Order: HS18110557

Date/Time Received: **10-Nov-2018 09:35**
Received by: **JRM**

Checklist completed by: *Pablo Marinez* eSignature 10-Nov-2018 Date

Reviewed by: *RJ Modashia* eSignature 12-Nov-2018 Date

Matrices: **SOIL**

Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☑	N/A ☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.8C/2.4C UC/C	IR # 11	
Cooler(s)/Kit(s):	WHITE		
Date/Time sample(s) sent to storage:	11/10/18 12:00		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 142317

HS18110557

NV

WSP Environment & Energy
Huber CTB

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	Huber CTB
Work Order		Project Number	
Company Name	WSP	Bill To Company	
Send Report To	Matthew Boyle	Invoice Attn	Same
Address	2777 N. Stemmons Suite 1600	Address	
City/State/Zip	Dallas TX 75207	City/State/Zip	
Phone	817 713 0262	Phone	
Fax		Fax	
e-Mail Address	Matthew.Boyle@wsp.com	e-Mail Address	

A TPH GRO
B TPH DRO / MRO
C BTEX
D Chlorides

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-1	11-7-18	1:45	Soil	Ice	1											
2	S-1 1'		2:15			1											
3	S-2		2:30			1											
4	S-2 1'		2:55			1											
5	S-3		3:10			1											
6	S-3 1'		3:45			1											
7	S-4		4:00			1											
8	S-4 1'		4:30			1											
9	S-5		4:40			1											
10	S-5 1'		5:05			1											

Sampler(s) Please Print & Sign: Matthew Boyle / Matthew Boyle

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☒ 3 Wk Days ☐ 24 Hour ☐ Other ____

Results Due Date: ~~Std.~~ 24 HR

Relinquished by:	Date:	Time:	Received by:
Matthew Boyle	11-9-18	5:15	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	11/10/18	09:35	I. Maynard
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

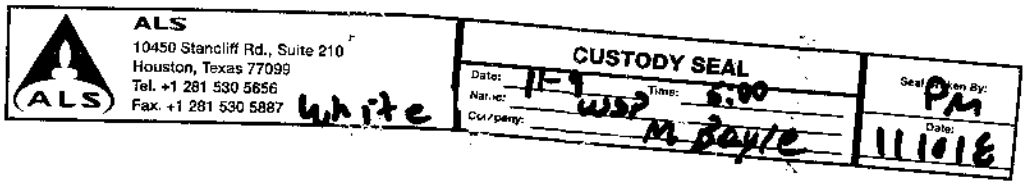
Notes:

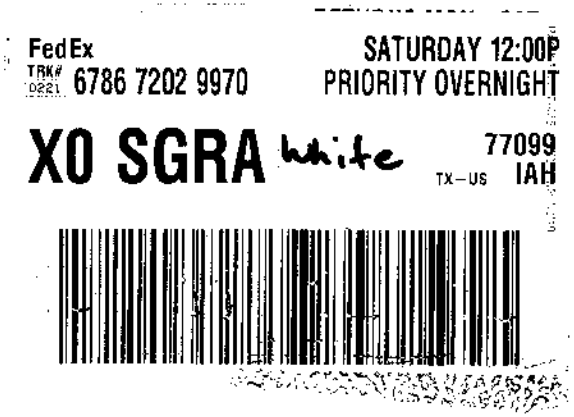
Cooler ID	Cooler Temp
	ice
White	2-8
	ice
	0.5-0.4

QC Package: (Check One Box Below)
☐ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other ____
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.





ALS Environmental Analytical Report - Post Remediation

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

December 06, 2018

Matthew Boyle
WSP Environment & Energy
2777 N. Stemmons Fwy. Suite 1600
Dallas, TX 75207

Work Order: **HS18120088**

Laboratory Results for: **Huber CTB**

Dear Matthew,

ALS Environmental received 19 sample(s) on Dec 04, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Bernadette Fini

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18120088

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18120088-01	S-1	Soil		30-Nov-2018 08:30	04-Dec-2018 09:30	☐
HS18120088-02	S-2	Soil		30-Nov-2018 08:40	04-Dec-2018 09:30	☐
HS18120088-03	S-3	Soil		30-Nov-2018 08:50	04-Dec-2018 09:30	☐
HS18120088-04	S-4	Soil		30-Nov-2018 09:00	04-Dec-2018 09:30	☐
HS18120088-05	S-5	Soil		30-Nov-2018 09:05	04-Dec-2018 09:30	☐
HS18120088-06	S-6	Soil		30-Nov-2018 09:10	04-Dec-2018 09:30	☐
HS18120088-07	S-7	Soil		30-Nov-2018 09:20	04-Dec-2018 09:30	☐
HS18120088-08	S-8	Soil		30-Nov-2018 09:25	04-Dec-2018 09:30	☐
HS18120088-09	S-9	Soil		30-Nov-2018 09:30	04-Dec-2018 09:30	☐
HS18120088-10	SW-1	Soil		30-Nov-2018 09:40	04-Dec-2018 09:30	☐
HS18120088-11	SW-2	Soil		30-Nov-2018 09:45	04-Dec-2018 09:30	☐
HS18120088-12	SW-3	Soil		30-Nov-2018 09:50	04-Dec-2018 09:30	☐
HS18120088-13	SW-4	Soil		30-Nov-2018 09:55	04-Dec-2018 09:30	☐
HS18120088-14	SW-5	Soil		30-Nov-2018 10:00	04-Dec-2018 09:30	☐
HS18120088-15	SW-6	Soil		30-Nov-2018 10:05	04-Dec-2018 09:30	☐
HS18120088-16	SW-7	Soil		30-Nov-2018 10:10	04-Dec-2018 09:30	☐
HS18120088-17	SW-8	Soil		30-Nov-2018 10:15	04-Dec-2018 09:30	☐
HS18120088-18	SW-9	Soil		30-Nov-2018 10:20	04-Dec-2018 09:30	☐
HS18120088-19	SW-10	Soil		30-Nov-2018 10:25	04-Dec-2018 09:30	☐

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS18120088

GC Semivolatiles by Method SW8015M

Batch ID: 135216

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Volatiles by Method SW8015

Batch ID: R328686

Sample ID: SW-10 (HS18120088-19MS)

- Surrogate recoveries were outside of the control limits due to matrix interference.
- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: SW-10 (HS18120088-19MSD)

- Surrogate recoveries were outside of the control limits due to matrix interference.
- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GC Volatiles by Method SW8021B

Batch ID: R328656

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300

Batch ID: 135194,135195

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-1
Collection Date: 30-Nov-2018 08:30

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 16:54
Surr: 4-Bromofluorobenzene	*88.8*		*70-123*	*%REC*	*1*	*05-Dec-2018 16:54*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0046	mg/Kg	1	04-Dec-2018 22:15
m,p-Xylene	ND		0.0092	mg/Kg	1	04-Dec-2018 22:15
o-Xylene	ND		0.0046	mg/Kg	1	04-Dec-2018 22:15
Toluene	ND		0.0046	mg/Kg	1	04-Dec-2018 22:15
Ethylbenzene	ND		0.0046	mg/Kg	1	04-Dec-2018 22:15
Xylenes, Total	ND		0.014	mg/Kg	1	04-Dec-2018 22:15
Surr: 4-Bromofluorobenzene	*84.6*		*73-130*	*%REC*	*1*	*04-Dec-2018 22:15*
Surr: Trifluorotoluene	*77.9*		*70-130*	*%REC*	*1*	*04-Dec-2018 22:15*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**19**		**1.7**	**mg/Kg**	1	04-Dec-2018 21:59
TPH (Motor Oil Range)	**18**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 21:59
Surr: 2-Fluorobiphenyl	*61.5*		*60-129*	*%REC*	*1*	*04-Dec-2018 21:59*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**440**		**4.91**	**mg/Kg**	1	05-Dec-2018 00:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-2
Collection Date: 30-Nov-2018 08:40

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 17:10
Surr: 4-Bromofluorobenzene	*89.4*		*70-123*	*%REC*	*1*	*05-Dec-2018 17:10*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	04-Dec-2018 22:41
m,p-Xylene	ND		0.010	mg/Kg	1	04-Dec-2018 22:41
o-Xylene	ND		0.0050	mg/Kg	1	04-Dec-2018 22:41
Toluene	ND		0.0050	mg/Kg	1	04-Dec-2018 22:41
Ethylbenzene	ND		0.0050	mg/Kg	1	04-Dec-2018 22:41
Xylenes, Total	ND		0.015	mg/Kg	1	04-Dec-2018 22:41
Surr: 4-Bromofluorobenzene	*99.5*		*73-130*	*%REC*	*1*	*04-Dec-2018 22:41*
Surr: Trifluorotoluene	*97.4*		*70-130*	*%REC*	*1*	*04-Dec-2018 22:41*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**37**		**1.7**	**mg/Kg**	1	04-Dec-2018 23:11
TPH (Motor Oil Range)	**40**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 23:11
Surr: 2-Fluorobiphenyl	*83.0*		*60-129*	*%REC*	*1*	*04-Dec-2018 23:11*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**952**		**24.6**	**mg/Kg**	5	05-Dec-2018 14:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-3
Collection Date: 30-Nov-2018 08:50

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 17:26
Surr: 4-Bromofluorobenzene	*89.1*		*70-123*	*%REC*	*1*	*05-Dec-2018 17:26*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0048	mg/Kg	1	04-Dec-2018 23:07
m,p-Xylene	ND		0.0096	mg/Kg	1	04-Dec-2018 23:07
o-Xylene	ND		0.0048	mg/Kg	1	04-Dec-2018 23:07
Toluene	ND		0.0048	mg/Kg	1	04-Dec-2018 23:07
Ethylbenzene	ND		0.0048	mg/Kg	1	04-Dec-2018 23:07
Xylenes, Total	ND		0.014	mg/Kg	1	04-Dec-2018 23:07
Surr: 4-Bromofluorobenzene	*97.7*		*73-130*	*%REC*	*1*	*04-Dec-2018 23:07*
Surr: Trifluorotoluene	*94.6*		*70-130*	*%REC*	*1*	*04-Dec-2018 23:07*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**20**		**1.7**	**mg/Kg**	1	04-Dec-2018 23:36
TPH (Motor Oil Range)	**3.7**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 23:36
Surr: 2-Fluorobiphenyl	*60.2*		*60-129*	*%REC*	*1*	*04-Dec-2018 23:36*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**3,220**		**49.4**	**mg/Kg**	10	05-Dec-2018 01:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-4
Collection Date: 30-Nov-2018 09:00

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	05-Dec-2018 17:42
Surr: 4-Bromofluorobenzene	*87.9*		*70-123*	*%REC*	*1*	*05-Dec-2018 17:42*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	04-Dec-2018 00:49
m,p-Xylene	ND		0.0099	mg/Kg	1	04-Dec-2018 00:49
o-Xylene	ND		0.0050	mg/Kg	1	04-Dec-2018 00:49
Toluene	ND		0.0050	mg/Kg	1	04-Dec-2018 00:49
Ethylbenzene	ND		0.0050	mg/Kg	1	04-Dec-2018 00:49
Xylenes, Total	ND		0.015	mg/Kg	1	04-Dec-2018 00:49
Surr: 4-Bromofluorobenzene	*86.6*		*73-130*	*%REC*	*1*	*04-Dec-2018 00:49*
Surr: Trifluorotoluene	*85.9*		*70-130*	*%REC*	*1*	*04-Dec-2018 00:49*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**130**		**3.4**	**mg/Kg**	2	05-Dec-2018 11:47
TPH (Motor Oil Range)	**14**	n	**6.8**	**mg/Kg**	2	05-Dec-2018 11:47
Surr: 2-Fluorobiphenyl	*97.0*		*60-129*	*%REC*	*2*	*05-Dec-2018 11:47*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**4,670**		**49.8**	**mg/Kg**	10	05-Dec-2018 01:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-5
Collection Date: 30-Nov-2018 09:05

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	05-Dec-2018 18:47
Surr: 4-Bromofluorobenzene	*88.0*		*70-123*	*%REC*	*1*	*05-Dec-2018 18:47*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0048	mg/Kg	1	05-Dec-2018 01:15
m,p-Xylene	ND		0.0096	mg/Kg	1	05-Dec-2018 01:15
o-Xylene	ND		0.0048	mg/Kg	1	05-Dec-2018 01:15
Toluene	ND		0.0048	mg/Kg	1	05-Dec-2018 01:15
Ethylbenzene	ND		0.0048	mg/Kg	1	05-Dec-2018 01:15
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 01:15
Surr: 4-Bromofluorobenzene	*92.0*		*73-130*	*%REC*	*1*	*05-Dec-2018 01:15*
Surr: Trifluorotoluene	*89.7*		*70-130*	*%REC*	*1*	*05-Dec-2018 01:15*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**20**		**1.7**	**mg/Kg**	1	05-Dec-2018 00:24
TPH (Motor Oil Range)	**42**	n	**3.4**	**mg/Kg**	1	05-Dec-2018 00:24
Surr: 2-Fluorobiphenyl	*60.5*		*60-129*	*%REC*	*1*	*05-Dec-2018 00:24*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**189**		**5.00**	**mg/Kg**	1	05-Dec-2018 01:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-6
Collection Date: 30-Nov-2018 09:10

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 19:03
Surr: 4-Bromofluorobenzene	*87.5*		*70-123*	*%REC*	*1*	*05-Dec-2018 19:03*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0045	mg/Kg	1	05-Dec-2018 01:41
m,p-Xylene	ND		0.0089	mg/Kg	1	05-Dec-2018 01:41
o-Xylene	ND		0.0045	mg/Kg	1	05-Dec-2018 01:41
Toluene	ND		0.0045	mg/Kg	1	05-Dec-2018 01:41
Ethylbenzene	ND		0.0045	mg/Kg	1	05-Dec-2018 01:41
Xylenes, Total	ND		0.013	mg/Kg	1	05-Dec-2018 01:41
Surr: 4-Bromofluorobenzene	*86.0*		*73-130*	*%REC*	*1*	*05-Dec-2018 01:41*
Surr: Trifluorotoluene	*83.0*		*70-130*	*%REC*	*1*	*05-Dec-2018 01:41*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**15**		**1.7**	**mg/Kg**	1	05-Dec-2018 00:48
TPH (Motor Oil Range)	**33**	n	**3.4**	**mg/Kg**	1	05-Dec-2018 00:48
Surr: 2-Fluorobiphenyl	*62.3*		*60-129*	*%REC*	*1*	*05-Dec-2018 00:48*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**516**		**9.95**	**mg/Kg**	2	05-Dec-2018 02:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-7
Collection Date: 30-Nov-2018 09:20

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	05-Dec-2018 19:19
Surr: 4-Bromofluorobenzene	*86.5*		*70-123*	*%REC*	*1*	*05-Dec-2018 19:19*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:06
m,p-Xylene	ND		0.0094	mg/Kg	1	05-Dec-2018 02:06
o-Xylene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:06
Toluene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:06
Ethylbenzene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:06
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 02:06
Surr: 4-Bromofluorobenzene	*86.3*		*73-130*	*%REC*	*1*	*05-Dec-2018 02:06*
Surr: Trifluorotoluene	*83.7*		*70-130*	*%REC*	*1*	*05-Dec-2018 02:06*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	05-Dec-2018 01:12
TPH (Motor Oil Range)	**4.7**	n	**3.4**	**mg/Kg**	1	05-Dec-2018 01:12
Surr: 2-Fluorobiphenyl	*67.9*		*60-129*	*%REC*	*1*	*05-Dec-2018 01:12*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**1,620**		**25.0**	**mg/Kg**	5	05-Dec-2018 14:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-8
Collection Date: 30-Nov-2018 09:25

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 19:35
Surr: 4-Bromofluorobenzene	*87.0*		*70-123*	*%REC*	*1*	*05-Dec-2018 19:35*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:32
m,p-Xylene	ND		0.0093	mg/Kg	1	05-Dec-2018 02:32
o-Xylene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:32
Toluene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:32
Ethylbenzene	ND		0.0047	mg/Kg	1	05-Dec-2018 02:32
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 02:32
Surr: 4-Bromofluorobenzene	*92.4*		*73-130*	*%REC*	*1*	*05-Dec-2018 02:32*
Surr: Trifluorotoluene	*88.4*		*70-130*	*%REC*	*1*	*05-Dec-2018 02:32*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**2.7**		**1.7**	**mg/Kg**	1	04-Dec-2018 21:11
TPH (Motor Oil Range)	**11**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 21:11
Surr: 2-Fluorobiphenyl	*73.0*		*60-129*	*%REC*	*1*	*04-Dec-2018 21:11*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**798**		**49.7**	**mg/Kg**	10	05-Dec-2018 03:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-9
Collection Date: 30-Nov-2018 09:30

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 19:52
Surr: 4-Bromofluorobenzene	*88.3*		*70-123*	*%REC*	*1*	*05-Dec-2018 19:52*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0048	mg/Kg	1	05-Dec-2018 02:58
m,p-Xylene	ND		0.0096	mg/Kg	1	05-Dec-2018 02:58
o-Xylene	ND		0.0048	mg/Kg	1	05-Dec-2018 02:58
Toluene	ND		0.0048	mg/Kg	1	05-Dec-2018 02:58
Ethylbenzene	ND		0.0048	mg/Kg	1	05-Dec-2018 02:58
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 02:58
Surr: 4-Bromofluorobenzene	*84.8*		*73-130*	*%REC*	*1*	*05-Dec-2018 02:58*
Surr: Trifluorotoluene	*79.6*		*70-130*	*%REC*	*1*	*05-Dec-2018 02:58*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**77**		**3.4**	**mg/Kg**	2	05-Dec-2018 12:11
TPH (Motor Oil Range)	**21**	n	**6.8**	**mg/Kg**	2	05-Dec-2018 12:11
Surr: 2-Fluorobiphenyl	*84.0*		*60-129*	*%REC*	*2*	*05-Dec-2018 12:11*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**243**		**4.95**	**mg/Kg**	1	05-Dec-2018 03:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-1
Collection Date: 30-Nov-2018 09:40

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 20:08
Surr: 4-Bromofluorobenzene	*88.2*		*70-123*	*%REC*	*1*	*05-Dec-2018 20:08*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:23
m,p-Xylene	ND		0.010	mg/Kg	1	05-Dec-2018 03:23
o-Xylene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:23
Toluene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:23
Ethylbenzene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:23
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 03:23
Surr: 4-Bromofluorobenzene	*89.6*		*73-130*	*%REC*	*1*	*05-Dec-2018 03:23*
Surr: Trifluorotoluene	*87.0*		*70-130*	*%REC*	*1*	*05-Dec-2018 03:23*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**7.4**		**1.7**	**mg/Kg**	1	04-Dec-2018 21:59
TPH (Motor Oil Range)	**4.8**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 21:59
Surr: 2-Fluorobiphenyl	*77.3*		*60-129*	*%REC*	*1*	*04-Dec-2018 21:59*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**1,770**		**49.8**	**mg/Kg**	10	05-Dec-2018 03:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-2
Collection Date: 30-Nov-2018 09:45

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 20:24
Surr: 4-Bromofluorobenzene	*86.5*		*70-123*	*%REC*	*1*	*05-Dec-2018 20:24*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:49
m,p-Xylene	ND		0.010	mg/Kg	1	05-Dec-2018 03:49
o-Xylene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:49
Toluene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:49
Ethylbenzene	ND		0.0050	mg/Kg	1	05-Dec-2018 03:49
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 03:49
Surr: 4-Bromofluorobenzene	*82.6*		*73-130*	*%REC*	*1*	*05-Dec-2018 03:49*
Surr: Trifluorotoluene	*84.0*		*70-130*	*%REC*	*1*	*05-Dec-2018 03:49*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**22**		**1.7**	**mg/Kg**	1	04-Dec-2018 22:23
TPH (Motor Oil Range)	**3.8**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 22:23
Surr: 2-Fluorobiphenyl	*78.2*		*60-129*	*%REC*	*1*	*04-Dec-2018 22:23*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**241**		**4.98**	**mg/Kg**	1	05-Dec-2018 04:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-3
Collection Date: 30-Nov-2018 09:50

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 20:40
Surr: 4-Bromofluorobenzene	*90.5*		*70-123*	*%REC*	*1*	*05-Dec-2018 20:40*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0047	mg/Kg	1	05-Dec-2018 04:15
m,p-Xylene	ND		0.0094	mg/Kg	1	05-Dec-2018 04:15
o-Xylene	ND		0.0047	mg/Kg	1	05-Dec-2018 04:15
Toluene	ND		0.0047	mg/Kg	1	05-Dec-2018 04:15
Ethylbenzene	ND		0.0047	mg/Kg	1	05-Dec-2018 04:15
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 04:15
Surr: 4-Bromofluorobenzene	*83.3*		*73-130*	*%REC*	*1*	*05-Dec-2018 04:15*
Surr: Trifluorotoluene	*81.5*		*70-130*	*%REC*	*1*	*05-Dec-2018 04:15*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**160**		**8.4**	**mg/Kg**	5	05-Dec-2018 12:35
TPH (Motor Oil Range)	ND	n	17	mg/Kg	5	05-Dec-2018 12:35
Surr: 2-Fluorobiphenyl	*98.4*		*60-129*	*%REC*	*5*	*05-Dec-2018 12:35*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**1,280**		**50.0**	**mg/Kg**	10	05-Dec-2018 04:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-4
Collection Date: 30-Nov-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 20:56
Surr: 4-Bromofluorobenzene	*87.8*		*70-123*	*%REC*	*1*	*05-Dec-2018 20:56*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0048	mg/Kg	1	05-Dec-2018 04:40
m,p-Xylene	ND		0.0097	mg/Kg	1	05-Dec-2018 04:40
o-Xylene	ND		0.0048	mg/Kg	1	05-Dec-2018 04:40
Toluene	ND		0.0048	mg/Kg	1	05-Dec-2018 04:40
Ethylbenzene	ND		0.0048	mg/Kg	1	05-Dec-2018 04:40
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 04:40
Surr: 4-Bromofluorobenzene	*86.1*		*73-130*	*%REC*	*1*	*05-Dec-2018 04:40*
Surr: Trifluorotoluene	*88.4*		*70-130*	*%REC*	*1*	*05-Dec-2018 04:40*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**2.1**		**1.7**	**mg/Kg**	1	04-Dec-2018 23:11
TPH (Motor Oil Range)	**4.5**	n	**3.3**	**mg/Kg**	1	04-Dec-2018 23:11
Surr: 2-Fluorobiphenyl	*78.0*		*60-129*	*%REC*	*1*	*04-Dec-2018 23:11*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**2,450**		**49.1**	**mg/Kg**	10	05-Dec-2018 04:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-5
Collection Date: 30-Nov-2018 10:00

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 21:13
Surr: 4-Bromofluorobenzene	*87.3*		*70-123*	*%REC*	*1*	*05-Dec-2018 21:13*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0048	mg/Kg	1	05-Dec-2018 06:23
m,p-Xylene	ND		0.0097	mg/Kg	1	05-Dec-2018 06:23
o-Xylene	ND		0.0048	mg/Kg	1	05-Dec-2018 06:23
Toluene	ND		0.0048	mg/Kg	1	05-Dec-2018 06:23
Ethylbenzene	ND		0.0048	mg/Kg	1	05-Dec-2018 06:23
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 06:23
Surr: 4-Bromofluorobenzene	*84.5*		*73-130*	*%REC*	*1*	*05-Dec-2018 06:23*
Surr: Trifluorotoluene	*87.6*		*70-130*	*%REC*	*1*	*05-Dec-2018 06:23*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	04-Dec-2018 23:36
TPH (Motor Oil Range)	**7.8**	n	**3.4**	**mg/Kg**	1	04-Dec-2018 23:36
Surr: 2-Fluorobiphenyl	*79.1*		*60-129*	*%REC*	*1*	*04-Dec-2018 23:36*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**1,870**		**49.8**	**mg/Kg**	10	05-Dec-2018 05:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-6
Collection Date: 30-Nov-2018 10:05

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	05-Dec-2018 22:17
Surr: 4-Bromofluorobenzene	*89.1*		*70-123*	*%REC*	*1*	*05-Dec-2018 22:17*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0047	mg/Kg	1	05-Dec-2018 06:48
m,p-Xylene	ND		0.0094	mg/Kg	1	05-Dec-2018 06:48
o-Xylene	ND		0.0047	mg/Kg	1	05-Dec-2018 06:48
Toluene	ND		0.0047	mg/Kg	1	05-Dec-2018 06:48
Ethylbenzene	ND		0.0047	mg/Kg	1	05-Dec-2018 06:48
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 06:48
Surr: 4-Bromofluorobenzene	*81.1*		*73-130*	*%REC*	*1*	*05-Dec-2018 06:48*
Surr: Trifluorotoluene	*81.8*		*70-130*	*%REC*	*1*	*05-Dec-2018 06:48*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	05-Dec-2018 00:00
TPH (Motor Oil Range)	**6.2**	n	**3.4**	**mg/Kg**	1	05-Dec-2018 00:00
Surr: 2-Fluorobiphenyl	*78.7*		*60-129*	*%REC*	*1*	*05-Dec-2018 00:00*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**99.3**		**4.90**	**mg/Kg**	1	05-Dec-2018 05:41

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-7
Collection Date: 30-Nov-2018 10:10

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	05-Dec-2018 22:33
Surr: 4-Bromofluorobenzene	*88.1*		*70-123*	*%REC*	*1*	*05-Dec-2018 22:33*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:14
m,p-Xylene	ND		0.0091	mg/Kg	1	05-Dec-2018 07:14
o-Xylene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:14
Toluene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:14
Ethylbenzene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:14
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 07:14
Surr: 4-Bromofluorobenzene	*85.2*		*73-130*	*%REC*	*1*	*05-Dec-2018 07:14*
Surr: Trifluorotoluene	*88.7*		*70-130*	*%REC*	*1*	*05-Dec-2018 07:14*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**2.2**		**1.7**	**mg/Kg**	1	05-Dec-2018 00:24
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	05-Dec-2018 00:24
Surr: 2-Fluorobiphenyl	*76.4*		*60-129*	*%REC*	*1*	*05-Dec-2018 00:24*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**609**		**4.97**	**mg/Kg**	1	05-Dec-2018 05:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-8
Collection Date: 30-Nov-2018 10:15

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-17
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	05-Dec-2018 22:49
Surr: 4-Bromofluorobenzene	*87.2*		*70-123*	*%REC*	*1*	*05-Dec-2018 22:49*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:40
m,p-Xylene	ND		0.0093	mg/Kg	1	05-Dec-2018 07:40
o-Xylene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:40
Toluene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:40
Ethylbenzene	ND		0.0046	mg/Kg	1	05-Dec-2018 07:40
Xylenes, Total	ND		0.014	mg/Kg	1	05-Dec-2018 07:40
Surr: 4-Bromofluorobenzene	*83.8*		*73-130*	*%REC*	*1*	*05-Dec-2018 07:40*
Surr: Trifluorotoluene	*83.9*		*70-130*	*%REC*	*1*	*05-Dec-2018 07:40*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	05-Dec-2018 00:48
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	05-Dec-2018 00:48
Surr: 2-Fluorobiphenyl	*71.6*		*60-129*	*%REC*	*1*	*05-Dec-2018 00:48*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**483**		**4.99**	**mg/Kg**	1	05-Dec-2018 06:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-9
Collection Date: 30-Nov-2018 10:20

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-18
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 23:06
Surr: 4-Bromofluorobenzene	*89.0*		*70-123*	*%REC*	*1*	*05-Dec-2018 23:06*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:05
m,p-Xylene	ND		0.0099	mg/Kg	1	05-Dec-2018 08:05
o-Xylene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:05
Toluene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:05
Ethylbenzene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:05
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 08:05
Surr: 4-Bromofluorobenzene	*85.2*		*73-130*	*%REC*	*1*	*05-Dec-2018 08:05*
Surr: Trifluorotoluene	*82.8*		*70-130*	*%REC*	*1*	*05-Dec-2018 08:05*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**12**		**1.7**	**mg/Kg**	1	05-Dec-2018 02:00
TPH (Motor Oil Range)	**5.0**	n	**3.4**	**mg/Kg**	1	05-Dec-2018 02:00
Surr: 2-Fluorobiphenyl	*73.5*		*60-129*	*%REC*	*1*	*05-Dec-2018 02:00*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**5,620**		**99.7**	**mg/Kg**	20	04-Dec-2018 22:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-10
Collection Date: 30-Nov-2018 10:25

ANALYTICAL REPORT
WorkOrder:HS18120088
Lab ID:HS18120088-19
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	05-Dec-2018 23:22
Surr: 4-Bromofluorobenzene	*81.3*		*70-123*	*%REC*	*1*	*05-Dec-2018 23:22*
BTEX BY SW8021B		**Method:SW8021B**				Analyst: NPI
Benzene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:31
m,p-Xylene	ND		0.010	mg/Kg	1	05-Dec-2018 08:31
o-Xylene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:31
Toluene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:31
Ethylbenzene	ND		0.0050	mg/Kg	1	05-Dec-2018 08:31
Xylenes, Total	ND		0.015	mg/Kg	1	05-Dec-2018 08:31
Surr: 4-Bromofluorobenzene	*92.1*		*73-130*	*%REC*	*1*	*05-Dec-2018 08:31*
Surr: Trifluorotoluene	*84.1*		*70-130*	*%REC*	*1*	*05-Dec-2018 08:31*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 04-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**14**		**1.7**	**mg/Kg**	1	05-Dec-2018 02:24
TPH (Motor Oil Range)	ND	n	3.4	mg/Kg	1	05-Dec-2018 02:24
Surr: 2-Fluorobiphenyl	*78.1*		*60-129*	*%REC*	*1*	*05-Dec-2018 02:24*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 04-Dec-2018		Analyst: KMU
Chloride	**141**		**4.95**	**mg/Kg**	1	04-Dec-2018 22:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

Batch ID: 2800 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS18120088-01	1	5.14 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-02	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18120088-03	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18120088-04	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18120088-05	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS18120088-06	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18120088-07	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS18120088-08	1	5.18 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-09	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18120088-10	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18120088-11	1	5.06 (g)	5 (mL)	0.99	Bulk (5030B)
HS18120088-12	1	5.13 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-13	1	5.15 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-14	1	5.14 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-15	1	5.13 (g)	5 (mL)	0.97	Bulk (5030B)
HS18120088-16	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18120088-17	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18120088-18	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18120088-19	1	5 (g)	5 (mL)	1	Bulk (5030B)

Batch ID: 135194 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18120088-01	1	5.0967	50 (mL)	9.81
HS18120088-02	1	5.082	50 (mL)	9.839
HS18120088-03	1	5.0591	50 (mL)	9.883
HS18120088-04	1	5.0225	50 (mL)	9.955
HS18120088-05	1	5.0037	50 (mL)	9.993
HS18120088-06	1	5.0271	50 (mL)	9.946
HS18120088-07	1	5.0071	50 (mL)	9.986
HS18120088-08	1	5.0331	50 (mL)	9.934
HS18120088-09	1	5.0477	50 (mL)	9.906
HS18120088-10	1	5.0204	50 (mL)	9.959
HS18120088-11	1	5.022	50 (mL)	9.956
HS18120088-12	1	5.0013	50 (mL)	9.997
HS18120088-13	1	5.095	50 (mL)	9.814
HS18120088-14	1	5.0222	50 (mL)	9.956
HS18120088-15	1	5.0991	50 (mL)	9.806
HS18120088-16	1	5.029	50 (mL)	9.942
HS18120088-17	1	5.0061	50 (mL)	9.988
HS18120088-18	1	5.0135	50 (mL)	9.973

Batch ID: 135195 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18120088-19	1	5.0533	50 (mL)	9.895

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

Batch ID: 135216 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18120088-01	1	30.04	1 (mL)	0.03329
HS18120088-02	1	30.29	1 (mL)	0.03301
HS18120088-03	1	30.14	1 (mL)	0.03318
HS18120088-04	1	30.22	1 (mL)	0.03309
HS18120088-05	1	30.25	1 (mL)	0.03306
HS18120088-06	1	30.29	1 (mL)	0.03301
HS18120088-07	1	30.33	1 (mL)	0.03297
HS18120088-08	1	30.27	1 (mL)	0.03304
HS18120088-09	1	30.12	1 (mL)	0.0332
HS18120088-10	1	30.29	1 (mL)	0.03301
HS18120088-11	1	30.03	1 (mL)	0.0333
HS18120088-12	1	30.29	1 (mL)	0.03301
HS18120088-13	1	30.47	1 (mL)	0.03282
HS18120088-14	1	30.42	1 (mL)	0.03287
HS18120088-15	1	30.32	1 (mL)	0.03298
HS18120088-16	1	30.28	1 (mL)	0.03303
HS18120088-17	1	30.24	1 (mL)	0.03307
HS18120088-18	1	30.22	1 (mL)	0.03309
HS18120088-19	1	30.12	1 (mL)	0.0332

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 135194	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS18120088-01	S-1	30 Nov 2018 08:30		04 Dec 2018 15:28	05 Dec 2018 00:21	1
HS18120088-02	S-2	30 Nov 2018 08:40		04 Dec 2018 15:28	05 Dec 2018 14:35	5
HS18120088-03	S-3	30 Nov 2018 08:50		04 Dec 2018 15:28	05 Dec 2018 01:20	10
HS18120088-04	S-4	30 Nov 2018 09:00		04 Dec 2018 15:28	05 Dec 2018 01:34	10
HS18120088-05	S-5	30 Nov 2018 09:05		04 Dec 2018 15:28	05 Dec 2018 01:49	1
HS18120088-06	S-6	30 Nov 2018 09:10		04 Dec 2018 15:28	05 Dec 2018 02:32	2
HS18120088-07	S-7	30 Nov 2018 09:20		04 Dec 2018 15:28	05 Dec 2018 14:49	5
HS18120088-08	S-8	30 Nov 2018 09:25		04 Dec 2018 15:28	05 Dec 2018 03:01	10
HS18120088-09	S-9	30 Nov 2018 09:30		04 Dec 2018 15:28	05 Dec 2018 03:16	1
HS18120088-10	SW-1	30 Nov 2018 09:40		04 Dec 2018 15:28	05 Dec 2018 03:31	10
HS18120088-11	SW-2	30 Nov 2018 09:45		04 Dec 2018 15:28	05 Dec 2018 04:14	1
HS18120088-12	SW-3	30 Nov 2018 09:50		04 Dec 2018 15:28	05 Dec 2018 04:29	10
HS18120088-13	SW-4	30 Nov 2018 09:55		04 Dec 2018 15:28	05 Dec 2018 04:43	10
HS18120088-14	SW-5	30 Nov 2018 10:00		04 Dec 2018 15:28	05 Dec 2018 05:27	10
HS18120088-15	SW-6	30 Nov 2018 10:05		04 Dec 2018 15:28	05 Dec 2018 05:41	1
HS18120088-16	SW-7	30 Nov 2018 10:10		04 Dec 2018 15:28	05 Dec 2018 05:56	1
HS18120088-17	SW-8	30 Nov 2018 10:15		04 Dec 2018 15:28	05 Dec 2018 06:11	1
HS18120088-18	SW-9	30 Nov 2018 10:20		04 Dec 2018 15:28	04 Dec 2018 22:54	20
Batch ID 135195	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS18120088-19	SW-10	30 Nov 2018 10:25		04 Dec 2018 15:32	04 Dec 2018 22:11	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 135216	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS18120088-01	S-1	30 Nov 2018 08:30		04 Dec 2018 16:00	04 Dec 2018 21:59	1
HS18120088-02	S-2	30 Nov 2018 08:40		04 Dec 2018 16:00	04 Dec 2018 23:11	1
HS18120088-03	S-3	30 Nov 2018 08:50		04 Dec 2018 16:00	04 Dec 2018 23:36	1
HS18120088-04	S-4	30 Nov 2018 09:00		04 Dec 2018 16:00	05 Dec 2018 11:47	2
HS18120088-05	S-5	30 Nov 2018 09:05		04 Dec 2018 16:00	05 Dec 2018 00:24	1
HS18120088-06	S-6	30 Nov 2018 09:10		04 Dec 2018 16:00	05 Dec 2018 00:48	1
HS18120088-07	S-7	30 Nov 2018 09:20		04 Dec 2018 16:00	05 Dec 2018 01:12	1
HS18120088-08	S-8	30 Nov 2018 09:25		04 Dec 2018 16:00	04 Dec 2018 21:11	1
HS18120088-09	S-9	30 Nov 2018 09:30		04 Dec 2018 16:00	05 Dec 2018 12:11	2
HS18120088-10	SW-1	30 Nov 2018 09:40		04 Dec 2018 16:00	04 Dec 2018 21:59	1
HS18120088-11	SW-2	30 Nov 2018 09:45		04 Dec 2018 16:00	04 Dec 2018 22:23	1
HS18120088-12	SW-3	30 Nov 2018 09:50		04 Dec 2018 16:00	05 Dec 2018 12:35	5
HS18120088-13	SW-4	30 Nov 2018 09:55		04 Dec 2018 16:00	04 Dec 2018 23:11	1
HS18120088-14	SW-5	30 Nov 2018 10:00		04 Dec 2018 16:00	04 Dec 2018 23:36	1
HS18120088-15	SW-6	30 Nov 2018 10:05		04 Dec 2018 16:00	05 Dec 2018 00:00	1
HS18120088-16	SW-7	30 Nov 2018 10:10		04 Dec 2018 16:00	05 Dec 2018 00:24	1
HS18120088-17	SW-8	30 Nov 2018 10:15		04 Dec 2018 16:00	05 Dec 2018 00:48	1
HS18120088-18	SW-9	30 Nov 2018 10:20		04 Dec 2018 16:00	05 Dec 2018 02:00	1
HS18120088-19	SW-10	30 Nov 2018 10:25		04 Dec 2018 16:00	05 Dec 2018 02:24	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R328656	**Test Name :** BTEX BY SW8021B			**Matrix:** Soil		
HS18120088-01	S-1	30 Nov 2018 08:30			04 Dec 2018 22:15	1
HS18120088-02	S-2	30 Nov 2018 08:40			04 Dec 2018 22:41	1
HS18120088-03	S-3	30 Nov 2018 08:50			04 Dec 2018 23:07	1
HS18120088-04	S-4	30 Nov 2018 09:00			04 Dec 2018 00:49	1
HS18120088-05	S-5	30 Nov 2018 09:05			05 Dec 2018 01:15	1
HS18120088-06	S-6	30 Nov 2018 09:10			05 Dec 2018 01:41	1
HS18120088-07	S-7	30 Nov 2018 09:20			05 Dec 2018 02:06	1
HS18120088-08	S-8	30 Nov 2018 09:25			05 Dec 2018 02:32	1
HS18120088-09	S-9	30 Nov 2018 09:30			05 Dec 2018 02:58	1
HS18120088-10	SW-1	30 Nov 2018 09:40			05 Dec 2018 03:23	1
HS18120088-11	SW-2	30 Nov 2018 09:45			05 Dec 2018 03:49	1
HS18120088-12	SW-3	30 Nov 2018 09:50			05 Dec 2018 04:15	1
HS18120088-13	SW-4	30 Nov 2018 09:55			05 Dec 2018 04:40	1
HS18120088-14	SW-5	30 Nov 2018 10:00			05 Dec 2018 06:23	1
HS18120088-15	SW-6	30 Nov 2018 10:05			05 Dec 2018 06:48	1
HS18120088-16	SW-7	30 Nov 2018 10:10			05 Dec 2018 07:14	1
HS18120088-17	SW-8	30 Nov 2018 10:15			05 Dec 2018 07:40	1
HS18120088-18	SW-9	30 Nov 2018 10:20			05 Dec 2018 08:05	1
HS18120088-19	SW-10	30 Nov 2018 10:25			05 Dec 2018 08:31	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R328686	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS18120088-01	S-1	30 Nov 2018 08:30			05 Dec 2018 16:54	1
HS18120088-02	S-2	30 Nov 2018 08:40			05 Dec 2018 17:10	1
HS18120088-03	S-3	30 Nov 2018 08:50			05 Dec 2018 17:26	1
HS18120088-04	S-4	30 Nov 2018 09:00			05 Dec 2018 17:42	1
HS18120088-05	S-5	30 Nov 2018 09:05			05 Dec 2018 18:47	1
HS18120088-06	S-6	30 Nov 2018 09:10			05 Dec 2018 19:03	1
HS18120088-07	S-7	30 Nov 2018 09:20			05 Dec 2018 19:19	1
HS18120088-08	S-8	30 Nov 2018 09:25			05 Dec 2018 19:35	1
HS18120088-09	S-9	30 Nov 2018 09:30			05 Dec 2018 19:52	1
HS18120088-10	SW-1	30 Nov 2018 09:40			05 Dec 2018 20:08	1
HS18120088-11	SW-2	30 Nov 2018 09:45			05 Dec 2018 20:24	1
HS18120088-12	SW-3	30 Nov 2018 09:50			05 Dec 2018 20:40	1
HS18120088-13	SW-4	30 Nov 2018 09:55			05 Dec 2018 20:56	1
HS18120088-14	SW-5	30 Nov 2018 10:00			05 Dec 2018 21:13	1
HS18120088-15	SW-6	30 Nov 2018 10:05			05 Dec 2018 22:17	1
HS18120088-16	SW-7	30 Nov 2018 10:10			05 Dec 2018 22:33	1
HS18120088-17	SW-8	30 Nov 2018 10:15			05 Dec 2018 22:49	1
HS18120088-18	SW-9	30 Nov 2018 10:20			05 Dec 2018 23:06	1
HS18120088-19	SW-10	30 Nov 2018 10:25			05 Dec 2018 23:22	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: 135216 **Instrument: FID-8** **Method: SW8015M**

MBLK Sample ID: **MBLK-135216** Units: **mg/Kg** Analysis Date: **04-Dec-2018 21:11**
Client ID: Run ID: **FID-8_328624** SeqNo: **4849231** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*2.39*	*0.10*	*3.33*	*0*	*71.8*	*70 - 130*				

LCS Sample ID: **LCS-135216** Units: **mg/Kg** Analysis Date: **04-Dec-2018 21:35**
Client ID: Run ID: **FID-8_328624** SeqNo: **4849232** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	32.2	1.7	33.33	0	96.6	70 - 130				
TPH (Motor Oil Range)	34.86	3.4	33.33	0	105	70 - 130				
Surr: 2-Fluorobiphenyl	*2.762*	*0.10*	*3.33*	*0*	*83.0*	*70 - 130*				

MS Sample ID: **HS18120088-01MS** Units: **mg/Kg** Analysis Date: **04-Dec-2018 22:23**
Client ID: **S-1** Run ID: **FID-8_328624** SeqNo: **4849234** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	51.62	1.7	33.26	18.61	99.2	70 - 130				
TPH (Motor Oil Range)	55.66	3.4	33.26	17.66	114	70 - 130				
Surr: 2-Fluorobiphenyl	*2.81*	*0.10*	*3.323*	*0*	*84.6*	*60 - 129*				

MSD Sample ID: **HS18120088-01MSD** Units: **mg/Kg** Analysis Date: **04-Dec-2018 22:47**
Client ID: **S-1** Run ID: **FID-8_328624** SeqNo: **4849235** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	50.09	1.7	33.24	18.61	94.7	70 - 130	51.62	3.01	30	
TPH (Motor Oil Range)	51.61	3.4	33.24	17.66	102	70 - 130	55.66	7.55	30	
Surr: 2-Fluorobiphenyl	*2.649*	*0.10*	*3.321*	*0*	*79.8*	*60 - 129*	*2.81*	*5.89*	*30*	

The following samples were analyzed in this batch:

HS18120088-01	HS18120088-02	HS18120088-03	HS18120088-04
HS18120088-05	HS18120088-06	HS18120088-07	HS18120088-08
HS18120088-09	HS18120088-10	HS18120088-11	HS18120088-12
HS18120088-13	HS18120088-14	HS18120088-15	HS18120088-16
HS18120088-17	HS18120088-18	HS18120088-19	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: R328656 **Instrument: BTEX1** **Method: SW8021B**

MBLK Sample ID: **MBLK-181204** Units: **ug/Kg** Analysis Date: **05-Dec-2018 10:39**
Client ID: Run ID: **BTEX1_328656** SeqNo: **4850216** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.0								
Surr: 4-Bromofluorobenzene	*28.01*	*0*	*30*	*0*	*93.4*	*75 - 130*				
Surr: Trifluorotoluene	*24.53*	*0*	*30*	*0*	*81.8*	*70 - 130*				

LCS Sample ID: **LCS-181204** Units: **ug/Kg** Analysis Date: **05-Dec-2018 09:48**
Client ID: Run ID: **BTEX1_328656** SeqNo: **4850214** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.12	1.0	20	0	85.6	82 - 130				
m,p-Xylene	36.38	2.0	40	0	90.9	83 - 130				
o-Xylene	17.4	1.0	20	0	87.0	83 - 130				
Toluene	17.55	1.0	20	0	87.8	85 - 130				
Ethylbenzene	17.65	1.0	20	0	88.2	81 - 130				
Xylenes, Total	53.78	1.0	60	0	89.6	83 - 130				
Surr: 4-Bromofluorobenzene	*27.89*	*0*	*30*	*0*	*93.0*	*75 - 130*				
Surr: Trifluorotoluene	*24.33*	*0*	*30*	*0*	*81.1*	*70 - 130*				

LCSD Sample ID: **LCSD-181204** Units: **ug/Kg** Analysis Date: **05-Dec-2018 10:14**
Client ID: Run ID: **BTEX1_328656** SeqNo: **4850215** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	16.89	1.0	20	0	84.4	82 - 130	17.12	1.36	30	
m,p-Xylene	34.93	2.0	40	0	87.3	83 - 130	36.38	4.06	30	
o-Xylene	16.96	1.0	20	0	84.8	83 - 130	17.4	2.59	30	
Toluene	17.22	1.0	20	0	86.1	85 - 130	17.55	1.93	30	
Ethylbenzene	17.09	1.0	20	0	85.4	81 - 130	17.65	3.21	30	
Xylenes, Total	51.89	1.0	60	0	86.5	83 - 130	53.78	3.58	30	
Surr: 4-Bromofluorobenzene	*27.34*	*0*	*30*	*0*	*91.1*	*75 - 130*	*27.89*	*1.98*	*30*	
Surr: Trifluorotoluene	*23.43*	*0*	*30*	*0*	*78.1*	*70 - 130*	*24.33*	*3.74*	*30*	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: R328656 **Instrument: BTEX1** **Method: SW8021B**

MS Sample ID: **HS18120088-19MS** Units: **ug/Kg** Analysis Date: **05-Dec-2018 08:57**
Client ID: **SW-10** Run ID: **BTEX1_328656** SeqNo: **4850175** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	84.53	4.9	98	0	86.3	70 - 130				
m,p-Xylene	172.5	9.8	196	0	88.0	70 - 130				
o-Xylene	81.96	4.9	98	0	83.6	70 - 130				
Toluene	85.07	4.9	98	0	86.8	70 - 130				
Ethylbenzene	84.79	4.9	98	0	86.5	70 - 130				
Xylenes, Total	254.5	4.9	294	0	86.6	70 - 130				
Surr: 4-Bromofluorobenzene	*145.7*	*0*	*147*	*0*	*99.1*	*70 - 130*				
Surr: Trifluorotoluene	*141.3*	*0*	*147*	*0*	*96.2*	*70 - 130*				

MSD Sample ID: **HS18120088-19MSD** Units: **ug/Kg** Analysis Date: **05-Dec-2018 09:22**
Client ID: **SW-10** Run ID: **BTEX1_328656** SeqNo: **4850176** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	95.54	5.0	99	0	96.5	70 - 130	84.53	12.2	30	
m,p-Xylene	194.2	9.9	198	0	98.1	70 - 130	172.5	11.8	30	
o-Xylene	92.75	5.0	99	0	93.7	70 - 130	81.96	12.3	30	
Toluene	95.63	5.0	99	0	96.6	70 - 130	85.07	11.7	30	
Ethylbenzene	95.86	5.0	99	0	96.8	70 - 130	84.79	12.3	30	
Xylenes, Total	286.9	5.0	297	0	96.6	70 - 130	254.5	12	30	
Surr: 4-Bromofluorobenzene	*144.7*	*0*	*148.5*	*0*	*97.4*	*70 - 130*	*145.7*	*0.713*	*30*	
Surr: Trifluorotoluene	*140.1*	*0*	*148.5*	*0*	*94.3*	*70 - 130*	*141.3*	*0.901*	*30*	

The following samples were analyzed in this batch:

HS18120088-01	HS18120088-02	HS18120088-03	HS18120088-04
HS18120088-05	HS18120088-06	HS18120088-07	HS18120088-08
HS18120088-09	HS18120088-10	HS18120088-11	HS18120088-12
HS18120088-13	HS18120088-14	HS18120088-15	HS18120088-16
HS18120088-17	HS18120088-18	HS18120088-19	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: R328686 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **MBLK-181205** Units: **mg/Kg** Analysis Date: **05-Dec-2018 16:05**
Client ID: Run ID: **FID-14_328686** SeqNo: **4851059** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.08153*	*0.0050*	*0.1*	*0*	*81.5*	*75 - 121*				

LCS Sample ID: **MLCS-181205** Units: **mg/Kg** Analysis Date: **06-Dec-2018 00:43**
Client ID: Run ID: **FID-14_328686** SeqNo: **4851082** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.105	0.050	1	0	111	72 - 121				
Surr: 4-Bromofluorobenzene	*0.08529*	*0.0050*	*0.1*	*0*	*85.3*	*75 - 121*				

LCSD Sample ID: **MLCSD-181205** Units: **mg/Kg** Analysis Date: **06-Dec-2018 01:47**
Client ID: Run ID: **FID-14_328686** SeqNo: **4851085** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9416	0.050	1	0	94.2	70 - 121	1.105	16	30	
Surr: 4-Bromofluorobenzene	*0.09295*	*0.0050*	*0.1*	*0*	*93.0*	*75 - 121*	*0.08529*	*8.59*	*30*	

MS Sample ID: **HS18120088-19MS** Units: **mg/Kg** Analysis Date: **05-Dec-2018 23:38**
Client ID: **SW-10** Run ID: **FID-14_328686** SeqNo: **4851107** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.3058	0.048	0.97	0	31.5	70 - 130				S
Surr: 4-Bromofluorobenzene	*0.03878*	*0.0048*	*0.097*	*0*	*40.0*	*70 - 123*				S

MSD Sample ID: **HS18120088-19MSD** Units: **mg/Kg** Analysis Date: **05-Dec-2018 23:54**
Client ID: **SW-10** Run ID: **FID-14_328686** SeqNo: **4851108** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.3245	0.049	0.98	0	33.1	70 - 130	0.3058	5.91	30	S
Surr: 4-Bromofluorobenzene	*0.03748*	*0.0049*	*0.098*	*0*	*38.2*	*70 - 123*	*0.03878*	*3.41*	*30*	S

The following samples were analyzed in this batch:

HS18120088-01	HS18120088-02	HS18120088-03	HS18120088-04
HS18120088-05	HS18120088-06	HS18120088-07	HS18120088-08
HS18120088-09	HS18120088-10	HS18120088-11	HS18120088-12
HS18120088-13	HS18120088-14	HS18120088-15	HS18120088-16
HS18120088-17	HS18120088-18	HS18120088-19	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: 135194 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **MBLK-135194** Units: **mg/Kg** Analysis Date: **04-Dec-2018 23:38**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849891** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

LCS Sample ID: **LCS-135194** Units: **mg/Kg** Analysis Date: **04-Dec-2018 23:52**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849892** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	205.9	5.00	200	0	103	90 - 110				

LCSD Sample ID: **LCSD-135194** Units: **mg/Kg** Analysis Date: **05-Dec-2018 00:07**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849893** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	196.8	5.00	200	0	98.4	90 - 110	205.9	4.52	20	

MS Sample ID: **HS18120088-10MS** Units: **mg/Kg** Analysis Date: **05-Dec-2018 03:45**
Client ID: **SW-1** Run ID: **ICS2100_328645** SeqNo: **4849908** PrepDate: **04-Dec-2018** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2747	49.6	991.7	1767	98.8	75 - 125				

MS Sample ID: **HS18120088-01MS** Units: **mg/Kg** Analysis Date: **05-Dec-2018 15:48**
Client ID: **S-1** Run ID: **ICS2100_328645** SeqNo: **4850342** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	531.3	4.99	99.85	434.5	96.9	75 - 125				O

MSD Sample ID: **HS18120088-10MSD** Units: **mg/Kg** Analysis Date: **05-Dec-2018 04:00**
Client ID: **SW-1** Run ID: **ICS2100_328645** SeqNo: **4849909** PrepDate: **04-Dec-2018** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2870	50.0	999.5	1767	110	75 - 125	2747	4.38	20	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: 135194 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS18120088-01MSD** Units: **mg/Kg** Analysis Date: **05-Dec-2018 15:04**
Client ID: **S-1** Run ID: **ICS2100_328645** SeqNo: **4850339** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	537.7	4.94	98.78	434.5	104	75 - 125	531.3	1.2	20	O

The following samples were analyzed in this batch:

HS18120088-01	HS18120088-02	HS18120088-03	HS18120088-04
HS18120088-05	HS18120088-06	HS18120088-07	HS18120088-08
HS18120088-09	HS18120088-10	HS18120088-11	HS18120088-12
HS18120088-13	HS18120088-14	HS18120088-15	HS18120088-16
HS18120088-17	HS18120088-18		

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18120088

QC BATCH REPORT

Batch ID: 135195 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **MBLK-135195** Units: **mg/Kg** Analysis Date: **04-Dec-2018 20:43**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849879** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

LCS Sample ID: **LCS-135195** Units: **mg/Kg** Analysis Date: **04-Dec-2018 20:58**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849880** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	203	5.00	200	0	101	90 - 110				

LCSD Sample ID: **LCSD-135195** Units: **mg/Kg** Analysis Date: **04-Dec-2018 21:12**
Client ID: Run ID: **ICS2100_328645** SeqNo: **4849881** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	196	5.00	200	0	98.0	90 - 110	203	3.48	20	

MS Sample ID: **HS18120088-19MS** Units: **mg/Kg** Analysis Date: **04-Dec-2018 22:25**
Client ID: **SW-10** Run ID: **ICS2100_328645** SeqNo: **4849886** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	240.7	4.95	98.96	141.4	100	75 - 125				

MSD Sample ID: **HS18120088-19MSD** Units: **mg/Kg** Analysis Date: **04-Dec-2018 22:40**
Client ID: **SW-10** Run ID: **ICS2100_328645** SeqNo: **4849887** PrepDate: **04-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	243.5	4.95	99.09	141.4	103	75 - 125	240.7	1.14	20	

The following samples were analyzed in this batch: HS18120088-19

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: **HS18120088**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	ANAB L2231	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18120088

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18120088-01	S-1	Login	12/4/2018 10:51:54 AM	RPG	VOA175
HS18120088-02	S-2	Login	12/4/2018 10:51:54 AM	RPG	VOA175

Sample Receipt Checklist

Client Name: WSP Dallas
Work Order: HS18120088
Date/Time Received: **04-Dec-2018 09:30**
Received by: **RPG**

Checklist completed by: *Jared R. Makan* eSignature 4-Dec-2018 Date
Reviewed by: *Bernadette A. Fini* eSignature 4-Dec-2018 Date

Matrices: **Soil**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☑	N/A ☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.2c/2.6c UC/C	IR11	
Cooler(s)/Kit(s):	44479		
Date/Time sample(s) sent to storage:	12/04/2018 11:20		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: Samples for BTEX received in bulk containers.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 2

COC ID: 142344

HS18120088
WSP Environment & Energy
Huber CTB

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	
Work Order		Project Number	Huber CTB
Company Name	WSP USA, INC	Bill To Company	
Send Report To	Matthew Boyle	Invoice Attn	
Address	2777 N Stemmons Suite 1600	Address	
City/State/Zip	Dallas TX 75207	City/State/Zip	
Phone	8177130262	Phone	
Fax		Fax	
e-Mail Address	Matthew.Boyle@wsp.com	e-Mail Address	

	Analysis
A	TPH GRO
B	TPH DRO/MRO
C	BTEX
D	Chlorides
E	
F	
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-1	11-30-18	8:30	Soil	Ice	1	✓	✓	✓	✓							
2	S-2	↓	8:40	↓	↓	↓	↓	↓	↓	↓							
3	S-3	↓	8:50	↓	↓	↓	↓	↓	↓	↓							
4	S-4	↓	9:00	↓	↓	↓	↓	↓	↓	↓							
5	S-5	↓	9:05	↓	↓	↓	↓	↓	↓	↓							
6	S-6	↓	9:10	↓	↓	↓	↓	↓	↓	↓							
7	S-7	↓	9:20	↓	↓	↓	↓	↓	↓	↓							
8	S-8	↓	9:25	↓	↓	↓	↓	↓	↓	↓							
9	S-9	↓	9:30	↓	↓	↓	↓	↓	↓	↓							
10																	

Sampler(s) Please Print & Sign: Matthew Boyle [signature]

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Other ____ ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☒ 24 Hour

Results Due Date:

Relinquished by: [signature] Date: 12-30-18 Time: 2:15 Received by:

Relinquished by: Date: 12/01/18 Time: 9:30 Received by (Laboratory): Nelson

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
4479	2.2 u/c
	IR 11

CF -0.4

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other ____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 2 of 2

COC ID: 142343

HS18120088

WSP Environment & Energy
Huber CTB

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	Huber CTB
Work Order		Project Number	
Company Name	WSP USA Inc	Bill To Company	
Send Report To	Matthew Boyle	Invoice Attn	
Address	2777 N Stemmons Suite 1600	Address	
City/State/Zip	Dallas TX 75207	City/State/Zip	
Phone	817 213 0262	Phone	
Fax		Fax	
e-Mail Address	Matthew.Boyle@wsp.com	e-Mail Address	

A: TPH GRO
B: TPH DRO/MRO
C: BTEX
D: Chlorides
E:
F:
G:
H:
I:
J:

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SW-1	11-30-18	9:40	Soil	Ice	1	✓	✓	✓	✓							
2	SW-2		9:45														
3	SW-3		9:50														
4	SW-4		9:55														
5	SW-5		10:00														
6	SW-6		10:05														
7	SW-7		10:10														
8	SW-8		10:15														
9	SW-9		10:20														
10	SW-9		10:25														

Sampler(s) Please Print & Sign:

Shipment Method:

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☒ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Date: Time: Received by:

Relinquished by: Date: 12/04/18 Time: 9:30 Received by (Laboratory):

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes:

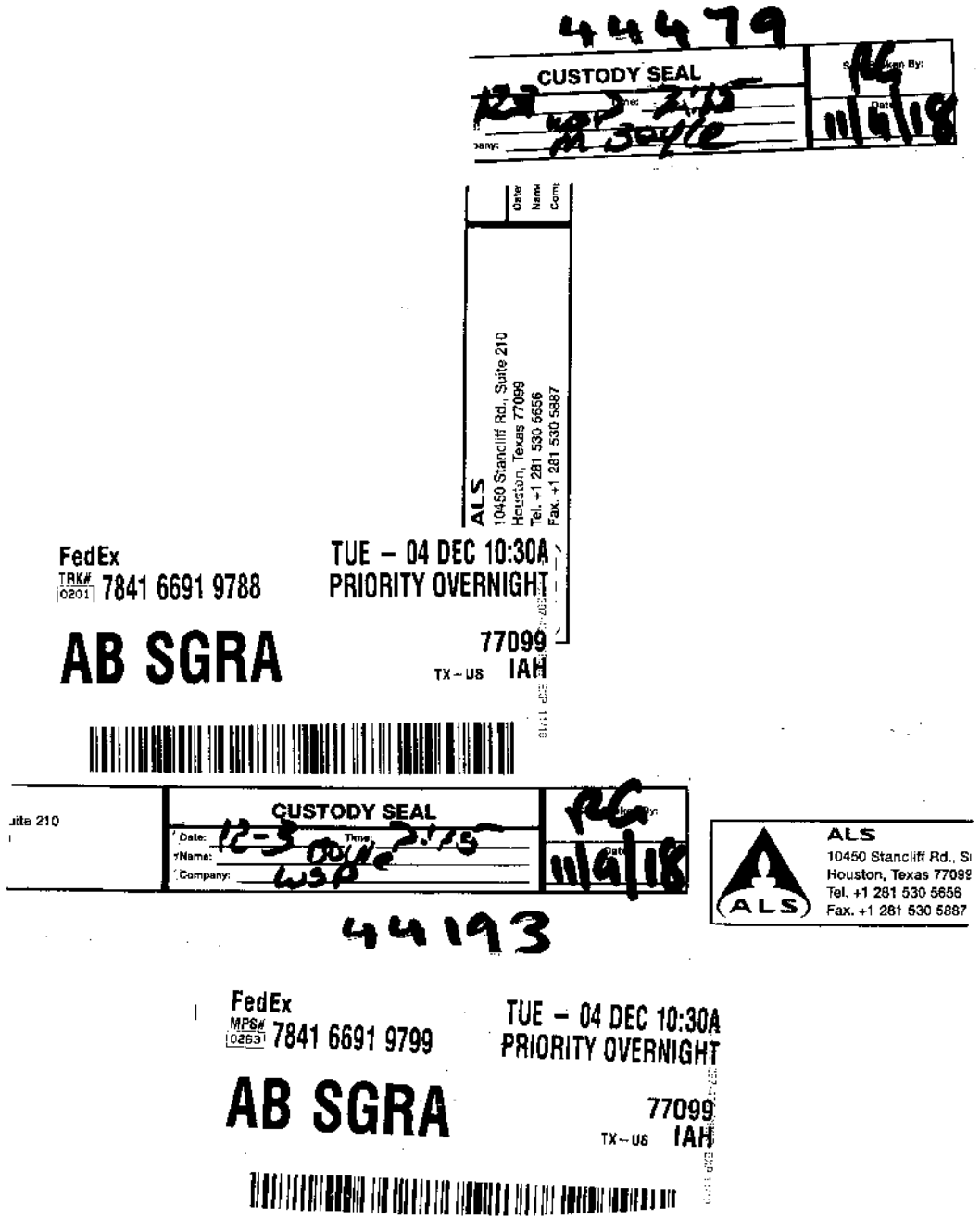
Cooler ID	Cooler Temp
44479	2.2
	FR 11

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

CF = +0.4

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

January 03, 2019

Matthew Boyle
WSP Environment & Energy
2777 N. Stemmons Fwy. Suite 1600
Dallas, TX 75207

Work Order: **HS18121202**

Laboratory Results for: **Huber CTB**

Dear Matthew,

ALS Environmental received 16 sample(s) on Dec 20, 2018 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Bernadette Fini

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18121202

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18121202-01	SW-1	Soil		19-Dec-2018 13:15	20-Dec-2018 11:00	☐
HS18121202-02	SW-2	Soil		19-Dec-2018 13:20	20-Dec-2018 11:00	☐
HS18121202-03	SW-3	Soil		19-Dec-2018 13:30	20-Dec-2018 11:00	☐
HS18121202-04	SW-4	Soil		19-Dec-2018 13:40	20-Dec-2018 11:00	☐
HS18121202-05	SW-5	Soil		19-Dec-2018 13:45	20-Dec-2018 11:00	☐
HS18121202-06	SW-6	Soil		19-Dec-2018 13:50	20-Dec-2018 11:00	☐
HS18121202-07	SW-7	Soil		19-Dec-2018 13:55	20-Dec-2018 11:00	☐
HS18121202-08	SW-8	Soil		19-Dec-2018 14:00	20-Dec-2018 11:00	☐
HS18121202-09	S-1	Soil		19-Dec-2018 14:10	20-Dec-2018 11:00	☐
HS18121202-10	S-2	Soil		19-Dec-2018 14:20	20-Dec-2018 11:00	☐
HS18121202-11	S-3	Soil		19-Dec-2018 14:30	20-Dec-2018 11:00	☐
HS18121202-12	S-4	Soil		19-Dec-2018 14:40	20-Dec-2018 11:00	☐
HS18121202-13	S-5	Soil		19-Dec-2018 14:50	20-Dec-2018 11:00	☐
HS18121202-14	S-6	Soil		19-Dec-2018 15:00	20-Dec-2018 11:00	☐
HS18121202-15	S-7	Soil		19-Dec-2018 15:10	20-Dec-2018 11:00	☐
HS18121202-16	S-8	Soil		19-Dec-2018 15:20	20-Dec-2018 11:00	☐

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS18121202

GC Semivolatiles by Method SW8015M

Batch ID: 136041

Sample ID: SW-1 (HS18121202-01MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: SW-1 (HS18121202-01MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Batch ID: 136075

Sample ID: S-8 (HS18121202-16MS)

- MS recoveries/chromatogram differed from background and MSD. Insufficient sample to perform re-extraction. Due to non-homogeneity of the soil sample matrix the MS/MSD recoveries and RPD were outside the control limits.

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (TPH (Diesel Range))

Sample ID: S-8 (HS18121202-16MSD)

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (TPH (Diesel Range))

- The RPD between the MS and MSD was outside of the control limit. (TPH (Diesel Range))

GC Volatile Organics by Method SW8015

Batch ID: R329964

Sample ID: S-4 (HS18121202-12MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

- The RPD between the MS and MSD was outside of the control limit.

- Surrogate recoveries were outside the control limits

Sample ID: S-4 (HS18121202-12MSD)

- Surrogate recoveries were outside the control limits

GC Volatiles by Method SW8015

Batch ID: R329964

Sample ID: S-4(HS18121202-12MSD

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS18121202

GCMS Volatiles by Method SW8260

Batch ID: R329953

Sample ID: HS18121198-04MS

- MS and MSD are for an unrelated sample

Sample ID: SW-3 (HS18121202-03)

- Surrogate recovery was below acceptance limits. Re-extraction and/or reanalysis confirm low recovery caused by matrix interferences.

Sample ID: SW-7 (HS18121202-07)

- Surrogate recovery was below acceptance limits. Re-extraction and/or reanalysis confirm low recovery caused by matrix interferences.

Batch ID: R330045

Sample ID: SW-1 (HS18121202-01MS)

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference.

WetChemistry by Method E300

Batch ID: 136154

Sample ID: SW-5 (HS18121202-05MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Chloride)

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-1
Collection Date: 19-Dec-2018 13:15

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	26-Dec-2018 22:52
Ethylbenzene	ND		0.0050	mg/Kg	1	26-Dec-2018 22:52
m,p-Xylene	ND		0.010	mg/Kg	1	26-Dec-2018 22:52
o-Xylene	ND		0.0050	mg/Kg	1	26-Dec-2018 22:52
Toluene	ND		0.0050	mg/Kg	1	26-Dec-2018 22:52
Xylenes, Total	ND		0.0050	mg/Kg	1	26-Dec-2018 22:52
Surr: 1,2-Dichloroethane-d4	*100.0*		*70-126*	*%REC*	*1*	*26-Dec-2018 22:52*
Surr: 4-Bromofluorobenzene	*98.2*		*70-130*	*%REC*	*1*	*26-Dec-2018 22:52*
Surr: Dibromofluoromethane	*106*		*70-130*	*%REC*	*1*	*26-Dec-2018 22:52*
Surr: Toluene-d8	*94.8*		*70-130*	*%REC*	*1*	*26-Dec-2018 22:52*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 07:07
Surr: 4-Bromofluorobenzene	*80.3*		*70-123*	*%REC*	*1*	*26-Dec-2018 07:07*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**29**		**1.7**	**mg/Kg**	1	29-Dec-2018 06:31
TPH (Motor Oil Range)	**39**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 06:31
Surr: 2-Fluorobiphenyl	*70.2*		*60-129*	*%REC*	*1*	*29-Dec-2018 06:31*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**275**		**4.88**	**mg/Kg**	1	29-Dec-2018 19:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-2
Collection Date: 19-Dec-2018 13:20

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 18:27
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 18:27
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 18:27
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 18:27
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 18:27
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 18:27
Surr: 1,2-Dichloroethane-d4	*99.3*		*70-126*	*%REC*	*1*	*24-Dec-2018 18:27*
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*1*	*24-Dec-2018 18:27*
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	*1*	*24-Dec-2018 18:27*
Surr: Toluene-d8	*74.9*		*70-130*	*%REC*	*1*	*24-Dec-2018 18:27*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 07:23
Surr: 4-Bromofluorobenzene	*80.3*		*70-123*	*%REC*	*1*	*26-Dec-2018 07:23*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**37**		**1.7**	**mg/Kg**	1	29-Dec-2018 07:43
TPH (Motor Oil Range)	**54**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 07:43
Surr: 2-Fluorobiphenyl	*89.8*		*60-129*	*%REC*	*1*	*29-Dec-2018 07:43*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**354**		**23.6**	**mg/Kg**	5	29-Dec-2018 20:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-3
Collection Date: 19-Dec-2018 13:30

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0049	mg/Kg	1	24-Dec-2018 18:51
Ethylbenzene	ND		0.0049	mg/Kg	1	24-Dec-2018 18:51
m,p-Xylene	ND		0.0098	mg/Kg	1	24-Dec-2018 18:51
o-Xylene	ND		0.0049	mg/Kg	1	24-Dec-2018 18:51
Toluene	ND		0.0049	mg/Kg	1	24-Dec-2018 18:51
Xylenes, Total	ND		0.0049	mg/Kg	1	24-Dec-2018 18:51
Surr: 1,2-Dichloroethane-d4	*98.9*		*70-126*	*%REC*	*1*	*24-Dec-2018 18:51*
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	*1*	*24-Dec-2018 18:51*
Surr: Dibromofluoromethane	*102*		*70-130*	*%REC*	*1*	*24-Dec-2018 18:51*
Surr: Toluene-d8	*51.6*	*S*	*70-130*	*%REC*	*1*	*24-Dec-2018 18:51*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 07:40
Surr: 4-Bromofluorobenzene	*80.8*		*70-123*	*%REC*	*1*	*26-Dec-2018 07:40*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**19**		**1.7**	**mg/Kg**	1	29-Dec-2018 08:08
TPH (Motor Oil Range)	**51**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 08:08
Surr: 2-Fluorobiphenyl	*93.6*		*60-129*	*%REC*	*1*	*29-Dec-2018 08:08*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**134**		**4.93**	**mg/Kg**	1	29-Dec-2018 20:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-4
Collection Date: 19-Dec-2018 13:40

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-04
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0049	mg/Kg	1	24-Dec-2018 19:16
Ethylbenzene	ND		0.0049	mg/Kg	1	24-Dec-2018 19:16
m,p-Xylene	ND		0.0098	mg/Kg	1	24-Dec-2018 19:16
o-Xylene	ND		0.0049	mg/Kg	1	24-Dec-2018 19:16
Toluene	ND		0.0049	mg/Kg	1	24-Dec-2018 19:16
Xylenes, Total	ND		0.0049	mg/Kg	1	24-Dec-2018 19:16
Surr: 1,2-Dichloroethane-d4	*104*		*70-126*	*%REC*	*1*	*24-Dec-2018 19:16*
Surr: 4-Bromofluorobenzene	*100*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:16*
Surr: Dibromofluoromethane	*109*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:16*
Surr: Toluene-d8	*98.8*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:16*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 07:56
Surr: 4-Bromofluorobenzene	*85.0*		*70-123*	*%REC*	*1*	*26-Dec-2018 07:56*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**58**		**1.7**	**mg/Kg**	1	29-Dec-2018 08:32
TPH (Motor Oil Range)	**44**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 08:32
Surr: 2-Fluorobiphenyl	*96.4*		*60-129*	*%REC*	*1*	*29-Dec-2018 08:32*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**361**		**47.5**	**mg/Kg**	10	29-Dec-2018 21:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-5
Collection Date: 19-Dec-2018 13:45

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-05
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0048	mg/Kg	1	24-Dec-2018 19:40
Ethylbenzene	ND		0.0048	mg/Kg	1	24-Dec-2018 19:40
m,p-Xylene	ND		0.0097	mg/Kg	1	24-Dec-2018 19:40
o-Xylene	ND		0.0048	mg/Kg	1	24-Dec-2018 19:40
Toluene	ND		0.0048	mg/Kg	1	24-Dec-2018 19:40
Xylenes, Total	ND		0.0048	mg/Kg	1	24-Dec-2018 19:40
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*24-Dec-2018 19:40*
Surr: 4-Bromofluorobenzene	*99.0*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:40*
Surr: Dibromofluoromethane	*107*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:40*
Surr: Toluene-d8	*96.9*		*70-130*	*%REC*	*1*	*24-Dec-2018 19:40*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 08:13
Surr: 4-Bromofluorobenzene	*87.5*		*70-123*	*%REC*	*1*	*26-Dec-2018 08:13*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**54**		**1.7**	**mg/Kg**	1	29-Dec-2018 08:56
TPH (Motor Oil Range)	**44**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 08:56
Surr: 2-Fluorobiphenyl	*81.5*		*60-129*	*%REC*	*1*	*29-Dec-2018 08:56*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**506**		**4.91**	**mg/Kg**	1	29-Dec-2018 21:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-6
Collection Date: 19-Dec-2018 13:50

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-06
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:05
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:05
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 20:05
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:05
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:05
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 20:05
Surr: 1,2-Dichloroethane-d4	*96.5*		*70-126*	*%REC*	*1*	*24-Dec-2018 20:05*
Surr: 4-Bromofluorobenzene	*98.5*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:05*
Surr: Dibromofluoromethane	*104*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:05*
Surr: Toluene-d8	*97.3*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:05*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 08:29
Surr: 4-Bromofluorobenzene	*84.2*		*70-123*	*%REC*	*1*	*26-Dec-2018 08:29*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**54**		**1.7**	**mg/Kg**	1	29-Dec-2018 09:20
TPH (Motor Oil Range)	**61**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 09:20
Surr: 2-Fluorobiphenyl	*86.9*		*60-129*	*%REC*	*1*	*29-Dec-2018 09:20*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**73.1**		**4.83**	**mg/Kg**	1	29-Dec-2018 22:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-7
Collection Date: 19-Dec-2018 13:55

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-07
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0049	mg/Kg	1	24-Dec-2018 20:29
Ethylbenzene	ND		0.0049	mg/Kg	1	24-Dec-2018 20:29
m,p-Xylene	ND		0.0098	mg/Kg	1	24-Dec-2018 20:29
o-Xylene	ND		0.0049	mg/Kg	1	24-Dec-2018 20:29
Toluene	ND		0.0049	mg/Kg	1	24-Dec-2018 20:29
Xylenes, Total	ND		0.0049	mg/Kg	1	24-Dec-2018 20:29
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*24-Dec-2018 20:29*
Surr: 4-Bromofluorobenzene	*105*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:29*
Surr: Dibromofluoromethane	*110*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:29*
Surr: Toluene-d8	*65.5*	*S*	*70-130*	*%REC*	*1*	*24-Dec-2018 20:29*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 09:18
Surr: 4-Bromofluorobenzene	*78.6*		*70-123*	*%REC*	*1*	*26-Dec-2018 09:18*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**19**		**1.7**	**mg/Kg**	1	29-Dec-2018 09:44
TPH (Motor Oil Range)	**49**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 09:44
Surr: 2-Fluorobiphenyl	*97.7*		*60-129*	*%REC*	*1*	*29-Dec-2018 09:44*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**161**		**4.87**	**mg/Kg**	1	29-Dec-2018 22:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: SW-8
Collection Date: 19-Dec-2018 14:00

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-08
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:56
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:56
m,p-Xylene	ND		0.010	mg/Kg	1	24-Dec-2018 20:56
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:56
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 20:56
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 20:56
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*24-Dec-2018 20:56*
Surr: 4-Bromofluorobenzene	*96.4*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:56*
Surr: Dibromofluoromethane	*105*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:56*
Surr: Toluene-d8	*97.2*		*70-130*	*%REC*	*1*	*24-Dec-2018 20:56*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 09:34
Surr: 4-Bromofluorobenzene	*82.4*		*70-123*	*%REC*	*1*	*26-Dec-2018 09:34*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	29-Dec-2018 10:08
TPH (Motor Oil Range)	**7.2**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 10:08
Surr: 2-Fluorobiphenyl	*87.4*		*60-129*	*%REC*	*1*	*29-Dec-2018 10:08*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**12.3**		**4.93**	**mg/Kg**	1	29-Dec-2018 22:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-1
Collection Date: 19-Dec-2018 14:10

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-09
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:20
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:20
m,p-Xylene	ND		0.010	mg/Kg	1	24-Dec-2018 21:20
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:20
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:20
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 21:20
Surr: 1,2-Dichloroethane-d4	*97.8*		*70-126*	*%REC*	*1*	*24-Dec-2018 21:20*
Surr: 4-Bromofluorobenzene	*99.7*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:20*
Surr: Dibromofluoromethane	*106*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:20*
Surr: Toluene-d8	*96.6*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:20*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 09:51
Surr: 4-Bromofluorobenzene	*84.4*		*70-123*	*%REC*	*1*	*26-Dec-2018 09:51*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	29-Dec-2018 11:20
TPH (Motor Oil Range)	**4.4**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 11:20
Surr: 2-Fluorobiphenyl	*98.0*		*60-129*	*%REC*	*1*	*29-Dec-2018 11:20*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**670**		**50.1**	**mg/Kg**	10	29-Dec-2018 22:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-2
Collection Date: 19-Dec-2018 14:20

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-10
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:46
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:46
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 21:46
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:46
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 21:46
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 21:46
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*24-Dec-2018 21:46*
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:46*
Surr: Dibromofluoromethane	*112*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:46*
Surr: Toluene-d8	*96.5*		*70-130*	*%REC*	*1*	*24-Dec-2018 21:46*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 10:07
Surr: 4-Bromofluorobenzene	*88.2*		*70-123*	*%REC*	*1*	*26-Dec-2018 10:07*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**67**		**3.4**	**mg/Kg**	2	02-Jan-2019 14:28
TPH (Motor Oil Range)	**78**	n	**6.8**	**mg/Kg**	2	02-Jan-2019 14:28
Surr: 2-Fluorobiphenyl	*81.5*		*60-129*	*%REC*	*2*	*02-Jan-2019 14:28*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**865**		**48.1**	**mg/Kg**	10	29-Dec-2018 23:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-3
Collection Date: 19-Dec-2018 14:30

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-11
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:11
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:11
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 22:11
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:11
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:11
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 22:11
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*24-Dec-2018 22:11*
Surr: 4-Bromofluorobenzene	*99.0*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:11*
Surr: Dibromofluoromethane	*102*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:11*
Surr: Toluene-d8	*97.9*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:11*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 10:24
Surr: 4-Bromofluorobenzene	*84.5*		*70-123*	*%REC*	*1*	*26-Dec-2018 10:24*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**42**		**1.7**	**mg/Kg**	1	29-Dec-2018 12:09
TPH (Motor Oil Range)	**59**	n	**3.4**	**mg/Kg**	1	29-Dec-2018 12:09
Surr: 2-Fluorobiphenyl	*86.9*		*60-129*	*%REC*	*1*	*29-Dec-2018 12:09*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**53.2**		**4.96**	**mg/Kg**	1	29-Dec-2018 23:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-4
Collection Date: 19-Dec-2018 14:40

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-12
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:35
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:35
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 22:35
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:35
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 22:35
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 22:35
Surr: 1,2-Dichloroethane-d4	*98.4*		*70-126*	*%REC*	*1*	*24-Dec-2018 22:35*
Surr: 4-Bromofluorobenzene	*97.7*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:35*
Surr: Dibromofluoromethane	*102*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:35*
Surr: Toluene-d8	*96.0*		*70-130*	*%REC*	*1*	*24-Dec-2018 22:35*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 10:40
Surr: 4-Bromofluorobenzene	*81.5*		*70-123*	*%REC*	*1*	*26-Dec-2018 10:40*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 26-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**80**		**6.7**	**mg/Kg**	4	02-Jan-2019 14:52
TPH (Motor Oil Range)	**110**	n	**13**	**mg/Kg**	4	02-Jan-2019 14:52
Surr: 2-Fluorobiphenyl	*95.1*		*60-129*	*%REC*	*4*	*02-Jan-2019 14:52*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**14.5**		**4.94**	**mg/Kg**	1	30-Dec-2018 00:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-5
Collection Date: 19-Dec-2018 14:50

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-13
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:00
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:00
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 23:00
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:00
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:00
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 23:00
Surr: 1,2-Dichloroethane-d4	*103*		*70-126*	*%REC*	*1*	*24-Dec-2018 23:00*
Surr: 4-Bromofluorobenzene	*99.6*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:00*
Surr: Dibromofluoromethane	*110*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:00*
Surr: Toluene-d8	*95.7*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:00*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 11:29
Surr: 4-Bromofluorobenzene	*85.4*		*70-123*	*%REC*	*1*	*26-Dec-2018 11:29*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 27-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**66**		**1.7**	**mg/Kg**	1	02-Jan-2019 20:09
TPH (Motor Oil Range)	**52**	n	**3.4**	**mg/Kg**	1	02-Jan-2019 20:09
Surr: 2-Fluorobiphenyl	*90.8*		*60-129*	*%REC*	*1*	*02-Jan-2019 20:09*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**121**		**4.90**	**mg/Kg**	1	30-Dec-2018 00:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-6
Collection Date: 19-Dec-2018 15:00

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-14
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0049	mg/Kg	1	24-Dec-2018 23:24
Ethylbenzene	ND		0.0049	mg/Kg	1	24-Dec-2018 23:24
m,p-Xylene	ND		0.0098	mg/Kg	1	24-Dec-2018 23:24
o-Xylene	ND		0.0049	mg/Kg	1	24-Dec-2018 23:24
Toluene	ND		0.0049	mg/Kg	1	24-Dec-2018 23:24
Xylenes, Total	ND		0.0049	mg/Kg	1	24-Dec-2018 23:24
Surr: 1,2-Dichloroethane-d4	*109*		*70-126*	*%REC*	*1*	*24-Dec-2018 23:24*
Surr: 4-Bromofluorobenzene	*99.4*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:24*
Surr: Dibromofluoromethane	*111*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:24*
Surr: Toluene-d8	*95.2*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:24*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 11:45
Surr: 4-Bromofluorobenzene	*84.2*		*70-123*	*%REC*	*1*	*26-Dec-2018 11:45*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 27-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**16**		**1.7**	**mg/Kg**	1	02-Jan-2019 20:33
TPH (Motor Oil Range)	**46**	n	**3.4**	**mg/Kg**	1	02-Jan-2019 20:33
Surr: 2-Fluorobiphenyl	*85.3*		*60-129*	*%REC*	*1*	*02-Jan-2019 20:33*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**1,560**		**49.6**	**mg/Kg**	10	30-Dec-2018 00:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-7
Collection Date: 19-Dec-2018 15:10

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-15
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:49
Ethylbenzene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:49
m,p-Xylene	ND		0.0099	mg/Kg	1	24-Dec-2018 23:49
o-Xylene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:49
Toluene	ND		0.0050	mg/Kg	1	24-Dec-2018 23:49
Xylenes, Total	ND		0.0050	mg/Kg	1	24-Dec-2018 23:49
Surr: 1,2-Dichloroethane-d4	*101*		*70-126*	*%REC*	*1*	*24-Dec-2018 23:49*
Surr: 4-Bromofluorobenzene	*98.4*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:49*
Surr: Dibromofluoromethane	*106*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:49*
Surr: Toluene-d8	*95.3*		*70-130*	*%REC*	*1*	*24-Dec-2018 23:49*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	26-Dec-2018 12:35
Surr: 4-Bromofluorobenzene	*81.9*		*70-123*	*%REC*	*1*	*26-Dec-2018 12:35*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 27-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**48**		**1.7**	**mg/Kg**	1	02-Jan-2019 20:57
TPH (Motor Oil Range)	**39**	n	**3.4**	**mg/Kg**	1	02-Jan-2019 20:57
Surr: 2-Fluorobiphenyl	*89.4*		*60-129*	*%REC*	*1*	*02-Jan-2019 20:57*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**71.1**		**4.94**	**mg/Kg**	1	30-Dec-2018 00:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-8
Collection Date: 19-Dec-2018 15:20

ANALYTICAL REPORT
WorkOrder:HS18121202
Lab ID:HS18121202-16
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: HV
Benzene	ND		0.0050	mg/Kg	1	25-Dec-2018 00:15
Ethylbenzene	ND		0.0050	mg/Kg	1	25-Dec-2018 00:15
m,p-Xylene	ND		0.0099	mg/Kg	1	25-Dec-2018 00:15
o-Xylene	ND		0.0050	mg/Kg	1	25-Dec-2018 00:15
Toluene	ND		0.0050	mg/Kg	1	25-Dec-2018 00:15
Xylenes, Total	ND		0.0050	mg/Kg	1	25-Dec-2018 00:15
Surr: 1,2-Dichloroethane-d4	*106*		*70-126*	*%REC*	*1*	*25-Dec-2018 00:15*
Surr: 4-Bromofluorobenzene	*97.3*		*70-130*	*%REC*	*1*	*25-Dec-2018 00:15*
Surr: Dibromofluoromethane	*109*		*70-130*	*%REC*	*1*	*25-Dec-2018 00:15*
Surr: Toluene-d8	*94.3*		*70-130*	*%REC*	*1*	*25-Dec-2018 00:15*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	26-Dec-2018 12:51
Surr: 4-Bromofluorobenzene	*82.2*		*70-123*	*%REC*	*1*	*26-Dec-2018 12:51*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 27-Dec-2018		Analyst: PVL
TPH (Diesel Range)	**29**		**1.7**	**mg/Kg**	1	02-Jan-2019 21:21
TPH (Motor Oil Range)	**28**	n	**3.4**	**mg/Kg**	1	02-Jan-2019 21:21
Surr: 2-Fluorobiphenyl	*62.4*		*60-129*	*%REC*	*1*	*02-Jan-2019 21:21*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 29-Dec-2018		Analyst: KMU
Chloride	**163**		**4.97**	**mg/Kg**	1	30-Dec-2018 01:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

Batch ID: 2839 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18121202-01	1	5.1 (g)	5 (mL)	1	Bulk (5030B)
HS18121202-02	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-03	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-04	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-05	1	5.13 (g)	5 (mL)	0.97	Bulk (5030B)
HS18121202-06	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-07	1	5.11 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-08	1	5.02 (g)	5 (mL)	1	Bulk (5030B)
HS18121202-09	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18121202-10	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-11	1	5.07 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-12	1	5.06 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-13	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-14	1	5.11 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-15	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-16	1	5.06 (g)	5 (mL)	0.99	Bulk (5030B)

Batch ID: 2841 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS18121202-01	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18121202-02	1	5.12 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-03	1	5.04 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-04	1	5.07 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-05	1	5.12 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-06	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-07	1	5.11 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-08	1	5.07 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-09	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-10	1	5.07 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-11	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-12	1	5.03 (g)	5 (mL)	0.99	Bulk (5030B)
HS18121202-13	1	5.11 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-14	1	5.08 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-15	1	5.11 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-16	1	5.05 (g)	5 (mL)	0.99	Bulk (5030B)

Batch ID: 2842 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS18121202-01	1	5.01 (g)	5 (mL)	1	Bulk (5030B)
HS18121202-03	1	5.1 (g)	5 (mL)	0.98	Bulk (5030B)
HS18121202-07	1	5.12 (g)	5 (mL)	0.98	Bulk (5030B)

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

Batch ID: 136041 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18121202-01	1	30.27	1 (mL)	0.03304
HS18121202-02	1	30.12	1 (mL)	0.0332
HS18121202-03	1	30.33	1 (mL)	0.03297
HS18121202-04	1	30.32	1 (mL)	0.03298
HS18121202-05	1	30.26	1 (mL)	0.03305
HS18121202-06	1	30.39	1 (mL)	0.03291
HS18121202-07	1	30.34	1 (mL)	0.03296
HS18121202-08	1	30.27	1 (mL)	0.03304
HS18121202-09	1	30.34	1 (mL)	0.03296
HS18121202-10	1	30.21	1 (mL)	0.0331
HS18121202-11	1	30.27	1 (mL)	0.03304
HS18121202-12	1	30.36	1 (mL)	0.03294

Batch ID: 136075 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18121202-13	1	30.09	1 (mL)	0.03323
HS18121202-14	1	30.08	1 (mL)	0.03324
HS18121202-15	1	30.1	1 (mL)	0.03322
HS18121202-16	1	30.12	1 (mL)	0.0332

Batch ID: 136154 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18121202-01	1	5.1207	50 (mL)	9.764
HS18121202-02	1	5.2904	50 (mL)	9.451
HS18121202-03	1	5.0739	50 (mL)	9.854
HS18121202-04	1	5.2679	50 (mL)	9.491
HS18121202-05	1	5.0968	50 (mL)	9.81
HS18121202-06	1	5.1723	50 (mL)	9.667
HS18121202-07	1	5.132	50 (mL)	9.743
HS18121202-08	1	5.067	50 (mL)	9.868
HS18121202-09	1	4.9913	50 (mL)	10.02
HS18121202-10	1	5.1945	50 (mL)	9.626
HS18121202-11	1	5.0354	50 (mL)	9.93
HS18121202-12	1	5.0652	50 (mL)	9.871
HS18121202-13	1	5.1011	50 (mL)	9.802
HS18121202-14	1	5.0452	50 (mL)	9.91
HS18121202-15	1	5.0606	50 (mL)	9.88
HS18121202-16	1	5.0288	50 (mL)	9.943

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 136041	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS18121202-01	SW-1	19 Dec 2018 13:15		26 Dec 2018 14:00	29 Dec 2018 06:31	1
HS18121202-02	SW-2	19 Dec 2018 13:20		26 Dec 2018 14:00	29 Dec 2018 07:43	1
HS18121202-03	SW-3	19 Dec 2018 13:30		26 Dec 2018 14:00	29 Dec 2018 08:08	1
HS18121202-04	SW-4	19 Dec 2018 13:40		26 Dec 2018 14:00	29 Dec 2018 08:32	1
HS18121202-05	SW-5	19 Dec 2018 13:45		26 Dec 2018 14:00	29 Dec 2018 08:56	1
HS18121202-06	SW-6	19 Dec 2018 13:50		26 Dec 2018 14:00	29 Dec 2018 09:20	1
HS18121202-07	SW-7	19 Dec 2018 13:55		26 Dec 2018 14:00	29 Dec 2018 09:44	1
HS18121202-08	SW-8	19 Dec 2018 14:00		26 Dec 2018 14:00	29 Dec 2018 10:08	1
HS18121202-09	S-1	19 Dec 2018 14:10		26 Dec 2018 14:00	29 Dec 2018 11:20	1
HS18121202-10	S-2	19 Dec 2018 14:20		26 Dec 2018 14:00	02 Jan 2019 14:28	2
HS18121202-11	S-3	19 Dec 2018 14:30		26 Dec 2018 14:00	29 Dec 2018 12:09	1
HS18121202-12	S-4	19 Dec 2018 14:40		26 Dec 2018 14:00	02 Jan 2019 14:52	4
Batch ID 136075	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS18121202-13	S-5	19 Dec 2018 14:50		27 Dec 2018 14:00	02 Jan 2019 20:09	1
HS18121202-14	S-6	19 Dec 2018 15:00		27 Dec 2018 14:00	02 Jan 2019 20:33	1
HS18121202-15	S-7	19 Dec 2018 15:10		27 Dec 2018 14:00	02 Jan 2019 20:57	1
HS18121202-16	S-8	19 Dec 2018 15:20		27 Dec 2018 14:00	02 Jan 2019 21:21	1
Batch ID 136154	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS18121202-01	SW-1	19 Dec 2018 13:15		29 Dec 2018 15:07	29 Dec 2018 19:58	1
HS18121202-02	SW-2	19 Dec 2018 13:20		29 Dec 2018 15:07	29 Dec 2018 20:13	5
HS18121202-03	SW-3	19 Dec 2018 13:30		29 Dec 2018 15:07	29 Dec 2018 20:57	1
HS18121202-04	SW-4	19 Dec 2018 13:40		29 Dec 2018 15:07	29 Dec 2018 21:11	10
HS18121202-05	SW-5	19 Dec 2018 13:45		29 Dec 2018 15:07	29 Dec 2018 21:26	1
HS18121202-06	SW-6	19 Dec 2018 13:50		29 Dec 2018 15:07	29 Dec 2018 22:09	1
HS18121202-07	SW-7	19 Dec 2018 13:55		29 Dec 2018 15:07	29 Dec 2018 22:24	1
HS18121202-08	SW-8	19 Dec 2018 14:00		29 Dec 2018 15:07	29 Dec 2018 22:38	1
HS18121202-09	S-1	19 Dec 2018 14:10		29 Dec 2018 15:07	29 Dec 2018 22:53	10
HS18121202-10	S-2	19 Dec 2018 14:20		29 Dec 2018 15:07	29 Dec 2018 23:08	10
HS18121202-11	S-3	19 Dec 2018 14:30		29 Dec 2018 15:07	29 Dec 2018 23:51	1
HS18121202-12	S-4	19 Dec 2018 14:40		29 Dec 2018 15:07	30 Dec 2018 00:06	1
HS18121202-13	S-5	19 Dec 2018 14:50		29 Dec 2018 15:07	30 Dec 2018 00:20	1
HS18121202-14	S-6	19 Dec 2018 15:00		29 Dec 2018 15:07	30 Dec 2018 00:35	10
HS18121202-15	S-7	19 Dec 2018 15:10		29 Dec 2018 15:07	30 Dec 2018 00:49	1
HS18121202-16	S-8	19 Dec 2018 15:20		29 Dec 2018 15:07	30 Dec 2018 01:33	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R329953	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS18121202-02	SW-2	19 Dec 2018 13:20			24 Dec 2018 18:27	1
HS18121202-03	SW-3	19 Dec 2018 13:30			24 Dec 2018 18:51	1
HS18121202-04	SW-4	19 Dec 2018 13:40			24 Dec 2018 19:16	1
HS18121202-05	SW-5	19 Dec 2018 13:45			24 Dec 2018 19:40	1
HS18121202-06	SW-6	19 Dec 2018 13:50			24 Dec 2018 20:05	1
HS18121202-07	SW-7	19 Dec 2018 13:55			24 Dec 2018 20:29	1
HS18121202-08	SW-8	19 Dec 2018 14:00			24 Dec 2018 20:56	1
HS18121202-09	S-1	19 Dec 2018 14:10			24 Dec 2018 21:20	1
HS18121202-10	S-2	19 Dec 2018 14:20			24 Dec 2018 21:46	1
HS18121202-11	S-3	19 Dec 2018 14:30			24 Dec 2018 22:11	1
HS18121202-12	S-4	19 Dec 2018 14:40			24 Dec 2018 22:35	1
HS18121202-13	S-5	19 Dec 2018 14:50			24 Dec 2018 23:00	1
HS18121202-14	S-6	19 Dec 2018 15:00			24 Dec 2018 23:24	1
HS18121202-15	S-7	19 Dec 2018 15:10			24 Dec 2018 23:49	1
HS18121202-16	S-8	19 Dec 2018 15:20			25 Dec 2018 00:15	1
Batch ID R329964	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS18121202-01	SW-1	19 Dec 2018 13:15			26 Dec 2018 07:07	1
HS18121202-02	SW-2	19 Dec 2018 13:20			26 Dec 2018 07:23	1
HS18121202-03	SW-3	19 Dec 2018 13:30			26 Dec 2018 07:40	1
HS18121202-04	SW-4	19 Dec 2018 13:40			26 Dec 2018 07:56	1
HS18121202-05	SW-5	19 Dec 2018 13:45			26 Dec 2018 08:13	1
HS18121202-06	SW-6	19 Dec 2018 13:50			26 Dec 2018 08:29	1
HS18121202-07	SW-7	19 Dec 2018 13:55			26 Dec 2018 09:18	1
HS18121202-08	SW-8	19 Dec 2018 14:00			26 Dec 2018 09:34	1
HS18121202-09	S-1	19 Dec 2018 14:10			26 Dec 2018 09:51	1
HS18121202-10	S-2	19 Dec 2018 14:20			26 Dec 2018 10:07	1
HS18121202-11	S-3	19 Dec 2018 14:30			26 Dec 2018 10:24	1
HS18121202-12	S-4	19 Dec 2018 14:40			26 Dec 2018 10:40	1
HS18121202-13	S-5	19 Dec 2018 14:50			26 Dec 2018 11:29	1
HS18121202-14	S-6	19 Dec 2018 15:00			26 Dec 2018 11:45	1
HS18121202-15	S-7	19 Dec 2018 15:10			26 Dec 2018 12:35	1
HS18121202-16	S-8	19 Dec 2018 15:20			26 Dec 2018 12:51	1
Batch ID R330045	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS18121202-01	SW-1	19 Dec 2018 13:15			26 Dec 2018 22:52	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: 136041 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-136041** Units: **mg/Kg** Analysis Date: **29-Dec-2018 01:41**
Client ID: Run ID: **FID-7_330348** SeqNo: **4891069** PrepDate: **26-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*2.795*	*0.10*	*3.33*	*0*	*83.9*	*70 - 130*				

LCS Sample ID: **LCS-136041** Units: **mg/Kg** Analysis Date: **29-Dec-2018 02:05**
Client ID: Run ID: **FID-7_330348** SeqNo: **4891070** PrepDate: **26-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	40.45	1.7	33.33	0	121	70 - 130				
TPH (Motor Oil Range)	34.59	3.4	33.33	0	104	70 - 130				
Surr: 2-Fluorobiphenyl	*3.848*	*0.10*	*3.33*	*0*	*116*	*70 - 130*				

MS Sample ID: **HS18121202-01MS** Units: **mg/Kg** Analysis Date: **29-Dec-2018 06:55**
Client ID: **SW-1** Run ID: **FID-7_330348** SeqNo: **4891079** PrepDate: **26-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	97.81	1.7	33.09	29.2	207	70 - 130				SE
TPH (Motor Oil Range)	80.19	3.4	33.09	39.47	123	70 - 130				E
Surr: 2-Fluorobiphenyl	*3.926*	*0.099*	*3.306*	*0*	*119*	*60 - 129*				

MSD Sample ID: **HS18121202-01MSD** Units: **mg/Kg** Analysis Date: **29-Dec-2018 07:19**
Client ID: **SW-1** Run ID: **FID-7_330348** SeqNo: **4891080** PrepDate: **26-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	98.07	1.7	33.02	29.2	209	70 - 130	97.81	0.268	30	SE
TPH (Motor Oil Range)	84.89	3.4	33.02	39.47	138	70 - 130	80.19	5.7	30	SE
Surr: 2-Fluorobiphenyl	*3.825*	*0.099*	*3.299*	*0*	*116*	*60 - 129*	*3.926*	*2.61*	*30*	

The following samples were analyzed in this batch:

HS18121202-01	HS18121202-02	HS18121202-03	HS18121202-04
HS18121202-05	HS18121202-06	HS18121202-07	HS18121202-08
HS18121202-09	HS18121202-10	HS18121202-11	HS18121202-12

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: 136075 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-136075** Units: **mg/Kg** Analysis Date: **02-Jan-2019 23:47**
Client ID: Run ID: **FID-7_330409** SeqNo: **4892613** PrepDate: **27-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*2.417*	*0.10*	*3.33*	*0*	*72.6*	*70 - 130*				

LCS Sample ID: **LCS-136075** Units: **mg/Kg** Analysis Date: **03-Jan-2019 00:11**
Client ID: Run ID: **FID-7_330409** SeqNo: **4892614** PrepDate: **27-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	29.38	1.7	33.33	0	88.1	70 - 130				
TPH (Motor Oil Range)	26.9	3.4	33.33	0	80.7	70 - 130				
Surr: 2-Fluorobiphenyl	*2.637*	*0.10*	*3.33*	*0*	*79.2*	*70 - 130*				

MS Sample ID: **HS18121202-16MS** Units: **mg/Kg** Analysis Date: **02-Jan-2019 21:45**
Client ID: **S-8** Run ID: **FID-7_330409** SeqNo: **4892611** PrepDate: **27-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	158.6	1.7	33.16	28.53	392	70 - 130				SE
TPH (Motor Oil Range)	63.1	3.4	33.16	27.82	106	70 - 130				
Surr: 2-Fluorobiphenyl	*2.919*	*0.10*	*3.313*	*0*	*88.1*	*60 - 129*				

MSD Sample ID: **HS18121202-16MSD** Units: **mg/Kg** Analysis Date: **02-Jan-2019 22:10**
Client ID: **S-8** Run ID: **FID-7_330409** SeqNo: **4892612** PrepDate: **27-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	50.53	1.7	33.04	28.53	66.6	70 - 130	158.6	103	30	SR
TPH (Motor Oil Range)	34.1	3.4	33.04	27.82	19.0	70 - 130	63.1	59.7	30	SR
Surr: 2-Fluorobiphenyl	*2.869*	*0.099*	*3.301*	*0*	*86.9*	*60 - 129*	*2.919*	*1.72*	*30*	

The following samples were analyzed in this batch: HS18121202-13 HS18121202-14 HS18121202-15 HS18121202-16

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: R329964 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **MBLK-181225** Units: **mg/Kg** Analysis Date: **26-Dec-2018 06:02**
Client ID: Run ID: **FID-14_329964** SeqNo: **4882554** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.07594*	*0.0050*	*0.1*	*0*	*75.9*	*75 - 121*				

LCS Sample ID: **MLCS-181225** Units: **mg/Kg** Analysis Date: **26-Dec-2018 04:57**
Client ID: Run ID: **FID-14_329964** SeqNo: **4882550** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8621	0.050	1	0	86.2	72 - 121				
Surr: 4-Bromofluorobenzene	*0.08424*	*0.0050*	*0.1*	*0*	*84.2*	*75 - 121*				

LCSD Sample ID: **MLCSD-181225** Units: **mg/Kg** Analysis Date: **26-Dec-2018 05:13**
Client ID: Run ID: **FID-14_329964** SeqNo: **4882551** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8436	0.050	1	0	84.4	70 - 121	0.8621	2.17	30	
Surr: 4-Bromofluorobenzene	*0.08263*	*0.0050*	*0.1*	*0*	*82.6*	*75 - 121*	*0.08424*	*1.93*	*30*	

MS Sample ID: **HS18121202-12MS** Units: **mg/Kg** Analysis Date: **26-Dec-2018 10:56**
Client ID: **S-4** Run ID: **FID-14_329964** SeqNo: **4882572** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.09585	0.050	1	0	9.59	70 - 130				S
Surr: 4-Bromofluorobenzene	*0.02754*	*0.0050*	*0.1*	*0*	*27.5*	*70 - 123*				S

MSD Sample ID: **HS18121202-12MSD** Units: **mg/Kg** Analysis Date: **26-Dec-2018 11:12**
Client ID: **S-4** Run ID: **FID-14_329964** SeqNo: **4882573** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.1878	0.050	1	0	18.8	70 - 130	0.09585	64.8	30	SR
Surr: 4-Bromofluorobenzene	*0.03347*	*0.0050*	*0.1*	*0*	*33.5*	*70 - 123*	*0.02754*	*19.4*	*30*	S

The following samples were analyzed in this batch:

HS18121202-01	HS18121202-02	HS18121202-03	HS18121202-04
HS18121202-05	HS18121202-06	HS18121202-07	HS18121202-08
HS18121202-09	HS18121202-10	HS18121202-11	HS18121202-12
HS18121202-13	HS18121202-14	HS18121202-15	HS18121202-16

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: R329953 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS-122418** Units: **ug/Kg** Analysis Date: **24-Dec-2018 14:26**
Client ID: Run ID: **VOA8_329953** SeqNo: **4882347** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*49.92*	*0*	*50*	*0*	*99.8*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.32*	*0*	*50*	*0*	*96.6*	*80 - 120*				
Surr: Dibromofluoromethane	*52.89*	*0*	*50*	*0*	*106*	*80 - 119*				
Surr: Toluene-d8	*48.97*	*0*	*50*	*0*	*97.9*	*81 - 118*				

LCS Sample ID: **VLCSS-122418** Units: **ug/Kg** Analysis Date: **24-Dec-2018 13:21**
Client ID: Run ID: **VOA8_329953** SeqNo: **4882346** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.91	5.0	50	0	102	75 - 124				
Ethylbenzene	52.17	5.0	50	0	104	70 - 123				
m,p-Xylene	103.4	10	100	0	103	77 - 125				
o-Xylene	52.28	5.0	50	0	105	78 - 122				
Toluene	46.75	5.0	50	0	93.5	76 - 122				
Xylenes, Total	155.6	5.0	150	0	104	77 - 128				
Surr: 1,2-Dichloroethane-d4	*53.1*	*0*	*50*	*0*	*106*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.36*	*0*	*50*	*0*	*101*	*80 - 120*				
Surr: Dibromofluoromethane	*55.44*	*0*	*50*	*0*	*111*	*80 - 119*				
Surr: Toluene-d8	*48.34*	*0*	*50*	*0*	*96.7*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: R329953 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS18121198-04MS** Units: **ug/Kg** Analysis Date: **24-Dec-2018 15:32**
Client ID: Run ID: **VOA8_329953** SeqNo: **4882349** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	33.98	4.9	49	0	69.4	70 - 130				S
Ethylbenzene	24.69	4.9	49	0	50.4	70 - 130				S
m,p-Xylene	46.95	9.8	98	0	47.9	70 - 130				S
o-Xylene	23.42	4.9	49	0	47.8	70 - 130				S
Toluene	26.85	4.9	49	0	54.8	70 - 130				S
Xylenes, Total	70.37	4.9	147	0	47.9	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*46.98*	*0*	*49*	*0*	*95.9*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*48.54*	*0*	*49*	*0*	*99.1*	*70 - 130*				
Surr: Dibromofluoromethane	*48.69*	*0*	*49*	*0*	*99.4*	*70 - 130*				
Surr: Toluene-d8	*47.35*	*0*	*49*	*0*	*96.6*	*70 - 130*				

MSD Sample ID: **HS18121198-04MSD** Units: **ug/Kg** Analysis Date: **24-Dec-2018 16:00**
Client ID: Run ID: **VOA8_329953** SeqNo: **4882350** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	40.91	4.9	49	0	83.5	70 - 130	33.98	18.5	30	
Ethylbenzene	32.46	4.9	49	0	66.3	70 - 130	24.69	27.2	30	S
m,p-Xylene	61.32	9.8	98	0	62.6	70 - 130	46.95	26.6	30	S
o-Xylene	30.7	4.9	49	0	62.6	70 - 130	23.42	26.9	30	S
Toluene	34.58	4.9	49	0	70.6	70 - 130	26.85	25.2	30	
Xylenes, Total	92.02	4.9	147	0	62.6	70 - 130	70.37	26.7	30	S
Surr: 1,2-Dichloroethane-d4	*47.55*	*0*	*49*	*0*	*97.0*	*70 - 126*	*46.98*	*1.22*	*30*	
Surr: 4-Bromofluorobenzene	*48.1*	*0*	*49*	*0*	*98.2*	*70 - 130*	*48.54*	*0.915*	*30*	
Surr: Dibromofluoromethane	*53.4*	*0*	*49*	*0*	*109*	*70 - 130*	*48.69*	*9.22*	*30*	
Surr: Toluene-d8	*48.97*	*0*	*49*	*0*	*99.9*	*70 - 130*	*47.35*	*3.37*	*30*	

The following samples were analyzed in this batch:

HS18121202-02	HS18121202-03	HS18121202-04	HS18121202-05
HS18121202-06	HS18121202-07	HS18121202-08	HS18121202-09
HS18121202-10	HS18121202-11	HS18121202-12	HS18121202-13
HS18121202-14	HS18121202-15	HS18121202-16	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: R330045 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLK1-181226** Units: **ug/Kg** Analysis Date: **26-Dec-2018 21:12**
Client ID: Run ID: **VOA8_330045** SeqNo: **4884342** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*50.6*	*0*	*50*	*0*	*101*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*48.37*	*0*	*50*	*0*	*96.7*	*80 - 120*				
Surr: Dibromofluoromethane	*51.94*	*0*	*50*	*0*	*104*	*80 - 119*				
Surr: Toluene-d8	*51.67*	*0*	*50*	*0*	*103*	*81 - 118*				

LCS Sample ID: **VLCS1-181226** Units: **ug/Kg** Analysis Date: **26-Dec-2018 20:47**
Client ID: Run ID: **VOA8_330045** SeqNo: **4884341** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	59.68	5.0	50	0	119	75 - 124				
Ethylbenzene	58.46	5.0	50	0	117	70 - 123				
m,p-Xylene	115.2	10	100	0	115	77 - 125				
o-Xylene	57.25	5.0	50	0	114	78 - 122				
Toluene	52.69	5.0	50	0	105	76 - 122				
Xylenes, Total	172.5	5.0	150	0	115	77 - 128				
Surr: 1,2-Dichloroethane-d4	*44.88*	*0*	*50*	*0*	*89.8*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*40.26*	*0*	*50*	*0*	*80.5*	*80 - 120*				
Surr: Dibromofluoromethane	*46.02*	*0*	*50*	*0*	*92.0*	*80 - 119*				
Surr: Toluene-d8	*40.67*	*0*	*50*	*0*	*81.3*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: R330045 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS18121202-01MS** Units: **ug/Kg** Analysis Date: **26-Dec-2018 23:16**
Client ID: **SW-1** Run ID: **VOA8_330045** SeqNo: **4884347** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	42.81	5.0	50	0	85.6	70 - 130				
Ethylbenzene	32.93	5.0	50	0	65.9	70 - 130				S
m,p-Xylene	67.03	10	100	0	67.0	70 - 130				S
o-Xylene	36.75	5.0	50	0	73.5	70 - 130				
Toluene	28.57	5.0	50	0	57.1	70 - 130				S
Xylenes, Total	103.8	5.0	150	0	69.2	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*46.9*	*0*	*50*	*0*	*93.8*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*49.58*	*0*	*50*	*0*	*99.2*	*70 - 130*				
Surr: Dibromofluoromethane	*52.51*	*0*	*50*	*0*	*105*	*70 - 130*				
Surr: Toluene-d8	*51.22*	*0*	*50*	*0*	*102*	*70 - 130*				

MSD Sample ID: **HS18121202-01MSD** Units: **ug/Kg** Analysis Date: **26-Dec-2018 23:42**
Client ID: **SW-1** Run ID: **VOA8_330045** SeqNo: **4884348** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	43.99	5.0	50	0	88.0	70 - 130	42.81	2.73	30	
Ethylbenzene	36.12	5.0	50	0	72.2	70 - 130	32.93	9.24	30	
m,p-Xylene	72.62	10	100	0	72.6	70 - 130	67.03	8	30	
o-Xylene	41.03	5.0	50	0	82.1	70 - 130	36.75	11	30	
Toluene	31.51	5.0	50	0	63.0	70 - 130	28.57	9.78	30	S
Xylenes, Total	113.6	5.0	150	0	75.8	70 - 130	103.8	9.08	30	
Surr: 1,2-Dichloroethane-d4	*49.06*	*0*	*50*	*0*	*98.1*	*70 - 126*	*46.9*	*4.52*	*30*	
Surr: 4-Bromofluorobenzene	*49*	*0*	*50*	*0*	*98.0*	*70 - 130*	*49.58*	*1.18*	*30*	
Surr: Dibromofluoromethane	*54.49*	*0*	*50*	*0*	*109*	*70 - 130*	*52.51*	*3.69*	*30*	
Surr: Toluene-d8	*51.01*	*0*	*50*	*0*	*102*	*70 - 130*	*51.22*	*0.408*	*30*	

The following samples were analyzed in this batch: HS18121202-01

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: 136154 **Instrument: ICS2100** **Method: E300**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
MBLK Sample ID: **MBLK-136154** Units: **mg/Kg** Analysis Date: **29-Dec-2018 18:17**										
Client ID: Run ID: **ICS2100_330218** SeqNo: **4888136** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	ND	5.00								
LCS Sample ID: **LCS-136154** Units: **mg/Kg** Analysis Date: **29-Dec-2018 18:31**										
Client ID: Run ID: **ICS2100_330218** SeqNo: **4888137** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	202.9	5.00	200	0	101	90 - 110				
LCSD Sample ID: **LCSD-136154** Units: **mg/Kg** Analysis Date: **29-Dec-2018 18:46**										
Client ID: Run ID: **ICS2100_330218** SeqNo: **4888138** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	195.3	5.00	200	0	97.6	90 - 110	202.9	3.83	20	
MS Sample ID: **HS18121202-15MS** Units: **mg/Kg** Analysis Date: **30-Dec-2018 01:04**										
Client ID: **S-7** Run ID: **ICS2100_330218** SeqNo: **4888164** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	167.7	4.91	98.19	71.12	98.4	75 - 125				
MS Sample ID: **HS18121202-05MS** Units: **mg/Kg** Analysis Date: **29-Dec-2018 21:40**										
Client ID: **SW-5** Run ID: **ICS2100_330218** SeqNo: **4888150** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	543.8	4.95	99.07	505.6	38.6	75 - 125				SO
MSD Sample ID: **HS18121202-15MSD** Units: **mg/Kg** Analysis Date: **30-Dec-2018 01:18**										
Client ID: **S-7** Run ID: **ICS2100_330218** SeqNo: **4888165** PrepDate: **29-Dec-2018** DF: **1**										
Chloride	166.9	4.92	98.35	71.12	97.4	75 - 125	167.7	0.481	20	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS18121202

QC BATCH REPORT

Batch ID: 136154 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS18121202-05MSD** Units: **mg/Kg** Analysis Date: **29-Dec-2018 21:55**
Client ID: **SW-5** Run ID: **ICS2100_330218** SeqNo: **4888151** PrepDate: **29-Dec-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	529.2	4.92	98.4	505.6	24.0	75 - 125	543.8	2.73	20	SO

The following samples were analyzed in this batch:

HS18121202-01	HS18121202-02	HS18121202-03	HS18121202-04
HS18121202-05	HS18121202-06	HS18121202-07	HS18121202-08
HS18121202-09	HS18121202-10	HS18121202-11	HS18121202-12
HS18121202-13	HS18121202-14	HS18121202-15	HS18121202-16

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: **HS18121202**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS18121202

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18121202-01	SW-1	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-02	SW-2	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-03	SW-3	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-04	SW-4	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-05	SW-5	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-06	SW-6	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-07	SW-7	Login	12/20/2018 8:11:56 PM	JRM	B004
HS18121202-08	SW-8	Login	12/20/2018 8:11:56 PM	JRM	B004

Sample Receipt Checklist

Client Name: WSP Dallas
Work Order: HS18121202
Date/Time Received: **20-Dec-2018 11:00**
Received by: **JRM**

Checklist completed by: *Jared R. Makan* eSignature 20-Dec-2018 Date
Reviewed by: *Bernadette A. Fini* eSignature 21-Dec-2018 Date

Matrices: **Soil**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.0c/2.4c UC/C	IR11	
Cooler(s)/Kit(s):	43161		
Date/Time sample(s) sent to storage:	12/20/2018 20:06		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 2

COC ID: 192599

HS18121202

WSP Environment & Energy
Huber CTB

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	Huber CTB	A	TPH DRO/ORO
Work Order		Project Number		B	TPH GRO
Company Name	WSP Environment & Energy	Bill To Company	WSP Environment & Energy	C	BTEX
Send Report To	Matthew Boyle	Invoice Attn	Accounts Payable	D	Chlorides
Address	2777 N. Stemmons Fwy. Suite 1600	Address	2777 N. Stemmons Fwy. Suite 1600	E	
City/State/Zip	Dallas, TX 75207	City/State/Zip	Dallas TX 75207	F	
Phone	(817) 713-0262	Phone	(817) 713-0262	G	
Fax		Fax		H	
e-Mail Address	matthew.boyle@wsp.com	e-Mail Address	Accountspayable@WSPGroup.com	I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Sw-1	12-19-18	1:15	Soil	Ice	1											
2	Sw-2		1:25														
3	Sw-3		1:30														
4	Sw-4		1:40														
5	Sw-5		1:45														
6	Sw-6		1:50														
7	Sw-7		1:55														
8	Sw-8	12-19-18	2:00														
9	S-1		2:10														
10	S-2		2:20														

Sampler(s) Please Print & Sign: Matthew Boyle MATTHEW BOYLE

Shipment Method: Fedex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date: 12-19-18	Time: 5:00	Received by:	
Relinquished by:	Date:	Time:	Received by (Laboratory):	
Logged by (Laboratory):	Date: 12/20/18	Time: 11:00	Checked by (Laboratory):	J. Waumm

Notes: WSP Base Pricing

Cooler ID	Cooler Temp.
43161	4C
	2.0
	1x11
	CF 0.4

QC Package: (Check One Box Below)

- ☒ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

COC ID: 192600

HS18121202

WSP Environment & Energy
Huber CTB

Customer Information		Project Information		ALS Project Manager:
Purchase Order		Project Name	Huber CTB	
Work Order		Project Number		
Company Name	WSP Environment & Energy	Bill To Company	WSP Environment & Energy	
Send Report To	Matthew Boyle	Invoice Attn	Accounts Payable	
Address	2777 N. Stemmons Fwy. Suite 1600	Address	2777 N. Stemmons Fwy. Suite 1600	
City/State/Zip	Dallas, TX 75207	City/State/Zip	Dallas TX 75207	
Phone	(817) 713-0262	Phone	(817) 713-0262	
Fax		Fax		
e-Mail Address	matthew.boyle@wsp.com	e-Mail Address	Accountspayable@WSPGroup.com	

A TPH PRO/ORO
B TPH GRO
C BTEX
D Chlorides
E
F
G
H
I
J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-3	12/9/18	2:30	Soil	Ice	1	✓	✓	✓	✓							
2	S-4		2:40														
3	S-5		2:50														
4	S-6		3:00														
5	S-7		3:10														
6	S-8		3:20														
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Matthew Boyle Matthew Boyle

Shipment Method: Fedex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Matthew Boyle Date: 12/9/18 Time: 5:00 Received by:

Relinquished by: Date: 12/11/18 Time: 11:50 Received by (Laboratory): J. Summers

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: WSP Base Pricing

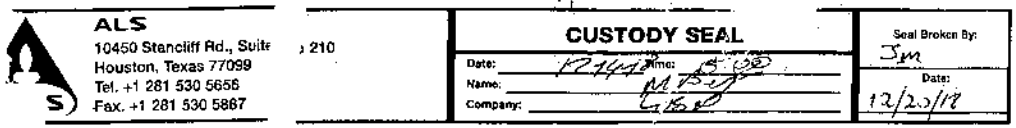
Cooler ID	Cooler Temp.
	UL
03161	2.0
	1.1
	CF 0.4

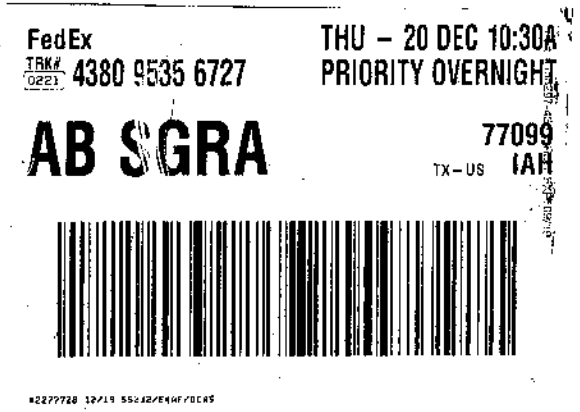
QC Package: (Check One Box Below)

☒ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other
☐ TRRP Checklist
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.





10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

January 16, 2019

Matthew Boyle
WSP Environment & Energy
2777 N. Stemmons Fwy. Suite 1600
Dallas, TX 75207

Work Order: **HS19010535**

Laboratory Results for: **Huber CTB**

Dear Matthew,

ALS Environmental received 3 sample(s) on Jan 12, 2019 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Bernadette A. Fini
Project Manager

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS19010535

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19010535-01	S-1R	Soil		09-Jan-2019 14:45	12-Jan-2019 09:35	☐
HS19010535-02	S-2R	Soil		09-Jan-2019 14:50	12-Jan-2019 09:35	☐
HS19010535-03	S-6R	Soil		09-Jan-2019 14:55	12-Jan-2019 09:35	☐

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS19010535

GC Semivolatiles by Method SW8015M

Batch ID: 136590

Sample ID: HS19010534-01MS

- MS and MSD are for an unrelated sample

GC Volatiles by Method SW8015

Batch ID: R331091

Sample ID: HS19010536-06MS

- MS and MSD are for an unrelated sample

GCMS Volatiles by Method SW8260

Batch ID: R330969

Sample ID: HS19010534-02MS

- MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: 136563

Sample ID: HS19010534-04MS

- MS and MSD are for an unrelated sample (Chloride)

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-1R
Collection Date: 09-Jan-2019 14:45

ANALYTICAL REPORT
WorkOrder:HS19010535
Lab ID:HS19010535-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0049	mg/Kg	1	14-Jan-2019 20:23
Ethylbenzene	ND		0.0049	mg/Kg	1	14-Jan-2019 20:23
m,p-Xylene	ND		0.0098	mg/Kg	1	14-Jan-2019 20:23
o-Xylene	ND		0.0049	mg/Kg	1	14-Jan-2019 20:23
Toluene	ND		0.0049	mg/Kg	1	14-Jan-2019 20:23
Xylenes, Total	ND		0.0049	mg/Kg	1	14-Jan-2019 20:23
Surr: 1,2-Dichloroethane-d4	*93.6*		*70-126*	*%REC*	*1*	*14-Jan-2019 20:23*
Surr: 4-Bromofluorobenzene	*94.2*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:23*
Surr: Dibromofluoromethane	*96.6*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:23*
Surr: Toluene-d8	*99.6*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:23*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jan-2019 15:49
Surr: 4-Bromofluorobenzene	*118*		*70-123*	*%REC*	*1*	*15-Jan-2019 15:49*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 14-Jan-2019		Analyst: PVL
TPH (Diesel Range)	**10**		**1.7**	**mg/Kg**	1	15-Jan-2019 14:38
TPH (Motor Oil Range)	**47**	n	**3.4**	**mg/Kg**	1	15-Jan-2019 14:38
Surr: 2-Fluorobiphenyl	*62.4*		*60-129*	*%REC*	*1*	*15-Jan-2019 14:38*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 14-Jan-2019		Analyst: KMU
Chloride	**51.3**		**4.83**	**mg/Kg**	1	16-Jan-2019 05:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-2R
Collection Date: 09-Jan-2019 14:50

ANALYTICAL REPORT
WorkOrder:HS19010535
Lab ID:HS19010535-02
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	14-Jan-2019 20:48
Ethylbenzene	ND		0.0050	mg/Kg	1	14-Jan-2019 20:48
m,p-Xylene	ND		0.0099	mg/Kg	1	14-Jan-2019 20:48
o-Xylene	ND		0.0050	mg/Kg	1	14-Jan-2019 20:48
Toluene	ND		0.0050	mg/Kg	1	14-Jan-2019 20:48
Xylenes, Total	ND		0.0050	mg/Kg	1	14-Jan-2019 20:48
Surr: 1,2-Dichloroethane-d4	*89.0*		*70-126*	*%REC*	*1*	*14-Jan-2019 20:48*
Surr: 4-Bromofluorobenzene	*93.3*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:48*
Surr: Dibromofluoromethane	*94.6*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:48*
Surr: Toluene-d8	*98.8*		*70-130*	*%REC*	*1*	*14-Jan-2019 20:48*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.048	mg/Kg	1	15-Jan-2019 16:05
Surr: 4-Bromofluorobenzene	*117*		*70-123*	*%REC*	*1*	*15-Jan-2019 16:05*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 14-Jan-2019		Analyst: PVL
TPH (Diesel Range)	**11**		**1.7**	**mg/Kg**	1	15-Jan-2019 17:50
TPH (Motor Oil Range)	**6.6**	n	**3.4**	**mg/Kg**	1	15-Jan-2019 17:50
Surr: 2-Fluorobiphenyl	*65.3*		*60-129*	*%REC*	*1*	*15-Jan-2019 17:50*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 14-Jan-2019		Analyst: KMU
Chloride	**65.8**		**4.82**	**mg/Kg**	1	16-Jan-2019 06:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-6R
Collection Date: 09-Jan-2019 14:55

ANALYTICAL REPORT
WorkOrder:HS19010535
Lab ID:HS19010535-03
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0047	mg/Kg	1	14-Jan-2019 21:12
Ethylbenzene	ND		0.0047	mg/Kg	1	14-Jan-2019 21:12
m,p-Xylene	ND		0.0094	mg/Kg	1	14-Jan-2019 21:12
o-Xylene	ND		0.0047	mg/Kg	1	14-Jan-2019 21:12
Toluene	ND		0.0047	mg/Kg	1	14-Jan-2019 21:12
Xylenes, Total	ND		0.0047	mg/Kg	1	14-Jan-2019 21:12
Surr: 1,2-Dichloroethane-d4	*94.6*		*70-126*	*%REC*	*1*	*14-Jan-2019 21:12*
Surr: 4-Bromofluorobenzene	*94.8*		*70-130*	*%REC*	*1*	*14-Jan-2019 21:12*
Surr: Dibromofluoromethane	*98.4*		*70-130*	*%REC*	*1*	*14-Jan-2019 21:12*
Surr: Toluene-d8	*98.4*		*70-130*	*%REC*	*1*	*14-Jan-2019 21:12*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.050	mg/Kg	1	15-Jan-2019 16:22
Surr: 4-Bromofluorobenzene	*121*		*70-123*	*%REC*	*1*	*15-Jan-2019 16:22*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 14-Jan-2019		Analyst: PVL
TPH (Diesel Range)	ND		1.7	mg/Kg	1	15-Jan-2019 15:26
TPH (Motor Oil Range)	**25**	n	**3.4**	**mg/Kg**	1	15-Jan-2019 15:26
Surr: 2-Fluorobiphenyl	*61.6*		*60-129*	*%REC*	*1*	*15-Jan-2019 15:26*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 14-Jan-2019		Analyst: KMU
Chloride	**3,700**		**48.7**	**mg/Kg**	10	16-Jan-2019 06:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

Batch ID: 2866 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS19010535-01	1	5.102 (g)	5 (mL)	0.98	Bulk (5030B)
HS19010535-02	1	5.066 (g)	5 (mL)	0.99	Bulk (5030B)
HS19010535-03	1	5.296 (g)	5 (mL)	0.94	Bulk (5030B)

Batch ID: 2868 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS19010535-01	1	5.06 (g)	5 (mL)	0.99	Bulk (5030B)
HS19010535-02	1	5.13 (g)	5 (mL)	0.97	Bulk (5030B)
HS19010535-03	1	5.01 (g)	5 (mL)	1	Bulk (5030B)

Batch ID: 136563 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19010535-01	1	5.1763	50 (mL)	9.659
HS19010535-02	1	5.1828	50 (mL)	9.647
HS19010535-03	1	5.1334	50 (mL)	9.74

Batch ID: 136590 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19010535-01	1	30.23	1 (mL)	0.03308
HS19010535-02	1	30.19	1 (mL)	0.03312
HS19010535-03	1	30.31	1 (mL)	0.03299

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 136563	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS19010535-01	S-1R	09 Jan 2019 14:45		14 Jan 2019 09:50	16 Jan 2019 05:57	1
HS19010535-02	S-2R	09 Jan 2019 14:50		14 Jan 2019 09:50	16 Jan 2019 06:12	1
HS19010535-03	S-6R	09 Jan 2019 14:55		14 Jan 2019 09:50	16 Jan 2019 06:26	10
Batch ID 136590	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS19010535-01	S-1R	09 Jan 2019 14:45		14 Jan 2019 11:00	15 Jan 2019 14:38	1
HS19010535-02	S-2R	09 Jan 2019 14:50		14 Jan 2019 11:00	15 Jan 2019 17:50	1
HS19010535-03	S-6R	09 Jan 2019 14:55		14 Jan 2019 11:00	15 Jan 2019 15:26	1
Batch ID R330969	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS19010535-01	S-1R	09 Jan 2019 14:45			14 Jan 2019 20:23	1
HS19010535-02	S-2R	09 Jan 2019 14:50			14 Jan 2019 20:48	1
HS19010535-03	S-6R	09 Jan 2019 14:55			14 Jan 2019 21:12	1
Batch ID R331091	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS19010535-01	S-1R	09 Jan 2019 14:45			15 Jan 2019 15:49	1
HS19010535-02	S-2R	09 Jan 2019 14:50			15 Jan 2019 16:05	1
HS19010535-03	S-6R	09 Jan 2019 14:55			15 Jan 2019 16:22	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: 136590 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-136590** Units: **mg/Kg** Analysis Date: **15-Jan-2019 12:37**
Client ID: Run ID: **FID-7_331115** SeqNo: **4910179** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*3.09*	*0.10*	*3.33*	*0*	*92.8*	*70 - 130*				

LCS Sample ID: **LCS-136590** Units: **mg/Kg** Analysis Date: **15-Jan-2019 13:01**
Client ID: Run ID: **FID-7_331115** SeqNo: **4910180** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	37.14	1.7	33.33	0	111	70 - 130				
TPH (Motor Oil Range)	29.37	3.4	33.33	0	88.1	70 - 130				
Surr: 2-Fluorobiphenyl	*2.827*	*0.10*	*3.33*	*0*	*84.9*	*70 - 130*				

MS Sample ID: **HS19010534-01MS** Units: **mg/Kg** Analysis Date: **15-Jan-2019 13:49**
Client ID: Run ID: **FID-7_331115** SeqNo: **4910182** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	73.7	1.7	33.23	39.24	104	70 - 130				E
TPH (Motor Oil Range)	60.53	3.4	33.23	40.61	60.0	70 - 130				S
Surr: 2-Fluorobiphenyl	*2.666*	*0.10*	*3.32*	*0*	*80.3*	*60 - 129*				

MSD Sample ID: **HS19010534-01MSD** Units: **mg/Kg** Analysis Date: **15-Jan-2019 14:13**
Client ID: Run ID: **FID-7_331115** SeqNo: **4910183** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	81.49	1.7	33.2	39.24	127	70 - 130	73.7	10	30	E
TPH (Motor Oil Range)	76.02	3.4	33.2	40.61	107	70 - 130	60.53	22.7	30	E
Surr: 2-Fluorobiphenyl	*2.756*	*0.10*	*3.317*	*0*	*83.1*	*60 - 129*	*2.666*	*3.33*	*30*	

The following samples were analyzed in this batch: HS19010535-01 HS19010535-02 HS19010535-03

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: R331091 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **MBLK-190115** Units: **mg/Kg** Analysis Date: **15-Jan-2019 12:02**
Client ID: Run ID: **FID-14_331091** SeqNo: **4909777** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.1116*	*0.0050*	*0.1*	*0*	*112*	*75 - 121*				

LCS Sample ID: **GLCS-190115** Units: **mg/Kg** Analysis Date: **15-Jan-2019 11:30**
Client ID: Run ID: **FID-14_331091** SeqNo: **4909775** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8636	0.050	1	0	86.4	72 - 121				
Surr: 4-Bromofluorobenzene	*0.07882*	*0.0050*	*0.1*	*0*	*78.8*	*75 - 121*				

LCSD Sample ID: **GLCSD-190115** Units: **mg/Kg** Analysis Date: **15-Jan-2019 11:46**
Client ID: Run ID: **FID-14_331091** SeqNo: **4909776** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8526	0.050	1	0	85.3	70 - 121	0.8636	1.28	30	
Surr: 4-Bromofluorobenzene	*0.07831*	*0.0050*	*0.1*	*0*	*78.3*	*75 - 121*	*0.07882*	*0.647*	*30*	

MS Sample ID: **HS19010536-06MS** Units: **mg/Kg** Analysis Date: **15-Jan-2019 19:03**
Client ID: Run ID: **FID-14_331091** SeqNo: **4909802** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.5838	0.048	0.97	0	60.2	70 - 130				S
Surr: 4-Bromofluorobenzene	*0.05372*	*0.0048*	*0.097*	*0*	*55.4*	*70 - 123*				S

MSD Sample ID: **HS19010536-06MSD** Units: **mg/Kg** Analysis Date: **15-Jan-2019 19:19**
Client ID: Run ID: **FID-14_331091** SeqNo: **4909803** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.3511	0.048	0.97	0	36.2	70 - 130	0.5838	49.8	30	SR
Surr: 4-Bromofluorobenzene	*0.02766*	*0.0048*	*0.097*	*0*	*28.5*	*70 - 123*	*0.05372*	*64*	*30*	SR

The following samples were analyzed in this batch: HS19010535-01 HS19010535-02 HS19010535-03

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: R330969 **Instrument: VOA5** **Method: SW8260**

MBLK Sample ID: **VBLKS1-011419** Units: **ug/Kg** Analysis Date: **14-Jan-2019 14:40**
Client ID: Run ID: **VOA5_330969** SeqNo: **4907010** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*44.61*	*0*	*50*	*0*	*89.2*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*46.61*	*0*	*50*	*0*	*93.2*	*80 - 120*				
Surr: Dibromofluoromethane	*47.73*	*0*	*50*	*0*	*95.5*	*80 - 119*				
Surr: Toluene-d8	*49.22*	*0*	*50*	*0*	*98.4*	*81 - 118*				

LCS Sample ID: **VLCSS1-011419** Units: **ug/Kg** Analysis Date: **14-Jan-2019 13:51**
Client ID: Run ID: **VOA5_330969** SeqNo: **4907009** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.19	5.0	50	0	104	75 - 124				
Ethylbenzene	53.57	5.0	50	0	107	70 - 123				
m,p-Xylene	107.1	10	100	0	107	77 - 125				
o-Xylene	53.47	5.0	50	0	107	78 - 122				
Toluene	52.48	5.0	50	0	105	76 - 122				
Xylenes, Total	160.6	5.0	150	0	107	77 - 128				
Surr: 1,2-Dichloroethane-d4	*50.18*	*0*	*50*	*0*	*100*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.24*	*0*	*50*	*0*	*100*	*80 - 120*				
Surr: Dibromofluoromethane	*51.48*	*0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*50.09*	*0*	*50*	*0*	*100*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: R330969 **Instrument: VOA5** **Method: SW8260**

MS Sample ID: **HS19010534-02MS** Units: **ug/Kg** Analysis Date: **14-Jan-2019 15:53**
Client ID: Run ID: **VOA5_330969** SeqNo: **4907221** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	23.94	4.7	47	0	50.9	70 - 130				S
Ethylbenzene	25.47	4.7	47	0	54.2	70 - 130				S
m,p-Xylene	51.28	9.4	94	0	54.6	70 - 130				S
o-Xylene	24.61	4.7	47	0	52.4	70 - 130				S
Toluene	24.53	4.7	47	0	52.2	70 - 130				S
Xylenes, Total	75.9	4.7	141	0	53.8	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*49.67*	*0*	*47*	*0*	*106*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*45.85*	*0*	*47*	*0*	*97.6*	*70 - 130*				
Surr: Dibromofluoromethane	*47.93*	*0*	*47*	*0*	*102*	*70 - 130*				
Surr: Toluene-d8	*44.32*	*0*	*47*	*0*	*94.3*	*70 - 130*				

MSD Sample ID: **HS19010534-02MSD** Units: **ug/Kg** Analysis Date: **14-Jan-2019 16:18**
Client ID: Run ID: **VOA5_330969** SeqNo: **4907222** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.87	4.8	48	0	47.7	70 - 130	23.94	4.58	30	S
Ethylbenzene	21.98	4.8	48	0	45.8	70 - 130	25.47	14.7	30	S
m,p-Xylene	43.22	9.6	96	0	45.0	70 - 130	51.28	17.1	30	S
o-Xylene	21.55	4.8	48	0	44.9	70 - 130	24.61	13.3	30	S
Toluene	22.26	4.8	48	0	46.4	70 - 130	24.53	9.69	30	S
Xylenes, Total	64.76	4.8	144	0	45.0	70 - 130	75.9	15.8	30	S
Surr: 1,2-Dichloroethane-d4	*52.32*	*0*	*48*	*0*	*109*	*70 - 126*	*49.67*	*5.2*	*30*	
Surr: 4-Bromofluorobenzene	*48.39*	*0*	*48*	*0*	*101*	*70 - 130*	*45.85*	*5.39*	*30*	
Surr: Dibromofluoromethane	*49.78*	*0*	*48*	*0*	*104*	*70 - 130*	*47.93*	*3.79*	*30*	
Surr: Toluene-d8	*47.22*	*0*	*48*	*0*	*98.4*	*70 - 130*	*44.32*	*6.33*	*30*	

The following samples were analyzed in this batch: HS19010535-01 HS19010535-02 HS19010535-03

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: 136563 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **MBLK-136563** Units: **mg/Kg** Analysis Date: **16-Jan-2019 01:06**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910224** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

LCS Sample ID: **LCS-136563** Units: **mg/Kg** Analysis Date: **16-Jan-2019 01:21**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910225** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	201.1	5.00	200	0	101	90 - 110				

LCSD Sample ID: **LCSD-136563** Units: **mg/Kg** Analysis Date: **16-Jan-2019 01:35**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910226** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	198.5	5.00	200	0	99.2	90 - 110	201.1	1.31	20	

MS Sample ID: **HS19010536-01MS** Units: **mg/Kg** Analysis Date: **16-Jan-2019 06:55**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910248** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	201.6	4.83	96.6	101.9	103	75 - 125				

MS Sample ID: **HS19010534-04MS** Units: **mg/Kg** Analysis Date: **16-Jan-2019 03:17**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910233** PrepDate: **14-Jan-2019** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4015	49.6	992	2619	141	75 - 125				S

MSD Sample ID: **HS19010536-01MSD** Units: **mg/Kg** Analysis Date: **16-Jan-2019 07:10**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910249** PrepDate: **14-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	212.4	4.97	99.36	101.9	111	75 - 125	201.6	5.24	20	

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010535

QC BATCH REPORT

Batch ID: 136563 **Instrument: ICS2100** **Method: E300**

MSD Sample ID: **HS19010534-04MSD** Units: **mg/Kg** Analysis Date: **16-Jan-2019 03:31**
Client ID: Run ID: **ICS2100_331117** SeqNo: **4910234** PrepDate: **14-Jan-2019** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3626	49.5	989.6	2619	102	75 - 125	4015	10.2	20	

The following samples were analyzed in this batch: HS19010535-01 HS19010535-02 HS19010535-03

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: **HS19010535**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS19010535

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS19010535-01	S-1R	Login	1/12/2019 11:13:34 AM	JRM	VOA153
HS19010535-02	S-2R	Login	1/12/2019 11:13:34 AM	JRM	VOA153
HS19010535-03	S-6R	Login	1/12/2019 11:13:34 AM	JRM	VOA153

Sample Receipt Checklist

Client Name: WSP Dallas
Work Order: HS19010535
Date/Time Received: **12-Jan-2019 09:35**
Received by: **JRM**

Checklist completed by: *Jared R. Makan* eSignature 12-Jan-2019 Date
Reviewed by: *Bernadette A. Fini* eSignature 14-Jan-2019 Date

Matrices: **Soil**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☑	N/A ☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.2c/2.6c UC/C	IR11	
Cooler(s)/Kit(s):	44420		
Date/Time sample(s) sent to storage:	01/12/2019 11:30		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: Sample for 8260 BTEX soil analysis received in bulk containers.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 142359

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huber CTB	A	TPH PRO/DRO
Work Order		Project Number	31401117.015	B	TPH GRO
Company Name	WSP USA	Bill To Company		C	BTEX
Send Report To	Matthew Bayle	Invoice Attn		D	Chlorides
Address	2777 N Stemmons Suite 1600	Address	Same	E	
City/State/Zip	Dallas TX	City/State/Zip		F	HS19010535
Phone	817 7130262	Phone		G	WSP Environment & Energy
Fax		Fax		H	Huber CTB
e-Mail Address	Matthew.Bayle@wsp.com	e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-1R	1-9-19	2:45	Soil	ICE	1	(	(	(	(							
2	S-2R	"	2:50	"	"	"	(	(	(	(							
3	S-6R	"	2:55	"	"	"	(	(	(	(							
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Matthew Bayle / Matthew Bayle

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ Other 48 hr ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Matthew Bayle Date: 1-11-19 Time: 6:30 Received by:

Relinquished by: Date: 1/12/19 Time: 09:35 Received by (Laboratory): J. Mummy

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp °C
44420	1.2
	1121
	0.4

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

January 21, 2019

Matthew Boyle
WSP Environment & Energy
2777 N. Stemmons Fwy. Suite 1600
Dallas, TX 75207

Work Order: **HS19010827**

Laboratory Results for: **Huber CTB**

Dear Matthew,

ALS Environmental received 1 sample(s) on Jan 18, 2019 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Bernadette Fini

Generated By: JUMOKE.LAWAL
Bernadette A. Fini
Project Manager

Client: WSP Environment & Energy
Project: Huber CTB
Work Order: HS19010827

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19010827-01	S-6RA	Soil		17-Jan-2019 13:45	18-Jan-2019 08:40	☐

Client: WSP Environment & Energy **CASE NARRATIVE**
Project: Huber CTB
Work Order: HS19010827

GC Semivolatiles by Method SW8015M

Batch ID: 136806

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GC Volatile Organics by Method SW8015

Batch ID: R331367

Sample ID: S-6RA (HS19010827-01MSD)

- The RPD between the MS and MSD was outside of the control limits

GC Volatiles by Method SW8015

Batch ID: R331367

Sample ID: S-6RA (HS19010827-01MSD)

- Surrogate recoveries were outside of the control limits due to matrix interference.
- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GCMS Volatiles by Method SW8260

Batch ID: R331352

Sample ID: S-6RA (HS19010827-01MS)

- MS failed QC limits for some compounds.

WetChemistry by Method E300

Batch ID: 136789

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: WSP Environment & Energy
Project: Huber CTB
Sample ID: S-6RA
Collection Date: 17-Jan-2019 13:45

ANALYTICAL REPORT
WorkOrder:HS19010827
Lab ID:HS19010827-01
Matrix:Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		**Method:SW8260**				Analyst: WLR
Benzene	ND		0.0050	mg/Kg	1	18-Jan-2019 23:53
Ethylbenzene	ND		0.0050	mg/Kg	1	18-Jan-2019 23:53
m,p-Xylene	ND		0.010	mg/Kg	1	18-Jan-2019 23:53
o-Xylene	ND		0.0050	mg/Kg	1	18-Jan-2019 23:53
Toluene	ND		0.0050	mg/Kg	1	18-Jan-2019 23:53
Xylenes, Total	ND		0.0050	mg/Kg	1	18-Jan-2019 23:53
Surr: 1,2-Dichloroethane-d4	*98.1*		*70-126*	*%REC*	*1*	*18-Jan-2019 23:53*
Surr: 4-Bromofluorobenzene	*102*		*70-130*	*%REC*	*1*	*18-Jan-2019 23:53*
Surr: Dibromofluoromethane	*103*		*70-130*	*%REC*	*1*	*18-Jan-2019 23:53*
Surr: Toluene-d8	*100*		*70-130*	*%REC*	*1*	*18-Jan-2019 23:53*
GASOLINE RANGE ORGANICS BY SW8015C		**Method:SW8015**				Analyst: NPI
Gasoline Range Organics	ND		0.049	mg/Kg	1	19-Jan-2019 14:27
Surr: 4-Bromofluorobenzene	*110*		*70-123*	*%REC*	*1*	*19-Jan-2019 14:27*
TPH DRO/ORO BY SW8015C		**Method:SW8015M**		Prep:SW3541 / 18-Jan-2019		Analyst: PVL
TPH (Diesel Range)	**4.3**		**1.7**	**mg/Kg**	1	18-Jan-2019 20:42
TPH (Motor Oil Range)	**7.8**	n	**3.4**	**mg/Kg**	1	18-Jan-2019 20:42
Surr: 2-Fluorobiphenyl	*77.3*		*60-129*	*%REC*	*1*	*18-Jan-2019 20:42*
ANIONS BY E300.0		**Method:E300**		Prep:E300 / 18-Jan-2019		Analyst: KMU
Chloride	**115**		**4.92**	**mg/Kg**	1	21-Jan-2019 13:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

WEIGHT LOG

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

Batch ID: 2876 **Method:** VOLATILES BY SW8260C

SampID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS19010827-01	1	5.011 (g)	5 (mL)	1	Bulk (5030B)

Batch ID: 2877 **Method:** GASOLINE RANGE ORGANICS BY SW8015C **Prep:**

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS19010827-01	1	5.09 (g)	5 (mL)	0.98	Bulk (5030B)

Batch ID: 136789 **Method:** ANIONS BY E300.0 **Prep:** 300_S_PR

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19010827-01	1	5.0768	50 (mL)	9.849

Batch ID: 136806 **Method:** TPH DRO/ORO BY SW8015C **Prep:** 8015SPR_LL

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19010827-01	1	30.01	1 (mL)	0.03332

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 136789	**Test Name :** ANIONS BY E300.0			**Matrix:** Soil		
HS19010827-01	S-6RA	17 Jan 2019 13:45		18 Jan 2019 11:01	21 Jan 2019 13:14	1
Batch ID 136806	**Test Name :** TPH DRO/ORO BY SW8015C			**Matrix:** Soil		
HS19010827-01	S-6RA	17 Jan 2019 13:45		18 Jan 2019 12:00	18 Jan 2019 20:42	1
Batch ID R331352	**Test Name :** VOLATILES BY SW8260C			**Matrix:** Soil		
HS19010827-01	S-6RA	17 Jan 2019 13:45			18 Jan 2019 23:53	1
Batch ID R331367	**Test Name :** GASOLINE RANGE ORGANICS BY SW8015C			**Matrix:** Soil		
HS19010827-01	S-6RA	17 Jan 2019 13:45			19 Jan 2019 14:27	1

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

QC BATCH REPORT

Batch ID: 136806 **Instrument: FID-7** **Method: SW8015M**

MBLK Sample ID: **MBLK-136806** Units: **mg/Kg** Analysis Date: **18-Jan-2019 19:53**
Client ID: Run ID: **FID-7_331374** SeqNo: **4916432** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	ND	1.7								
TPH (Motor Oil Range)	ND	3.4								
Surr: 2-Fluorobiphenyl	*2.695*	*0.10*	*3.33*	*0*	*80.9*	*70 - 130*				

LCS Sample ID: **LCS-136806** Units: **mg/Kg** Analysis Date: **18-Jan-2019 20:17**
Client ID: Run ID: **FID-7_331374** SeqNo: **4916433** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	30.17	1.7	33.33	0	90.5	70 - 130				
TPH (Motor Oil Range)	27.79	3.4	33.33	0	83.4	70 - 130				
Surr: 2-Fluorobiphenyl	*2.594*	*0.10*	*3.33*	*0*	*77.9*	*70 - 130*				

MS Sample ID: **HS19010827-01MS** Units: **mg/Kg** Analysis Date: **18-Jan-2019 21:06**
Client ID: **S-6RA** Run ID: **FID-7_331374** SeqNo: **4916435** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	41.36	1.7	33.25	4.26	112	70 - 130				
TPH (Motor Oil Range)	39.1	3.4	33.25	7.83	94.0	70 - 130				
Surr: 2-Fluorobiphenyl	*2.978*	*0.10*	*3.322*	*0*	*89.6*	*60 - 129*				

MSD Sample ID: **HS19010827-01MSD** Units: **mg/Kg** Analysis Date: **18-Jan-2019 21:30**
Client ID: **S-6RA** Run ID: **FID-7_331374** SeqNo: **4916436** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	41.14	1.7	33.29	4.26	111	70 - 130	41.36	0.529	30	
TPH (Motor Oil Range)	38.45	3.4	33.29	7.83	92.0	70 - 130	39.1	1.7	30	
Surr: 2-Fluorobiphenyl	*3.007*	*0.10*	*3.326*	*0*	*90.4*	*60 - 129*	*2.978*	*0.976*	*30*	

The following samples were analyzed in this batch: HS19010827-01

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

QC BATCH REPORT

Batch ID: R331367 **Instrument: FID-14** **Method: SW8015**

MBLK Sample ID: **MBLK-190119** Units: **mg/Kg** Analysis Date: **19-Jan-2019 14:10**
Client ID: Run ID: **FID-14_331367** SeqNo: **4916209** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	ND	0.050								
Surr: 4-Bromofluorobenzene	*0.1026*	*0.0050*	*0.1*	*0*	*103*	*75 - 121*				

LCS Sample ID: **GLCS-190119** Units: **mg/Kg** Analysis Date: **19-Jan-2019 13:38**
Client ID: Run ID: **FID-14_331367** SeqNo: **4916207** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8822	0.050	1	0	88.2	72 - 121				
Surr: 4-Bromofluorobenzene	*0.09904*	*0.0050*	*0.1*	*0*	*99.0*	*75 - 121*				

LCSD Sample ID: **GLCSD-190119** Units: **mg/Kg** Analysis Date: **19-Jan-2019 13:54**
Client ID: Run ID: **FID-14_331367** SeqNo: **4916208** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.9462	0.050	1	0	94.6	70 - 121	0.8822	7	30	
Surr: 4-Bromofluorobenzene	*0.1104*	*0.0050*	*0.1*	*0*	*110*	*75 - 121*	*0.09904*	*10.8*	*30*	

MS Sample ID: **HS19010827-01MS** Units: **mg/Kg** Analysis Date: **19-Jan-2019 14:43**
Client ID: **S-6RA** Run ID: **FID-14_331367** SeqNo: **4916211** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.8188	0.049	0.98	0	83.6	70 - 130				
Surr: 4-Bromofluorobenzene	*0.08892*	*0.0049*	*0.098*	*0*	*90.7*	*70 - 123*				

MSD Sample ID: **HS19010827-01MSD** Units: **mg/Kg** Analysis Date: **19-Jan-2019 14:59**
Client ID: **S-6RA** Run ID: **FID-14_331367** SeqNo: **4916212** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	0.2131	0.050	0.99	0	21.5	70 - 130	0.8188	117	30	SR
Surr: 4-Bromofluorobenzene	*0.02581*	*0.0050*	*0.099*	*0*	*26.1*	*70 - 123*	*0.08892*	*110*	*30*	SR

The following samples were analyzed in this batch: HS19010827-01

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

QC BATCH REPORT

Batch ID: R331352 **Instrument: VOA8** **Method: SW8260**

MBLK Sample ID: **VBLKS1-011819** Units: **ug/Kg** Analysis Date: **18-Jan-2019 23:29**
Client ID: Run ID: **VOA8_331352** SeqNo: **4915581** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
o-Xylene	ND	5.0								
Toluene	ND	5.0								
Xylenes, Total	ND	5.0								
Surr: 1,2-Dichloroethane-d4	*46.53*	*0*	*50*	*0*	*93.1*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.06*	*0*	*50*	*0*	*100*	*80 - 120*				
Surr: Dibromofluoromethane	*48.85*	*0*	*50*	*0*	*97.7*	*80 - 119*				
Surr: Toluene-d8	*49.87*	*0*	*50*	*0*	*99.7*	*81 - 118*				

LCS Sample ID: **VLCSS1-011819** Units: **ug/Kg** Analysis Date: **18-Jan-2019 22:41**
Client ID: Run ID: **VOA8_331352** SeqNo: **4915580** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.38	5.0	50	0	96.8	75 - 124				
Ethylbenzene	48.7	5.0	50	0	97.4	70 - 123				
m,p-Xylene	95.89	10	100	0	95.9	77 - 125				
o-Xylene	48.43	5.0	50	0	96.9	78 - 122				
Toluene	47.68	5.0	50	0	95.4	76 - 122				
Xylenes, Total	144.3	5.0	150	0	96.2	77 - 128				
Surr: 1,2-Dichloroethane-d4	*48.17*	*0*	*50*	*0*	*96.3*	*76 - 125*				
Surr: 4-Bromofluorobenzene	*50.38*	*0*	*50*	*0*	*101*	*80 - 120*				
Surr: Dibromofluoromethane	*49.58*	*0*	*50*	*0*	*99.2*	*80 - 119*				
Surr: Toluene-d8	*50.21*	*0*	*50*	*0*	*100*	*81 - 118*				

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

QC BATCH REPORT

Batch ID: R331352 **Instrument: VOA8** **Method: SW8260**

MS Sample ID: **HS19010827-01MS** Units: **ug/Kg** Analysis Date: **19-Jan-2019 01:30**
Client ID: **S-6RA** Run ID: **VOA8_331352** SeqNo: **4915748** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	35.76	5.0	49.5	0	72.2	70 - 130				
Ethylbenzene	33.97	5.0	49.5	0	68.6	70 - 130				S
m,p-Xylene	67.38	9.9	99	0	68.1	70 - 130				S
o-Xylene	33.83	5.0	49.5	0	68.3	70 - 130				S
Toluene	34.04	5.0	49.5	0	68.8	70 - 130				S
Xylenes, Total	101.2	5.0	148.5	0	68.2	70 - 130				S
Surr: 1,2-Dichloroethane-d4	*49.81*	*0*	*49.5*	*0*	*101*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*51.78*	*0*	*49.5*	*0*	*105*	*70 - 130*				
Surr: Dibromofluoromethane	*51.56*	*0*	*49.5*	*0*	*104*	*70 - 130*				
Surr: Toluene-d8	*48.66*	*0*	*49.5*	*0*	*98.3*	*70 - 130*				

MSD Sample ID: **HS19010827-01MSD** Units: **ug/Kg** Analysis Date: **19-Jan-2019 01:54**
Client ID: **S-6RA** Run ID: **VOA8_331352** SeqNo: **4915749** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	40.66	5.1	51	0	79.7	70 - 130	35.76	12.8	30	
Ethylbenzene	37.16	5.1	51	0	72.9	70 - 130	33.97	8.97	30	
m,p-Xylene	73.24	10	102	0	71.8	70 - 130	67.38	8.33	30	
o-Xylene	37.32	5.1	51	0	73.2	70 - 130	33.83	9.8	30	
Toluene	38.45	5.1	51	0	75.4	70 - 130	34.04	12.2	30	
Xylenes, Total	110.6	5.1	153	0	72.3	70 - 130	101.2	8.83	30	
Surr: 1,2-Dichloroethane-d4	*56.32*	*0*	*51*	*0*	*110*	*70 - 126*	*49.81*	*12.3*	*30*	
Surr: 4-Bromofluorobenzene	*53.5*	*0*	*51*	*0*	*105*	*70 - 130*	*51.78*	*3.26*	*30*	
Surr: Dibromofluoromethane	*56.72*	*0*	*51*	*0*	*111*	*70 - 130*	*51.56*	*9.52*	*30*	
Surr: Toluene-d8	*51.2*	*0*	*51*	*0*	*100*	*70 - 130*	*48.66*	*5.09*	*30*	

The following samples were analyzed in this batch: HS19010827-01

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: HS19010827

QC BATCH REPORT

Batch ID: 136789 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **MBLK-136789** Units: **mg/Kg** Analysis Date: **21-Jan-2019 12:31**
Client ID: Run ID: **ICS2100_331420** SeqNo: **4917472** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

LCS Sample ID: **LCS-136789** Units: **mg/Kg** Analysis Date: **21-Jan-2019 12:45**
Client ID: Run ID: **ICS2100_331420** SeqNo: **4917473** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	205.9	5.00	200	0	103	90 - 110				

LCSD Sample ID: **LCSD-136789** Units: **mg/Kg** Analysis Date: **21-Jan-2019 13:00**
Client ID: Run ID: **ICS2100_331420** SeqNo: **4917474** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	202.8	5.00	200	0	101	90 - 110	205.9	1.53	20	

MS Sample ID: **HS19010507-12MS** Units: **mg/Kg** Analysis Date: **21-Jan-2019 13:43**
Client ID: Run ID: **ICS2100_331420** SeqNo: **4917477** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	100.5	4.98	99.5	2.743	98.3	75 - 125				

MSD Sample ID: **HS19010507-12MSD** Units: **mg/Kg** Analysis Date: **21-Jan-2019 13:58**
Client ID: Run ID: **ICS2100_331420** SeqNo: **4917478** PrepDate: **18-Jan-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	96.94	4.96	99.19	2.743	95.0	75 - 125	100.5	3.63	20	

The following samples were analyzed in this batch: HS19010827-01

Client: WSP Environment & Energy
Project: Huber CTB
WorkOrder: **HS19010827**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/Kg	Milligrams per Kilogram

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

Sample Receipt Checklist

Client Name: WSP Dallas
Work Order: HS19010827
Date/Time Received: **18-Jan-2019 08:40**
Received by: **PJM**

Checklist completed by: *Pablo Marinez* eSignature 18-Jan-2019 Date
Reviewed by: *Bernadette A. Fini* eSignature 18-Jan-2019 Date

Matrices: **SOIL**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☑	N/A ☐
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	0.2C/0.5C UC/C	IR # 25	
Cooler(s)/Kit(s):	GREEN		
Date/Time sample(s) sent to storage:	1/18/19 10:25		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

Chain of Custody Form

Page 1 of 1

COC ID: 142348

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Huber CTB	A	TPH GRO
Work Order		Project Number		B	TPH DRO/ORO
Company Name	WSP USA INC	Bill To Company		C	BTEX
Send Report To	Matthew Beyle	Invoice Attn		D	Chlorides
Address	2777 N Dallas TX Suite 1600	Address	Same	E	
City/State/Zip	Dallas TX	City/State/Zip		F	
Phone	8177130262	Phone		G	
Fax		Fax		H	
e-Mail Address	Matthew.Beyle@wsp.com	e-Mail Address		I	
				J	

HS19010827
WSP Environment & Energy
Huber CTB

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	S-6RA	1-17-19	1:45	Soil	ICE	2	✓	✓	✓	✓							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Matthew Beyle

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☒ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Date: 1-17-19 Time: 3:00 Received by:

Relinquished by: Date: 1-18-19 Time: 8:40 Received by (Laboratory): PM

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes:

Cooler ID	Cooler Temp
	WC
Green	0.2C
IR25	CF 0.3

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887 Green

CUSTODY SEAL
Date: 1-17-19 Time: 2:05
Name: M. Goff
Company: WSP

Signature Taken By:
Date: 1/18/19

FedEx
TRK# 0200 8138 7842 5108

FRI - 18 JAN 10:30A
PRIORITY OVERNIGHT

AB SGRA Green

77099
TX-US
IAH

FED SE19884 17JAN19 ROMA 553C2/974C/0C8A