District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID		
District RP	1014	×
Facility ID		
Application ID		

# **Release Notification**

MAR 2 7 2019

)

NMOCD

# **Responsible Party**

DISTR	ICT II

Responsible Party	Harvest Four Corners, LLC	OGRID 37388
Contact Name	Kijun Hong	Contact Telephone (505) 632-4475
Contact email	khong@harvestmidstream.com Incident # (assigned by OCD) NCS1907233330	
Contact mailing address 1755 Arroyo Dr., Farmington, NM 87413		

### **Location of Release Source**

Latitude 36.430000	Longitude     -107.476944       (NAD 83 in decimal degrees to 5 decimal places)	
Site Name Lateral H-21	Site Type Pipeline	
Date Release Discovered 3/12/2019	API# (if applicable)	

Unit Letter	Section	Township	Range	County
F	4	25N	<b>6W</b>	<b>Rio Arriba</b>

Surface Owner: State Federal Tribal Private (Name: \_\_\_\_\_

# Nature and Volume of Release

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) Unknown at this time	Volume Recovered (bbls) Currently being recovered
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls) Unknown at this time	Volume Recovered (bbls) Currently being recovered
🛛 Natural Gas	Volume Released (Mcf) 658	Volume Recovered (Mcf) 0
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A line leak was discovered on the Lateral H-21 pipeline.

Upon discovery, the release was immediately stopped. Historic liquids release was discovered during excavation along with ground water impacts (ground water is at 4ft). Harvest is currently digging and hauling impacted soil. Harvest is collecting impacted ground water and removing for disposal.

Form	C-141
Page 2	

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?	
19.15.29.7(A) NMAC?	Natural gas release over 500mcf and impacts to ground water.	
🛛 Yes 🗌 No		
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	
Immediate notification on 3/13/2019 @ 8:42am	was made by Kijun Hong (Harvest) to Cory Smith, Vanessa Fields, and Jim Griswold of the OCD by email	
	Initial Response	
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury	
The source of the rele	ease has been stopped.	
The impacted area has been secured to protect human health and the environment.		

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kijun Hong	Title: <u>Environmental Specialist</u>
Signature:	Date: 3/26/2019
email: khong@harvestmidstream.com	Telephone: <u>505-436-8457</u>
	2
OCD Only	
Received by:	Date:
$\bigcirc$	

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NVF1902432312
District RP	
Facility ID	
Application ID	

# **Release Notification**

### **Responsible Party**

Responsible Party	Harvest Midstream	OGRID
Contact Name	Kijun Hong	Contact Telephone (505) 632-4475
Contact email	khong@harvestmidstream.com Incident # (assigned by OCD) NVF1902432312	
Contact mailing addres	address 1755 Arroyo Dr., Farmington, NM 87413	

### Location of Release Source

Latitude	i	36.83651	(NAD 83 in dec	Longitude <u>-107.28980</u> cimal degrees to 5 decimal places)	 
Site Name	Lateral M-3	3 Launcher		Site Type Pipeline	6
Date Release	Discovered	1/2/2019	,	API# (if applicable)	
Unit Letter P	Section 6	Township <b>30N</b>	Range 4W	County Rio Arriba	

Surface Owner: State Federal Tribal Private (Name:

### Nature and Volume of Release

		DISTRICT III
		APR 1 5 2019
Unmarked poly line d	amaged during excavation.	NMOCD
Cause of Release		
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Produced Water	Volume Released (bbls) 8	Volume Recovered (bbls) 8
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)

Form C-141 Page 6 State of New Mexico Oil Conservation Division

Incident ID	NVF1902432312
District RP	
Facility ID	
Application ID	

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kijun Hong	Title:	Environmental Specialist
Signature:	Date:4/2/2019	
email:khong@harvestmidstream.com		Telephone: 505-632-4475
OCD Only	. 1	1
Received by:	Date: 4/2	19
Closure approval by the OCD does not relieve the responsible party	of liability should their o	preventions have failed to adequately investigate and
remediate contamination that poses a threat to groundwater, surface	water, human health, or th	he environment nor does not relieve the responsible
party of compliance with any other federal, state, or local laws and		
		22/10
Closure Approved by:	Date://	22/19_
Printed Name:	Title:	vironmental Spec.

#### **Executive Summary**

Harvest Four Corners, LLC (Harvest) presents the following report summarizing remediation and soil sampling activities at the Lateral M-3 Launcher (Site) located in Unit P, Section 6, Township 30 North, Range 4 West, in Rio Arriba County, New Mexico (Attachment 1). On January 2, 2019, Harvest damaged an unmarked polyethylene pipeline containing produced water during excavation while conducting maintenance on a pig launcher. The polyethylene pipeline is owned by Southland Royalty Company and was not marked appropriately prior to the excavation. Approximately 8 barrels (bbl) of produced water were released and all 8 bbl were recovered with a vacuum truck. Harvest submitted a Release Notification and Corrective Action Form C-141 to the New Mexico Oil Conservation Division (NMOCD) on January 17, 2019. The NMOCD assigned the release incident number NVF1902432312.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well is SJ 02384, located approximately 1.1 miles southwest of the Site and approximately 570 feel lower in elevation than the Site (Attachment 1). The water well has a depth to groundwater of 95 feet below ground surface (bgs) and a total depth of 185 feet bgs. A New Mexico State Engineers Office (NMOSE) water column is included as Attachment 2. The closest continuously flowing water or significant watercourse to the Site is an unnamed wash located approximately 485 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine or karst geology. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride.

On January 3, 2019, Harvest collected one composite soil sample from the sidewalls and one composite soil sample from the floor of the excavation (Attachment 3). The excavation was approximately 25 feet long by 6 to 10 feet wide with an average depth of 6 feet below ground surface. A map of the excavation extent is shown included as Attachment 4.

The soil samples were shipped following chain-of-custody procedures to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH- motor oil range organics (MRO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

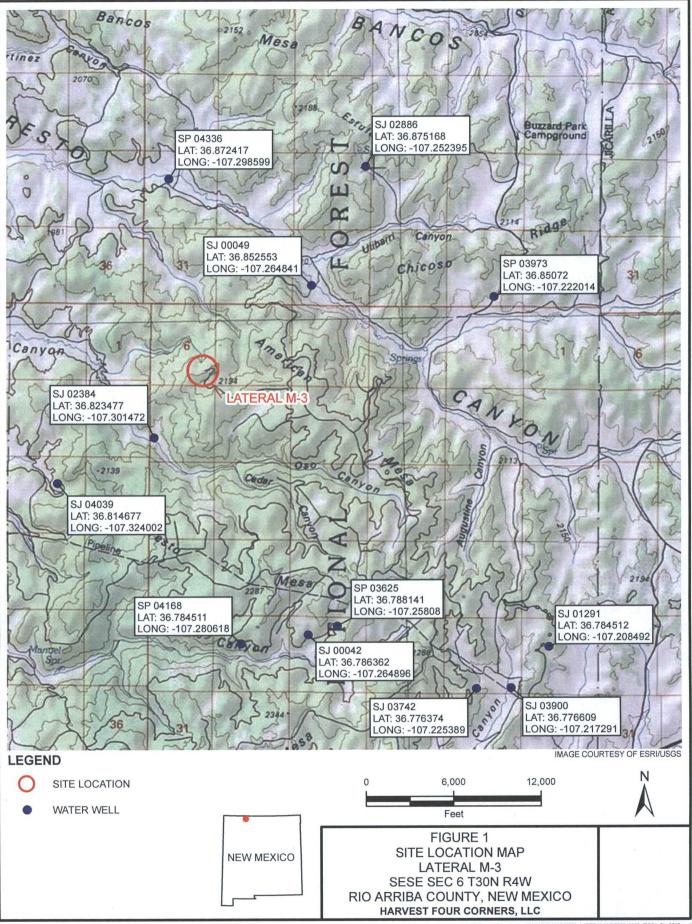
Laboratory analytical results indicated that concentrations of benzene, BTEX, TPH, and chloride were compliant with the NMOCD Table 1 closure criteria in both soil samples collected. A table with laboratory analytical data is included as Attachment 5 and copies of the laboratory analytical results are included as Attachment 6. Harvest requests no further action for incident number

NVF1902432312. An updated NMOCD Form C-141 is included as a cover to this report. A photographic log of the Site is included as Attachment 7.

Attachments:

Attachment 1	Site Location Map
Attachment 2	NMOSE water Column Report
Attachment 3	Field Map
Attachment 4	Site Map
Attachment 5	Soil Analytical Results
Attachment 6	Laboratory Analytical Reports
Attachment 7	Photographic Log

Site Location Map



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NMOSE Water Column Report



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

(A CLW###### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced O=orphaned, C=the file is closed)	(quar						IE 3=SW	,	3 UTM in meters)	х н	(In feet	)
POD Number	POD Sub- Code basin C	County	Water	Q 16	10.0		Tws	Rng	x	Y	The second second second second	A DAMES AND A D	Water Column
SJ 00042	SJ	RA			1	28	30N	04W	297901	4073566* 🌍	62		
SJ 01291	SJ	RA		4	1	25	30N	04W	302930	4073243* 🌍	500	250	250
SJ 02384	SJ	RA	3	1	3	07	30N	04W	294736	4077762* 🌍	185	95	90
SJ 03742 POD1	SJ	RA	4	4	3	26	30N	04W	301401	4072375* 🌍	480	210	270
SJ 03900 POD1	SJ	RA	4	4	4	26	30N	04W	302124	4072384 🌍	380	200	180
										Average Depth to	Water:	188 f	eet
										Minimum	Depth:	95 f	eet
										Maximum	Depth:	250 f	eet
Becord Count: 5	nng ganna Adams waana Adams nasan Anton wadan ku			ann settin			an yangan haraya na	ana anana inanan haren muu	n naann loosan laann lathan i	anna anna Musik anna Anna anna anna anna anna	eprese learner angelen Antonio Ant		many alman latera ameri

#### Record Count: 5

#### PLSS Search:

Township: 30N

Range: 04W

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



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

(A CLW###### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced O=orphaned, C=the file is closed)	(quar						IE 3=SW		3 UTM in meters)		(In feet	)
POD Number	POD Sub- Code basin C	ounty	States.	Q 16	10030	Sec	Tws	Rng	x	Y		Depth Water	Water Column
SJ 00049	SJ	RA			3	33	31N	04W	298080	4080910* 🌍	112	80	32
SJ 02885		SJ	1	3	2	27	31N	04W			150		
<u>SJ 02886</u>	SJ	SJ	4	2	2	28	31N	04W	299249	4083393* 🌍	150		
										Average Depth to	Water:	80 f	eet
										Minimum	Depth:	80 f	eet
										Maximum	Depth:	80 f	eet
Record Count: 3	1000 40000 40000 50000 40400 44000 44000 50000 50400	n 2000s 1000s 1000s	Anness Annes	4004	V	-	on secon monon ne			anna anna anna mara mara bhuin anna 1999 1999 1	wang salatan naharan hadaran i	10000 10000 10000 10000	

#### Record Count: 3

#### PLSS Search:

Township: 31N

Range: 04W

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Field Map

Site Map



Soil Analytical Results

#### TABLE 1 SOIL ANALYTICAL RESULTS LATERAL M-3 LAUNCHER INCIDENT NUMBER NVF1902432312 RIO ARRIBA COUNTY, NEW MEXICO HARVEST FOUR CORNERS, LLC

Sample Name	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (mg/kg)	Diesel Range Organics (mg/kg)	Motor Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
Bottom	1/3/2019	< 0.025	< 0.050	< 0.050	< 0.099	< 0.099	<5.0	<9.5	<47	<47	38
Sides	1/3/2019	< 0.023	< 0.047	< 0.047	< 0.094	< 0.094	<4.7	<9.7	<49	<49	120
NMOCD Table 1 Closure	e Criteria	10	NE	NE	NE	50	1,0	000	NE	2,500	20,000

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

mg/kg - milligrams per kilogram

NE - Not established

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

< - indicates result is below the laboratory reporting limit

Laboratory Analytical Reports

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

January 11, 2019

Jesse Graham Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: (505) 632-4475 FAX

RE: M-3 Launcher

OrderNo.: 1901176

Dear Jesse Graham:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/5/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

#### **Analytical Report**

#### Lab Order 1901176

Date Reported: 1/11/2019

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest		Cl	ient Sample II	D: Bo	ottom	ж
Project: M-3 Launcher		(	Collection Date	e: 1/3	3/2019 3:38:00 PM	
Lab ID: 1901176-001	Matrix: SOIL		Received Date	e: 1/5	5/2019 11:50:00 AM	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	38	30	mg/Kg	20	1/9/2019 12:00:18 PM	42508
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/9/2019 1:57:24 PM	42496
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/9/2019 1:57:24 PM	42496
Surr: DNOP	104	50.6-138	%Rec	1	1/9/2019 1:57:24 PM	42496
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/9/2019 6:14:52 PM	42491
Surr: BFB	90.4	73.8-119	%Rec	1	1/9/2019 6:14:52 PM	42491
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	1/9/2019 6:14:52 PM	42491
Toluene	ND	0.050	mg/Kg	1	1/9/2019 6:14:52 PM	42491
Ethylbenzene	ND	0.050	mg/Kg	1	1/9/2019 6:14:52 PM	42491
Xylenes, Total	ND	0.099	mg/Kg	1	1/9/2019 6:14:52 PM	42491
Surr: 4-Bromofluorobenzene	92.8	80-120	%Rec	1	1/9/2019 6:14:52 PM	42491

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical	Report

#### Lab Order 1901176

Date Reported: 1/11/2019

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest Project: M-3 Launcher		Client Sample ID: Sides Collection Date: 1/3/2019 3:40:00 PM								
Lab ID: 1901176-002	Matrix: SOIL		Received Da	ate: 1/:	5/2019 11:50:00 AM					
Analyses	Result	PQL	Qual Units	5 DF	Date Analyzed	Batch				
EPA METHOD 300.0: ANIONS					Analyst	smb				
Chloride	120	30	mg/K	g 20	1/9/2019 12:12:43 PM	42508				
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS		×		Analyst	Irm				
Diesel Range Organics (DRO)	ND	9.7	mg/K	g 1	1/9/2019 2:19:19 PM	42496				
Motor Oil Range Organics (MRO)	ND	49	mg/K	g 1	1/9/2019 2:19:19 PM	42496				
Surr: DNOP	107	50.6-138	%Red	; 1	1/9/2019 2:19:19 PM	42496				
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB				
Gasoline Range Organics (GRO)	ND	4.7	mg/K	g 1	1/9/2019 6:38:21 PM	42491				
Surr: BFB	88.8	73.8-119	%Red	; 1	1/9/2019 6:38:21 PM	42491				
EPA METHOD 8021B: VOLATILES					Analyst	NSB				
Benzene	ND	0.023	mg/K	g 1	1/9/2019 6:38:21 PM	42491				
Toluene	ND	0.047	mg/K	g 1	1/9/2019 6:38:21 PM	42491				
Ethylbenzene	ND	0.047	mg/K	g 1	1/9/2019 6:38:21 PM	42491				
Xylenes, Total	ND	0.094	mg/K	g 1	1/9/2019 6:38:21 PM	42491				
Surr: 4-Bromofluorobenzene	90.4	80-120	%Red	; 1	1/9/2019 6:38:21 PM	42491				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

WO#: **1901176** 

Page 3 of 6

11-Jan-19

	larvest 1-3 Launcher									
Sample ID MB-4249	3 S	ampType: N	IBLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS		Batch ID: 4	2496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Anal	ysis Date:	1/9/2019	S	SeqNo: 1	902954	Units: mg/K	g		
Analyte	Re	sult PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DR	0)	ND 10	D							a.
Motor Oil Range Organics (	MRO)	ND 50	D							
Surr: DNOP		9.7	10.00		96.8	50.6	138			
Sample ID LCS-4249	6 S	ampType: L	.CS	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS		Batch ID: 4	2496	F	RunNo: 5	6853				
Prep Date: 1/8/2019	Anal	ysis Date:	1/9/2019	S	SeqNo: 1	902975	Units: mg/K	g		
Analyte	Re	sult PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DR	0)	50 10	50.00	0	100	70	130			
Surr: DNOP		4.6	5.000		91.3	50.6	138			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: **1901176** 

11-Jan-19

Client: Harvest

Project: M-3 Launcher

Sample ID MB-42491	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: PBS	Batch ID: 42491	RunNo: 56872		
Prep Date: 1/8/2019	Analysis Date: 1/9/2019	SeqNo: 1903162	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD I	RPDLimit Qual
Gasoline Range Organics (GRO)	ND 5.0			
Surr: BFB	980 1000	98.0 73.8	119	
Sample ID LCS-42491	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 42491	RunNo: 56872		
Prep Date: 1/8/2019	Analysis Date: 1/9/2019	SeqNo: 1903163	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD F	RPDLimit Qual
Gasoline Range Organics (GRO)	26 5.0 25.00	0 103 80.1	123	
Surr: BFB	1100 1000	110 73.8	119	
Sample ID MB-42518	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: PBS	Batch ID: 42518	RunNo: 56885		
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904141	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD F	RPDLimit Qual
Surr: BFB	970 1000	97.3 73.8	119	
Sample ID LCS-42518	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	τ.
Client ID: LCSS	Batch ID: 42518	RunNo: 56885		
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904142	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD F	RPDLimit Qual
Surr: BFB	1100 1000	110 73.8	119	
Sample ID MB-42514	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: PBS	Batch ID: 42514	RunNo: 56885		
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904148	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD F	RPDLimit Qual
Surr: BFB	940 1000	94.1 73.8	119	
Sample ID LCS-42514	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 42514	RunNo: 56885		
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904149	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD F	RPDLimit Qual
Surr: BFB	1100 1000	110 73.8	119	

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 4 of 6

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1901176

11-Jan-19

Qual

Qual

Page 5 of 6

**Client:** Harvest **Project:** M-3 Launcher Sample ID MB-42491 TestCode: EPA Method 8021B: Volatiles SampType: MBLK Client ID: PBS Batch ID: 42491 RunNo: 56872 Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903187 Units: mg/Kg PQL RPDLimit Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Benzene ND 0.025 Toluene ND 0.050 Ethylbenzene 0.050 ND Xylenes, Total ND 0.10 1.000 99.9 120 Surr: 4-Bromofluorobenzene 1.0 80 Sample ID LCS-42491 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 42491 RunNo: 56872 Prep Date: 1/8/2019 Analysis Date: 1/9/2019 SeqNo: 1903188 Units: mg/Kg HighLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** 0.025 1.000 92.1 Benzene 0.92 0 80 120 0.050 1.000 0 96.2 80 120 Toluene 0.96 1.000 0 96.8 80 120 Ethylbenzene 0.97 0.050 Xylenes, Total 2.9 0.10 3.000 0 97.9 80 120 Surr: 4-Bromofluorobenzene 1.0 1.000 101 80 120

Sun. 4-bromonuorobenzene	1.0 1.000	101 80 120	
Sample ID MB-42518	SampType: MBLK	TestCode: EPA Method 8021B: Vola	atiles
Client ID: PBS	Batch ID: 42518	RunNo: 56885	
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904170 Units: %R	9C
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Surr: 4-Bromofluorobenzene	0.99 1.000	99.4 80 120	
Sample ID LCS-42518	SampType: LCS	TestCode: EPA Method 8021B: Vola	atiles
Client ID: LCSS	Batch ID: 42518	RunNo: 56885	
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904171 Units: %R	ec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Surr: 4-Bromofluorobenzene	1.0 1.000	102 80 120	•
Sample ID MB-42514	SampType: MBLK	TestCode: EPA Method 8021B: Vola	atiles
Client ID: PBS	Batch ID: 42514	RunNo: 56885	
Prep Date: 1/9/2019	Analysis Date: 1/10/2019	SeqNo: 1904177 Units: %R	ec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual

1.000

P

Surr: 4-Bromofluorobenzene

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

0.96

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

95.8

- J Analyte detected below quantitation limits
  - Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

80

120

WO#: 1901176

11-Jan-19

Client:	Harvest	
Project:	M-3 Launcher	
Comple ID I		TestCode: EDA Mathad 2024 D. Valatilas

Sample ID	LCS-42514	SampTyp	e: L	.05	Tes	iCode:	EPA Method	8021B: Volat	les		
Client ID:	LCSS	Batch II	D: 4	2514	F	RunNo:	56885				
Prep Date:	1/9/2019	Analysis Dat	e: ·	1/10/2019	S	SeqNo:	1904178	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%RE0	C LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.96		1.000		96.	0 80	120			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL
- Sample container temperature is out of limit as specified W

Page 6 of 6

Reporting Detection Limit

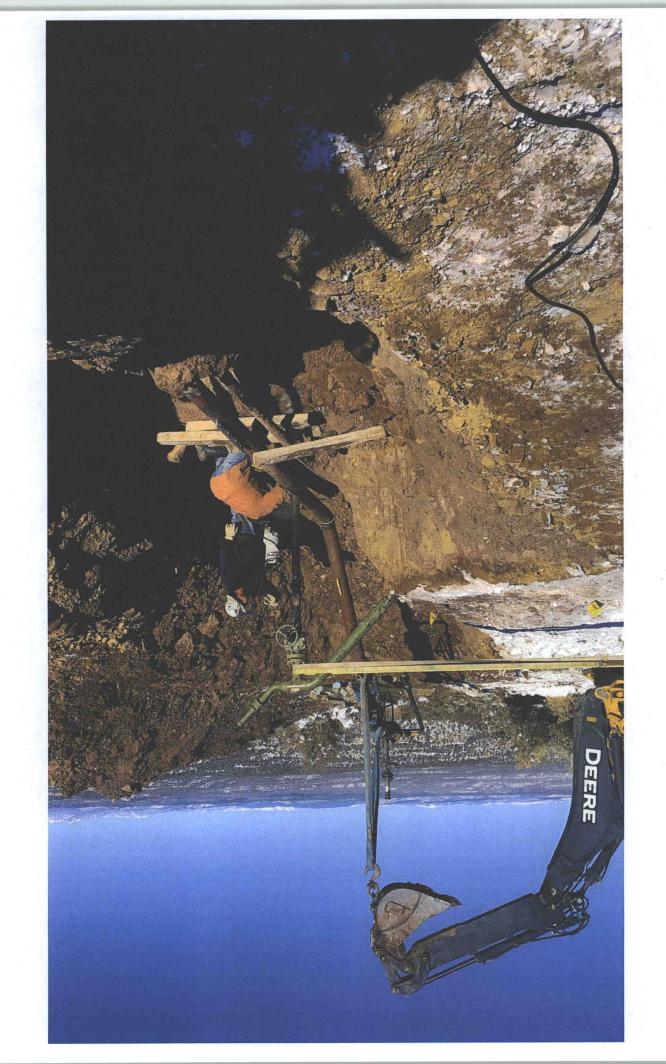
HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmenta Al TEL: 505-345-397 Website: www.l	490. Ibuquerqi 75 FAX:	l Hawkins N ue, NM 8710 505-345-410		mple Log-In C	heck List
Client Name: Harvest	Work Order Numbe	er: <b>1901</b>	176	N 15	RcptNo:	1
Received By: Anne Thorne Completed By: Isalah Ortiz Reviewed By: ENM	1/5/2019 11:50:00 A 1/7/2019 2:59:46 PM			Ann A I-C	2×	
LR . DAD 1/7/19 Chain of Custody						
1. Is Chain of Custody complete?		Yes		No 🗌	Not Present	
2. How was the sample delivered?		Cour	ier			
Log In 3. Was an attempt made to cool the samples	?	Yes		No 🗌	NA 🗌	
4. Were all samples received at a temperature	e of >0° C to 6.0°C	Yes		No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?		Yes		No 🗌		
6. Sufficient sample volume for indicated test(	s)?	Yes	<b>~</b>	No 🗌		
<ol><li>Are samples (except VOA and ONG) prope</li></ol>	rly preserved?	Yes	$\checkmark$	No 🗌		
8. Was preservative added to bottles?		Yes		No 🗹	NA 🗌	
9. VOA vials have zero headspace?		Yes		No 🗌	No VOA Vials 🗹	
10. Were any sample containers received brok	en?	Yes		No 🖌	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	✓.	No 🗌	for pH:	12 unless noted)
12. Are matrices correctly identified on Chain of	f Custody?	Yes	<b>~</b>	No 🗌	Adjusted2	
13. Is it clear what analyses were requested?		Yes	<b>v</b>	No 🗌		
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No 🗌	Checked by: DA	HD 1/7/19
Special Handling (If applicable)						
15, Was client notified of all discrepancies with	this order?	Yes		No 🗌	NA 🗹	
Person Notified: By Whom: Regarding:	Date:	🗌 eMa	il 🗌 Phon	e 🗌 Fax	In Person	
Client Instructions:						
16. Additional remarks:						
17. Cooler Information Cooler No Temp *C Condition S 1 1.3 Good Ye	11111111111111111111111111111111111111	Seal Da	te Sig	nec By		

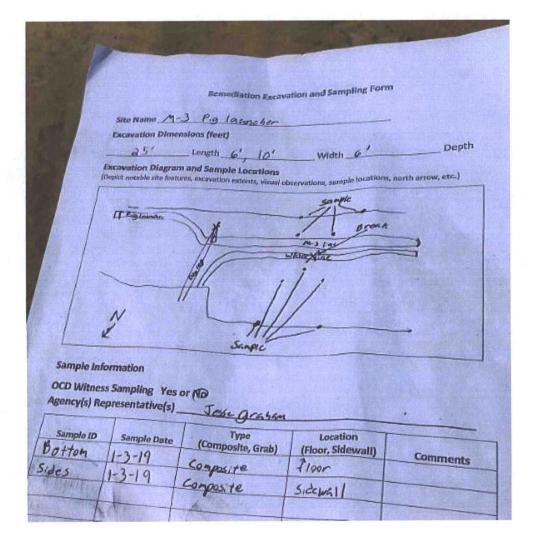
Page 1 of 1

C	hain	-of-Cu	ustody Record	Turn-Around	Time:	-							-								
Client:	larve	St MI	dstream	🛛 🖾 🖾 🖾				india											NT		
				Project Name:				www.hallenvironmental.com													
Mailing	Mailing Address:		M-3	Launch	er		49	01 H								IM 87	109				
1	155 a	rroyA	dr	Project #:			1		el. 50								-4107				
	Phone #:										-		And in case of the		ques						
email o	r Fax#:	Monica	Sanderal, Kilan Hong	Project Mana	ager:		ŧ	6					04			lf)					
QA/QC	Package:		0	5	SSE Gra	ahan	802	MR	B's		MS					bse					
□ Stan	dard		Level 4 (Full Validation)				B's (	RO/	2 PC		8270SIMS		4		1	ent/A					
Accredi			ompliance		Sesse Gra		TMB's (8024)	D/D	808	504.1)			04			rese					
		□ Othe	f		NOXYES A m	No No	L.	GRO	des/	150	0 or	als	ĥ		VoA	n (P					
	(1)po/					1-CF-Q4=113	H	5D((	stici	stho	83	Met	4	(A)	-ime	lifor					
						「こうないのである」を見ていたのです。	-/ X	801	Pe	Ň)	s by	A 8	Ē	1×	S)	ပိ					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	1901176	BTEX /-MTBE/	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method	PAHs by 8310	RCRA 8 Metals	CI)F, Br, NO3, NO2, PO4, 804	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
1-3-19	3:38	Soil	Bettom	40Z	C001	-001	X	X	•				X							$\top$	
1-3-19	3:40	soil	Sides	402	C001	-002	X	X					X							+	
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			÷					×													
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Date:	Time:	Relinquish	ed by:	Received by:	Via:	Date Time	Ren	narks	s:	940	ane	Dha	rve	st n	nids	Store	an.c	om			
Date:		Relinquish	ed by: -W with	Received by: Via: Date Time 01/05/19				Sc	lea	n@	har	ve;	if m	ids	tec	94.	con	ר			
14/19	1811	IM	NN WAS	12.0	11-	2 1150															

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Photographic Log





District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NVF1900731813
District RP	3RP-1014
Facility ID	• .
Application ID	

# **Release Notification**

**Responsible Party** 

Responsible Party	Harvest Four Corners, LLC	OGRID 37388
Contact Name	Kijun Hong	Contact Telephone (505) 632-4475
Contact email	khong@harvestmidstream.com	Incident # (assigned by OCD) NVF1900731813
Contact mailing addre	ess 1755 Arroyo Dr., Farmington, NM	87413

### Location of Release Source

atitude		001010012	(NAD 83 in deci	mal degrees to 5 deci	<u>-107.354</u> imal places)					
Site Name	Trunk L			Site Type	<b>Compressor Station</b>	1				
Date Release	Discovered	12/14/2018		API# (if ap	pplicable)					
Unit Letter	Section	Township	Range	Cou	inty					
Р	28	28N	5W	Rio A	rriba	NMOCD				
urface Owner	r: 🗌 State	🗌 Federal 🗌 Ti	ribal 🛛 Private (N	ame:		APR 1 5 2019				
	Mataria	I(a) Balanad (Salant a	Nature and		Release	DISTRICT III				
Crude Oi		Volume Release		calculations of specifi	Volume Recovered (bbls)					
Produced	Water	Volume Release	Volume Released (bbls)			Volume Recovered (bbls)				
		Is the concentrat produced water	tion of dissolved ch >10.000 mg/l?	loride in the	Yes No					
Condensa	ite		ed (bbls) 22 BBLs i	nto lined	Volume Recovered (bbls) 22					
Natural Gas Volume Releas					Volume Recovered (Mcf)					
	scribe)	Volume/Weight	Released (provide	units)	Volume/Weight Recovered (provide units)					
Other (de										

Excessive liquids receive by station during a pig run. Also, higher initial level in slug catcher due to stuck float valve.

All free liquids have been recovered by vac truck from the lined secondary containment.

### Smith, Cory, EMNRD

From:	Smith, Cory, EMNRD
Sent: To:	Thursday, May 2, 2019 2:09 PM 'Kijun Hong'
Cc:	bherb@ltenv.com; Joseph Pruitt; Lloyd Bell; 'tjones@harvestmidstream.com'; Powell, Brandon, EMNRD
Subject:	RE: [EXTERNAL] RE: Harvest Midstream - Trunk L - Update

Kijun,

The reasons for the denied deferral request is as follows.

- With ground water possible at 78' and depth of contamination between Surface and ~39' the possible distance to interfacing with ground water is only 40' which could cause a risk to ground water.
- OCD determination of causing a major facility deconstruction is for sites typically that have permanent foundations/features. Examples of this would be Tank battery's located in concrete containment barriers, Pipeline/electrical lines located in facilities that have concrete/I-beam supports, buildings with permanent foundations etc. Facility/System shutdowns are not considered major facility deconstruction.
- Natural degradation is not an approved OCD remediation method.

As mentioned on the phone with Mr. Jones if Harvest disagrees with the Divisions determination of the remediation plan Harvest may request a hearing per 19.15.29.12 C(5) NMAC

If you have any additional questions I can be contacted and the number below.

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

From: Kijun Hong <khong@harvestmidstream.com>
Sent: Thursday, May 2, 2019 10:52 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Cc: bherb@ltenv.com; Joseph Pruitt <jpruitt@harvestmidstream.com>; Lloyd Bell <lbell@harvestmidstream.com>
Subject: [EXT] RE: [EXTERNAL] RE: Harvest Midstream - Trunk L - Update

Cory,

Could you please provide more explanation on the reasoning for denial?

We are planning on repairing the liner next week. Also, given the new depth to ground water data, we are still fully delineated and there is no change in the closure criteria for GRO+DRO. The only closure standards we exceed are for GRO+DRO directly under the tank (BH1 and BH7). These samples came in at 1,230 mg/kg and 1,310 mg/kg respectively against the closure standard of 1,000mg/kg.

Breaking down NMOCD's regulations, Harvest has met all conditions for deferral:

- "If contamination is located in areas immediately under or around production equipment such as production tanks"
- "where remediation could cause a major facility deconstruction"
- "so long as the contamination is fully delineated"
- "and does not cause an imminent risk to human health, the environment, or ground water."

Respectfully, Kijun

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Thursday, May 02, 2019 9:53 AM
To: Kijun Hong <<u>khong@harvestmidstream.com</u>>; Powell, Brandon, EMNRD <<u>Brandon.Powell@state.nm.us</u>>
Cc: <u>bherb@ltenv.com</u>; Joseph Pruitt <<u>ipruitt@harvestmidstream.com</u>>; Lloyd Bell <<u>lbell@harvestmidstream.com</u>>
Subject: RE: [EXTERNAL] RE: Harvest Midstream - Trunk L - Update

Kijun,

The current liner integrity has already been compromised. Ground water is estimated to be at 78' based on a cathodic well report located on the HEC San Juan 28-5 #48 (30-039-07361).

The OCD has denied the deferral request and additional remediation will be required.

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

From: Kijun Hong <<u>khong@harvestmidstream.com</u>>

Sent: Wednesday, May 1, 2019 11:27 AM

To: Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>; Powell, Brandon, EMNRD <<u>Brandon.Powell@state.nm.us</u>> Cc: <u>bherb@ltenv.com</u>; Joseph Pruitt <<u>jpruitt@harvestmidstream.com</u>>; Lloyd Bell <<u>lbell@harvestmidstream.com</u>> Subject: [EXT] RE: [EXTERNAL] RE: Harvest Midstream - Trunk L - Update

Cory,

Harvest is proposing to leave the impacted soil in place for several reasons:

- 1. There are currently 4 aboveground storage tanks and one below grade storage tank that would have to be removed from service in order to dig out impacted soil or install a remediation system. These tanks are associated with the Trunk L facility and their removal would cause major facility deconstruction.
- 2. The containment is lined and in situ remediation would affect the existing liner.
- Deferring remediation does not cause an imminent risk to human health, the environment, or groundwater.
   a. Groundwater is estimated to be deep and unlikely to be affected by the impacted soil.

- b. Concentrations of DRO/GRO only exceed the NMOCD closure criteria by 310 mg/kg in one sample and are fully delineated laterally and vertically.
- c. No impacts were observed outside the extent of the containment. A new liner will act as a cap over the impacted soil which will cover surface impact and the possibility of impact to surface water.
- d. The liner will help prevent migration of the impacts vertically within the subsurface.

In response to your questions, the insitu remediation proposed is natural degradation with a low potential for migration based on the above assessment.

Harvest estimates that these tanks will be in place for approximately 30 years.

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Friday, April 26, 2019 1:06 PM
To: Kijun Hong <<u>khong@harvestmidstream.com</u>>
Cc: <u>bherb@ltenv.com</u>; Powell, Brandon, EMNRD <<u>Brandon.Powell@state.nm.us</u>>
Subject: [EXTERNAL] RE: Harvest Midstream - Trunk L - Update

Kijun,

Looking at the deferral request, How come Harvest did not investigate any insitu remediation options? I did not see a provided reason why the equipment can be moved and or temporary tanks cant be set?

What is the time line for the station to be abandoned if the deferral is granted? ?

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

From: Fields, Vanessa, EMNRD <<u>Vanessa.Fields@state.nm.us</u>>
Sent: Tuesday, March 12, 2019 2:49 PM
To: Kijun Hong <<u>khong@harvestmidstream.com</u>>
Cc: <u>bherb@ltenv.com</u>; Powell, Brandon, EMNRD <<u>Brandon.Powell@state.nm.us</u>>; Smith, Cory, EMNRD
<<u>Cory.Smith@state.nm.us</u>>
Subject: RE: Harvest Midstream - Trunk L - Update

Good afternoon Kijun,

The OCD grants Harvest an 30 day extension to remediate the referenced release. The final C-141 shall be submitted to the OCD by the close of business on April 12, 2019.

Thank you,

Vanessa Fields Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 119 Cell: (505) 419-0463 vanessa.fields@state.nm.us

From: Kijun Hong <<u>khong@harvestmidstream.com</u>> Sent: Tuesday, March 12, 2019 1:30 PM To: Fields, Vanessa, EMNRD <<u>Vanessa.Fields@state.nm.us</u>> Cc: <u>bherb@ltenv.com</u> Subject: [EXT] Harvest Midstream - Trunk L - Update

#### Vanessa,

On December 14, 2018, approximately 22 barrels (bbl) of condensate overflowed from an aboveground tank in a tank battery associated with, and just south of the Trunk L facility. The release was contained within the lined secondary containment and 22 bbl of condensate were removed via vacuum truck upon discovery of the release. An initial C-141 was submitted on December 28, 2018, and NMOCD assigned the release incident number nVF1900731813.

Due to snow and ice accumulation, a preliminary liner inspection was delayed until 2/5/2019. During the liner inspection, small holes were observed in the liner. The liner was pulled back and stained soil was observed to at least 1 foot below ground surface. Ten soil samples were collected from beneath the liner for field screening using a photoionization detector (PID). The PID measurements ranged from 187 parts per million (ppm) to 6,519 ppm. Further investigation and delineation of the release has been delayed due to poor weather, road conditions, and continued pooling snow and water within the containment.

Harvest has decided to retain a consultant to conduct a more detailed investigation. As a result of the liquids accumulation, Harvest is requesting an extension to the 90-day requirement for site characterization or closure reporting required in 19.15.29.11.A NMAC. The 90-day deadline is March 14, 2019. Harvest requests an extension until March 31, 2019. Harvest intends to have a vacuum truck onsite Wednesday March 13, 2019 to remove any standing precipitation in the containment area. LT Environmental will be onsite immediately afterward on Wednesday March 13, 2019, to delineate vertical and horizontal impacts to soil via hand auger. Soil samples will be submitted to Hall Analytical Laboratories for analysis of TPH, BTEX, and chloride. Based on results of analytical analysis, Harvest will submit a comprehensive remediation plan by the extension deadline. If LT Environmental encounters refusal or is unable to obtain vertical extent via hand auger, a follow up email will be submitted to the NMOCD detailing the attempt and the next course of action.

Thank You,

Kijun HARVEST MIDSTREAM

<u>Kijun Hong</u> | Harvest Midstream Company| Environmental Specialist | Four Corners Office: 505-632-4475 | Cell: 505-436-8457 | 1755 Arroyo Dr., Bloomfield, NM 87413 Form C-141 Page 2 State of New Mexico Oil Conservation Division

Incident ID	NVF1900731813.
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?			
Yes No				
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?				
,				

### **Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 $\boxtimes$  The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kijun Hong	Title:	Environmental Specialist
Signature:	Date:	<u>12/28/2018</u>
email: <u>khong@harvestmidstream.com</u>	Telephone:	<u>505-436-8457</u>
н		
OCD Only		
Received by:	Date:	

Form C-141 Page 3

State of New Mexico **Oil Conservation Division** 

Incident ID	NVF1900731813.
District RP	
Facility ID	
Application ID	

# Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?		
Did this release impact groundwater or surface water?		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?		
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No	
Are the lateral extents of the release overlying a subsurface mine?		
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No	
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No	
Did the release impact areas not on an exploration, development, production, or storage site?		

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site Field data Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Data table of soil contaminant concentration data
- X Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- X Boring or excavation logs
- Photographs including date and GIS information ×
- Topographic/Aerial maps X
- X Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141 Page 4

## State of New Mexico Oil Conservation Division

Incident ID	NVF1900731813.
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release noti public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a three addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
Printed Name: Kijun Hong Signature: email: khong@barvestmidstream.com	Title: Environmental Specialist Date: 4/12/2019 Telephone: 505-632-4475
OCD Only Received by:	Date:

Form C-141 Page 5 State of New Mexico Oil Conservation Division

Incident ID	NVF1900731813.
District RP	
Facility ID	
Application ID	1

# **Remediation Plan**

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

] Detailed description of proposed remediation technique

Scaled sitemap with GPS coordinates showing delineation points

Estimated volume of material to be remediated

Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC

Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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

Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

Extents of contamination must be fully delineated.

Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: him Hong	Title: Environmental Speevaliet
Signature:	Date: 4/12/2019
email: Khong havenstmodstream.com	Telephone: 505-652-4475
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of A	pproval Denied Deferral Approved
and i h	Clalice
Signature:	hate: <u>7/4/17</u>
V	

Form C-141 Page 6 State of New Mexico Oil Conservation Division

Incident ID	NVF1900731813.
District RP	
Facility ID	
Application ID	

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kijun Hong Signature:

email: khong@harvestmidstream.com

Title: Environmental Specialist

Date: 4/12/2019

Telephone: 505-632-4475

**OCD Only** 

Received by:

Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:	Date:	*
Printed Name:	Title:	· · · · · · · · · · · · · · · · · · ·



LT Environmental, Inc.

848 East Second Avenue Durango, Colorado 81301 970.385.1096

April 12, 2019

Ms. Vanessa Fields New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

RE: Closure Request Trunk L Tank Battery Incident Number NVF1900731813 Rio Arriba County, New Mexico

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Harvest Four Corners, LLC (Harvest), presents the following report detailing delineation of impacted soil at the Trunk L Tank Battery (Site) located in Unit A, Section 28, Township 28 North Range 5 West, in Rio Arriba County, New Mexico (Figure 1). The purpose of the drilling and soil sampling activities was to address impacts to soil after a release of condensate in the lined secondary containment.

On December 14, 2018, excessive liquids were received by the station during a pig run. Additionally, there was a high initial level in the slug catcher due to a stuck float valve. This caused a release of approximately 22 barrels (bbl) into the lined secondary containment. Approximately 22 bbls of free liquids were recovered by vacuum truck from the lined containment and the float valve was repaired. Harvest reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on December 28, 2018, and was assigned Incident Number NVF1900731813. Based on the delineation results, Harvest is requesting no further action for this release.

#### BACKGROUND

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is SJ00047, located approximately 0.62 miles southwest of the Site (Figure 1). The water well has a depth to groundwater of 265 feet and a total depth of 465 feet. The water well is approximately 23 feet lower in elevation than the Site. A New Mexico Office of the State Engineers (NMOSE) water column report is included as Attachment 1. The nearest continuously flowing water or significant watercourse is an unnamed dry wash located 885 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than



Fields, V. Page 2



300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. A small depression that appears to have been constructed as a stock pond is located approximately 275 feet southwest of the Site. Historical imagery suggests the pond was established sometime between October 1997 and July 2005. The pond appears to be fed by an upper order tributary of Gobernador Canyon and runoff from the oil and gas access road cut. Based on field evidence and historical imagery, the pond appears to only contain water after significant storm and snowmelt events. Several other ponds were constructed at the same time in the area. Based on historical imagery, the other ponds store water more consistently throughout the year and have evidence of a higher water line. Neither the pond in question nor the feeder tributary are mapped on the Fish and Wildlife Service Wetland Mapper. Based on this evidence, the pond is not a significant watercourse and the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 10,000 mg/kg chloride.

#### LINER INSPECTION

Due to snow and ice accumulation, a preliminary liner inspection was delayed until February 5, 2019. During the liner inspection, small holes were observed in the liner. The liner was pulled back and stained soil was observed to at least 1 foot bgs. Ten soil samples were collected from beneath the liner for field screening using a photoionization detector (PID). The PID results ranged from 187 parts per million (ppm) to 6,519 ppm. Further investigation and delineation of the release was delayed due to poor weather, road conditions, and continued pooling snow and water within the containment. As a result, Harvest requested an extension to the 90-day requirement for site characterization or closure reporting required in 19.15.29.11.A NMAC on March 12, 2019 via email. The NMOCD granted Harvest an extension to April 12, 2019.

#### HAND AUGER INVESTIGATION

On March 13 and 14, 2019, LTE personnel were onsite to conduct a hand auger delineation of impact to soil. Prior to LTE advancing boreholes within the containment area, Harvest contracted a vacuum truck to remove as much standing precipitation as practical. LTE advanced two boreholes within the containment area (BH01 and BH06) and one in each cardinal direction just outside the containment (BH02 through BH05). Each borehole was advanced to between 14 feet and 20 feet bgs. All soil sample locations were mapped using a handheld Global Positing System (GPS) unit and are depicted on Figure 2. Soil boring logs are included as Attachment 2. The soil samples were screened for volatile aromatic hydrocarbons using a PID. A soil sample was collected from the interval with the highest PID measurement and from the bottom of the borehole. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil







samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analytical Laboratories (Hall) in Albuquerque, New Mexico, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-motor oil range organics (MRO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

Soil sample BH01@20' contained a concentration of 1,100 mg/kg GRO and 130 mg/kg DRO which exceeds the combined GRO/DRO NMOCD Table 1 closure criteria of 1,000 mg/kg. Laboratory analytical results for all other soil samples indicated benzene, total BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Laboratory analytical results for hand auger soil samples are summarized in Table 1 and the laboratory analytical reports are included in Attachment 3. Based on the BH01@20' soil sample analytical results, further delineation of impacted soil was required.

#### DELINEATION

On March 26, 2019 and April 8 and 9, 2019, LTE personnel returned to the Site to further delineate the impacted soil using a hollow stem auger drill rig. Borehole BH07 was advanced near the location of hand auger borehole BH01 to a depth of 40 feet bgs. Sandstone was encountered at about 21 feet bgs and at 40 feet bgs the drill rig encountered refusal. Boreholes BH08 through BH11 were advanced to 42 feet bgs in each cardinal direction outside the containment area.

The soil borings were logged by an LTE geologist who inspected the soil for the presence or absence of petroleum hydrocarbon odor and/or staining. The soil was characterized by visually inspecting the soil samples and field screening the soil headspace using a PID to monitor for the presence of volatile organic vapors. Two soil samples from each soil boring were submitted for laboratory analysis: the most impacted sample based on field screening techniques and the terminus of the borehole. All soil samples were collected and analyzed as described above. Borehole locations are depicted on Figure 2 and soil boring logs are included as Attachment 2.

#### ANALYTICAL RESULTS

Borehole BH07 was advanced in the same location of as BH01, and contained a concentration of GRO/DRO of 1,310 mg/kg at approximately 8 to 10 feet bgs, but the sample collect from the bottom of the borehole at 40 feet bgs was complaint with NMOCD Table 1 closure criteria. Laboratory analytical results for all other soil samples indicated benzene, total BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 2.





Fields, V. Page 4

#### CONCLUSIONS

Harvest retained LTE to conduct a delineation of impact to soil below the lined containment. Based on field screening and laboratory analytical results, impact to soil by hydrocarbons were observed in BH01 and BH07 in the center of the containment from approximately 6 feet to 25 feet bgs. Field screening and laboratory analytical results indicate concentrations of hydrocarbons (BTEX, GRO+DRO, and TPH) exceeding Table 1 closure criteria were not observed in any other boreholes. Soil exceeding Table 1 Closure Criteria has been delineated laterally by BH-8 through BH-11 and vertically with BH-7. Based on the size of the containment and a depth of approximately 19 feet documented in BH-7, LTE estimates that less than 2,000 cubic yards of impacted soil exist.

Based on active site operations, Harvest requests to defer remediation of impacted soil until the tanks and the pipelines are removed from service. LTE and Harvest do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Free-standing fluids were recovered during initial response activities and no saturated soil remains in place. The impacted soil remaining in place under the lined containment is delineated vertically and laterally by soil samples collected from boreholes BH02 through BH06 and BH08 through BH11. No significant watercourse exists within 800 feet of the impacted soil and groundwater is greater than 100 feet deep. Detected concentrations of GRO + DRO were identified in the two boreholes in the center of the containment at 1,230 mg/kg and 1,310 and only minimally exceed Table 1 closure criteria of 1,000 mg/kg.

Harvest requests no further action for incident number NVF1900731813. Upon approval of this closure request, Harvest will replace the liner in the containment area. Capping the residual impact will prevent vertical migration of the elevated hydrocarbons. An updated NMOCD Form C-141 is included as a cover to this report. A photographic log of the Site is included as Attachment 4.

If you have any questions or comments, please do not hesitate to contact Ms. Brooke Herb at (970) 385-1096 or bherb@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Brooke Herb Project Geologist

ashley L. ager

Ashley L. Ager, P.G. Senior Geologist





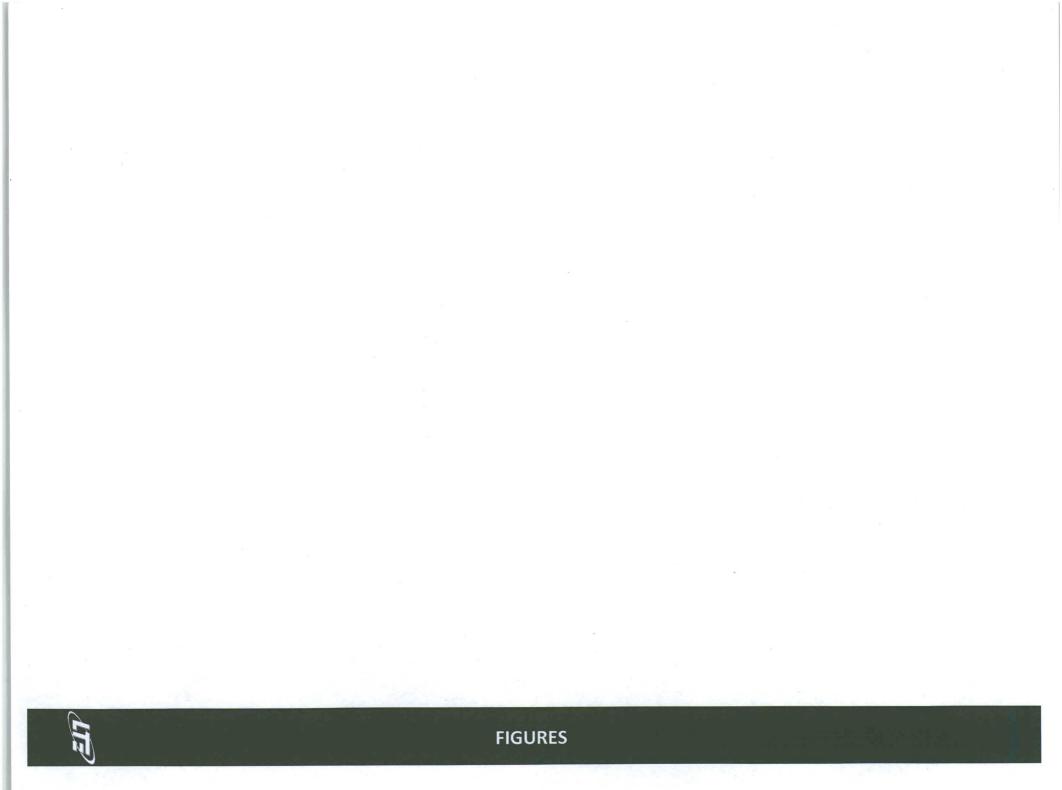
Fields, V. Page 5

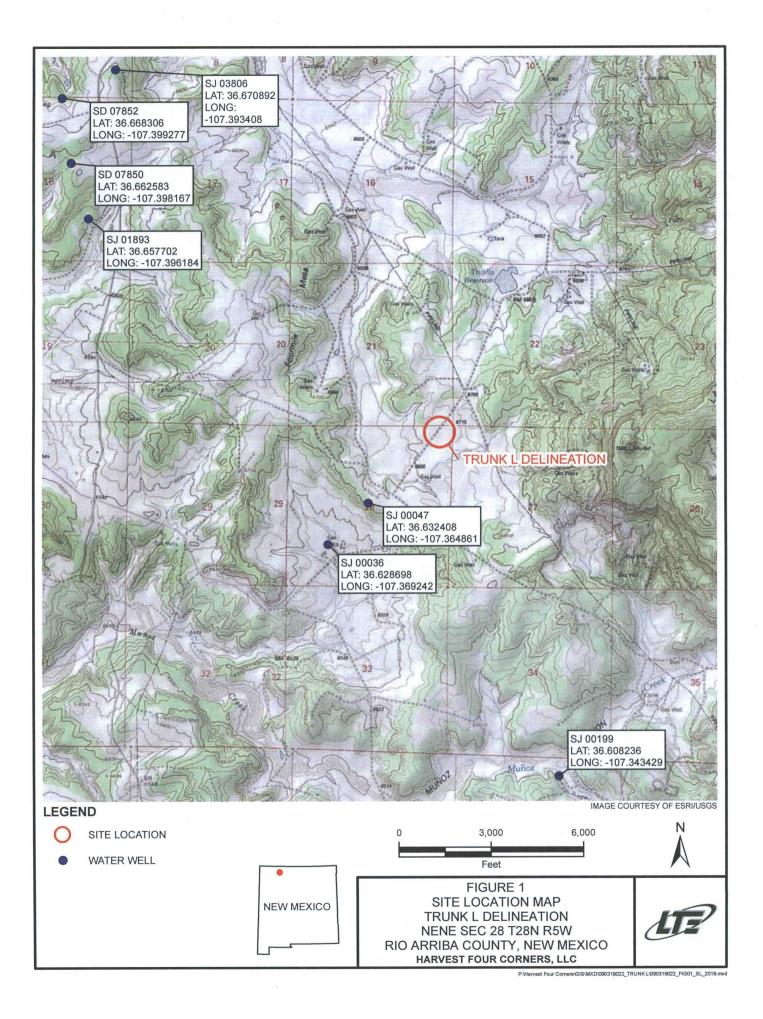
### cc: Cory Smith, NMOCD

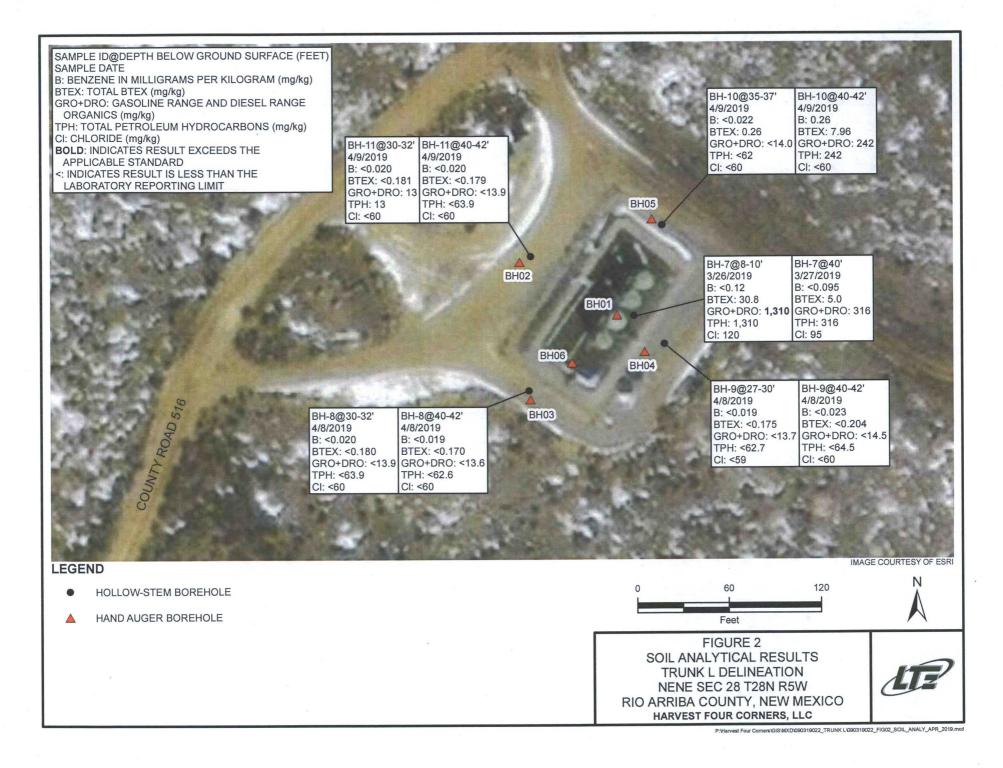
Attachments:

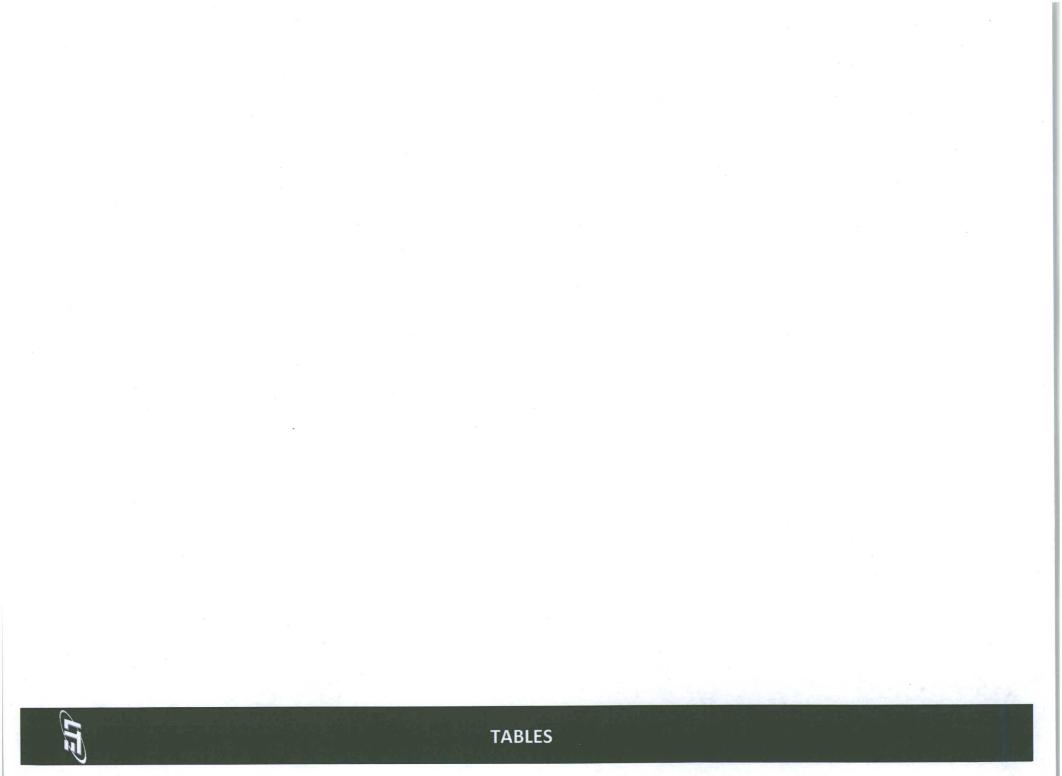
Figure 1Site Location MapFigure 2Soil Analytical ResultsTable 1Soil Analytical ResultsAttachment 1NMOSE Water Column ReportAttachment 2Soil Boring LogsAttachment 3Laboratory Analytical ReportsAttachment 4Photographic Log











#### TABLE 1 SOIL ANALYTICAL RESULTS

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#### TRUNK L TANK BATTERY HARVEST FOUR CORNERS, LLC RIO ARRIBA COUNTY, NEW MEXICO

Soil Boring	Sample Date	Depth (feet)	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Combined GRO, DRO (mg/kg)	MRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
Hand Auger	Boreholes		en and a second						A Sugaran		and Ashirida		S. A. BARREN	n and and
BH01	3/14/2019	6	2,196	<0.17	5.9	1.4	22	29.3	870	70	940	<49	940	200
BH01	3/14/2019	20	1,910	< 0.096	13	2.2	31	46.2	1,100	130	1,230	<48	1,230	160
BH02	3/13/2019	0.5	0.2	<0.022	<0.044	<0.044	<0.087	<0.197	<4.4	<9.7	<14.1	<49	<63.1	<60
BH02	3/13/2019	15	0.0	<0.017	<0.033	<0.033	<0.067	<0.150	<3.3	<9.9	<13.2	<49	<62.2	<60
BH03	3/13/2019	0.5	0.4	< 0.015	<0.031	<0.031	< 0.061	<0.138	<3.1	<9.5	<12.6	<48	<60.6	<60
BH03	3/13/2019	15	0.1	<0.020	< 0.039	<0.039	<0.079	<0.177	<3.9	<9.7	<13.6	<49	<62.6	<60
BH04	3/13/2019	4	0.7	<0.022	<0.044	< 0.044	<0.089	<0.199	<4.4	<9.6	<14.0	<48	<62.0	<60
BH04	3/13/2019	15	0.1	<0.014	<0.028	<0.028	<0.057	<0.127	<2.8	<9.8	<12.6	<49	<61.6	<60
BH05	3/13/2019	6	0.7	<0.016	<0.032	<0.032	< 0.065	<0.145	<3.2	<9.9	<13.1	<49	<62.1	<60
BH05	3/13/2019	15	0.2	<0.017	< 0.033	<0.033	<0.066	<0.149	<3.3	<9.5	<12.8	<47	<59.8	<60
BH06	3/13/2019	6	273.5	<0.023	0.39	0.11	2.8	3.3	120	12	132	<48	132	<60
BH06	3/13/2019	14	7.6	<0.016	0.061	<0.032	<0.064	0.061	<3.2	<9.8	<13.0	<49	<62.0	<60
Hollow-stem	Boreholes		and the second					New York York					and the provide	
BH-7	3/26/2019	8-10'	2,359	<0.12	4.3	1.5	25	30.8	1,000	310	1,310	<50	1,310	120
BH-7	3/27/2019	40	1,981	<0.095	1.4	0.21	3.6	5.21	230	86	316	<48	316	95
BH-8	4/8/2019	30-32	34.3	<0.020	<0.040	<0.040	<0.080	<0.180	<4.0	<9.9	<13.9	<50	<63.9	<60
BH-8	4/8/2019	40-42	10.9	< 0.019	<0.038	<0.038	<0.075	<0.170	<3.8	<9.8	<13.6	<49	<62.6	<60
BH-9	4/8/2019	27-30	38.2	<0.019	<0.039	< 0.039	<0.078	<0.175	<3.9	<9.8	<13.7	<49	<62.7	<59
BH-9	4/8/2019	40-42	22.0	<0.023	<0.045	<0.045	<0.091	<0.204	<4.5	<10	<14.5	<50	<64.5	<60
BH-10	4/9/2019	35-37	379.4	<0.022	0.13	<0.044	0.13	0.26	<4.4	<9.6	<14.0	<48	<62	<60
BH-10	4/9/2019	40-42	404.2	0.26	2.9	<0.38	4.8	7.96	210	32	242	<49	242	<60
BH-11	4/9/2019	30-32	24.8	<0.020	<0.040	<0.040	<0.081	<0.181	<4.0	13	13	<48	13	<60
BH-11	4/9/2019	40-42	21.4	<0.020	<0.040	<0.040	<0.079	<0.179	<4.0	<9.9	<13.9	<50	<63.9	<60
N	MOCD Table 1	<b>Closure</b> Crite	eria	10	NE	NE	NE	50	NE	NE	1,000	NE	2,500	5,000

#### NOTES:

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics NE - Not Established NMOCD - New Mexico Oil Conservation Division ppm - parts per million TPH- total petroleum hydrocarbons Bold - indicates value exceeds stated NMOCD standard < -indicates value is less than stated laboratory reporting limit

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Trunk L Tank Battery - Soil Results





ATTACHMENT 1: NMOSE WATER COLUMN REPORT



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

(A CLW####### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced O=orphaned, C=the file is closed)	(quar				NE 3=SW b largest)		3 UTM in meters)		(In feet	t)
	POD Sub-		QQC	2					Depth	Depth	Water
POD Number	Code basin C	ounty	64 16 4	Sec	: Tws	Rng	Х	Y	Well	Water	Column
SJ 00036	SJ	RA	3	28	28N	05W	288156	4056298* 🌍	303	243	60
SJ 00047	SJ	RA		28	28N	05W	288558	4056700* 🌍	465	265	200
SJ 01893	SJ	RA	4	18	28N	05W	285827	4059576* 🌍	390	290	100
								Average Depth to	Water:	266 f	eet
								Minimum	Depth:	243 f	eet
								Maximum	Depth:	290 f	eet
		na katan katan katan		hanner, ingeler, in	ann naonn naonn n	anan ananan aranan ananan anan		waan waxaa waxaa araan araan ahaan ahaan ahaan ahaan a			Approx Apples Tables installs

#### Record Count: 3

#### PLSS Search:

Township: 28N

Range: 05W

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



ATTACHMENT 2: SOIL BORING LOGS

							1 N	Ľ	Advancing Opp	ortunity	
•							<b>.</b> 1		848 E. 2nd Av Durango, Col		
				$\sim$				BORI	G LOG/MONITORING	and the second se	ON DIAGRA
			6	K				Boring Wa	Number	Project: Trunk L	Delineat
								Date: 3	114/19	Project Number:	
								Logged By:	no midvenarich	Drilled By: MM	
Élevation:			Detector:		PID			Drillipg Me		Sampling Method:	
Gravel Paci	k: <del>O Silica</del>	Sand						Seal:	0	Grout:	
Casing Typ Sche	e: Auie 40	PVC						Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Screen Typ	x: dule 40	PVC-		Slot:	10"			Diameter:	Length:	Total Depth: 20	Depth to Water: NA
Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/R	emarks	Well Completion
	M	20.8	N		0	-		SC	Sandy Clay, No, m. dense		
	D	2.1	N	1: 5-15	2		6	SW	Sand, brown water perched at Sandy Clay	1 10058, NO	t T
	S	2175	N		4	•		22	quarish-brown ,	tense Dinel	
· 25/	M	2196	N	BHA	6	•		sc	odor * smells of Pig Sandy Chay will color, Dieser odow loose	silt, black/gray	
	M	1989	N		•••8 - 9 -			SC	loose Sandy Clay, d m. dense, diese	Modor	-
	M	1855	N		10 11	-		SC	saa mallioraded Si	nd is chy 358	-
		1858	1	*	9 10			SC	midense, diese	VM OCOV	-

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1		2	AU	anci	ng Up	oporti	111	ly	Project #			
E el				<b>*</b>	l	<b>I</b>	1	× 1	Date	3/14/19		
Penetration Resistance	Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recover	Soil/Rock Type	Lith	blogy/Remarks	×	Well Completion
·	M	1919	N		15 16 17	-		SW	Well-grade trace clay diesel (marco	d Sand i <2081532, re odor, h	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-
r	N.	1670	N		18 19	-		SW			-	
Y	M	1910	N	BHOI 201	20.	-		SU	saa		-	-
				20'	21 22 23 24 25 26 27 28 29 30				TD	20'		
					31 32 33 34 35 36 37				and and			

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5 2 N Advancing Opportunity 848 E. 2nd Ave Durango, Colorado 81301 BORING LOG/MONITORING WELL COMPLETION DIAGRAM Boring/Well Number: Project: Truck & Delineation Project Number: Date: Lorged BJ: Mary Midjenspiel Drilled By: Elevation: Detector: Drilling M PID land Gravel Pack: Seal Grout: 10-20 Silica Sand Casing Type: Diameter: Length: Schedule 40 PVC 211 -Screen Type: Slot: Diameter: Length: Schedule 40 PVC - 0.010" 21 Penetration Resistance HC Staining? Vapor (ppm) Moisture Content Sample # Soil/Rock Type Recovery Depth Sample Lithology/Remarks (ft. bgs.) Run M 0.2 M 0 BHOZ SC 1 60.51 2 OIN m 3 4 N SW 0.1 m

MM Sampling Method: Grab Hole Diameter: Depth to Liquid: 411 Total Depth: / Depth to Water: Well Completion Sandy Clay, dark brown, donse SWICL Sand with day < 3000, no dark briwn, m. dense Sand, trace clay/silt <15%, No, dark brown 5 6 N saa, loose 0.1 M SW 11:-0.0 N m SW Saa 0 10 w/ clay layers N SW saa 0.0 M 11 . 12 w N saa 235 0.0 m 13 14 SW sal N m 6.0 BHOZ 0.0 SW N 15 15' 1 15' 1 ......

1			Constitution of the local division of the lo	A DESCRIPTION OF TAXABLE PARTY.	No. of Concession, Name	and the second se	and the same of the same of	-	States and the second second	and the second se	the second s		Statement of the local division of the local			
								1 N	L	P	Advancing Oppor	tunity				
									-		848 E. 2nd Ave					
									Durango, Colorado 81301							
									BORI	G LOG	MONITORING W	ELL COMPLETIC	N DIAGRAM			
									Boring/We	I Number:	All and the second s	Project: Trunk C Del'nearlds				
									Date:	BHOS	B	Project Number:	Delinearidh			
									3/13/19 Logged By:			Drilled By:				
				-					M	ary n	Ardjenovich	MM				
	Elevation:			Detector:		PID			Drilling Me	thod:	waer	Sampling Method:	4 H			
	Gravel Pac		01				-		Seal:		ry yer	Grout				
	Casing Ty	<del>O Silica</del> pe:	Dand		utowe we we down			-	Diameter:		Length:	Hole Diameter:	Depth to Liquid:			
	School Screen Typ	dule 40	PVC		Slot:		No.		. 100	211						
		dule 40	PVC			10"			Diameter:	210	Length:	Total Depths	Depth to Water:			
- South	ce .	- 6	(in	igu	#				×	11		i				
	Penetration Resistance	Moisture Content	Vapor (ppm)	Staining?	Sample #	Depth (ft. bgs.)	Sample	Recovery	Soil/Rock Type		Lithology/Ren		Well			
-	ene	C Wo	apoi	HC SI	Sam	(ft. bgs.)	Run	Reco	Ty.		Limology/Ken	IdIKS	Completion			
					1. 1. 1. 1.	0	<i>r</i> .	5	02		,	-	~			
		M	.0.4	N*	BHOS	0			SWSE	Sand	w silt & cl brown w y gravel, Kist	ay 13500, -				
					0.51	1			~~~~	dark	brown w/ 4	ellow stairing,				
	-	1		L.		ż	•			trace	gravel 12150	bidena, no				
		Ð	0.1	N			1		SW	Sand	itrace silt 4	10%, brown, t	-			
						3				No,	loose	-				
*		INT.	~ 7			4	·		<i></i>	5		-				
*		MAD	0.3	N		_ 1			ŚW	Sand	, brown, lo	ose, no t	- · · · ·			
-	5					5	-						-			
		P	0.0	W		6 ]			SM	Silty	, brown, lo Sand, brown	, loose, no				
		19.4				7 +			01.1	J		1				
	-	200				í †						+	.			
		D	0.0	NI 1		8 1			SM	saa	*	1				
		WV.	0.0	10		9				,		+				
						1	1					ata t				
						10			SM	Saa,	trace gravel	,40% I				
						11 1					0	+				
<		*	*			12						Ţ				
		D	0.0	Ŵ		12 +			SM	9aa		+				
						13				1-0-0		t				
						14						Ŧ	1			
IF		MA		N	BHOG	. T			944	Sha		+				
L		M	0.1	14	Unit-	.15			5M	JILL		İ				
	32.0		and a second second	2	ICI.							A				
1 5 5 5 6	5. 3				42	÷.			T	D	15'					
				×.	1.1	1			\	У		- 14 <sup>-</sup>	13 6			
	.1												f,			

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	-							State of the second
				Î	L	PAdvancing Oppo	ortunity	
				IN		848 E. 2nd Av	e .	
						Durango, Cold		
d .					BORI	NG LOG/MONITORING V		N DIACDAN
1.0					Boring/We	Il Number	Project:	and the second sec
					Dette	BHCH	Trunk	2
The second	· ,				Date:	3/13/2019	Project Number:	
	-A.				Logged By		Drifled By: .	No. of Concession, Name
Elevation:	Detector:			the second second second	Drilling Me	E. Carroll	LTE	;
and a second	Deaberon	PI	D			Cincol Auger	Sampling Method:	
Gravel Pack:	-1				Scal:		Grout:	
-10-20 Silica Sar Casing Type:	id '				Diameter;	Length:	Hole Diameter	Depth to Liquid:
Schedule 40 PV	the second s				<		Hole Diameter:	Sopin to Esquit.
Screen Type: Schedule 40 PV	<u>c</u> -	Slot: 			Diameter:	Length:	Total Depth:	Depth to Water:
		0.010						INT
Penetration Resistance Moisture Content	Vapor (ppm) HC Staining?	Sample # 15) C	epth San	nple	Soil/Rock Type			W/ 11
netr sist	Stail Stail			Recovery	RU dy	Lithology/Re	marks	Well Completion
R R F	Vai HC	ŝ		Re	So			
WEE O.						10050 dans have	const	
	100		Ţ			1005e, dark brown	Sciril', -	
			<sup>1</sup> +			Some sile 230%	, MA SEAM,	F
mase	5 NA		2 +					
	1		T					t
			3 1					L
maise O.	NO	BHOH 1	₄ <u>+</u>			SAA		-
a di		ВНОЧ . 24'	T			37171	-	-
			5 I					
in inaite	1 44		5 <b>+</b>					-
maise O	4 10	l '	´ +			Very Dose, It brow Coarse Sand, Enac no Stain/ador	in, med -	-
			7 1			coarse sand, Ena	e sile cicle	
maist	1	8	4					
ETEL Pi	HNO		· +			Demse, dork brown,	Chayey sand -	-
		9	1			ne stain/oder		
		1	, <del>1</del>				-	
- moisz 0-	2 NO		<sup>*</sup> <del>  </del>			SAA	-	-
		1	1 II					<u>i</u>
		1	, +		51.		1	
moist 0.	2 NP		° +			loose, it yellow bra	own coarse -	
		1	3 1			Sand, trace silt/ci	11-92	
			. +			The Charles Still CI	-y < 1570 -	
		BN04 14	' +			no Stain/oder	· ·	
maist O.	I NO 6	> 15 1	5 1		*	,	1 3 a	Anna the same
	18		u				- / - ma	
					1,	Th	1	
						12 15		
					-			- 1
						, * <sup>.</sup>		a Kan

						1	N	BORIT	Advancing Oppor 848 E. 2nd Ave Durango, Color NG LOG/MONITORING W	rado 81301	DN DIAGRAM
						,		Boring/Wel	BH05	Project: Trunk	Ĺ
								Date:	3/13/2019	Project Number:	
								Logged By:	EC	Drilled By: LTE	
Elevation:			Detector:		PID			Drilling Me	thod: Hand Auger	Sampling Method: Gra	ab
Gravel Pack	: Silica	Sand	_					Seal:		Grout:	
Casing Type						tani arra interne		Diameter.	Length:	Hole Diameter: 4	Depth to Liquid:
Screen Type				Slot:	10"			Diameter:	Length:	Total Depthy 5'	Depth to Water:
	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rer		Well Completion
	ivet	0-2	NA		0				Compace, dark bri	own, siley .	
	web	0.4	NO		1 2 3	-			Compace, dark br Clay, trace Sand < Stain, no odor	10 10 10 10	-
	Nlb	0-4	NO		4 -	-			SAA		
	moist	0.7	NO	₿Ħ05 @¢'	6	-		I	Compact, durk bro Ciay, no soain/od	wn, Scindy Ior	-
,	møige	0.5	NP		8 - 9 -	-			SAA		
	nOise	0-2			10	-			SAA	-	
	moise	0.3			12	-			SAA		
					13	-					-
	Moise	0.2		BH05 €15'	14 15	-			SAA	-	

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TD 15'

-							+				
							N	4	Advancing Oppo		
									848 E. 2nd Av Durango, Cole		
					•			BORI	NG LOG/MONITORING	and the second se	ON DIACE AN
								Boring/We	ell Number:	Project: Trunk (	
								Date: 2	HO6	Project Number:	-
								L'USECU D	G	Drilled By: DADA	
Elevation:			Detector				-	Ma Drilling M	ry modjenovich	IVIIVI	
Gravel Pac	k-				PID			P	land Anger	Sampling Method: Grab	
. 10-2	0 Silice	Sand						Seal:		Grout:	
	dule 40	PVC						Diameter:	2" Length:	Hole Diameter:	Depth to Liquid:
Screen Typ Sche	e: dule 40	PVC	*****	Slot:	110			Diameter:	Length: C	Total Depth: 15	Depth to Water:
Penetration Resistance	Moisture Content	2	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Re		Well Completion
	W	61.4	N	5 mm	0			50	Sandy Clay, d no, dense Sand, trace cla brown, dense, n	lark brown, -	
	M	31,2	N		2	-		SW	Sand trace da	y 42090.	F
	111	Ju	1.0		3				brown, dense, n'	8	-
	D.	234	PN			.				-	
					4			SW	Sala	-	-
			ъ.		5				saa	-	
	Þ	273.5	N	BHOD	6 7			sw-sm	Sand w/silt,	brown, loose,	
	6	43.3	N	6	8			915A	saa	-	
_	D	100	ĨV		9					-	
	Þ	89.7	N		10, 1 11			SW	Sand, trace cla brown, on dens	y <1590,	-
					T				on roups	c,no +	
	D	140,9	N		12		•	SUL	Saa	-	-
	мI		1	0.Du	13						
	S	7.6	N	8406 C 14	14			State	Sa Sand w/ da	y cuor	
			-		15				prown, m. dense, T	ND T	

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T.	x=x=		54. · · · ·	NI VI VI VI		N		NG LOG/MONITORING	Ave plorado 81301 G WELL COMPLET Project:	
Ť	***	K	<u>,</u>				Date:	BH·7 3-26-2019 J. Adams	Project Number: 0903190 Drilled By: Geomat Er	022.002
Elevation: 6,720	Ð	Detector:		PID			Drilling Me	ethod:	Sampling Method:	
Gravel Pack:	1	L					Seal:	Hollow Stem Auger	Grout:	Split Spoon
Casing Type:							Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Schedule 4	OPVC		Slot:	-			-	211	6	NA
Schedule 4	PVC		SIOC:	10"			Diameter:	Length:	- Total Depth: 40	Depth to Water:
Penetration Resistance Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)		Recovery		Lithology/		Well Completion
noist	A Q.8	) NO	R	0 1	0 10	Munuthalan	SC	brown/dark) ela exchesive, semi	yer sond - plastic	No well inscalled
		1	2	5		No to the second	-	grey/brown / black 1	ean clay	ŧ
M	2106	Ves block/ grey		78	5	MUMMUM	CL	grey/brown/black   cohesive, semi-p HC ador	plastic slight	+ + + +
M	2359	YES black/ ghey		9	10	WITH THANKING THANKING		SAA		
	$\mathcal{N}$	P		11 12		X			-	+
M	1728	YES grey/bl	ŧ	13 14 15		MMMMM NUM	SC	grey/block/brown cohesive, semi-	plastic	

1	-		>						Boring/Well #	BH-7	
	TT	-/	Ad	ianci	ing Op	norti	in	ity	Project:	Trusk L Tank	Battery
		2	nul	anu	ig of	φυπ	<i><b>AI E</b></i>	Ly I	Project #		1
S		1			and a second				Date	3-26-19	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
					15 16	15-)9				-	
	M	1883			17		MUNUM	SC	SA-	1	
			Geod/A		18 19	-	NUM		≈19°	t lithology becomes ore dense, switch osplit spoon.	+
		Λ	) (	2	20	-	V			NR	+
	-D		(-1, h+		22	- J2-23			light prown 10	porty preview	
	ma D	1801 N	silaht ghey	R	23 24	NR	X	sP	sand (ju	bbelized SS) Hoder.	Ŧ
	D	2183	NO	-	25	. 34-25		SP	SAL	A strong HCodor	ļ ļ
					26	-					ŧ
					27 28	-					ŧ
	Dev	1205			29	29-30		SP	Sand, rusemot	ly graded, coarse tling, Strong nc	ł
	Dry	1305	٧v	l.	30 31				HC odor		Ì
					32	33-34		<i>Ģ१</i>	It reddish brow Line Sound no	n, poorly sorted, med- stain, stron, odar	
	Dry	1156	NO		33 34						Ŧ
					35						
	Dry	1430	Ne		36 _	36-37		SP	SAA, Stror	ng odar.	ļ.

								Contractory of the second			
		- Instance of	>						Boring/Well #	BHOT	
	FTF		Ad	vano	ina O	nort		it.	Project	Trank L	
		2	AU	Valici	ing Op	ρυπ	111	ity	Project #	090319022	
6									Date	3127/2019	A REAL PROPERTY AND A REAL
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	blogy/Remarks	Well Completion
					37						
	Dry	1981	No	Вно7 е 40'	38 _ 39 _ 40 _	- - - 39-40'		SP	SAA, Strong	g odor	
					41 42 43 44	- - -			TD = 40' Stopped dr refusai	alling due to	
					45 46 47	- - -					
					48 49 50	• • •					+ + + + + + + + + + + + + + + + + + + +
					51 52 53						
					54 55 56						
					57 58						
					59						I

Elevation:	,720 ft	SA-	-3 Detector:	a 847	PID		N	Boring/Wel	H-8 4-8-DD19 J. Adams thod:	e Drado 81301 WELL COMPLETIC Project: Trum Project Number: 0903190 Drilled By: Geomat En Sampling Method:	k L 22.002 gineering
Gravel Pack:					111/			Seal:	Hollow Stem Auger	Grout:	opin spoon
Casing Type: Schedu	-	-	÷			-		Diameter:	Length:	Hole Diameter	Depth to Liquid:
Screen Type: Schedu	-			Slot;	14.0.			Diameter:	Length:	Total Depth:	Depth to Water
	Moisture and Content of	Vapor (ppm)	HC Staining?	Sample #		Sample Run	Recovery	C	Lithology/Re	emarks	Well
		R	J ſ.	2	0		X				Weil
	PM	1.1	No		4	1-5'	NNNN	ML	brown silt w/s plasticity.	and, tow i low cohesion	+
			N	2	6	t i	X		NR		Ŧ
	)~(	20	No		7 -	t I	FANSA	وتعال	SAA		, ,
	Dry	1.8	NO		9 10	5-10	hy	mL	SAA, m	sne cohesitre.	
			N	R	11	-	X				F
F	hy	15	WO		12 13	: 16-15	122N	SM	brown silty sal low obhesian	nd, Iow Plast.	
	Pry	0.5	NO		14 15	10-15	27	SM		-	

		>						Boring/Well #	34-8	
	-/	Ad	ianci		oporte	m	it.	Project:	TRUNKL	
	4	ли	and	ing of	ροια		ly	Project #	4-8-19	
			1		1			Date	L L	
Penetration Resistance Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Litho	ology/Remarks	Well Completion
Dry	8.8	NO		15 16 17	15-20	MARCH MARCH	ml	brown site plasticity	w/ Sand, med. t cohesion	+
Dry	0.6	NO		18 19 20	- 15-20	Caller Park	SM	brown s plashicity	silty sund low tohesisn'	
Dry	0.6	No		21 22	20-24	and a	3m		SAA	
Pry	0.7	NO		23 24	20-24	ally	sm		SAA .	
	9/	U	R	25 26 27 - 28 29 30					hecomes none t, sandstone tosplit-spoon	
Py	34.3	NO	8H-8 5-32 1160		30.32	MMMM	SM		y sand, low + cohesion	+
	N		N	33 34 35						
Dry	21.3	No		36 37	35-34	MANZA	SM	SA	A	

				*****					1		
			)						Boring/Well #	BH-8	
	TI	-	Ad	ianci	ing O <sub>l</sub>	nort	In	itv	Project:	Trunk L	
		-	7101	ano		poin	A 8 8 8	- 9	Project #		
-									Date	4-8-14	
<b>Penetration</b> <b>Resistance</b>	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lith	ology/Remarks	Well Completion
					37						
		jĄ	J	2	38 39 40	-					
	dry	10.9	No	BH-9 40-4 1136		40.42	MNN	Sm		SAA	- 
					43	-			To	e 42'	-
					-13 -				U U	C W	+
					44						1
					45	-					+ I
			8			-					‡
					46	-					+
					47						1 I
					48	·					+
											t
					49						<u>+</u>
					50						t
					51						Ţ
					. ]						±
					52	-					+
					53						1 I
					54	.					Ţ
					54						+
					55						1
					56						+
					57						Ŧ
					T	1					†
					58						+
					59						†

			1		PAdvancing Opp		
		X	I				4
					848 E. 2nd A		
		+		BOR	Durango, Col	orado 81301	
	. 01	+7)		Boring/W	ING LOG/MONITORING	Project:	ON DIAGRAM
	$\backslash$	BH-9		Date:	<u>BH-9</u>	Project Number:	kL
BH-8		DR 1		Logged B	4-8-2012	0903190	22.002
Elevation:	Detector;			Drilling M	J. Adams	Drilled By: Geomat En	gineering
6,720 ft Gravel Pack:		PID			Hollow Stem Auger	Sampling Method: Continuous/S	and the second se
-10-20 Silica Sanc			_	Scal:		Grout:	par opoon
Schedule 40 PVC creen Type:	Slot:			Diameter:	Leogth: 2"	Hole Diameter:	Depth to Liquid:
Schedule 40 PVC		.010"		Diameter:	Length:	Total Depth: 4/2	NA Depth to Water:
Resistance Moisture Content Vapor (ppm)	C Staining? Sample #		Sample Run	Soil/Rock Type			NA
Vap.	HC San	(ft. bgs.)	Run a	Soil	Lithology/Ren	marks	Well Completion
		0 11	1	1			
	10	1	$ \rangle$	1			weil
	412	2	05/			1	well
4		3				1	-
dry 38	NO	1 11	0.53	SM	light brown sit	try sand	-
		5	- 7	-	·	1 t	
	NA	6 7	5-10			t t T	
		8	2		brown clause	. 1 F	
day of	NO	9 75	-10 2		brown cloyeys med. play fco	and +	
		T T	SUNT,	SC	men. how a co	riesion 1	
		10	2			ŧ	
	2	$11 \qquad 12 \qquad 1$	M			Ť	
1.31		12 +			hh h h h h h h		
Edry 1.3	NO	13 - 10 14 - 10	-15	sm	light brown silly low plas. + cohes	sand t	
- 1		15	Z			4	

I		-	-						Boring/Well #	BH-9	
	1-1-	-	Ad	ianci	na O	pporti	m	ity.	Project:	Trunk L	
		3	Au	anci	ny of	oport	4111	ly	Project #		
E e	10	Γ		-	I	1			Date	4-8-14	T
<b>Penetration</b> Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lith	ology/Remarks	Well Completion
		M	PR		15 16	+ 2	K				-
	dry	4.0	NO		17 18	15-20	MMM	SM	SAA		+
	M	0.8	NO		19	15-20	man	ČL,	brown lea high plas	n clay a /sound t cohesion	+ + +
	M	27.0	wo		21 22	20-5	NANN	ML	brown sill med. pl	as t cohesiso	
	M	265	NO		23 24 25	25	MUMMM	ML	31	4A	
		A	IR	-	26 27		X				
	Der	36.2	NO	8H-9 27-20 1430	28 29 30	25-30	522723	SM	light braun low plas	silty sand . t cohesion .	+ - - -
	Dry	R6.2	No		31	30-34	NNN	SM	SAA	1	
	Dry	24.9	NG		33 34	<i>3</i> 21-24	Contra	SM	SAA lithology my switch to	precompact@ 34' - split spoon -	
		/	$\bigcirc$	R	35 36 37	-					-

1	Ĺ	7	Adu	/anci	ing O <sub>l</sub>	oporti	un	ity	Boring/Well # Project: Project # Date	PH-9 Trunk L 4-8-19	
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	(ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithe	ology/Remarks	Well Completion
					37						
		A	JA	_	38 39	+ + +				-	-
					40						Ĺ
	Ory	20	NO	第9 0.25	41 -		MUNA	5 <i>R.51</i>	poorly gra trace 5. (sard	dud sand w/ It ) Fet staining - stone) .42	-
					43	-	1		50.0	4)	-
									TDE		
					44 -	4				-	-
					45						-
					46	-				-	-
					47						-
					48	-					
					49	-					
<u>.</u>					50	-					
					51						-
					52						-
					53						-
					54						
		-			55						
					56						
										1	
					57					-	-
					58					4	
					59			h			

					Proping April 2010 11 (1911) and			CharryAd at the standard and an and a second and the second and		
			~	BH-1	0	1 N	Ľ	Advancing Oppol 848 E. 2nd Ave		
		/		BH-D	0			Durango, Colo		
	/		4	1			BORIN	G LOG/MONITORING W	ELL COMPLETIO	N DIAGRAM
		P B	-7 BH-9				Boring/Wel	INUMBH-10	Project: . Truni	- I
DH-3	1	/.	BH-9					1-8-2019/4-9-19		
p.	1						Logged By:		09031902 Drilled By:	22.002
Elevation:		Detector:					Drilling Me	J. Adams	Geomat Eng Sampling Method:	gineering
6,720 f	. f			PID				Hollow Stem Auger	Continuous/S	plit Spoon
Gravel Pack: 	Sand						Seal:		Grout:	1
Casing Type: -Schedule 40							Diameter:	Length:	Hole Diameter:	Depth to Liquid:
Screen Type:			Slot:			-	Diameter:	Length:		Depth to Water:
Schedule 46	1	5	<del>0.0</del>	) <del>10"</del>	1	1	1	2	Total Depth: 42	NA
Penetration Resistance Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)		Recovery	Soil/Rock Type	Lithology/Rer	narks	Well Completion
		N	2	0		X				well
M	1.27	NO		3 4 5	05	3232	ML	Brown Silt w/ meel. plas t c	sand cohosicn	
	A	1 1	4	6	5-10	X	X			+
dry	1. D	Nø		7	5-0	WWW	sm	hightbrown silty complay to co poorly grad	hesion -	-
m	0.2	NO		9 10	5-0	222	4L	high plas + coh	sion -	
	N	-)	$\sum$	11 12 13	p-15	X				
	03	NG			10-15	3224	SM	tow plastical	nd esion	

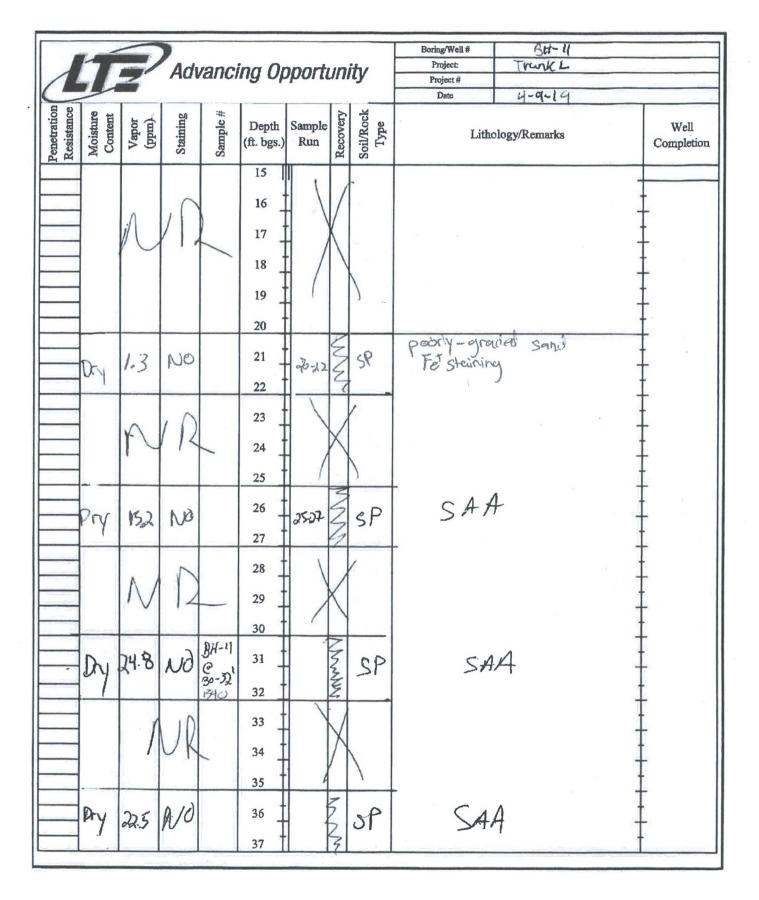
Boring/Well # BH- 10 Advancing Opportunity Project: Trunk L Project # 74-9-19 Date 4-8-19 Penetration Resistance Moisture Soil/Rock Type Staining Sample # Recovery Vapor (ppm) Depth Sample Well Lithology/Remarks (ft. bgs.) Run Completion 15 M NO SM SAA 16 encountered sandstone C 16.5' tet stain, pacriy geodel sand, sub-angular TD for 4-8 (6.5' 5 62.6 M NO 58-51 17 18 19 -20-22 35P-5m 20 SAA Pry 167.8 NO 21 22 23 24 25 SAA Dry 1020 NO 3 sp.sn 26 25-27 27 28 I) 29 30 32 194,1 NO 30-50 sp.gm SAA 31 py 32 33 1. 34 35 3 SP-SM BH-10 SAA 37A.H NO 35·37 36 DY 35-37 37 03

÷

Advancing Opportunity									Boring/Well # Project: Project #	RH-10 Trunk L		
Penetration Resistance	Moisture	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Date	Date 4-9-19 Lithology/Remarks		
					and the second se							
		N	R	_	38 39		X				+	
			****	orl in	40	1	_				1	
	DRY	4042	NO	1015 1015	41	·	MUMM		SAA, I	slight odor		
					43						+	
					44						Ŧ	
					45						+	
					46						Ŧ	
					47						Ŧ	
					48						Ŧ	
					49						Ŧ	
					50						I I	
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					56						<u>+</u>	
					57						-	
					58						Ī	
					59						Ŧ	

BH-8 BH-9								Advancing Oppo 848 E. 2nd Ave Durango, Colo NG LOG/MONITORING V U Number: BH - 11 4 - 9 - 2019 J. Adams thod: Hollow Stem Auger Length: 2"		
	e 40 PVC	18?		010"	<b>_</b>		T	2"	42'	NA
Penetration Resistance Moisture	Content Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Rea	marks	Well Completion
	r	UR		0	o5	K			-	NO WELL
/	1 1.2	NO		3 - 4 - 5	05	WYYYY	mL	brown silt w/san plas t cohesion	d med.	-
		Nr	2	67	5-10	X				
	1 32	AVO		8 9 10	5-10	MAZZ	sc	brown clayley san pred plas, la	d v colesion	-
	Λ	1 R		11 12						-
^	3:7	No		13 14 15	10-15		SM	bown silty sa low plast c	nd cohesion	-
								sandstone el	'S' Switch	

to split-spoon



										1 11.		
	M		7						Boring/Well # Project:	BH-11 Trunkz		
1			Aa	vanci	ing Op	oporti	un	ity	Project #	IT WIT C		
		1	r.						Date	4-9-19		
Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lith	Lithology/Remarks		
					a most restored and and a second se	1	-					
	/		][	2	38 _ 39 _ 40		0				-	
	dry	21.2	Nø	54-11 40-42 17-55	4142		Maria	5P	SA	A.		
					43				TDe	42 '	+	
					45					-		
					46						-	
					47					-		
					48 49							
					50							
					51							
					52					-	-	
					53					-		
					54 T					-	-	
					56							
					57					-		
					58					-		
					59					1		



ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 21, 2019

Kijun Hong Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: (505) 632-4475 FAX

RE: Trunk L Delineation

OrderNo.: 1903784

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 12 sample(s) on 3/16/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andig

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

	in the on mental 2 mary	SIS LIUSOIU	.cor j	, 11101				Date Reported. 3/21/201	.,	
CLIENT:	Harvest			C	ient Sa	ample II	D:BH	H02 @ 0.5'		
<b>Project:</b>	Trunk L Delineation		Collection Date: 3/13/2019 11:30:00 AM							
Lab ID:	1903784-001	Matrix:	MEO	H (SOIL)	Receiv	ved Dat	<b>e:</b> 3/1	6/2019 10:50:00 AM		
Analyses	R	esult	RL	Qual	Units	DF	Date Analyzed	Batch		
EPA ME							Analyst:	MRA		
Chloride			ND	60		mg/Kg	20	3/18/2019 5:58:45 PM	43728	
EPA MET	EPA METHOD 8015D MOD: GASOLINE R							Analyst:	RAA	
Gasoline	e Range Organics (GRO)		ND	4.4		mg/Kg	1	3/18/2019 3:32:05 PM	G58448	
Surr:	BFB		103	70-130		%Rec	1	3/18/2019 3:32:05 PM	G58448	
EPA MET	THOD 8015M/D: DIESEL RA	NGE ORGANIC	S					Analyst:	Irm	
Diesel R	ange Organics (DRO)		ND	9.7		mg/Kg	1	3/19/2019 9:39:16 AM	43721	
Motor Oi	il Range Organics (MRO)		ND	49		mg/Kg	1	3/19/2019 9:39:16 AM	43721	
Surr:	DNOP		114	70-130		%Rec	1	3/19/2019 9:39:16 AM	43721	
EPA MET	THOD 8260B: VOLATILES S	HORT LIST						Analyst:	RAA	
Benzene	9		ND	0.022		mg/Kg	1	3/18/2019 3:32:05 PM	SLS584	
Toluene	Toluene			0.044		mg/Kg	1	3/18/2019 3:32:05 PM	SLS584	
Ethylber		ND	0.044		mg/Kg	1	3/18/2019 3:32:05 PM	SLS584		
Xylenes,	Xylenes, Total			0.087		mg/Kg	1	3/18/2019 3:32:05 PM	SLS584	
Surr:	4-Bromofluorobenzene		97.4	70-130		%Rec	1	3/18/2019 3:32:05 PM	SLS584	
Surr:	Toluene-d8		97.7	70-130		%Rec	1	3/18/2019 3:32:05 PM	SLS584	

### Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Lab Order 1903784 Date Reported: 3/21/2019

**Analytical Report** 

	J			, ,						
CLIENT:	Harvest		Client Sample ID: BH02 @ 15'							
<b>Project:</b>	Trunk L Delineation				Collec	tion Dat	te: 3/1	3/2019 12:00:00 PM		
Lab ID:				OH (SOIL)	Rece	ived Dat	t <b>e:</b> 3/1	6/2019 10:50:00 AM		
Analyses		R	esult	RL	Qua	l Units	DF	Date Analyzed	Batch	
EPA MET	THOD 300.0: ANIONS							Analyst	MRA	
Chloride			ND	60		mg/Kg	20	3/18/2019 6:11:10 PM	43728	
EPA MET	THOD 8015D MOD: GASOLIN	E RANGE						Analyst	RAA	
Gasoline	e Range Organics (GRO)		ND	3.3		mg/Kg	1	3/18/2019 4:00:31 PM	G58448	
Surr: E	BFB		101	70-130		%Rec	1	3/18/2019 4:00:31 PM	G58448	
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANIC	S					Analyst	Irm	
Diesel Ra	ange Organics (DRO)		ND	9.9		mg/Kg	1	3/19/2019 10:25:00 AM	43721	
Motor Oil	I Range Organics (MRO)		ND	49		mg/Kg	1	3/19/2019 10:25:00 AM	43721	
Surr: D	ONOP		111	70-130		%Rec	1	3/19/2019 10:25:00 AM	43721	
EPA MET	HOD 8260B: VOLATILES SH	IORT LIST						Analyst	RAA	
Benzene	1		ND	0.017		mg/Kg	1	3/18/2019 4:00:31 PM	SLS584	
Toluene			ND	0.033		mg/Kg	1	3/18/2019 4:00:31 PM	SLS584	
Ethylben	zene		ND	0.033		mg/Kg	1	3/18/2019 4:00:31 PM	SLS584	
Xylenes,	Total		ND	0.067		mg/Kg	1	3/18/2019 4:00:31 PM	SLS584	
Surr: 4	Surr: 4-Bromofluorobenzene			70-130		%Rec	1	3/18/2019 4:00:31 PM	SLS584	
Surr: 1	Toluene-d8		94.9	70-130		%Rec	1	3/18/2019 4:00:31 PM	SLS584	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

Hall Environmental Analysis Laboratory, Inc.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Value above quantitation range Е
- Analyte detected below quantitation limits Page 2 of 16 J
- Р Sample pH Not In Range
- Reporting Detection Limit RL

Sample container temperature is out of limit as specified W

**Analytical Report** Lab Order 1903784 Date Reported: 3/21/2019

						Dute Reported. 5/21/201	.,
CLIENT:	Harvest	•	Cl	ient Sample II	D:BF	H03 @ 0.5'	
Project:	Trunk L Delineation		(	<b>Collection Dat</b>	e: 3/1	3/2019 1:06:00 PM	
Lab ID:	1903784-003	Matrix: MEOH	(SOIL)	<b>Received Dat</b>	<b>e:</b> 3/1		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst:	MRA
Chloride		ND	60	mg/Kg	20	3/18/2019 6:23:34 PM	43728
EPA MET	HOD 8015D MOD: GASOLIN	ERANGE				Analyst:	RAA
Gasoline	Range Organics (GRO)	ND	3.1	mg/Kg	1	3/18/2019 4:29:02 PM	G58448
Surr: E	BFB	104	70-130	%Rec	1	3/18/2019 4:29:02 PM	G58448
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst:	Irm
Diesel Ra	ange Organics (DRO)	ND	9.5	mg/Kg	1	3/19/2019 10:46:55 AM	43721
Motor Oil	Range Organics (MRO)	ND	48	mg/Kg	1	3/19/2019 10:46:55 AM	43721
Surr: D	DNOP	115	70-130	%Rec	1	3/19/2019 10:46:55 AM	43721
EPA MET	HOD 8260B: VOLATILES SH	IORT LIST				Analyst:	RAA
Benzene		ND	0.015	mg/Kg	1	3/18/2019 4:29:02 PM	SLS584
Toluene		ND	0.031	mg/Kg	1	3/18/2019 4:29:02 PM	SLS584
Ethylben	zene	ND	0.031	mg/Kg	1	3/18/2019 4:29:02 PM	SLS584
Xylenes,	Total	ND	0.061	mg/Kg	1	3/18/2019 4:29:02 PM	SLS584
Surr: 4	I-Bromofluorobenzene	98.7	70-130	%Rec	1	3/18/2019 4:29:02 PM	SLS584
Surr: T	Foluene-d8	99.1	70-130	%Rec	1	3/18/2019 4:29:02 PM	SLS584

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1903784

Date Reported: 3/21/2019

II will La			<i>J</i> , <i>III</i>			Date Reported. 5/21/20.	
CLIENT:	Harvest		C	lient Sample I	D:BI	H03 @ 15'	
<b>Project:</b>	Trunk L Delineation			Collection Dat	te: 3/1	13/2019 1:50:00 PM	
Lab ID:	1903784-004	Matrix: ME	OH (SOIL)	Received Dat	t <b>e:</b> 3/1	/16/2019 10:50:00 AM	
Analyses	3	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA ME	THOD 300.0: ANIONS					Analyst	MRA
Chloride		NE	60	mg/Kg	20	3/18/2019 6:35:59 PM	43728
EPA ME	THOD 8015D MOD: GASOLINE RA	NGE				Analyst	RAA
Gasoline	e Range Organics (GRO)	NE	3.9	mg/Kg	1	3/18/2019 4:57:46 PM	G58448
Surr:	BFB	101	70-130	%Rec	1	3/18/2019 4:57:46 PM	G58448
EPA MET	THOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst	Irm
Diesel R	ange Organics (DRO)	NE	9.7	mg/Kg	1	3/19/2019 11:09:00 AM	43721
Motor O	il Range Organics (MRO)	NE	49	mg/Kg	1	3/19/2019 11:09:00 AM	43721
Surr:	DNOP	104	70-130	%Rec	1	3/19/2019 11:09:00 AM	43721
EPA ME	THOD 8260B: VOLATILES SHORT	LIST				Analyst	RAA
Benzene	9	NE	0.020	mg/Kg	1	3/18/2019 4:57:46 PM	SLS5844
Toluene		NE	0.039	mg/Kg	1	3/18/2019 4:57:46 PM	SLS5844
Ethylber	nzene	NE	0.039	mg/Kg	1	3/18/2019 4:57:46 PM	SLS584
Xylenes,	, Total	NE	0.079	mg/Kg	1	3/18/2019 4:57:46 PM	SLS5844
Surr:	4-Bromofluorobenzene	98.7		%Rec	1	3/18/2019 4:57:46 PM	SLS584
Surr:	Toluene-d8	93.6	70-130	%Rec	1	3/18/2019 4:57:46 PM	SLS5844

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1903784 Date Reported: 3/21/2019

					Date Reported. 5/21/201	
CLIENT: Harvest		CI	ient Sample II	D:BH	H04 @ 4'	
Project: Trunk L Delineation	a a a a a a a a a a a a a a a a a a a		Collection Dat	e: 3/1	3/2019 11:20:00 AM	
Lab ID: 1903784-005	Matrix: MEOH	(SOIL)	<b>Received Dat</b>	e: 3/1	6/2019 10:50:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	3/18/2019 6:48:23 PM	43728
EPA METHOD 8015D MOD: GASOLII	NE RANGE				Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.4	mg/Kg	1	3/18/2019 5:26:25 PM	G58448
Surr: BFB	101	70-130	%Rec	1	3/18/2019 5:26:25 PM	G58448
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst:	Irm
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/19/2019 11:30:59 AM	43721
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/19/2019 11:30:59 AM	43721
Surr: DNOP	107	70-130	%Rec	1	3/19/2019 11:30:59 AM	43721
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst:	RAA
Benzene	ND	0.022	mg/Kg	1	3/18/2019 5:26:25 PM	SLS584
Toluene	ND	0.044	mg/Kg	1	3/18/2019 5:26:25 PM	SLS584
Ethylbenzene	ND	0.044	mg/Kg	1	3/18/2019 5:26:25 PM	SLS584
Xylenes, Total	ND	0.089	mg/Kg	1	3/18/2019 5:26:25 PM	SLS584
Surr: 4-Bromofluorobenzene	97.8	70-130	%Rec	1	3/18/2019 5:26:25 PM	SLS584
Surr: Toluene-d8	95.8	70-130	%Rec	1	3/18/2019 5:26:25 PM	SLS584

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1903784 Date Reported: 3/21/2019

<b>Analytical Report</b>
Lab Order 1903784

Date Reported: 3/21/2019

# Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Harvest	Client Sample ID: BH04 @ 15
<b>Project:</b>	Trunk L Delineation	Collection Date: 3/13/2019 11:40:00 AM
Lab ID:	1903784-006	Matrix: MEOH (SOIL) Received Date: 3/16/2019 10:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Chloride	ND	60		mg/Kg	20	3/18/2019 7:00:48 PM	43728
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	3/18/2019 5:55:01 PM	G58448
Surr: BFB	97.7	70-130		%Rec	1	3/18/2019 5:55:01 PM	G58448
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst:	Irm
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/19/2019 11:53:06 AM	43721
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/19/2019 11:53:06 AM	43721
Surr: DNOP	110	70-130		%Rec	1	3/19/2019 11:53:06 AM	43721
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	RAA
Benzene	ND	0.014		mg/Kg	1	3/18/2019 5:55:01 PM	SLS5844
Toluene	ND	0.028		mg/Kg	1	3/18/2019 5:55:01 PM	SLS5844
Ethylbenzene	ND	0.028		mg/Kg	1	3/18/2019 5:55:01 PM	SLS5844
Xylenes, Total	ND	0.057		mg/Kg	1	3/18/2019 5:55:01 PM	SLS5844
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	3/18/2019 5:55:01 PM	SLS5844
Surr: Toluene-d8	92.9	70-130		%Rec	1	3/18/2019 5:55:01 PM	SLS5844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

	J							
CLIENT:	Harvest		C	ient Sar	nple II	D:BF	H05 @ 6'	
<b>Project:</b>	Trunk L Delineation			Collectio	on Dat	e: 3/1	3/2019 1:30:00 PM	
Lab ID:	1903784-007	Matrix: MEOH (	(SOIL)	Receive	ed Dat	<b>e:</b> 3/1	6/2019 10:50:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	THOD 300.0: ANIONS						Analyst:	MRA
Chloride		ND	60		mg/Kg	20	3/18/2019 7:38:00 PM	43728
EPA MET	THOD 8015D MOD: GASOLIN	NE RANGE					Analyst:	RAA
Gasoline	e Range Organics (GRO)	ND	3.2		mg/Kg	1	3/18/2019 6:23:33 PM	G58448
Surr: I	BFB	100	70-130		%Rec	1	3/18/2019 6:23:33 PM	G58448
EPA MET	HOD 8015M/D: DIESEL RAM	IGE ORGANICS					Analyst:	CLP
Diesel R	ange Organics (DRO)	ND	9.9	1	mg/Kg	1	3/19/2019 10:01:56 AM	43721
Motor Oi	Range Organics (MRO)	ND	49		mg/Kg	1	3/19/2019 10:01:56 AM	43721
Surr: I	DNOP	95.7	70-130		%Rec	1	3/19/2019 10:01:56 AM	43721
EPA MET	THOD 8260B: VOLATILES SI	HORT LIST					Analyst:	RAA
Benzene	•	ND	0.016		mg/Kg	1	3/18/2019 6:23:33 PM	SLS584
Toluene		ND	0.032		mg/Kg	1	3/18/2019 6:23:33 PM	SLS584
Ethylben	izene	ND	0.032		mg/Kg	1	3/18/2019 6:23:33 PM	SLS584
Xylenes,	Total	ND	0.065	- )	mg/Kg	1	3/18/2019 6:23:33 PM	SLS584
Surr: 4	4-Bromofluorobenzene	100	70-130		%Rec	1	3/18/2019 6:23:33 PM	SLS584
Surr:	Toluene-d8	93.7	70-130		%Rec	1	3/18/2019 6:23:33 PM	SLS584

1.1				
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 7 of 16
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1903784

Date Reported: 3/21/2019

Hall Environmental Anal	ysis Laboratory,	Inc.			Date Reported: 3/21/201	9
CLIENT: Harvest Project: Trunk L Delineation Lab ID: 1903784-008	Matrix: MEOH	(		<b>e:</b> 3/1	H05 @ 15' 3/2019 2:00:00 PM 6/2019 10:50:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	3/18/2019 7:50:25 PM	43728
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	3/18/2019 6:51:58 PM	G58448
Surr: BFB	99.7	70-130	%Rec	1	3/18/2019 6:51:58 PM	G58448
EPA METHOD 8015M/D: DIESEL R/	ANGE ORGANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	3/19/2019 10:25:44 AM	43721
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/19/2019 10:25:44 AM	43721
Surr: DNOP	97.8	70-130	%Rec	1	3/19/2019 10:25:44 AM	43721
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	RAA
Benzene	ND	0.017	mg/Kg	1	3/18/2019 6:51:58 PM	SLS5844
Toluene	ND	0.033	mg/Kg	1	3/18/2019 6:51:58 PM	SLS5844
Ethylbenzene	ND	0.033	mg/Kg	1	3/18/2019 6:51:58 PM	SLS5844
Xylenes, Total	ND	0.066	mg/Kg	1	3/18/2019 6:51:58 PM	SLS5844
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	3/18/2019 6:51:58 PM	SLS5844
Surr: Toluene-d8	96.9	70-130	%Rec	1	3/18/2019 6:51:58 PM	SLS5844

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 8 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** Lab Order 1903784

<b>Analytical Report</b>	
Lab Order 1903784	

Date Reported: 3/21/2019

# Hall Environmental Analysis Laboratory, Inc.

Analyses		Resu	lt	RL	Qual Units	DF Date Analyzed	B
Lab ID:	1903784-009	Matrix: M	EOH (SOIL	.)	Received Dat	te: 3/16/2019 10:50:00 AM	
<b>Project:</b>	Trunk L Delineation			(	Collection Dat	te: 3/14/2019 1:20:00 PM	
CLIENT:	Harvest	Client Sample ID: BH01 @ 6'					

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	200	60	mg/Kg	20	3/18/2019 8:02:49 PM	43728
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	870	35	mg/Kg	10	3/18/2019 7:20:34 PM	G58448
Surr: BFB	102	70-130	%Rec	10	3/18/2019 7:20:34 PM	G58448
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	Irm
Diesel Range Organics (DRO)	70	9.8	mg/Kg	1	3/19/2019 12:15:08 PM	43721
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/19/2019 12:15:08 PM	43721
Surr: DNOP	117	70-130	%Rec	1	3/19/2019 12:15:08 PM	43721
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	RAA
Benzene	ND	0.17	mg/Kg	10	3/18/2019 7:20:34 PM	SLS5844
Toluene	5.9	0.35	mg/Kg	10	3/18/2019 7:20:34 PM	SLS5844
Ethylbenzene	1.4	0.35	mg/Kg	10	3/18/2019 7:20:34 PM	SLS5844
Xylenes, Total	22	0.69	mg/Kg	10	3/18/2019 7:20:34 PM	SLS5844
Surr: 4-Bromofluorobenzene	95.9	70-130	%Rec	10	3/18/2019 7:20:34 PM	SLS5844
Surr: Toluene-d8	98.3	70-130	%Rec	10	3/18/2019 7:20:34 PM	SLS5844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 9 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Re	port
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#### Lab Order 1903784

Date Reported: 3/21/2019

# Hall Environmental Analysis Laboratory, Inc.

Analyses		Res	ult	RL	<b>Oual Units</b>	DF Date Analyzed	B	
Lab ID:	1903784-010	Matrix: N	AEOH (SO	L)	Received Dat	te: 3/16/2019 10:50:00 AM		
<b>Project:</b>	Trunk L Delineation			(	<b>Collection Dat</b>	te: 3/14/2019 2:40:00 PM		
<b>CLIENT:</b>	Client Sample ID: BH01 @ 20'							

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	160	60	mg/Kg	20	3/18/2019 8:15:14 PM	43728
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	1100	19	mg/Kg	5	3/18/2019 7:49:12 PM	G58448
Surr: BFB	103	70-130	%Rec	5	3/18/2019 7:49:12 PM	G58448
EPA METHOD 8015M/D: DIESEL RANGE ORGAI	NICS				Analyst:	CLP
Diesel Range Organics (DRO)	130	9.7	mg/Kg	1	3/19/2019 11:13:33 AM	43721
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/19/2019 11:13:33 AM	43721
Surr: DNOP	97.6	70-130	%Rec	1	3/19/2019 11:13:33 AM	43721
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst:	RAA
Benzene	ND	0.096	mg/Kg	5	3/18/2019 7:49:12 PM	SLS5844
Toluene	13	0.19	mg/Kg	5	3/18/2019 7:49:12 PM	SLS5844
Ethylbenzene	2.2	0.19	mg/Kg	5	3/18/2019 7:49:12 PM	SLS5844
Xylenes, Total	31	0.38	mg/Kg	5	3/18/2019 7:49:12 PM	SLS5844
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	5	3/18/2019 7:49:12 PM	SLS5844
Surr: Toluene-d8	99.2	70-130	%Rec	5	3/18/2019 7:49:12 PM	SLS5844

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limitPage 10 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

	Tail Environmental Analysis Laboratory, Inc. Date Reported: 3/21/2019										
CLIENT: Project: Lab ID:	Harvest Trunk L Delineation 1903784-011	Matrix:	Client Sample ID: BH06 @ 6' Collection Date: 3/14/2019 4:00:00 PM Matrix: MEOH (SOIL) Received Date: 3/16/2019 10:50:00 AM								
Analyses			esult	. ,	Qual	Units	DF	Date Analyzed	Batch		
EPA MET	HOD 300.0: ANIONS							Analyst:	MRA		
Chloride			ND	60		mg/Kg	20	3/18/2019 8:27:38 PM	43728		
EPA MET	HOD 8015D MOD: GASOLIN	E RANGE						Analyst:	RAA		
Gasoline	Range Organics (GRO)		120	4.7		mg/Kg	1	3/18/2019 8:17:45 PM	G58448		
Surr: E		99.7	70-130		%Rec	1	3/18/2019 8:17:45 PM	G58448			
EPA MET	HOD 8015M/D: DIESEL RAM	IGE ORGANIC	S					Analyst:	CLP		
Diesel Ra	ange Organics (DRO)		12	9.7		mg/Kg	1	3/19/2019 11:37:30 AM	43721		
Motor Oil	Range Organics (MRO)		ND	48		mg/Kg	1	3/19/2019 11:37:30 AM	43721		
Surr: D	DNOP		107	70-130		%Rec	1	3/19/2019 11:37:30 AM	43721		
EPA MET	HOD 8260B: VOLATILES SH	HORT LIST						Analyst:	RAA		
Benzene			ND	0.023		mg/Kg	1	3/18/2019 8:17:45 PM	SLS5844		
Toluene			0.39	0.047		mg/Kg	1	3/18/2019 8:17:45 PM	SLS5844		
Ethylben		0.11	0.047		mg/Kg	1	3/18/2019 8:17:45 PM	SLS5844			
Xylenes,	Total		2.8	0.093		mg/Kg	1	3/18/2019 8:17:45 PM	SLS5844		
Surr: 4	1-Bromofluorobenzene		97.9	70-130		%Rec	1	3/18/2019 8:17:45 PM	SLS5844		
Surr: 1	Surr: Toluene-d8			70-130		%Rec	1	3/18/2019 8:17:45 PM	SLS5844		

Kelel l	lo me	QC Summ	ary repor	t and samp	e login	CHECKHSt .	ioi maga	seu qe	uata allu	preser	valion	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 11 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

#### Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 1903784

Hall Environmental Analysis	Hall Environmental Analysis Laboratory, Inc.       Date Reported: 3/21/2019										
CLIENT: Harvest         Client Sample ID: BH06 @ 14'           Project:         Trunk L Delineation           Lab ID:         1903784-012           Matrix: MEOH (SOIL)         Received Date: 3/16/2019 10:50:00 AM											
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch					
EPA METHOD 300.0: ANIONS Chloride	ND	60	mg/Kg	20	Analyst: 3/18/2019 8:40:02 PM	<b>MRA</b> 43728					
EPA METHOD 8015D MOD: GASOLINE F Gasoline Range Organics (GRO) Surr: BFB	ND 101	3.2 70-130	mg/Kg %Rec	1 1	Analyst: 3/18/2019 8:46:11 PM 3/18/2019 8:46:11 PM	<b>RAA</b> G58448 G58448					
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	CLP					
Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	ND ND 98.5	9.8 49 70-130	mg/Kg mg/Kg %Rec	1 1 1	3/19/2019 12:01:30 PM 3/19/2019 12:01:30 PM 3/19/2019 12:01:30 PM	43721					
EPA METHOD 8260B: VOLATILES SHOP	RTLIST				Analyst	RAA					
Benzene Toluene	ND 0.061	0.016	mg/Kg mg/Kg	1 1	3/18/2019 8:46:11 PM 3/18/2019 8:46:11 PM	SLS5844 SLS5844					
Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	ND ND 100	0.032 0.064 70-130	mg/Kg mg/Kg %Rec	1 1 1	3/18/2019 8:46:11 PM 3/18/2019 8:46:11 PM 3/18/2019 8:46:11 PM	SLS5844 SLS5844 SLS5844					
Surr: Toluene-d8	92.9	70-130	%Rec	1	3/18/2019 8:46:11 PM	SLS5844					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 12 of 16
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** Lab Order 1903784

WO#: 1903784

21-Mar-19

**Client:** Harvest **Project:** Trunk L Delineation Sample ID: MB-43728 SampType: mblk TestCode: EPA Method 300.0: Anions Client ID: PBS Batch ID: 43728 RunNo: 58434 Prep Date: 3/18/2019 Analysis Date: 3/18/2019 SeqNo: 1961763 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual ND Chloride 1.5 Sample ID: LCS-43728 SampType: Ics TestCode: EPA Method 300.0: Anions Client ID: LCSS Batch ID: 43728 RunNo: 58434 Prep Date: Analysis Date: 3/18/2019 SeqNo: 1961764 3/18/2019 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.5	90	110				

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- P Sample pH Not In Range
- RL
- Sample container temperature is out of limit as specified W

#### Page 13 of 16

- **Reporting Detection Limit**

WO#: 1903784

21-Mar-19

Client:HarvestProject:Trunk L	Delineation						
Sample ID: LCS-43721	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 43721	RunNo: 58453					
Prep Date: 3/18/2019	Analysis Date: 3/19/201	19 SeqNo: 1961839 Units: mg/Kg					
Analyte	Result PQL SPK	value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual					
Diesel Range Organics (DRO)		50.00 0 107 63.9 124					
Surr: DNOP	5.8	5.000 115 70 130					
Sample ID: MB-43721	Sample ID: MB-43721 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 43721	RunNo: 58453					
Prep Date: 3/18/2019	Analysis Date: 3/19/201	19 SeqNo: 1961840 Units: mg/Kg					
Analyte	Result PQL SPK	value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual					
Diesel Range Organics (DRO)	ND 10						
Motor Oil Range Organics (MRO)	ND 50	10.00					
Surr: DNOP	11 *	10.00 114 70 130					
Sample ID: MB-43742	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 43742	RunNo: 58454					
Prep Date: 3/18/2019	Analysis Date: 3/19/201	19 SeqNo: 1963736 Units: %Rec					
Analyte	Result PQL SPK	value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual					
Surr: DNOP	10	10.00 101 70 130					
Sample ID: LCS-43742	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 43742	RunNo: <b>58454</b>					
Prep Date: 3/18/2019	Analysis Date: 3/19/201	19 SeqNo: 1963737 Units: %Rec					
Analyte	Result PQL SPK	value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual					
Surr: DNOP	4.8	5.000 95.1 70 130					

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 14 of 16

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

ND

ND

0.46

0.51

0.44

0.50

0.050 0.10

0.5000

0.5000

0.5000

0.5000

Ethylbenzene

Xylenes, Total

Surr: 1,2-Dichloroethane-d4

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

WO#: 1903784

21-Mar-19

	rvest 1nk L Delineatio	n								
Sample ID: 100ng Ics	Samp	Type: LC	S	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: LCSS	Bato	Batch ID: SLS58448			RunNo: 58448					
Prep Date:	Analysis I	Date: 3/	18/2019	S	SeqNo: 1	961815	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	83.6	70	130		-	
Toluene	0.94	0.050	1.000	0	94.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzen	e 0.50		0.5000		99.8	70	130			
Surr: Dibromofluoromethan	e 0.44		0.5000		87.6	70	130			
Surr: Toluene-d8	0.50		0.5000		99.0	70	130			
Sample ID: rb	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: PBS	Bato	h ID: SL	S58448	F	RunNo: 5	8448				
Prep Date:	Analysis I	Date: 3/	18/2019	5	SeqNo: 1	961816	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

- Η Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В

70

70

70

70

130

130

130

130

92.6

101

88.1

101

- Value above quantitation range E
- Analyte detected below quantitation limits J

Page 15 of 16

- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1903784

21-Mar-19

tian Environmental Analysis Laborate

Client:	Harvest	
<b>Project:</b>	Trunk L Delineation	
		_

Sample ID: 1903784-001ams	SampTy	pe: MS	;	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	50 A
Client ID: BH02 @ 0.5'	Batch	ID: <b>G5</b>	8448	F	RunNo: 5	8448				
Prep Date:	Analysis Da	ate: 3/*	19/2019	S	SeqNo: 1	961600	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.4	21.76	0	88.6	68.2	135		K.	
Surr: BFB	450		435.2		103	70	130			
Sample ID: 1903784-001ams	d SampTy	/pe: MS	D	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: BH02 @ 0.5'	Batch	ID: G5	8448	F	RunNo: 5	8448				
Prep Date:	Analysis Da	ate: 3/'	19/2019	S	SeqNo: 1	961601	Units: mg/M	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.4	21.76	0	85.8	68.2	135	3.21	20	
Surr: BFB	440		435.2		101	70	130	0	0	
Sample ID: 2.5ug gro Ics	SampTy	/pe: LC	s	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Sample ID: 2.5ug gro Ics Client ID: LCSS		/pe: LC			tCode: El RunNo: 5		8015D Mod:	Gasoline	Range	
		ID: <b>G5</b>	8448	F		8448	8015D Mod: Units: mg/M		Range	
Client ID: LCSS	Batch	ID: <b>G5</b>	8448 18/2019	F	RunNo: 5 SeqNo: 1	8448			Range RPDLimit	Qual
Client ID: LCSS Prep Date:	Batch Analysis Da	ID: <b>G5</b> ate: <b>3</b> /'	8448 18/2019	F	RunNo: 5 SeqNo: 1	8448 961613	Units: mg/k	٢g	U U	Qual
Client ID: LCSS Prep Date: Analyte	Batch Analysis Da Result	ID: <b>G5</b> ate: 3/ PQL	8448 18/2019 SPK value	F S SPK Ref Val	RunNo: 5 SeqNo: 1 %REC	8448 961613 LowLimit	Units: <b>mg/K</b> HighLimit	٢g	U U	Qual
Client ID: LCSS Prep Date: Analyte Gasoline Range Organics (GRO)	Batch Analysis Da Result 23	ID: <b>G5</b> ate: <b>3</b> /* PQL 5.0	8448 18/2019 SPK value 25.00 500.0	F S SPK Ref Val 0	RunNo: 5 SeqNo: 1 %REC 92.6 101	8448 961613 LowLimit 70 70	Units: mg/k HighLimit 130	(g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: Analyte Basoline Range Organics (GRO) Surr: BFB	Batch Analysis Da Result 23 510 SampTy	ID: <b>G5</b> ate: <b>3</b> /* PQL 5.0	8448 18/2019 SPK value 25.00 500.0	F S SPK Ref Val 0 Tes	RunNo: 5 SeqNo: 1 %REC 92.6 101	8448 961613 LowLimit 70 70 PA Method	Units: <b>mg/K</b> HighLimit 130 130	(g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: Analyte Basoline Range Organics (GRO) Surr: BFB Sample ID: rb	Batch Analysis Da Result 23 510 SampTy	ID: G5 ate: 3/ PQL 5.0 ype: ME ID: G5	8448 18/2019 25.00 500.0 BLK 8448	F S SPK Ref Val 0 Tes F	RunNo: <b>5</b> SeqNo: <b>1</b> %REC 92.6 101 tCode: <b>E</b>	8448 961613 LowLimit 70 70 PA Method 8448	Units: <b>mg/K</b> HighLimit 130 130	(g %RPD Gasoline	RPDLimit	Qual
Client ID: LCSS Prep Date: Analyte Basoline Range Organics (GRO) Surr: BFB Sample ID: rb Client ID: PBS	Batch Analysis Da Result 23 510 SampTy Batch	ID: G5 ate: 3/ PQL 5.0 ype: ME ID: G5	8448 18/2019 SPK value 25.00 500.0 BLK 8448 18/2019	F S SPK Ref Val 0 Tes F	RunNo: 5 SeqNo: 1 %REC 92.6 101 tCode: El RunNo: 5 SeqNo: 1	8448 961613 70 70 PA Method 8448 961614	Units: mg/k HighLimit 130 130 8015D Mod:	(g %RPD Gasoline	RPDLimit	Qual
Client ID: LCSS Prep Date: Analyte Basoline Range Organics (GRO) Surr: BFB Sample ID: rb Client ID: PBS Prep Date:	Batch Analysis Da Result 23 510 SampTy Batch Analysis Da	ID: G5 ate: 3/ PQL 5.0 ype: ME ID: G5 ate: 3/	8448 18/2019 SPK value 25.00 500.0 BLK 8448 18/2019	F SPK Ref Val 0 Tes F S	RunNo: 5 SeqNo: 1 %REC 92.6 101 tCode: El RunNo: 5 SeqNo: 1	8448 961613 70 70 PA Method 8448 961614	Units: mg/k HighLimit 130 130 8015D Mod: Units: mg/k	Kg %RPD Gasoline	RPDLimit Range	

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 16 of 16

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	490) Iquerqu FAX:	1 Hawkins N ue, NM 8710 505-345-410	VE 09 <b>S</b> 07	am	ple Log-In Check List
Client Name: Harvest	Work Order Number:	1903	784			RcptNo: 1
Received By: Erin Melendrez Completed By: Erin Melendrez	3/16/2019 10:50:00 AM 3/16/2019 12:29:15 PM			UL M	A A	2
Reviewed By:	3/16/19			,		
Chain of Custody	-					
1. Is Chain of Custody complete?		Yes	$\checkmark$	No [		Not Present
2. How was the sample delivered?		Cour	ier			м Э
Log In 3. Was an attempt made to cool the samples?		Yes		No [		
4. Were all samples received at a temperature of	of >0° C to 6.0°C	Yes		No [		
5. Sample(s) in proper container(s)?		Yes		No [		
6. Sufficient sample volume for Indicated test(s)	?	Yes	<b>~</b>	No [		
7. Are samples (except VOA and ONG) properly	preserved?	Yes	$\checkmark$	No		
8. Was preservative added to bottles?		Yes		No 🖢		NA 🗋
9. VOA vials have zero headspace?		Yes		No		No VOA Vials 🗹
10. Were any sample containers received broker	1?	Yes		No 8		# of preserved bottles checked
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No [		for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of C	Custody?	Yes	$\checkmark$	No [		Adjusted?
13. Is it clear what analyses were requested?		Yes	~	No		
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No		Checked by:
Special Handling (if applicable)						
15. Was client notified of all discrepancies with the	his order?	Yes		No		NA 🗹
Person Notified:	Date:	COLUMN TO A DAY		and the second	1	
By Whom:	Via:	eMa	ail 🗌 Pho	one 🗍 I	Fax	In Person
Regarding:						
Client Instructions:						
16. Additional remarks:						L
17. <u>Cooler Information</u> <u>Cooler No</u> <u>Temp 2C</u> <u>Condition</u> Se <u>1</u> <u>3.3</u> <u>Good</u> <u>Yes</u>	the state of the s	eal D	ate S	gned B	Ŷ	

Page 1 of 1

VIRONMENTAL
S LABORATORY
mental.com
uerque, NM 87109
505-345-4107
s Request
(Semi-VOA) Coliform (Present/Absent)
VOA
8270 (Semi-VOA) Total Coliform (Pr
8270 (Semi Total Colifor
b@ltenv.com
11@ Henr.com
arly notated on the analytical report.

<b>Analytical Report</b>	
Lab Order 1904418	

### Date Reported:

# Hall Environmental Analysis Laboratory, Inc.

EPA METHO	D 300.0: ANIONS			Analy	/st: MRA
Analyses		Result	RL Qual Units	DF Date Analyzed	Batch
Lab ID: 19	004418-001	Matrix: SOIL	Received Dat	te: 4/6/2019 10:45:00 AM	
Project: Tr	unk L		<b>Collection Dat</b>	te: 3/26/2019 1:40:00 PM	
CLIENT: Ha	arvest		<b>Client Sample I</b>	<b>D:</b> BH-7 @ 8-10'	

Chloride	120	60		mg/Kg	20	4/11/2019 1:28:01 PM	44293
EPA METHOD 8015D MOD: GASOLINE RANG	E					Analyst:	RAA
Gasoline Range Organics (GRO)	1000	23	Н	mg/Kg	5	4/12/2019 9:28:12 AM	44226
Surr: BFB	104	70-130	Н	%Rec	5	4/12/2019 9:28:12 AM	44226
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst:	Irm
Diesel Range Organics (DRO)	310	10		mg/Kg	1	4/11/2019 10:45:43 AM	44222
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/11/2019 10:45:43 AM	44222
Surr: DNOP	110	70-130		%Rec	1	4/11/2019 10:45:43 AM	44222
EPA METHOD 8260B: VOLATILES SHORT LIS	т					Analyst:	RAA
Benzene	ND	0.12	Н	mg/Kg	5	4/12/2019 9:28:12 AM	44226
Toluene	4.3	0.23	Н	mg/Kg	5	4/12/2019 9:28:12 AM	44226
Ethylbenzene	1.5	0.23	Н	mg/Kg	5	4/12/2019 9:28:12 AM	44226
Xylenes, Total	25	0.46	Н	mg/Kg	5	4/12/2019 9:28:12 AM	44226
Surr: 1,2-Dichloroethane-d4	87.2	70-130	Н	%Rec	5	4/12/2019 9:28:12 AM	44226
Surr: 4-Bromofluorobenzene	98.7	70-130	Н	%Rec	5	4/12/2019 9:28:12 AM	44226
Surr: Dibromofluoromethane	118	70-130	Н	%Rec	5	4/12/2019 9:28:12 AM	44226
Surr: Toluene-d8	96.7	70-130	Н	%Rec	5	4/12/2019 9:28:12 AM	44226

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

- H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit
  - % Recovery outside of range due to dilution or matrix

 ND
 Not Detected at the Reporting Limit

 RL
 Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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### HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

March 29, 2019

Kijun Hong Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: (505) 632-4475 FAX:

RE: Trunk L

OrderNo.: 1903D34

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/28/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

<b>Analytical Report</b>
Lab Order 1903D34
Date Reported: 3/29/2019

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest		Cl	ient Sample II	D: BI	H07 @ 40'	
Project: Trunk L		(	Collection Dat	e: 3/2	27/2019 11:30:00 AM	
Lab ID: 1903D34-001	Matrix: SOIL		Received Dat	e: 3/2	28/2019 7:00:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CJS
Chloride	95	60	mg/Kg	20	3/28/2019 11:39:03 AM	43933
EPA METHOD 8015D MOD: GASOLII	NE RANGE				Analyst	RAA
Gasoline Range Organics (GRO)	230	19	mg/Kg	5	3/28/2019 8:58:52 AM	43853
Surr: BFB	106	70-130	%Rec	5	3/28/2019 8:58:52 AM	43853
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst	Irm
Diesel Range Organics (DRO)	86	9.5	mg/Kg	1	3/28/2019 9:43:19 AM	43929
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/28/2019 9:43:19 AM	43929
Surr: DNOP	94.0	70-130	%Rec	1	3/28/2019 9:43:19 AM	43929
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst	RAA
Benzene	ND	0.095	mg/Kg	5	3/28/2019 8:58:52 AM	43853
Toluene	1.4	0.19	mg/Kg	5	3/28/2019 8:58:52 AM	43853
Ethylbenzene	0.21	0.19	mg/Kg	5	3/28/2019 8:58:52 AM	43853
Xylenes, Total	3.6	0.38	mg/Kg	5	3/28/2019 8:58:52 AM	43853

87.7

104

89.9

90.6

70-130

70-130

70-130

70-130

%Rec

%Rec

%Rec

%Rec

5

5

5

5

3/28/2019 8:58:52 AM

3/28/2019 8:58:52 AM

3/28/2019 8:58:52 AM

3/28/2019 8:58:52 AM

43853

43853

43853

43853

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

0						
v	u	а.		c	э	

\*

ND

- Not Detected at the Reporting Limit RL Reporting Detection Limit

Surr: 1,2-Dichloroethane-d4

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

Sample container temperature is out of limit as specified at testcode W

Value exceeds Maximum Contaminant Level.

Η Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Page 1 of 5

WO#: 1903D34

29-Mar-19

**Client: Project:** 

#### Harvest

Project: Trunk l	, .	2-		
Sample ID: MB-43933	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 43933	RunNo: 58732		
Prep Date: 3/28/2019	Analysis Date: 3/28/2019	SeqNo: 1973292	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-43933	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 43933	RunNo: 58732		
Prep Date: 3/28/2019	Analysis Date: 3/28/2019	SeqNo: 1973293	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 95.4 90	110	

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Sample container temperature is out of limit as specified at testcode W

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

Page 2 of 5

WO#: **1903D34** 

29-Mar-19

Client: Harvest Project: Trunk L									57	
Sample ID: LCS-43929	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 43	929	F	RunNo: 5	8701				
Prep Date: 3/28/2019	Analysis D	ate: 3/	28/2019	5	SeqNo: 1	971593	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.4	63.9	124			
Surr: DNOP	4.3		5.000		85.7	70	130			
Sample ID: MB-43929	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batch	ID: 43	929	F	RunNo: 5	8701				
Prep Date: 3/28/2019	Analysis D	ate: 3/	28/2019	S	SeqNo: 1	971594	Units: mg/M	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								ž.
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.3	70	130			

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

Page 3 of 5

WO#: 1903D34

29-Mar-19

**Client: Project:** 

Harvest Trunk L

Sample ID: Ics-43853	Samp	ype: LC	S	Test	Code: El	PA Method	8260B: Volat	iles Short	List	
Client ID: LCSS	Batc	h ID: 43	353	R	tunNo: 5	8659				
Prep Date: 3/25/2019	Analysis E	Date: 3/	27/2019	S	eqNo: 1	970988	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	70	130			
Toluene	0.94	0.050	1.000	0	93.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.0	70	130			
Surr: Toluene-d8	0.44		0.5000		88.6	70	130			
Sample ID: mb-43853	Somo			Tos	Codo: El	DA Mathad	AACOD: Valat		1.1-4	
Sample ID. 110-43033	Samp	ype: ME	SLK	165	LCOUE. EI	PA Method	8260B: Volat	iles Short	LIST	
Client ID: PBS		h ID: 43			aunNo: 5		8260B: Volat	lles Short	LIST	
		h ID: 43	853	R		8659	Units: mg/K		LIST	
Client ID: PBS	Batc	h ID: 43	853 27/2019	R	anNo: 5	8659			RPDLimit	Qual
Client ID: <b>PBS</b> Prep Date: <b>3/25/2019</b>	Batc Analysis [	h ID: 431 Date: 3/	853 27/2019	F	tunNo: 5 SeqNo: 1	8659 970989	Units: mg/K	g		Qual
Client ID: PBS Prep Date: 3/25/2019 Analyte	Batc Analysis I Result	h ID: 43 Date: 3/ PQL	853 27/2019	F	tunNo: 5 SeqNo: 1	8659 970989	Units: mg/K	g		Qual
Client ID: PBS Prep Date: 3/25/2019 Analyte Benzene	Batc Analysis I Result ND	h ID: <b>43</b> Date: <b>3</b> PQL 0.025	853 27/2019	F	tunNo: 5 SeqNo: 1	8659 970989	Units: mg/K	g		Qual
Client ID: <b>PBS</b> Prep Date: <b>3/25/2019</b> Analyte Benzene Toluene	Batc Analysis I Result ND ND	h ID: <b>43</b> Date: <b>3</b> PQL 0.025 0.050	853 27/2019	F	tunNo: 5 SeqNo: 1	8659 970989	Units: mg/K	g		Qual
Client ID: <b>PBS</b> Prep Date: <b>3/25/2019</b> Analyte Benzene Toluene Ethylbenzene	Batc Analysis E Result ND ND ND	h ID: <b>43</b> Date: <b>3</b> PQL 0.025 0.050 0.050	853 27/2019	F	tunNo: 5 SeqNo: 1	8659 970989	Units: mg/K	g		Qual
Client ID: <b>PBS</b> Prep Date: <b>3/25/2019</b> Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batc Analysis I Result ND ND ND ND	h ID: <b>43</b> Date: <b>3</b> PQL 0.025 0.050 0.050	853 27/2019 SPK value	F	RunNo: 5 SeqNo: 1 %REC	8659 970989 LowLimit	Units: <b>mg/K</b> HighLimit	g		Qual
Client ID: <b>PBS</b> Prep Date: <b>3/25/2019</b> Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4	Batc Analysis I Result ND ND ND ND 0.42	h ID: <b>43</b> Date: <b>3</b> PQL 0.025 0.050 0.050	853 27/2019 SPK value 0.5000	F	8unNo: 5 SeqNo: 1 %REC 84.9	8659 970989 LowLimit 70	Units: mg/K HighLimit 130	g		Qual

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- ND Not Detected at the Reporting Limit
- RL
- Reporting Detection Limit Sample container temperature is out of limit as specified at testcode W

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

Page 4 of 5

WO#: 1903D34

29-Mar-19

Client: Harvest Project: Trunk I						-				
Sample ID: Ics-43853	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	n ID: 43	853	F	RunNo: 5	8659				
Prep Date: 3/25/2019	Analysis D	ate: 3/	27/2019	S	SeqNo: 1	970937	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	70	130			
Surr: BFB	540		500.0		108	70	130			
Sample ID: mb-43853	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	D: 43	853	F	RunNo: 5	8659				
Prep Date: 3/25/2019	Analysis D	ate: 3/	27/2019	S	SeqNo: 1	970938	Units: mg/M	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	540		500.0		108	70	130			

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

Page 5 of 5

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	490 querq FAX:	1 Hawkins NE ue, NM 87109 505-345-4107	Sa	mple Log-In Ch	eck List
Client Name: Harvest	Work Order Number:	1903	D34		RcptNo: 1	
Received By: Anne Thorne	3/28/2019 7:00:00 AM		G	loru A loru A	1	
Completed By: Anne Thorne Reviewed By:	3/28/2019 7:43:17 AM 3 28 14		6	lone H	2m	
Chabilled by A -03 28/19 Chain of Custody			,		,	
1. Is Chain of Custody complete?		Yes		No 🗌	Not Present	
2. How was the sample delivered?		Cou	ier			
Log In 3. Was an attempt made to cool the samples	s?	Yes		No 🗌		
4. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes		No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?		Yes		No 🗌		
6. Sufficient sample volume for indicated test	t(s)?	Yes	v I	No 🗌		
7. Are samples (except VOA and ONG) prop		Yes	v 1	No 🗌		
8. Was preservative added to bottles?		Yes		No 🗹	NA 🗌	
9. VOA vials have zero headspace?		Yes	ו 🗌	No 🗋	No VOA Vials 🗹	
10. Were any sample containers received bro	ken?	Yes		No 🔽		
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No 🗆	# of preserved bottles checked for pH: (<2 or >	12 unless noted)
12. Are matrices correctly identified on Chain	of Custody?	Yes		No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes	✓ I	No 🗌		
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No 🗌	Checked by:	
Special Handling (if applicable)						
15. Was client notified of all discrepancies with	th this order?	Yes		No 🗌	NA 🗹	
Person Notified: By Whom: Regarding: Client Instructions:	Date Via:	] eM	ail 🗌 Phone	Fax	x in Person	
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No. Temp °C Condition	Seal Intact Seal No S Yes	Seal D	ate Sign	ed By		

Client	Vest	Istody Record Fair Corners	Turn-Around □ Standard Project Name Trun Project #:	X Rush	Scime Day 3/28/2019				A	www ns N	AL' hall E -	<b>YS</b> envi Albi	ronr uque	nent	AE	<b>30</b> om M 87	<b>RA</b> 7109	NT	-	
Phone #: 91	0-38	5-1096									Ar			-	uest	-				
		@ horvest.com	Project Mana			()	6					5			nt)					
QA/QC Package		-	Kidun	Hong - HO	rvest	802	MR	PCB's		<b>MS</b>		4. S			bse					
Standard		Level 4 (Full Validation)	Brooke	Herb-LT	E	S.	102	B		OSI		ଧ୍ୟ			nt/A					
Accreditation:		ompliance	Sampler: P	wie carro	11		/ DF	082	=	8270SIMS		ğ			esel					
	□ Othe		On Ice: Part	VZ Yes	No		RO	es/8	504	P	S	4		(YO	(Pr					
EDD (Type)	<u>PD</u>	<u><u> </u></u>	# of Coolers:		f The second sec		D(G	icid	pou	3310	leta	2	(F	N-i-	orm					
Date Time	Matrix	Sample Name	Container	Preservative	HEAL No.	BIEX/-MTBE/ TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	CIJF, Br, NO., NO., PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
3/2/19 1130		BH07 @ 40'	Type and #4	COOL	201	X	X			_	-	1	~						+	
JI 20117 11 70	1.1	VIIVIEIU				1.1	1			+		~						-		+
						-			-			-		_						_
						-		_		_	_	_							$\rightarrow$	_
								_	_	$\rightarrow$	_	$\rightarrow$	_							
																	2			
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Date: Time:	Relinquish	ed by:	Received by:	Via:	Date Time	Ren	nark	3:											_	
3/50/19 1410	Relinguish	HE LAM	Amist	Wia:	3/27/19 1410 Date Time															
Date: Time:	An	ust Walter	Received by	3m J	03/28/19 0700															

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 12, 2019

Kijun Hong Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: FAX

OrderNo.: 1904474

Dear Kijun Hong:

RE: Trunk L

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/9/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

<b>Analytical Report</b>
Lab Order 1904474

4/9/2019 11:57:48 AM

4/10/2019 3:40:26 PM

4/10/2019 3:40:26 PM

4/10/2019 3:40:26 PM

4/9/2019 11:17:42 AM

#### Date Reported: 4/12/2019

Analyst: smb

Analyst: CLP

Analyst: NSB

Analyst: NSB

44224

44222

44222

44222

G59017

G59017

B59017

B59017

B59017

B59017

B59017

#### Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8015M/D: DIESEL RANGE ORGANICS

**EPA METHOD 300.0: ANIONS** 

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

**EPA METHOD 8015D: GASOLINE RANGE** 

Chloride

Surr: DNOP

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Lab ID:         1904474-001         Matrix:         MEOH (SOII)	
Lab ID: 1904474-001 Matrix: MEOH (SOII	L) Received Date: 4/9/2019 8:10:00 AM
Project: Trunk L	Collection Date: 4/8/2019 11:00:00 AM
CLIENT: Harvest	Client Sample ID: BH-8@30-32'

ND

ND

ND

129

ND

91.8

ND

ND

ND

ND

92.1

60

9.9

50

4.0

70-130

73.8-119

0.020

0.040

0.040

0.080

80-120

mg/Kg

mg/Kg

mg/Kg

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

20

1

1

1

1

1

1

1

1

1

1

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

-					
$\mathbf{n}$	119	164	c.,	3.34	

H Holding times for preparation or analysis exceeded POL Practical Quanitative Limit

RL Re

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 1 of 10

<b>Analytical Report</b>
Lab Order 1904474
Date Reported: 4/12/2019

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Harvest		Clien	t Sample II	): BH	I-8@40-42'			
Project:	Trunk L		Collection Date: 4/8/2019 11:30:00 AM						
Lab ID:	1904474-002	Matrix: MEOH (SO	IL) Re	ceived Date	e: 4/9	/2019 8:10:00 AM			
Analyses		Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA MET	HOD 300.0: ANIONS					Analyst	smb		
Chloride		ND	60	mg/Kg	20	4/9/2019 12:10:12 PM	44224		
EPA MET	HOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst	CLP		
Diesel Ra	ange Organics (DRO)	ND	9.8	mg/Kg	1	4/10/2019 4:04:33 PM	44222		
	a construction of the second					111010010 10100 DM	44000		

Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/10/2019 4:04:33 PM	44222
Surr: DNOP	123	70-130	%Rec	1	4/10/2019 4:04:33 PM	44222
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	4/9/2019 12:27:59 PM	G59017
Surr: BFB	86.3	73.8-119	%Rec	1	4/9/2019 12:27:59 PM	G59017
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	4/9/2019 12:27:59 PM	B59017
Toluene	ND	0.038	mg/Kg	1	4/9/2019 12:27:59 PM	B59017
Ethylbenzene	ND	0.038	mg/Kg	1	4/9/2019 12:27:59 PM	B59017
Xylenes, Total	ND	0.075	mg/Kg	1	4/9/2019 12:27:59 PM	B59017
Surr: 4-Bromofluorobenzene	86.8	80-120	%Rec	1	4/9/2019 12:27:59 PM	B59017

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

- H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit
  - % Recovery outside of range due to dilution or matrix

NDNot Detected at the Reporting LimitRLReporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 2 of 10

CLIENT: Harvest Project: Trunk L Lab ID: 1904474-003	Matrix: MEG		Collect	ion Dat	<b>e:</b> 4/8	H-9@27-30' 5/2019 2:30:00 PM 9/2019 8:10:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	ND	59		mg/Kg	20	4/9/2019 12:22:36 PM	44224
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/10/2019 4:14:28 PM	44222
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/10/2019 4:14:28 PM	44222
Surr: DNOP	117	70-130		%Rec	1	4/10/2019 4:14:28 PM	44222
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/9/2019 1:38:08 PM	G59017
Surr: BFB	86.8	73.8-119		%Rec	1	4/9/2019 1:38:08 PM	G59017
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.019		mg/Kg	1	4/9/2019 1:38:08 PM	B59017
Toluene	ND	0.039		mg/Kg	1	4/9/2019 1:38:08 PM	B59017
Ethylbenzene	ND	0.039		mg/Kg	1	4/9/2019 1:38:08 PM	B59017
Xylenes, Total	ND	0.078		mg/Kg	1	4/9/2019 1:38:08 PM	B59017
Surr: 4-Bromofluorobenzene	87.2	80-120		%Rec	1	4/9/2019 1:38:08 PM	B59017

Qualifiers:

H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit

Hall Environmental Analysis Laboratory, Inc.

S % Recovery outside of range due to dilution or matrix

NDNot Detected at the Reporting LimitRLReporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Analytical Report Lab Order 1904474

Date Reported: 4/12/2019

Page 3 of 10

Hall Environmental Analysis	Laboratory,	Inc.				Date Reported: 4/12/201	19
CLIENT: Harvest Project: Trunk L Lab ID: 1904474-004	Matrix: MEOH	0	Collect	ion Dat	e: 4/8	H-9@40-42' 3/2019 2:35:00 PM 9/2019 8:10:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	ND	60		mg/Kg	20	4/9/2019 12:35:01 PM	44224
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	Irm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/10/2019 4:38:59 PM	44222
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/10/2019 4:38:59 PM	44222
Surr: DNOP	100	70-130		%Rec	1	4/10/2019 4:38:59 PM	44222
EPA METHOD 8015D: GASOLINE RANG	E					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	4/9/2019 2:01:32 PM	G59017
Surr: BFB	88.8	73.8-119		%Rec	1	4/9/2019 2:01:32 PM	G59017
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.023		mg/Kg	1	4/9/2019 2:01:32 PM	B59017
Toluene	ND	0.045		mg/Kg	1	4/9/2019 2:01:32 PM	B59017
Ethylbenzene	ND	0.045		mg/Kg	1	4/9/2019 2:01:32 PM	B59017
Xylenes, Total	ND	0.091		mg/Kg	1	4/9/2019 2:01:32 PM	B59017
Surr: 4-Bromofluorobenzene	88.9	80-120		%Rec	1	4/9/2019 2:01:32 PM	B59017

Qualifiers:
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S

- H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit
  - % Recovery outside of range due to dilution or matrix

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ND Not Detected at the Reporting Limit RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 4 of 10

**Analytical Report** Lab Order 1904474 Date Reported: 4/12/2019

WO#: 1904474

12-Apr-19

**Client: Project:** 

Harvest Trunk L

3			2		
Sample ID: MB-44224	SampType: MBLK	TestCode: EPA Method	300.0: Anions		
Client ID: PBS	Batch ID: 44224	RunNo: 59030			
Prep Date: 4/9/2019	Analysis Date: 4/9/2019	SeqNo: 1986298	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qua	al
Chloride	ND 1.5				
Sample ID: LCS-44224	SampType: LCS	TestCode: EPA Method	300.0: Anions		
Client ID: LCSS	Batch ID: 44224	RunNo: 59030			
Prep Date: 4/9/2019	Analysis Date: 4/9/2019	SeqNo: 1986300	Units: mg/Kg		
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qua	al

Qualifiers:

- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory,	Inc
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**Client: Project:** 

Trunk L

Harvest

0		1		
Sample ID: MB-44222	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 44222	RunNo: 59043		
Prep Date: 4/9/2019	Analysis Date: 4/10/2019	SeqNo: 1987392	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	ND 10			
Motor Oil Range Organics (MRO)	ND 50	010 70	100	
Surr: DNOP	9.5 10.00	94.9 70	130	
Sample ID: LCS-44222	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 44222	RunNo: 59043		
Prep Date: 4/9/2019	Analysis Date: 4/10/2019	SeqNo: 1987409	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	51 10 50.00	0 102 63.9	124	
Surr: DNOP	4.9 5.000	98.3 70	130	
Sample ID: MB-44276	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 44276	RunNo: 59065		
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988005	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	11 10.00	109 70	130	
Sample ID: LCS-44276	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 44276	RunNo: 59065		
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988539	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	4.7 5.000	94.5 70	130	
Sample ID: LCS-44265	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 44265	RunNo: 59065		
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988542	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	4.6 5.000	91.2 70	130	
Sample ID: MB-44265	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	organics
Client ID: PBS	Batch ID: 44265	RunNo: 59065	·	
Prep Date: 4/10/2019	Analysis Date: 4/11/2019	SeqNo: 1988543	Units: %Rec	
and a set of the set o		SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Analyte Surr: DNOP	9.6 10.00	95.5 70	130	

#### Qualifiers:

- H
   Holding times for preparation or analysis exceeded

   PQL
   Practical Quanitative Limit

   S
   % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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12-Apr-19

# QC SUMMARY REPORT

WO#: 1904474

12-Apr-19

Hall	Environmental	Analysis	Laboratory,	Inc.
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**Client:** Harvest **Project:** Trunk L

Sample ID: 1904474-001AMS	SampTy	/pe: MS	6	Test	Code: E	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: BH-8@30-32'	Batch	ID: 44	222	R	unNo: 5	9043				
Prep Date: 4/9/2019	Analysis Da	ate: 4/	11/2019	S	eqNo: 1	989010	Units: mg/Kg	9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.7	48.64	0	104	53.5	126			
Surr: DNOP	5.2	•	4.864		107	70	130			<i></i>
Sample ID: 1904474-001AMSD         SampType: MSD         TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: BH-8@30-32'	Batch	ID: 44	222	R	unNo: 5	9043				
Prep Date: 4/9/2019	Analysis Da	ate: 4/	11/2019	S	eqNo: 1	989011	Units: mg/Kg	9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	9.7	48.26	0	124	53.5	126	16.4	21.7	
Surr: DNOP	6.2		4.826		128	70	130	0	0	
Sample ID: MB-44266	SampTy	/pe: ME	BLK	Test	tCode: E	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: PBS	Batch	ID: 44	266	R	unNo: 5	9043				
Prep Date: 4/10/2019	Analysis Da	ate: 4/	11/2019	S	SeqNo: 1	989013	Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		106	70	130			
Sample ID: LCS-44266	SampTy	/pe: LC	s	Tes	tCode: E	PA Method	8015M/D: Die	sel Rang	e Organics	
Client ID: LCSS	Batch	ID: 44	266	F	RunNo: 5	9043				
Prep Date: 4/10/2019	Analysis Da	ate: 4/	11/2019	S	SeqNo: 1	989014	Units: %Rec			
									DDDI I II	0
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

 H
 Holding times for preparation or analysis exceeded

 PQL
 Practical Quanitative Limit

 S
 % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

20

4.0

19.90

**Client:** Harvest Trunk L **Project:** 

Client ID:

Prep Date:

Surr: BFB

Prep Date:

Surr: BFB

Client ID:

Prep Date:

Surr: BFB

Prep Date:

Gasoline Range Organics (GRO)

Analyte

Analyte

Analyte

Analyte

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range PBS Batch ID: G59017 RunNo: 59017 SeqNo: 1985583 Analysis Date: 4/9/2019 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result ND 5.0 Gasoline Range Organics (GRO) 890 1000 88.7 73.8 119 Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: G59017 RunNo: 59017 Analysis Date: 4/9/2019 SeqNo: 1985584 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 25 5.0 25.00 0 102 80.1 123 Gasoline Range Organics (GRO) 119 990 1000 99.3 73.8 TestCode: EPA Method 8015D: Gasoline Range Sample ID: 1904474-001AMS SampType: MS Batch ID: G59017 RunNo: 59017 BH-8@30-32' Analysis Date: 4/9/2019 SeqNo: 1985586 Units: mg/Kg HighLimit %RPD RPDLimit Qual Result PQL SPK value SPK Ref Val %REC LowLimit Gasoline Range Organics (GRO) 21 4.0 19.90 0 103 69.1 142 820 796.2 103 73.8 119 Sample ID: 1904474-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Batch ID: G59017 RunNo: 59017 Client ID: BH-8@30-32' Analysis Date: 4/9/2019 SeqNo: 1985587 Units: mg/Kg SPK value SPK Ref Val %REC Result PQL LowLimit HighLimit %RPD **RPDLimit** Qual 2.79 20

Surr: BFB	800	796.2		101	73.8	119	0	0	
Sample ID: MB-44121	SampType: MB	LK	Test	Code: El	PA Method	8015D: Gasol	line Rang	e	
Client ID: PBS	Batch ID: 441	21	R	unNo: 5	9017				
Prep Date: 4/4/2019	Analysis Date: 4/9	9/2019	S	eqNo: 1	985591	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900	1000		89.6	73.8	119			5
Sample ID: LCS-44121	SampType: LC	S	Test	Code: El	PA Method	8015D: Gasol	line Rang	e	
Client ID: LCSS	Batch ID: 441	21	R	unNo: 5	9017				
Prep Date: 4/4/2019	Analysis Date: 4/9	9/2019	S	eqNo: 1	985592	Units: %Rec	:		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000	1000		104	73.8	119			

0

100

69.1

142

#### Qualifiers:

S

Н Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit RL Reporting Detection Limit

Sample container temperature is out of limit as specified at testcode W

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1904474 12-Apr-19

WO#:

WO#: 1904474

12-Apr-19

Client: Project:	Harvest Trunk L										
Sample ID:	RB	Samp	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	n ID: <b>B5</b>	9017	R	unNo: 5	9017				
Prep Date:		Analysis E				SeqNo: 1		Units: mg/M	(a		
TTEP Date.		Analysis	/atc. 4/						.9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
<pre>Kylenes, Total</pre>		ND	0.10								
Surr: 4-Bron	nofluorobenzene	0.88		1.000		87.6	80	120			
Sample ID:	100NG BTEX LCS	SampT	ype: LC	S	Test	Code: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	n ID: <b>B5</b>	9017	R	anNo: 5	9017				
Prep Date:		Analysis D	ate: 4/	9/2019	S	eqNo: 1	985632	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.025	1.000	0	90.4	80	120			
Foluene		0.95	0.050	1.000	0	94.9	80	120			
Ethylbenzene		0.94	0.050	1.000	0	94.4	80	120			
ylenes, Total		2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bron	nofluorobenzene	0.92		1.000		91.5	80	120			
Sample ID:	1904474-002AMS	Samp1	ype: MS	6	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	BH-8@40-42'	Batc	n ID: B5	9017	R	unNo: 5	9017				
Prep Date:		Analysis D	ate: 4/	9/2019	S	eqNo: 1	985636	Units: mg/k	(g		
Analyte		Result	PQL	SPK value		~~~~~	Lauri Lauri	HighLimit	01000	RPDLimit	Qual
Benzene					SPK Ref Val	%REC	LowLimit	riigiiLiitiit	%RPD	i di Bennin	Quui
01120110		0.68	0.019	0.7513	0.008039	%REC 88.8	LowLimit 63.9	127	%RPD		Quui
		0.68 0.72	0.019 0.038	0.7513 0.7513					%RPD		Quui
Toluene					0.008039	88.8	63.9	127	%RPD		Quui
Toluene Ethylbenzene		0.72	0.038	0.7513	0.008039 0.01976	88.8 92.8	63.9 69.9	127 131	%RPD		Quu
oluene thylbenzene Kylenes, Total	nofluorobenzene	0.72 0.69	0.038 0.038	0.7513 0.7513	0.008039 0.01976 0	88.8 92.8 92.4	63.9 69.9 71	127 131 132	%RPD		Quu
Foluene Ethylbenzene Kylenes, Total Surr: 4-Bron	nofluorobenzene	0.72 0.69 2.1 0.71	0.038 0.038	0.7513 0.7513 2.254 0.7513	0.008039 0.01976 0 0.02825	88.8 92.8 92.4 93.7 94.0	63.9 69.9 71 71.8 80	127 131 132 131			
Foluene Ethylbenzene Kylenes, Total Surr: 4-Bron Sample ID:		0.72 0.69 2.1 0.71	0.038 0.038 0.075	0.7513 0.7513 2.254 0.7513	0.008039 0.01976 0 0.02825 Tes	88.8 92.8 92.4 93.7 94.0	63.9 69.9 71 71.8 80 PA Method	127 131 132 131 120			
Foluene Ethylbenzene Kylenes, Total Surr: 4-Bron Sample ID: Client ID:	1904474-002AMSE	0.72 0.69 2.1 0.71	0.038 0.038 0.075 ype: MS	0.7513 0.7513 2.254 0.7513 SD 9017	0.008039 0.01976 0 0.02825 Tes	88.8 92.8 92.4 93.7 94.0	63.9 69.9 71 71.8 80 PA Method 9017	127 131 132 131 120	tiles		
Toluene Ethylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date:	1904474-002AMSE	0.72 0.69 2.1 0.71	0.038 0.038 0.075 ype: MS	0.7513 0.7513 2.254 0.7513 5D 9017 9/2019	0.008039 0.01976 0 0.02825 Tes	88.8 92.8 92.4 93.7 94.0 tCode: El	63.9 69.9 71 71.8 80 PA Method 9017	127 131 132 131 120 8021B: Vola	tiles	RPDLimit	Qual
Foluene Ethylbenzene Kylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte	1904474-002AMSE	0.72 0.69 2.1 0.71 D Samp Batc Analysis I	0.038 0.038 0.075 Type: MS n ID: B5 Date: 4/	0.7513 0.7513 2.254 0.7513 5D 9017 9/2019	0.008039 0.01976 0 0.02825 Test F	88.8 92.8 92.4 93.7 94.0 tCode: El RunNo: <b>5</b> SeqNo: 1	63.9 69.9 71 71.8 80 PA Method 9017 985637	127 131 132 131 120 8021B: Vola Units: mg/k	tiles (g		
Foluene Ethylbenzene Kylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene	1904474-002AMSE	0.72 0.69 2.1 0.71 D Samp Batc Analysis I Result	0.038 0.038 0.075 ype: MS n ID: B5 Date: 4/	0.7513 0.7513 2.254 0.7513 5D 9017 9/2019 SPK value	0.008039 0.01976 0 0.02825 Tes F SPK Ref Val	88.8 92.8 92.4 93.7 94.0 tCode: El RunNo: 5 SeqNo: 1 %REC	63.9 69.9 71 71.8 80 PA Method 9017 985637 LowLimit	127 131 132 131 120 8021B: Vola Units: mg/P HighLimit	tiles (g %RPD	RPDLimit	
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID:	1904474-002AMSE	0.72 0.69 2.1 0.71 D Samp Batc Analysis I Result 0.68	0.038 0.038 0.075 ype: MS n ID: B5 bate: 4/ PQL 0.019	0.7513 0.7513 2.254 0.7513 5D 9017 9/2019 SPK value 0.7513	0.008039 0.01976 0 0.02825 Tes F SPK Ref Val 0.008039	88.8 92.8 92.4 93.7 94.0 tCode: El RunNo: 5 SeqNo: 1 %REC 88.8	63.9 69.9 71 71.8 80 PA Method 9017 985637 LowLimit 63.9	127 131 132 131 120 8021B: Vola Units: mg/P HighLimit 127	tiles (g 0.0105	RPDLimit 20	
Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	1904474-002AMSE BH-8@40-42'	0.72 0.69 2.1 0.71 D Samp Batc Analysis I Result 0.68 0.71	0.038 0.038 0.075 ype: MS n ID: B5 Date: 4/ PQL 0.019 0.038	0.7513 0.7513 2.254 0.7513 5D 9017 9/2019 SPK value 0.7513 0.7513	0.008039 0.01976 0 0.02825 Tes F SPK Ref Val 0.008039 0.01976	88.8 92.8 92.4 93.7 94.0 tCode: El RunNo: 5 SeqNo: 1 %REC 88.8 91.8	63.9 69.9 71 71.8 80 PA Method 9017 985637 LowLimit 63.9 69.9	127 131 132 131 120 8021B: Vola Units: mg/H HighLimit 127 131	tiles (g 0.0105 0.990	RPDLimit 20 20	

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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Client: Harvest Project: Trunk L

the second se				
Sample ID: MB-44121	SampType: MBLK	TestCode: EPA Method	8021B: Volatiles	
Client ID: PBS	Batch ID: 44121	RunNo: <b>59017</b>		
Prep Date: 4/4/2019	Analysis Date: 4/9/2019	SeqNo: 1985640	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: 4-Bromofluorobenzene	0.90 1.000	90.1 80	120	
Sample ID: LCS-44121	SampType: LCS	TestCode: EPA Method	8021B: Volatiles	
Client ID: LCSS	Batch ID: 44121	RunNo: 59017		
Prep Date: 4/4/2019	Analysis Date: 4/9/2019	SeqNo: 1985641	Units: %Rec	
Prep Date: 4/4/2019 Analyte			Units: <b>%Rec</b> HighLimit %RPD	RPDLimit Qual

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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WO#: **1904474** 

12-Apr-19

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 Ho uquerque, 5 FAX: 505	awkins NE NM 87109 -345-4107	Sam	nple Log-In C	heck List
Client Name: Harvest	Work Order Number	: 190447	4		RcptNo:	1
Received By: Yazmine Garduno	4/9/2019 8:10:00 AM			zmin lifndurti		
Completed By: Yazmine Garduno Reviewed By: DAD 4//9/19	4/9/2019 8:22:39 AM		η	gnin lifnderto		
Chain of Custody		Yes 🔽		No 🗌	Not Present	
<ol> <li>Is Chain of Custody complete?</li> <li>How was the sample delivered?</li> </ol>		Courier				
<ul><li>Log In</li><li>3. Was an attempt made to cool the samples?</li></ul>		Yes 🗹	1	No 🗌	NA 🗌	
4. Were all samples received at a temperature of	of >0° C to 6.0°C	Yes 🗹	1	No 🗌		
5. Sample(s) in proper container(s)?		Yes 🖌	1	No 🗌		
6. Sufficient sample volume for indicated test(s)	?	Yes 🗹	N	lo 🗌		
7. Are samples (except VOA and ONG) properly	preserved?	Yes 🔽	N	lo 🗌		
8. Was preservative added to bottles?		Yes 🗌	N	lo 🗹	NA 🗌	1
9. VOA vials have zero headspace?		Yes 🗌	N	lo 🗆	No VOA Vials 🗹	
10. Were any sample containers received broker	1?	Yes 🗌	1	No 🔽	# of preserved bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	N	10 🗆	for pH: (<2 or	12 unless noted)
12. Are matrices correctly identified on Chain of C	Custody?	Yes 🗹	N	10	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗹	N	10	/.	YG 4/9/19
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	٨	10	Checked by:	16 4 19 119
Special Handling (if applicable)					/	
15. Was client notified of all discrepancies with t	his order?	Yes	]	No 🗌	NA 🗹	
Person Notified:	Date		ana kata da kata kata kata kata kata da kata d	angan ang ang ang ang ang ang ang ang an		
By Whom:	Via:	eMail	Phone	Fax	In Person	
Regarding:		an a				
Client Instructions:						
16. Additional remarks:						
17. <u>Cooler Information</u>		0.151		10	1	
Cooler No         Temp °C         Condition         Set           1         4.4         Good         Yes	A SAME AND A	Seal Date	Sign	ed By		

Chain-of-Custody Record Client: Harvest Four Corners Kijun Hong Mailing Address: 1735 Arrayo Dr Bloomfield, NM 87413 Phone #: 505 - 632 - 4475 email or Fax#: 166 onge harvest midstream.com	Turn-Around Time:	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Analysis Request
QA/QC Package: Standard  Level 4 (Full Validation) Accreditation NELAP  Other EDD (Type) PDF	Brooke Herb Sampler: Josh Adams On Ice: A Yes INO Sample Temperature: 4.4 °	BTEX + 400 ENDE (8021) BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO) TPH (Method 504.1) EDB (Method 504.1) PAH's (8310 or 8270 SIMS) PAH's (8310 or 8270 SIMS) RCRA 8 Metals Anions (FC)NO <sub>3</sub> .NO <sub>2</sub> .PO <sub>4</sub> 04, 8081 Pesticides / 8082 PCB's 8260B (VOA) 8270 (Semi-VOA) Air Bubbles (Y or N)
Date         Time         Matrix         Sample Request ID           A-8-14         1600         Soil         BH-8         230-32           1130         BH-8         40-42           1430         BH-9         27-30           1435         BH-9         40-42	Type and #         Type         HEAL No.           1) 4 oz         (001         -001           1) 4 oz         (001         -002	X     X     BTEX + MTI       BTEX + MTI     BTEX + MTI       X     X     N       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     Anions (=C       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X
Date: Time: Relinquished by:	Received by:	Remarks: C.C.: bherb@ltenu.com
Date: Time: Relinquished by: 4/8/19 1819 Must Walls If necessary, samples submitted to Hall Environmental may be sub	Received by: Date Time HULL CONNER 4/9/19 5:10	jadams Q Iten V. COM ecarroll @ Iten V. COM s possibility. Any sub-contracted data will be clearly notated on the analytical report.

ecessary, sa	mples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	This serves as notice of this possibility.	. Any sub-contracted data will be clearly notated on the analytical	repo
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

April 11, 2019 Brooke Herb Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: (505) 632-4475 FAX

RE: Trunk L

OrderNo.: 1904537

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/10/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report	
Lab Order 1904537	

Date Reported: 4/11/2019

#### Hall Environmental Analysis Laboratory, Inc.

Analyses	2	Result	RL Qual Units	DF Date Analyzed	Batch
Lab ID:	1904537-001	Matrix: SOIL	Received Dat	te: 4/10/2019 8:10:00 AM	
<b>Project:</b>	Trunk L		<b>Collection Dat</b>	e: 4/9/2019 10:30:00 AM	
CLIENT:	Harvest		Client Sample I	<b>D:</b> BH-10 @ 35-37'	

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	smb
Chloride	ND	60		mg/Kg	20	4/10/2019 10:54:55 AM	44254
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/10/2019 11:46:14 AM	GS5903(
Surr: BFB	99.9	70-130		%Rec	1	4/10/2019 11:46:14 AM	GS5903(
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst:	Irm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/10/2019 3:49:09 PM	44249
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2019 3:49:09 PM	44249
Surr: DNOP	95.1	70-130		%Rec	1	4/10/2019 3:49:09 PM	44249
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	RAA
Benzene	ND	0.022		mg/Kg	1	4/10/2019 11:46:14 AM	R59036
Toluene	0.13	0.044		mg/Kg	1	4/10/2019 11:46:14 AM	R59036
Ethylbenzene	ND	0.044		mg/Kg	1	4/10/2019 11:46:14 AM	R59036
Xylenes, Total	0.13	0.088		mg/Kg	1	4/10/2019 11:46:14 AM	R59036
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%Rec	1	4/10/2019 11:46:14 AM	R59036
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	4/10/2019 11:46:14 AM	R59036
Surr: Dibromofluoromethane	89.2	70-130		%Rec	1	4/10/2019 11:46:14 AM	R59036
Surr: Toluene-d8	95.0	70-130		%Rec	1	4/10/2019 11:46:14 AM	R59036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

Holding times for preparation or analysis exceeded Practical Quanitative Limit H PQL

% Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified at testcode

Page 1 of 9

<b>Analytical Report</b>
Lab Order 1904537
Date Reported: 4/11/2019

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest Project: Trunk L		Client Sample ID: BH-10 @ 40-42' Collection Date: 4/9/2019 10:35:00 AM								
Project:         Trunk L           Lab ID:         1904537-002	Matrix: SOIL         Received Date: 4/10/2019 8:10:00 AM									
Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 300.0: ANIONS	14				Analyst:	smb				
Chloride	ND	60	mg/Kg	20	4/10/2019 11:07:19 AM	44254				
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst:	RAA				
Gasoline Range Organics (GRO)	210	38	mg/Kg	10	4/10/2019 2:37:55 PM	GS5903				
Surr: BFB	102	70-130	%Rec	10	4/10/2019 2:37:55 PM	GS5903				
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst:	Irm				
Diesel Range Organics (DRO)	32	9.7	mg/Kg	1	4/10/2019 4:11:20 PM	44249				
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/10/2019 4:11:20 PM	44249				
Surr: DNOP	103	70-130	%Rec	1	4/10/2019 4:11:20 PM	44249				
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	RAA				
Benzene	0.26	0.19	mg/Kg	10	4/10/2019 2:37:55 PM	R59036				
Toluene	2.9	0.38	mg/Kg	10	4/10/2019 2:37:55 PM	R59036				
Ethylbenzene	ND	0.38	mg/Kg	10	4/10/2019 2:37:55 PM	R59036				
Xylenes, Total	4.8	0.77	mg/Kg	10	4/10/2019 2:37:55 PM	R59036				
Surr: 1,2-Dichloroethane-d4	87.7	70-130	%Rec	10	4/10/2019 2:37:55 PM	R59036				
Surr: 4-Bromofluorobenzene	99.2	70-130	%Rec	10	4/10/2019 2:37:55 PM	R59036				
Surr: Dibromofluoromethane	90.9	70-130	%Rec	10	4/10/2019 2:37:55 PM	R59036				
Surr: Toluene-d8	96.6	70-130	%Rec	10	4/10/2019 2:37:55 PM	R59036				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

- H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit
  - % Recovery outside of range due to dilution or matrix
- ND
   Not Detected at the Reporting Limit

   RL
   Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

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<b>Analytical Report</b>
Lab Order 1904537

#### Date Reported: 4/11/2019

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT	Harvest		Client Sample ID: BH-11 @ 30-32'
<b>Project:</b>	Trunk L		Collection Date: 4/9/2019 1:40:00 PM
Lab ID:	1904537-003	Matrix: SOIL	Received Date: 4/10/2019 8:10:00 AM
	n		

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	ND	60		mg/Kg	20	4/10/2019 11:19:44 AM	44254
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/10/2019 3:06:24 PM	GS5903(
Surr: BFB	104	70-130		%Rec	1	4/10/2019 3:06:24 PM	GS5903(
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	: Irm
Diesel Range Organics (DRO)	13	9.6		mg/Kg	1	4/10/2019 3:25:44 PM	44249
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/10/2019 3:25:44 PM	44249
Surr: DNOP	112	70-130		%Rec	1	4/10/2019 3:25:44 PM	44249
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst	RAA
Benzene	ND	0.020		mg/Kg	1	4/10/2019 3:06:24 PM	R59036
Toluene	ND	0.040		mg/Kg	1	4/10/2019 3:06:24 PM	R59036
Ethylbenzene	ND	0.040		mg/Kg	1	4/10/2019 3:06:24 PM	R59036
Xylenes, Total	ND	0.081		mg/Kg	1	4/10/2019 3:06:24 PM	R59036
Surr: 1,2-Dichloroethane-d4	87.5	70-130		%Rec	1	4/10/2019 3:06:24 PM	R59036
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/10/2019 3:06:24 PM	R59036
Surr: Dibromofluoromethane	87.9	70-130		%Rec	1	4/10/2019 3:06:24 PM	R59036
Surr: Toluene-d8	93.8	70-130		%Rec	1	4/10/2019 3:06:24 PM	R59036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

- H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit
  - % Recovery outside of range due to dilution or matrix

NDNot Detected at the Reporting LimitRLReporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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<b>Analytical Report</b>
Lab Order 1904537

Date Reported: 4/11/2019

#### Hall Environmental Analysis Laboratory, Inc.

Analyses		Result	<b>DI</b> Qual Unite	DF Date Analyzed	Batch
Lab ID:	1904537-004	Matrix: SOIL	Received Dat	e: 4/10/2019 8:10:00 AM	
<b>Project:</b>	Trunk L		<b>Collection Dat</b>	e: 4/9/2019 1:45:00 PM	
<b>CLIENT:</b>	Harvest	8	Client Sample I	D:BH-11 @ 40-42'	

1 mary 505	ARODARD					
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	ND	60	mg/Kg	20	4/10/2019 11:32:08 AM	44254
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	4/10/2019 3:34:53 PM	GS59036
Surr: BFB	106	70-130	%Rec	1	4/10/2019 3:34:53 PM	GS59036
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	Irm
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	4/10/2019 3:50:03 PM	44249
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	4/10/2019 3:50:03 PM	44249
Surr: DNOP	114	70-130	%Rec	1	4/10/2019 3:50:03 PM	44249
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	RAA
Benzene	ND	0.020	mg/Kg	1	4/10/2019 3:34:53 PM	R59036
Toluene	ND	0.040	mg/Kg	1	4/10/2019 3:34:53 PM	R59036
Ethylbenzene	ND	0.040	mg/Kg	1	4/10/2019 3:34:53 PM	R59036
Xylenes, Total	ND	0.079	mg/Kg	1	4/10/2019 3:34:53 PM	R59036
Surr: 1,2-Dichloroethane-d4	87.4	70-130	%Rec	1	4/10/2019 3:34:53 PM	R59036
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	4/10/2019 3:34:53 PM	R59036
Surr: Dibromofluoromethane	92.1	70-130	%Rec	1	4/10/2019 3:34:53 PM	R59036
Surr: Toluene-d8	94.5	70-130	%Rec	1	4/10/2019 3:34:53 PM	R59036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

S

 H
 Holding times for preparation or analysis exceeded

 PQL
 Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

NDNot Detected at the Reporting LimitRLReporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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WO#: 1904537

11-Apr-19

**Client: Project:** Trunk L

Harvest

Truik				
Sample ID: MB-44254	SampType: MBLK	TestCode: EPA Method		
Client ID: PBS	Batch ID: 44254	RunNo: 59038		
Prep Date: 4/10/2019	Analysis Date: 4/10/2019	SeqNo: 1988133	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-44254	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 44254	RunNo: 59038		
Prep Date: 4/10/2019	Analysis Date: 4/10/2019	SeqNo: 1988134	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 96.4 90	110	

Qualifiers:

- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified at testcode

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W

WO#: 1904537

11-Apr-19

Harvest **Client:** Trunk L **Project:** TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID: LCS-44249 SampType: LCS Client ID: LCSS Batch ID: 44249 RunNo: 59045 Analysis Date: 4/10/2019 SeqNo: 1987412 Units: mg/Kg Prep Date: 4/10/2019 SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result PQL Analyte 63.9 124 50.00 0 103 Diesel Range Organics (DRO) 52 10 70 130 Surr: DNOP 4.6 5.000 92.2 TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID: MB-44249 SampType: MBLK Client ID: PBS Batch ID: 44249 RunNo: 59045 Prep Date: 4/10/2019 Analysis Date: 4/10/2019 SeqNo: 1987413 Units: mg/Kg %RPD **RPDLimit** SPK value SPK Ref Val %REC LowLimit HighLimit Qual Analyte Result PQL Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 130 Surr: DNOP 11 10.00 106 70

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

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Harvest

Project: Trunk L

Client:

									-	
Sample ID: 100ng Ics	TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: LCSS Batch ID: R59036			F	RunNo: 59036						
Prep Date:	Analysis Da	ate: 4/	10/2019	S	SeqNo: 1	987135	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.3	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Ethylbenzene	0.99	0.050	1.000	0	98.9	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.0	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.5	70	130			
Surr: Toluene-d8	0.49		0.5000		97.6	70	130			
Sample ID: rb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: PBS	Batch	ID: <b>R5</b>	9036	F	RunNo: 5	9036				
Prep Date:	Analysis Da	ate: 4/	10/2019	S	SeqNo: 1	987137	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.3	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.7	70	130			
Surr: Toluene-d8	0.49		0.5000		97.8	70	130			
Sample ID: 1904537-001ams	SampTy	ype: MS	3	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BH-10 @ 35-37'	Batch	ID: <b>R5</b>	9036	F	RunNo: 5	9036				
Prep Date:	Analysis D	ate: 4/	10/2019	S	SeqNo: 1	988420	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.022	0.8787	0.01556	83.4	68.9	131			
Toluene	0.99	0.044	0.8787	0.1281	98.1	64.3	137			
Ethylbenzene	0.87	0.044	0.8787	0	99.5	70	130			
Xylenes, Total	2.8	0.088	2.636	0.1253	99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.38		0.4394		86.9	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4394		102	70	130			
Surr: Dibromofluoromethane	0.40		0.4394		91.2	70	130			
Surr: Toluene-d8	0.42		0.4394		94.5	70	130			

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 7 of 9

WO#: **1904537** 

11-Apr-19

WO#: 1904537

11-Apr-19

Client: Project:

Harvest Trunk L

Sample ID: 1904537-001amsd	SampT	ype: MS	D	Test	Code: EF	PA Method	8260B: Volat	iles Short	List	
Client ID: BH-10 @ 35-37'	Batch	n ID: R5	9036	R	unNo: 5	9036				
Prep Date:	Analysis D	ate: 4/	10/2019	S	eqNo: 1	988421	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.022	0.8787	0.01556	77.8	68.9	131	6.88	20	
Toluene	0.95	0.044	0.8787	0.1281	93.7	64.3	137	3.92	20	
Ethylbenzene	0.84	0.044	0.8787	0	95.8	70	130	3.76	0	
Xylenes, Total	2.7	0.088	2.636	0.1253	95.8	70	130	3.66	0	
Surr: 1,2-Dichloroethane-d4	0.38		0.4394		86.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.44		0.4394		99.8	70	130	0	0	
Surr: Dibromofluoromethane	0.39		0.4394		89.4	70	130	0	0	
Surr: Toluene-d8	0.42		0.4394		94.8	70	130	0	0	

Qualifiers:

H Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 8 of 9

**Client: Project:** 

Harvest Trunk L

Sample ID: 2.5ug gro Ics	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	n ID: GS	59036	F	RunNo: 59	9036				
Prep Date:	Analysis D	ate: 4/	10/2019	5	SeqNo: 19	987141	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.4	70	130			
							100			
Surr: BFB	500		500.0		101	70	130			
Surr: BFB Sample ID: rb		ype: ME		Tes			130 8015D Mod:	Gasoline	Range	
	SampT	ype: ME	BLK			PA Method		Gasoline	Range	
Sample ID: rb	SampT	n ID: GS	3LK \$59036	F	tCode: EF	PA Method 9036			Range	
Sample ID: <b>rb</b> Client ID: <b>PBS</b>	SampT Batch	n ID: GS	3LK \$59036 10/2019	F	tCode: EF	PA Method 9036	8015D Mod:		Range RPDLimit	Qual
Sample ID: <b>rb</b> Client ID: <b>PBS</b> Prep Date:	SampT Batch Analysis D	n ID: GS Date: 4/	3LK \$59036 10/2019	F	tCode: EF RunNo: 59 SeqNo: 19	PA Method 9036 987143	8015D Mod: Units: mg/K	g		Qual

Н Holding times for preparation or analysis exceeded PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Page 9 of 9

WO#: 1904537

11-Apr-19

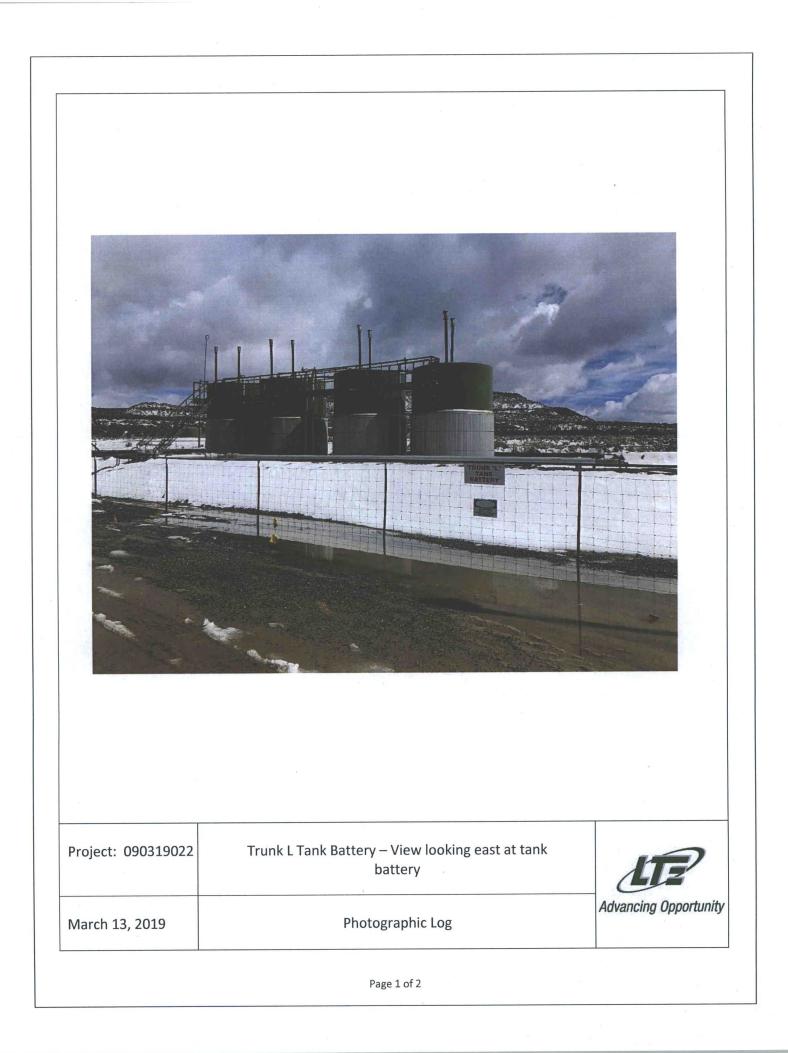
HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-39	4901 Hawki Ibuquerque, NM	ins NE 87109 <b>San</b> 5-4107	nple Log-In C	heck List
Client Name: Harvest	Work Order Numb	er: 1904537		RcptNo:	1
Received By: Anne Thorne	4/10/2019 8:10:00 A	м	anne Han	~	
Completed By: Anne Thorne	4/10/2019 8:16:10 A	м	ame the	~	
Reviewed By: YG 411					
Labeled by: A	-04110119	э.		ч <u>.</u>	
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No	Not Present	
<ol><li>How was the sample delivered</li></ol>	1	<u>Courier</u>			
Log In					
3. Was an attempt made to cool t	he samples?	Yes 🗹	No	NA	
4. Were all samples received at a	temperature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗆	
5. Sample(s) in proper container(s	;)?	Yes 🗹	No 🗌		
6. Sufficient sample volume for inc	licated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and 0	ONG) properly preserved?	Yes 🗹	No 🗌	-	
8. Was preservative added to both	les?	Yes	No 🗹	NA 🗌	÷
9. VOA vials have zero headspace	?	Yes	No 🗌	No VOA Vials	19
10. Were any sample containers re	ceived broken?	Yes	No 🗹	# of preserved	11011
11. Does paperwork match bottle la (Note discrepancies on chain of		Yes 🗹	No 🗌	bottles checked for pH:	>12 inless noted)
12. Are matrices correctly identified		Yes 🔽	No 🗌	Adjusted?	$\checkmark$
13. Is it clear what analyses were re	-	Yes 🖌	No 🗌		
14. Were all holding times able to b		Yes 🖌	No 🗌	Checked by	
(If no, notify customer for author					
Special Handling (if applica 15. Was client notified of all discrep		Yes	No 🗌	NA 🗹	
Person Notified:	Date				1
By Whom:	Via:	eMail 🗌	Phone 🗌 Fax	In Person	
Regarding:					
Client Instructions:		Maritan Jaman Zabata Amerika Indanesia geogr			
16. Additional remarks:					1
17. Cooler Information					
17 TT	ondition Seal Intact Seal No	Seal Date	Signed By		
1 1.0 Goo					
2 1.0 Goo			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
3 1.0 Goo	od Yes				

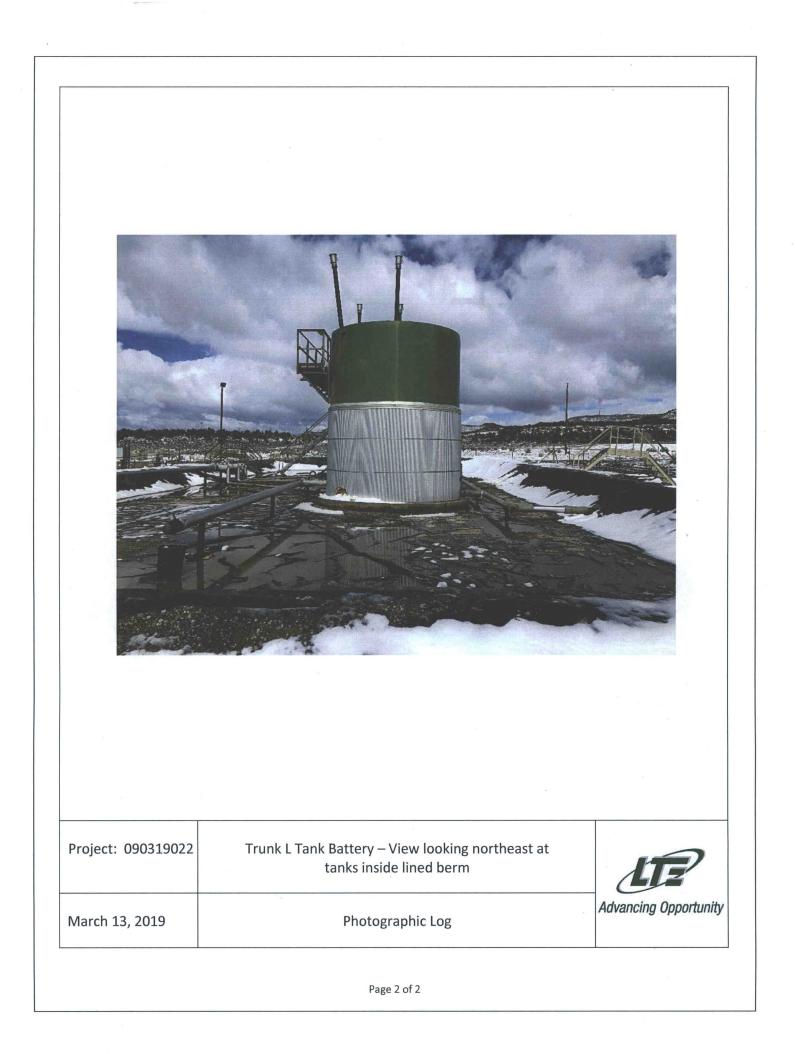
Page 1 of 1

Chain-of-Custody Record	Turn-Around Time:	h Same day				A	NA	LY	SI	SL					
Mailing Address: 1755 Arroyo Dr	Trunk L Project #:			49	01 H							1 8710	9		
Bloomfield, NM 87413	Project #:		1				5-397				-345-4				
Phone #:								Ana	alysis	Req	uest				
email or Fax#: Khongehorvest midstlam. com	Project Manager:		÷	õ		-		g	400		ent)				
QA/QC Package:	Brooke Her	Ъ	<b>111</b> (8021)	DRO / MRO)	PCB's		SMISC				t/Abse				
Accreditation: □ Az Compliance □ NELAC □ Other ↓ ÉDD (Type) _ ( ⊅ F	Sampler: JoSh / On Ice: X Yes # of Coolers: 3	Adgms No		GRO / DR		(Method 504.1)	0 or 8270SIMS	als	1201 120	(OA)	Coliform (Present/Absent)				
Date Time Matrix Sample Name	Cooler Tempincuding CF // Container Preservative Type and # Type	St la	BTEX / MAN	TPH:8015D(GRO /		EDB (Method	PAHs by 8310	RCKA 8 Metals	8260 (VOA)	8270 (Semi-VOA)	Total Coliforr				
	(1) 4gz cool	-70	X	$\overline{\chi}$								_	+	+	
1035   BH-10C40-42'		202		X	+	+	-			-			++	+	_
1340 BH-11@30-32'			$\mathbf{\hat{\mathbf{Y}}}$	Ì	-+	+	+	-{	+	-			++	-	
V B45 V BA-11@ 40-222		703		V	-	+		К	+	1.	-	_	++	+	
		. 204													
							-								_
		,													_
Date: Time: Relinquished by: 1-9-19 VD Date: Time: Relinquished by: V/9/19 1840 CANATAN WORTON	Received by: Via: Muthowath Received by: Via: UMM	Date Time 4/9/19/1585 Date Time 04/10/19 - 08/0	Rem	narks	s: _	c!	bhe Jac Cca	erbe lan rol	elte s@	nv. c Ite	com nu. con nu. con	n om			



ATTACHMENT 4: PHOTOGRAPHIC LOG





District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

NMOCD

JUN 1 4 2019

Incident ID	NCS1903148079
District RP	1014
Facility ID	
Application ID	

DATE: 624/9 (505) 334-6178 Ext. 115

BY: Cory Smith

\*See Enail

# **Release Notification**

### **Responsible Party**

			ALCTRIPT III
Responsible Party	Harvest Four Corners, LLC	OGRID 37388	DISTRICT III
Contact Name	Kijun Hong	Contact Telephone	(505) 632-4475
Contact email	khong@harvestmidstream.com	Incident # (assigned by OC	CD) NCS1903148079
Contact mailing addre	ss 1755 Arroyo Dr., Farmington, NM	87413	

#### **Location of Release Source**

Latitude		36.484991	(NAD 83 in deci	Longitude mal degrees to 5 decimal places,	-107.311031	
Site Name	Lateral H-2	20		Site Type <b>Pipeli</b>	ne	
Date Release	e Discovered	1/30/2019		API# (if applicable)		· · · · · · · · · · · · · · · · · · ·
Unit Letter	Section	Township	Range	County	DENI	

5W

Surface Owner:	State [	Federal	Tribal	Private (Name:	

26N

13

K

#### Nature and Volume of Release

**Rio Arriba** 

🗙 Crude Oil	Volume Released (bbls) 30	Volume Recovered (bbls) 30
Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 30
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
🛛 Natural Gas	Volume Released (Mcf) 100	Volume Recovered (Mcf) 0
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A line leak was discovered on the Lateral H-20 pipeline.

Upon discovery, the release was immediately stopped.

Jicarilla tribe has been notified on the release.

#### Smith, Cory, EMNRD

From: Sent: To: Subject: Smith, Cory, EMNRD Monday, June 24, 2019 1:26 PM 'Kijun Hong' Lateral H-20 incident# nCS1903148079

Kijun,

OCD has reviewed the Closure Report for the release at the Lateral H-20 that occurred on 1/30/19 incident# nCS1903148079 and has denied it for the following reasons

- Closure report does not meet all the requirements of 19.15.12.E
  - Siting criteria and all attachments to support (le Topo maps, iwaters/cathodic wells etc.) Report indicated a wash and elevation but did not provide topo maps, was there any shallow water bearing vegetation around the release area (Cotton woods, salt cedars etc ?)
  - o Scaled Site map, (that has equipment, roads, impacted area, sample points all identified.)
  - JEPO approval for alternative sampling size and methods. (Report indicates there was an approval given please include the correspondence.)

If you have additional questions please give me a call.

Cory Smith Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 115 cory.smith@state.nm.us

#### State of New Mexico Oil Conservation Division

Incident ID	NCS1903148079
District RP	
Facility ID	
Application ID	1

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by	
19.15.29.7(A) NMAC?	
🗌 Yes 🛛 No	
÷	
If YES was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	one groute and other by them. To them and of the means (protes, change of)
	· · · · · · · · · · · · · · · · · · ·
	Initial Response
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
_	
$\square$ The source of the rel	ease has been stopped.
The impacted area ha	as been secured to protect human health and the environment.
In mpacted area ne	been been en to prover human nearth and the entrichment.
	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
Released materials h	
<ul> <li>Released materials have a second secon</li></ul>	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

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State of New Mexico Oil Conservation Division

Incident ID	NCS1903148079
District RP	
Facility ID	
Application ID	

### Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;100</u> (ft bgs)		
Did this release impact groundwater or surface water?			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No		
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No		
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No		
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No		
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No		
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No		
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🛛 No		

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.

Field data

Data table of soil contaminant concentration data

Depth to water determination

Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release

Boring or excavation logs

Photographs including date and GIS information

Topographic/Aerial maps

Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141	State of New Mexico	Incident ID NCS1903148079
Page 4	Oil Conservation Division	
		Facility ID
		Application ID
regulations all operators ar public health or the enviro failed to adequately invest addition, OCD acceptance and/or regulations. Printed Name:K Signature:	re required to report and/or file certain release norment. The acceptance of a C-141 report by the igate and remediate contamination that pose a the second	he best of my knowledge and understand that pursuant to OCD rules and otifications and perform corrective actions for releases which may endanger e OCD does not relieve the operator of liability should their operations have hreat to groundwater, surface water, human health or the environment. In of responsibility for compliance with any other federal, state, or local laws Title: Environmental Specialist Date:6/6/2019 Telephone:505-436-8457
OCD Only		
Received by:		Date:

State of New Mexico Oil Conservation Division

Incident ID	NCS1903148079
District RP	
Facility ID	
Application ID	

### **Remediation Plan**

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

Detailed description of proposed remediation technique

Scaled sitemap with GPS coordinates showing delineation points

Estimated volume of material to be remediated

Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC

Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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

Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

Extents of contamination must be fully delineated.

Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name:	Title:
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:

State of New Mexico Oil Conservation Division

Incident ID	NCS1903148079
District RP	
Facility ID	
Application ID	

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name:	Kijun Hong	Title:	Environmental Specialist		
Signature:	15-161		Date:6/6/2019		
email:khong@	harvestmidstream.com		Telephone: 505-436-8457		
OCD Only	,				
Received by:	6/14/19	OCD	Date:		
remediate contami	by the OCD does not relieve ination that poses a threat to g ce with any other federal, sta	roundwater, surfa	rty of liability should their operations have been been been been been been been be	ave failed to adequately investigate tent nor does not relieve the response	and sible
	2		//		
Closure Approved	l by:		Date:		
Printed Name:			Title:		

June 6, 2019

Mr. Cory Smith New Mexico Oil Conservation Division 1000 Rio Brazos, Aztec Aztec, New Mexico 87410

RE: Closure Request Lateral H-20 Pipeline Release Incident Number NCS1903148079 Rio Arriba County, New Mexico

Dear Mr. Smith:

Harvest Four Corners, LLC (Harvest) presents the following report summarizing remediation and soil sampling activities at the Lateral H-20 pipeline release (Site) located in Unit K, Section 13, Township 26 North, Range 5 West, in Rio Arriba County, New Mexico. On January 30, 2019, Harvest discovered a release due to corrosion on a 6-inch pipeline. Harvest estimated 100 thousand cubic feet (MCF) of natural gas, 30 barrels (bbls) of produced water, and 30 bbls of condensate were released. The release occurred on private land within the Jicarilla Apache Reservation. Harvest notified the Jicarilla Apache Environmental Protection Office (EPO) and the New Mexico Oil Conservation Division (NMOCD) within 24 hours via email which included a Release Notification and Corrective Action Form C-141. The NMOCD assigned the release incident number NCS1903148079.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the elevation difference between the Site and floor of Tapicito Creek of approximately 630 feet. There is not a permitted water well within 5 miles of the Site. The closest significant watercourse to the Site is Tapicito Creek located approximately 1-mile south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine or karst geology. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride.

Harvest repaired the pipeline and excavated approximately 312 yards of impacted soil. The final excavation is an irregular shape as shown in Attachment 1. The approximate final excavation extent is 28 feet for the north and south walls, 35 feet for the west wall, and 60 feet for the east wall with an average depth of 8 feet below ground surface. All impacted soil was properly disposed of at Envirotech Landfarm in San Juan County, New Mexico.

On April 25, 2019, Harvest collected six 5-point composite soil samples from the sidewalls of the excavation. A map of the sample locations is included as Attachment 1.

The soil samples were shipped following chain-of-custody procedures to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH- motor oil range organics (MRO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

Laboratory analytical results indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria in all soil samples collected. A table with laboratory analytical data is included as Attachment 2 and copies of the laboratory analytical results are included as Attachment 3. A photographic log is included as Attachment 4.

Upon receiving the laboratory analytical results, Harvest submitted them to Mr. Hopson Sandoval with the EPO. Mr. Sandoval approved closure of the release and authorized Harvest to backfill the excavation. The EPO approved closure of the site because all soil samples collected from the sidewalls of the excavation were compliant with the NMOCD Table 1 closure criteria. Harvest requests no further action from the NMOCD for incident number NCS1903148079. An updated NMOCD Form C-141 is included as a cover to this report.

If you have any questions or comments, please do not hesitate to contact Kijun Hong at 505-632-4475 or khong@harvestmidstream.com.

Sincerely,

HARVEST FOUR CORNERS, LLC

Kijun Hong Environmental Specialist

Cc: Hopson Sandoval

Attachments:

Attachment 1	Field Map
Attachment 2	Soil Analytical Results
Attachment 3	Laboratory Analytical Reports
Attachment 4	Photographic Log

ATTACHMENT 1 FIELD MAP

eo-ho-ysom e-0 to We buy anothe an feed PNS NDS e-0 =01 91:40 ndd 10.0168 udd 09.81 os.b wig 01 48 162.5 QH of H 124 -1 21:0.0 0 a

#### ATTACHMENT 2

#### SOIL ANALYTICAL RESULTS

#### TABLE 1 SOIL ANALYTICAL RESULTS LATERAL H-20 PIPELINE RELEASE INCIDENT NUMBER NCS1903148079 RIO ARRIBA COUNTY, NEW MEXICO HARVEST FOUR CORNERS, LLC

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	Gasoline Range Organics (mg/kg)	Diesel Range Organics (mg/kg)	Motor Oil Range Organics (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
North Wall	8	4/25/2016	< 0.022	< 0.045	< 0.045	< 0.089	< 0.089	<4.5	<9.8	<49	<49	<60
North End	8	4/25/2017	< 0.025	< 0.049	< 0.049	< 0.098	< 0.098	<4.9	42	<49	42	<60
West Wall	8	4/25/2017	< 0.023	< 0.046	< 0.046	< 0.092	< 0.092	<4.6	<9.7	<49	<49	<61
South Wall	8	4/25/2018	< 0.018	< 0.036	< 0.036	< 0.072	< 0.072	<3.6	10	<49	10	<60
East Wall	8	4/25/2019	< 0.026	< 0.053	< 0.053	< 0.11	< 0.11	<5.3	<10	<50	<50	<60
Bottom	8	4/25/2019	< 0.021	< 0.042	< 0.042	0.085	< 0.085	<4.2	<9.6	<48	<48	<60
NMOCD Table 1 C	Closure Crite	eria	10	NE	NE	NE	50	NE	NE	NE	2,500	20,000

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

mg/kg - milligrams per kilogram

NE - Not established

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

< - indicates result is below the laboratory reporting limit

### ATTACHMENT 3

### LABORATORY ANALYTICAL REPORTS

### HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

### April 29, 2019

Kijun Hong Harvest 1755 Arroyo Dr. Bloomfield, NM 87413 TEL: (505) 632-4475 FAX

RE: Lat H 20

OrderNo.: 1904C86

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/26/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysi	s Laboratory,	Inc.			Date Reported: 4/29/201	9
CLIENT: Harvest		Cl	ient Sample II	D: Ea	st Wall	
Project: Lat H 20		(	<b>Collection Dat</b>	e: 4/2	25/2019 9:00:00 AM	
Lab ID: 1904C86-001	Matrix: SOIL		<b>Received Dat</b>	e: 4/2	26/2019 8:15:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	4/26/2019 11:25:29 AM	44561
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	том
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	4/26/2019 10:17:17 AM	44559
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	4/26/2019 10:17:17 AM	44559
Surr: DNOP	95.7	70-130	%Rec	1	4/26/2019 10:17:17 AM	44559
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.3	mg/Kg	1	4/26/2019 8:54:14 AM	G59464
Surr: BFB	91.2	73.8-119	%Rec	1	4/26/2019 8:54:14 AM	G59464
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.026	mg/Kg	1	4/26/2019 8:54:14 AM	B59464
Toluene	ND	0.053	mg/Kg	1	4/26/2019 8:54:14 AM	B59464
Ethylbenzene	ND	0.053	mg/Kg	1	4/26/2019 8:54:14 AM	B59464
Xylenes, Total	ND	0.11	mg/Kg	1	4/26/2019 8:54:14 AM	B59464
Surr: 4-Bromofluorobenzene	89.0	80-120	%Rec	1	4/26/2019 8:54:14 AM	B59464

#### Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix
- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range J
- Analyte detected below quantitation limits Sample pH Not In Range
- Р

RL Reporting Limit

Page 1 of 11

**Analytical Report** Lab Order 1904C86

Hun Er	it in on internet i finary 515	Laboratory	,				Date Reported. 4/2//201	
CLIENT:	Harvest		Cl	ient Sa	ample II	D:No	orth Wall	
<b>Project:</b>	Lat H 20		(	Collect	ion Dat	e: 4/2	25/2019 9:10:00 AM	
Lab ID:	1904C86-002	Matrix: SOIL		Recei	ved Dat	<b>e:</b> 4/2	26/2019 8:15:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	THOD 300.0: ANIONS						Analyst:	MRA
Chloride		ND	60		mg/Kg	20	4/26/2019 11:37:54 AM	44561
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	том
Diesel R	ange Organics (DRO)	ND	9.8		mg/Kg	1	4/26/2019 10:39:18 AM	44559
Motor Oi	il Range Organics (MRO)	ND	49		mg/Kg	1	4/26/2019 10:39:18 AM	44559
Surr: I	DNOP	96.7	70-130		%Rec	1	4/26/2019 10:39:18 AM	44559
EPA MET	THOD 8015D: GASOLINE RANGE	:					Analyst:	NSB
Gasoline	e Range Organics (GRO)	ND	4.5		mg/Kg	1	4/26/2019 9:17:36 AM	G59464
Surr:	BFB	88.4	73.8-119		%Rec	1	4/26/2019 9:17:36 AM	G59464
EPA MET	THOD 8021B: VOLATILES						Analyst:	NSB
Benzene	9	ND	0.022		mg/Kg	1	4/26/2019 9:17:36 AM	B59464
Toluene		ND	0.045		mg/Kg	1	4/26/2019 9:17:36 AM	B59464
Ethylber	izene	ND	0.045		mg/Kg	1	4/26/2019 9:17:36 AM	B59464
Xylenes,	, Total	ND	0.089		mg/Kg	1	4/26/2019 9:17:36 AM	B59464
Surr:	4-Bromofluorobenzene	87.7	80-120		%Rec	1	4/26/2019 9:17:36 AM	B59464

### Hall Environmental Analysis Laboratory, Inc.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Analytical Report Lab Order 1904C86

Date Reported: 4/29/2019

- P Sample pH Not In Range
- RL Reporting Limit

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<b>Analytical Report</b>	
Lab Order <b>1904C86</b>	

Date Reported: 4/29/2019

#### Hall Environmental Analysis Laboratory, Inc. Client Sample ID: West Wall **CLIENT:** Harvest Collection Date: 4/25/2019 9:20:00 AM **Project:** Lat H 20 Received Date: 4/26/2019 8:15:00 AM 1904C86-003 Matrix: SOIL Lab ID: Result **RL Oual** Units **DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: MRA 4/26/2019 11:50:18 AM 44561 Chloride ND 61 mg/Kg 20 Analyst: TOM EPA METHOD 8015M/D: DIESEL RANGE ORGANICS 4/26/2019 11:01:25 AM 44559 Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 4/26/2019 11:01:25 AM 44559 Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 4/26/2019 11:01:25 AM 44559 70-130 Surr: DNOP 98.4 %Rec 1 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 46 mg/Kg 1 4/26/2019 9:41:09 AM G59464 Surr: BFB 90.8 73.8-119 %Rec 1 4/26/2019 9:41:09 AM G59464 Analyst: NSB **EPA METHOD 8021B: VOLATILES** 0.023 4/26/2019 9:41:09 AM B59464 Benzene ND mg/Kg 1 Toluene ND 0.046 mg/Kg 1 4/26/2019 9:41:09 AM B59464 Ethylbenzene ND 0.046 mg/Kg 1 4/26/2019 9:41:09 AM B59464 B59464 ND 0.092 mg/Kg 1 4/26/2019 9:41:09 AM Xylenes, Total Surr: 4-Bromofluorobenzene 89.8 80-120 %Rec 1 4/26/2019 9:41:09 AM B59464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits I
- P Sample pH Not In Range

RL Reporting Limit Page 3 of 11

Analytical Repo	rt
Lab Order 1904C8	6

#### Date Reported: 4/29/2019

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Harvest		Cl	ient Sa	ample II	D: So	uth Wall	
Project: Lat H 20		(	Collect	ion Dat	e: 4/2	25/2019 9:30:00 AM	
Lab ID: 1904C86-004	Matrix: SOIL		Receiv	ved Dat	<b>e:</b> 4/2	26/2019 8:15:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Chloride	ND	60		mg/Kg	20	4/26/2019 12:02:43 PM	44561
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst	том
Diesel Range Organics (DRO)	10	9.8		mg/Kg	1	4/26/2019 11:23:23 AM	44559
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/26/2019 11:23:23 AM	44559
Surr: DNOP	99.5	70-130		%Rec	1	4/26/2019 11:23:23 AM	44559
EPA METHOD 8015D: GASOLINE RAN	GE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/26/2019 10:04:44 AM	G59464
Surr: BFB	121	73.8-119	S	%Rec	1	4/26/2019 10:04:44 AM	G59464
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.018		mg/Kg	1	4/26/2019 10:04:44 AM	B59464
Toluene	ND	0.036		mg/Kg	1	4/26/2019 10:04:44 AM	B59464
Ethylbenzene	ND	0.036		mg/Kg	1	4/26/2019 10:04:44 AM	B59464
Xylenes, Total	0.073	0.072		mg/Kg	1	4/26/2019 10:04:44 AM	B59464
Surr: 4-Bromofluorobenzene	90.8	80-120		%Rec	1	4/26/2019 10:04:44 AM	B59464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits J
- P Sample pH Not In Range RL Reporting Limit

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Hall Environmental Analysi	is Laboratory,	Inc.	3	1.4	Date Reported: 4/29/201	9
CLIENT: Harvest		Cl	ient Sample II	D: Bo	ottom	
Project: Lat H 20		(	<b>Collection Dat</b>	e: 4/2	25/2019 9:40:00 AM	
Lab ID: 1904C86-005	Matrix: SOIL		<b>Received Dat</b>	e: 4/2	26/2019 8:15:00 AM	4
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	4/26/2019 12:15:08 PM	44561
EPA METHOD 8015M/D: DIESEL RANG	<b>GE ORGANICS</b>				Analyst:	JME
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	4/26/2019 11:24:38 AM	44559
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/26/2019 11:24:38 AM	44559
Surr: DNOP	90.2	70-130	%Rec	1	4/26/2019 11:24:38 AM	44559
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	4/26/2019 10:52:04 AM	G59464
Surr: BFB	95.6	73.8-119	%Rec	1	4/26/2019 10:52:04 AM	G59464
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.021	mg/Kg	1	4/26/2019 10:52:04 AM	B59464
Toluene	ND	0.042	mg/Kg	1	4/26/2019 10:52:04 AM	B59464
Ethylbenzene	ND	0.042	mg/Kg	1	4/26/2019 10:52:04 AM	B59464
Xylenes, Total	ND	0.085	mg/Kg	1	4/26/2019 10:52:04 AM	B59464
Surr: 4-Bromofluorobenzene	93.8	80-120	%Rec	1	4/26/2019 10:52:04 AM	B59464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

Analytical Report Lab Order 1904C86

- E Value above quantitation range
- J Analyte detected below quantitation limits

P Sample pH Not In Range RL Reporting Limit

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Analytical Report	
Lab Order 1904C86	

Hall Environmental Analysis Laboratory	Hal	l Environmental	Analysis	Laboratory.	Inc.
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Date Reported: 4/29/2019

CLIENT: Harvest				<u>^</u>		orth End	
Project: Lat H 20		0	Collect	ion Dat	e: 4/2	25/2019 9:50:00 AM	
Lab ID: 1904C86-006	Matrix: SOIL		Receiv	ved Dat	<b>e:</b> 4/2	26/2019 8:15:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	ND	60		mg/Kg	20	4/26/2019 12:27:33 PM	44561
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst	JME
Diesel Range Organics (DRO)	42	9.7		mg/Kg	1	4/26/2019 1:04:42 PM	44559
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/26/2019 1:04:42 PM	44559
Surr: DNOP	87.0	70-130		%Rec	1	4/26/2019 1:04:42 PM	44559
EPA METHOD 8015D: GASOLINE RANG	GE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 11:15:41 AM	G59464
Surr: BFB	113	73.8-119		%Rec	1	4/26/2019 11:15:41 AM	G59464
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.025		mg/Kg	1	4/26/2019 11:15:41 AM	B59464
Toluene	ND	0.049		mg/Kg	1	4/26/2019 11:15:41 AM	B59464
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 11:15:41 AM	B59464
Xylenes, Total	ND	0.098		mg/Kg	1	4/26/2019 11:15:41 AM	B59464
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	4/26/2019 11:15:41 AM	B59464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix
- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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## **QC SUMMARY REPORT**

Hall Environmental Analysis Laboratory, Inc.

**Client:** Harvest **Project:** Lat H 20

Sample ID: MB-445 Client ID: PBS Prep Date: 4/26/20 Qual Analyte Limit Chloride Sample ID: LCS-44561 TestCode: EPA Method 300.0: Anions SampType: Ics Client ID: LCSS Batch ID: 44561 RunNo: 59463 Analysis Date: 4/26/2019 Prep Date: 4/26/2019 SeqNo: 2003514 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte 14 1.5 15.00 0 96.2 90 110 Chloride

#### Qualifiers:

- Value exceeds Maximum Contaminant Level. \*
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded H Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- E Value above quantitation range Analyte detected below quantitation limits
- J P Sample pH Not In Range
- RL Reporting Limit

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29-Apr-19

561     SampType: mblk     TestCode: EPA Method 300.0: Anions       Batch ID:     44561     RunNo: 59463       2019     Analysis Date:     4/26/2019       Result     PQL     SPK value       SPK Ref Val     %REC     LowLimit       ND     1.5	Lut II 20									
2019     Analysis Date:     4/26/2019     SeqNo:     2003513     Units:     mg/Kg       Result     PQL     SPK value     SPK Ref Val     %REC     LowLimit     HighLimit     %RPD     RPI	561	SampT	ype: ml	olk	Tes	tCode: El	PA Method	300.0: Anion	s	
Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPI		Batch	n ID: 44	561	F	RunNo: 5	9463			
	2019	Analysis D	ate: 4/	26/2019	S	SeqNo: 2	003513	Units: mg/K	g	
ND 1.5		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDL
		ND	1.5							

WO#: 1904C86

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

14

10.00

WO#: 1904C86

29-Apr-19

**Client:** Harvest

**Project:** Lat H 20

Sample ID: MB-44559	SampType: M	BLK	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: PBS	Batch ID: 44	559	F	RunNo: 5	9439				
Prep Date: 4/26/2019	Analysis Date: 4/	26/2019	5	SeqNo: 2	002693	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10								
Motor Oil Range Organics (MRO)	ND 50								
Surr: DNOP	8.1	10.00		80.7	70	130			
Sample ID: LCS-44559	SampType: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: LCSS	Batch ID: 44	559	. F	RunNo: 5	9439				
Prep Date: 4/26/2019	Analysis Date: 4/	26/2019	5	SeqNo: 20	002694	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43 10	50.00	0	86.7	63.9	124			
Surr: DNOP	3.9	5.000		77.8	70	130			
Sample ID: LCS-44544	SampType: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: LCSS	Batch ID: 44	544	F	unNo: 59	9449				
Prep Date: 4/25/2019	Analysis Date: 4/	26/2019	S	eqNo: 20	002781	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8	5.000		96.9	70	130			
Sample ID: MB-44544	SampType: ME	BLK	Tes	Code: EF	PA Method	8015M/D: Die	sel Range	e Organics	
Client ID: PBS	Batch ID: 44	544	F	unNo: 59	9449				
Prep Date: 4/25/2019	Analysis Date: 4/	26/2019	S	eqNo: 20	002782	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: DNOP

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix н
- Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix В Analyte detected in the associated Method Blank

144

70

130

Value above quantitation range E

J Analyte detected below quantitation limits

Р Sample pH Not In Range Page 8 of 11

S

RL Reporting Limit

## QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

**Client:** Harvest

**Project:** Lat H 20

Sample ID:	RB	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	ID: G5	9464	F	RunNo: 59	9464				
Prep Date:		Analysis D	ate: 4/	26/2019	S	SeqNo: 20	003349	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	ND	5.0								
Surr: BFB		880		1000		87.6	73.8	119			
Sample ID:	2.5UG GRO LCS	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	-
Client ID:	LCSS	Batch	ID: G5	9464	F	RunNo: 59	9464				
Prep Date:		Analysis D	ate: 4/	26/2019	5	SeqNo: 20	03350	Units: mg/K	g		
Analyte	r.	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	25	5.0	25.00	0	100	80.1	123			
Surr: BFB		1000		1000		104	73.8	119			
Sample ID:	1904C86-001AMS	SampT	pe: MS	6	Tes	tCode: EF	A Method	8015D: Gaso	line Rang	e	
Client ID:	East Wall	Batch	ID: G5	9464	F	RunNo: 59	9464				
Prep Date:		Analysis Da	ate: 4/	26/2019	5	SeqNo: 20	03351	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	26	5.3	26.26	0	101	69.1	142			
Surr: BFB		1100		1050		109	73.8	119			
Sample ID:	1904C86-001AMS	D SampTy	pe: MS	D	Tes	tCode: EF	A Method	8015D: Gaso	line Rang	e	
			/pe: <b>MS</b> ID: <b>G5</b>			tCode: EF RunNo: 59		8015D: Gaso	line Range	<b>e</b>	-
Sample ID: Client ID: Prep Date:			ID: <b>G5</b>	9464	F		464	8015D: Gaso Units: mg/K		e	-
Client ID:		Batch	ID: <b>G5</b>	9464 26/2019	F	RunNo: <b>59</b> SeqNo: <b>20</b>	464			e RPDLimit	Qual
Client ID: Prep Date: Analyte		Batch Analysis Da	ID: <b>G5</b> ate: <b>4</b> /	9464 26/2019	F	RunNo: <b>59</b> SeqNo: <b>20</b>	9464 903352 LowLimit 69.1	Units: <b>mg/K</b> HighLimit 142	g		Qual
Client ID: Prep Date: Analyte	East Wall	Batch Analysis Da Result	ID: <b>G5</b> ate: <b>4/</b> PQL	9464 26/2019 SPK value	F S SPK Ref Val	RunNo: <b>59</b> SeqNo: <b>20</b> %REC	9464 903352 LowLimit	Units: <b>mg/K</b> HighLimit	g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	East Wall	Batch Analysis Da Result 26	ID: <b>G5</b> ate: <b>4</b> /2 PQL 5.3	9464 26/2019 SPK value 26.26 1050	F S SPK Ref Val 0	RunNo: 59 SeqNo: 20 %REC 100 104	003352 LowLimit 69.1 73.8	Units: <b>mg/K</b> HighLimit 142	g %RPD 0.358 0	RPDLimit 20 0	Qual
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID:	East Wall e Organics (GRO) MB-44536	Batch Analysis Da Result 26 1100 SampTy	ID: <b>G5</b> ate: <b>4</b> /2 PQL 5.3	9464 26/2019 SPK value 26.26 1050 BLK	F S SPK Ref Val 0 Tes	RunNo: 59 SeqNo: 20 %REC 100 104	0464 003352 LowLimit 69.1 73.8 PA Method	Units: <b>mg/K</b> HighLimit 142 119	g %RPD 0.358 0	RPDLimit 20 0	Qual
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID: Client ID:	East Wall e Organics (GRO) MB-44536	Batch Analysis Da Result 26 1100 SampTy	ID: <b>G5</b> ate: <b>4</b> /; <u>PQL</u> 5.3 /pe: <b>ME</b> ID: <b>44</b>	9464 26/2019 26.26 1050 3LK 536	F S SPK Ref Val 0 Tes F	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EF	0464 003352 LowLimit 69.1 73.8 PA Method 0464	Units: <b>mg/K</b> HighLimit 142 119	g %RPD 0.358 0 line Range	RPDLimit 20 0	Qual
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID: Client ID:	East Wall e Organics (GRO) MB-44536 PBS	Batch Analysis Da Result 26 1100 SampTy Batch	ID: <b>G5</b> ate: <b>4</b> /; <u>PQL</u> 5.3 /pe: <b>ME</b> ID: <b>44</b>	9464 26/2019 26.26 1050 3LK 536 26/2019	F S SPK Ref Val 0 Tes F	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EF RunNo: 59 SeqNo: 20	0464 003352 LowLimit 69.1 73.8 PA Method 0464	Units: mg/K HighLimit 142 119 8015D: Gaso	g %RPD 0.358 0 line Range	RPDLimit 20 0	Qual
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID: Client ID: Prep Date:	East Wall e Organics (GRO) MB-44536 PBS	Batch Analysis Da Result 26 1100 SampTy Batch Analysis Da	ID: <b>G5</b> ate: <b>4</b> /; <u>PQL</u> 5.3 //pe: <b>ME</b> ID: <b>44</b> ate: <b>4</b> /;	9464 26/2019 26.26 1050 3LK 536 26/2019	F S SPK Ref Val 0 Tes F S	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EF RunNo: 59 SeqNo: 20	2464 203352 69.1 73.8 24 Method 2464 203356	Units: mg/K HighLimit 142 119 8015D: Gaso Units: %Rec	g %RPD 0.358 0 line Range	RPDLimit 20 0	
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB	East Wall e Organics (GRO) MB-44536 PBS	Batch Analysis Da Result 26 1100 SampTy Batch Analysis Da Result	ID: <b>G5</b> ate: <b>4</b> /; PQL 5.3 //pe: <b>ME</b> ID: <b>44</b> ate: <b>4</b> /; PQL	9464 26/2019 26.26 1050 3LK 536 26/2019 SPK value 1000	F SPK Ref Val 0 Tes F SPK Ref Val	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EP RunNo: 59 SeqNo: 20 %REC 86.9	2464 003352 LowLimit 69.1 73.8 24 Method 0464 003356 LowLimit 73.8	Units: mg/K HighLimit 142 119 8015D: Gaso Units: %Rec HighLimit	g %RPD 0.358 0 line Range	RPDLimit 20 0 e RPDLimit	
Client ID: Prep Date: Analyte Basoline Rang Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID:	East Wall e Organics (GRO) MB-44536 PBS 4/25/2019 LCS-44536	Batch Analysis Da Result 26 1100 SampTy Batch Analysis Da Result 870 SampTy	ID: <b>G5</b> ate: <b>4</b> /; PQL 5.3 //pe: <b>ME</b> ID: <b>44</b> ate: <b>4</b> /; PQL	9464 26/2019 26.26 1050 3LK 536 26/2019 SPK value 1000 S	F SPK Ref Val 0 Tesi SPK Ref Val Tesi	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EP RunNo: 59 SeqNo: 20 %REC 86.9	2464 003352 LowLimit 69.1 73.8 24 Method 2464 003356 LowLimit 73.8 24 Method	Units: mg/K HighLimit 142 119 8015D: Gaso Units: %Rec HighLimit 119	g %RPD 0.358 0 line Range	RPDLimit 20 0 e RPDLimit	
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID: Client ID:	East Wall e Organics (GRO) MB-44536 PBS 4/25/2019 LCS-44536	Batch Analysis Da Result 26 1100 SampTy Batch Analysis Da Result 870 SampTy	ID: <b>G5</b> ate: <b>4</b> // PQL 5.3 ID: <b>44</b> ate: <b>4</b> // PQL PQL ID: <b>44</b>	9464 26/2019 26.26 1050 3LK 536 26/2019 SPK value 1000 S 536	F SPK Ref Val 0 Tes SPK Ref Val Tes F	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EF RunNo: 59 SeqNo: 20 %REC 86.9	2464 203352 LowLimit 69.1 73.8 24 Method 2464 203356 LowLimit 73.8 24 Method 2464	Units: mg/K HighLimit 142 119 8015D: Gaso Units: %Rec HighLimit 119	g %RPD 0.358 0 line Range	RPDLimit 20 0 e RPDLimit	
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID: Client ID: Prep Date: Analyte Surr: BFB Sample ID: Client ID:	East Wall e Organics (GRO) MB-44536 PBS 4/25/2019 LCS-44536 LCSS	Batch Analysis Da Result 26 1100 SampTy Batch Analysis Da Result 870 SampTy Batch	ID: <b>G5</b> ate: <b>4</b> // PQL 5.3 ID: <b>44</b> ate: <b>4</b> // PQL PQL ID: <b>44</b>	9464 26/2019 26.26 1050 3LK 536 26/2019 S S 536 26/2019	F SPK Ref Val 0 Tes SPK Ref Val Tes F	RunNo: 59 SeqNo: 20 %REC 100 104 tCode: EF RunNo: 59 SeqNo: 20 %REC 86.9 tCode: EF	2464 203352 LowLimit 69.1 73.8 24 Method 2464 203356 LowLimit 73.8 24 Method 2464	Units: mg/K HighLimit 142 119 8015D: Gaso Units: %Rec HighLimit 119 8015D: Gaso	g %RPD 0.358 0 line Range	RPDLimit 20 0 e RPDLimit	

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

Value above quantitation range E

J Analyte detected below quantitation limits

Р Sample pH Not In Range RL Reporting Limit

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1904C86

WO#: 29-Apr-19

# QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

Client: Harvest

Project: Lat H 20

Sample ID:	RB	SampType: MBLK TestCode: EPA Method 8021B: Volatiles											
Client ID:	PBS	Batch ID: <b>B59464</b> RunNo: <b>59464</b>					9464						
Prep Date:		Analysis D	nalysis Date: 4/26/2019 SeqNo: 2003385			Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		ND	0.025										
Toluene		ND	0.050										
Ethylbenzene		ND	0.050										
Xylenes, Total		ND	0.10										
Surr: 4-Brom	ofluorobenzene	0.86		1.000	a.	85.7	80	120					
Sample ID:	100NG BTEX LCS	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles				
Client ID:	LCSS	Batch	n ID: <b>B5</b>	9464	F	RunNo: 5	9464						
Prep Date:		Analysis D	ate: 4/	26/2019	SeqNo: 2003386			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.96	0.025	1.000	0	95.8	80	120					
Toluene		0.98	0.050	1.000	0	98.4	80	120					
Ethylbenzene		0.98	0.050	1.000	0	98.2	80	120					
Xylenes, Total		3.0	0.10	3.000	0	99.3	80	120					
Surr: 4-Brom	ofluorobenzene	0.95		1.000		95.2	80	120					
	ion do robon zono												
Sample ID:	1904C86-002AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8021B: Vola	tiles				
			ype: MS			tCode: El		8021B: Vola	tiles				
	1904C86-002AMS		n ID: <b>B5</b>	9464	F		9464	8021B: Vola Units: mg/H					
Client ID:	1904C86-002AMS	Batch	n ID: <b>B5</b>	9464 26/2019	F	RunNo: 5	9464			RPDLimit	Qual		
Client ID: Prep Date:	1904C86-002AMS	Batch Analysis D	n ID: <b>B5</b> Date: <b>4</b> /	9464 26/2019	F	RunNo: 5 SeqNo: 2	9464 003387	Units: mg/k	(g	RPDLimit	Qual		
Client ID: Prep Date: Analyte	1904C86-002AMS	Batch Analysis D Result	n ID: <b>B5</b> Date: <b>4</b> /2 PQL	9464 26/2019 SPK value	F SPK Ref Val	RunNo: 5 SeqNo: 2 %REC	9464 003387 LowLimit	Units: <b>mg/F</b> HighLimit	(g	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene	1904C86-002AMS	Batch Analysis D Result 0.81	n ID: <b>B5</b> Date: <b>4</b> /2 PQL 0.022	9464 26/2019 SPK value 0.8913	F SPK Ref Val	RunNo: 5 SeqNo: 2 %REC 91.2	9464 003387 LowLimit 63.9	Units: <b>mg/F</b> HighLimit 127	(g	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene	1904C86-002AMS	Batch Analysis D Result 0.81 0.83	Date: 4/2 PQL 0.022 0.045	9464 26/2019 SPK value 0.8913 0.8913	F SPK Ref Val 0 0.01034	RunNo: 5 SeqNo: 2 %REC 91.2 92.2	9464 003387 LowLimit 63.9 69.9	Units: <b>mg/k</b> HighLimit 127 131	(g	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1904C86-002AMS	Batch Analysis D Result 0.81 0.83 0.83	Date: 4/2 PQL 0.022 0.045 0.045	9464 26/2019 SPK value 0.8913 0.8913 0.8913	F SPK Ref Val 0 0.01034 0	RunNo: 5 SeqNo: 2 %REC 91.2 92.2 93.5	9464 003387 LowLimit 63.9 69.9 71	Units: <b>mg/k</b> HighLimit 127 131 132	(g	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1904C86-002AMS North Wall	Batch Analysis D Result 0.81 0.83 0.83 2.5 0.80	Date: 4/2 PQL 0.022 0.045 0.045	9464 26/2019 SPK value 0.8913 0.8913 0.8913 2.674 0.8913	F SPK Ref Val 0 0.01034 0 0.01462	RunNo: 5 SeqNo: 2 %REC 91.2 92.2 93.5 92.9 89.3	9464 003387 LowLimit 63.9 69.9 71 71.8 80	Units: <b>mg/k</b> HighLimit 127 131 132 131	<b>%g</b> %RPD	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID:	1904C86-002AMS North Wall	Batch Analysis D Result 0.81 0.83 0.83 2.5 0.80 0 SampT	Date: 4/2 PQL 0.022 0.045 0.045 0.045 0.089	9464 26/2019 SPK value 0.8913 0.8913 2.674 0.8913 2.674	F SPK Ref Val 0 0.01034 0 0.01462 Tes	RunNo: 5 SeqNo: 2 %REC 91.2 92.2 93.5 92.9 89.3	9464 003387 LowLimit 63.9 69.9 71 71.8 80 PA Method	Units: <b>mg/k</b> HighLimit 127 131 132 131 120	<b>%g</b> %RPD	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1904C86-002AMS North Wall ofluorobenzene 1904C86-002AMSE	Batch Analysis D Result 0.81 0.83 0.83 2.5 0.80 0 SampT	Date: 4/ PQL 0.022 0.045 0.045 0.045 0.089 ype: MS n ID: B5	9464 26/2019 SPK value 0.8913 0.8913 0.8913 2.674 0.8913 SD 9464	F SPK Ref Val 0 0.01034 0 0.01462 Tes F	RunNo: 5 SeqNo: 2 %REC 91.2 92.2 93.5 92.9 89.3 tCode: El	9464 003387 LowLimit 63.9 69.9 71 71.8 80 PA Method 9464	Units: <b>mg/k</b> HighLimit 127 131 132 131 120	(g %RPD tiles	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID:	1904C86-002AMS North Wall ofluorobenzene 1904C86-002AMSE	Batch Analysis D Result 0.81 0.83 0.83 2.5 0.80 D SampT Batch	Date: 4/ PQL 0.022 0.045 0.045 0.045 0.089 ype: MS n ID: B5	9464 26/2019 SPK value 0.8913 0.8913 2.674 0.8913 2.674 0.8913 5D 9464 26/2019	F SPK Ref Val 0 0.01034 0 0.01462 Tes F	RunNo: 5 SeqNo: 2 91.2 92.2 93.5 92.9 89.3 tCode: El RunNo: 5	9464 003387 LowLimit 63.9 69.9 71 71.8 80 PA Method 9464	Units: mg/F HighLimit 127 131 132 131 120 8021B: Vola	(g %RPD tiles	RPDLimit	Qual		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date:	1904C86-002AMS North Wall ofluorobenzene 1904C86-002AMSE	Batch Analysis D Result 0.81 0.83 0.83 2.5 0.80 D SampT Batch Analysis D	PQL 0.022 0.045 0.045 0.045 0.045 0.089	9464 26/2019 SPK value 0.8913 0.8913 2.674 0.8913 2.674 0.8913 5D 9464 26/2019	F SPK Ref Val 0 0.01034 0 0.01462 Tes F S	RunNo: 5 SeqNo: 2 %REC 91.2 92.2 93.5 92.9 89.3 tCode: El RunNo: 5 SeqNo: 2	9464 003387 LowLimit 63.9 69.9 71 71.8 80 PA Method 9464 003388	Units: mg/k HighLimit 127 131 132 131 120 8021B: Vola Units: mg/k	Kg %RPD tiles				

Surr: 4-Bromofluorobenzene	0.77	0.8913

0.81

2.5

0.045

0.089

0.8913

2.674

Qualifiers:

Ethylbenzene

Xylenes, Total

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

91.2

91.6

86.7

71

80

71.8

132

131

120

2.49

1.34

0

E Value above quantitation rangeJ Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit

Р

0

0.01462

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20

20

0

1904C86 29-Apr-19

WO#:

### QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:HarvestProject:Lat H 20

Sample ID: MB-44536 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 44536 RunNo: 59464 Prep Date: 4/25/2019 Analysis Date: 4/26/2019 SeqNo: 2003389 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: 4-Bromofluorobenzene 0.86 1.000 86.2 80 120 Sample ID: LCS-44536 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 44536 RunNo: 59464 Prep Date: 4/25/2019 Analysis Date: 4/26/2019 SeqNo: 2003390 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: 4-Bromofluorobenzene 0.89 1.000 89.2 80 120

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
   D Sample Diluted Due to Matrix
- D Sample Diluted Due to Matrix
   H Holding times for preparation of
- H
   Holding times for preparation or analysis exceeded

   ND
   Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range J Analyte detected below quantitation
- JAnalyte detected below quantitation limitsPSample pH Not In Range
- RL Reporting Limit

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29-Apr-19

HALL ENVIRONMENTAL ANALYSIS LABORATORY	A TEL: 505-345-35	tal Analysis Labora 4901 Hawkins Albuquerque, NM 87 775 FAX: 505-345-4 hallenvironmental.	NE 7109 Sam	Sample Log-In Check List										
Client Name: Harvest	Work Order Numb	per: 1904C86		RcptNo:	1									
Received By: Anne Thorne Completed By: Anne Thorne	4/26/2019 8:15:00 A 4/26/2019 8:34:23 A		Anne Arm Anne Arm	_										
Reviewed By:	4/2.6/19		ame Arm	-										
Labred by:				a										
Chain of Custody				×.										
1. Is Chain of Custody complete?	?	Yes 🗹	No 🗔	Not Present										
2. How was the sample delivered	!?	Courier												
Log In														
3. Was an attempt made to cool	the samples?	Yes 🗹	No	NA 🗌										
4. Were all samples received at a	temperature of >0° C to 6.0°C	Yes 🗹	No 🗌											
5. Sample(s) in proper container(	s)?	Yes 🗹	No 🗌		e.									
6. Sufficient sample volume for in	dicated test(s)?	Yes 🖌	No 🗌											
7. Are samples (except VOA and	ONG) properly preserved?	Yes 🖌	No 🗌											
8. Was preservative added to both	lles?	Yes	No 🗹	NA 🗌										
9. VOA vials have zero headspace	e?	Yes	No 🗌	No VOA Vials 🗹										
10. Were any sample containers re	eceived broken?	Yes	No 🗹	# of preserved										
11. Does paperwork match bottle la (Note discrepancies on chain or		Yes 🗹	No 🗌	bottles checked for pH: (<2 or >	12 unless noted)									
12. Are matrices correctly identified	on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	-									
13. Is it clear what analyses were re		Yes 🗹	No 🗌											
14. Were all holding times able to b (If no, notify customer for author		Yes 🗹	No	Checked by:										
Special Handling (if applica	able)													
15. Was client notified of all discre		Yes	No 🗌	NA 🗹										
Person Notified:	Date	l												
By Whom:	Via:	eMail Ph	ione 🗌 Fax	In Person										
Regarding:														
Client Instructions: 16. Additional remarks:					*									
17. <u>Cooler Information</u> Cooler No. Temp <sup>o</sup> C C	ondition Seal Intact Seal No	Seal Date	Signed By											
1 1.9 Goo	**************************************		ar sha a sa											
2 3.9 God	od Yes													
					,									

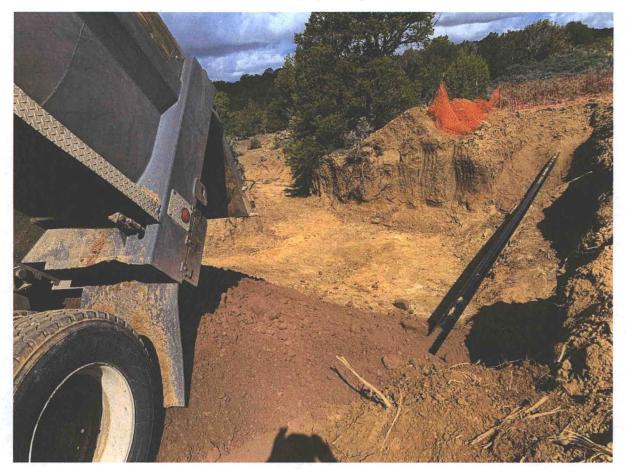
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Chain-of-Custody Record		Turn-Around	Time:	4-26-19	7																
Client: Hervest mid Stream			- □ Standard		<u>Sone da</u> k		-											NT			
			Project Name:				ANALYSIS LABORATORY														
Mailing Address: 1755 ARROYO DR			let Hazo			www.hallenvironmental.com															
Bloom Field Nn 87413			Lc+ H-20 Project #:				4901 Hawkins NE - Albuquerque, NM 87109														
Phone #: 505-632-4475				Tel. 505-345-3975 Fax 505-345-4107																	
email or Fax#: KHONG @Harvest midstroan - CPA			Project Manager:				Analysis Request														
	Package			,			021	MRO	3's		S		, SO4			sent					
□ Standard □ Level 4 (Full Validation)			KUTUM	HONG		S:(8	0/1	PCB's		SIN		PO4,			t/Ab						
	litation:		ompliance	Sampler: M	Orgen Kil	1:02	<del>TMB's</del> (8021)	/ DR	082	÷.	8270		NO <sub>2</sub> ,			esen					
	AC D (Type)	□ Other	·	On Ice:	X Yes	NO.		RO	es/8	504	) or	S	3, N		(YO	(Pre	es				
		Γ		Cooler Temp	(including CF):	13.91	/ MTBE	D(G	ticid	thod	831(	Meta	Z	(A	ni-V	form	Lorid				
1.1		}		Ildi Y.L	1.		1	8015	Pes	(Mei	by	181	Ъ,	S	(Ser	Coli	Lon				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative	1904C84	BTEX	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Ch				
4/25/15	9:00	36:1	East Wall	1-402	Cool	-701	X	X				LL	0	8	8		X		+	+	
4/25/19	9:10	5011	North Wall	1-402	1	202	X	X										100	-+-	+	
4/25/19	9:20	50/1	west wall	1402		7.03	X	X									X	-+	+	+	+-1
425/A	9:30 9:40	soil	south wall	1402		704	X	X									X	-	+	-	
4/25/K	9:40	5011	Bottom	1-402			X	X			-				-		X	-	+	-	+
4/25/4	9:50	50:1	North ENd	1-40	$\checkmark$	206	X	X		-							X	-+	+	-	+
								- 1				-+				-1		-+	+		+
												-					$\rightarrow$	$\rightarrow$	+	+	+
										-		-+					-	$\rightarrow$	+		+-
		5.0						-	$\neg$	-		- 1		-			-	+	+	+	+
											-	+	-	-		- +	+	-+	+		
													-		-	-		+		+	
Date:	Time:	Relinquishe	d by:	Received by:	Via:	Date Time	Rem	arks	:												
Date:	Time:	Relinquishe	d by:	Received by:	Via:	1 125/19 1714															
4/25/19	IMA	AAA	1. tolog			Date Time 04/26/19 08/5															
If necessary, samples submitted to Hall Environmental may be subc				1.6	m - 1	0815															

ed to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

ATTACHMENT 4 PHOTOGRAPHIC LOG

### Photographic Log



View of excavation during pipeline repair.