Contact Name: Jamon Hohensee

Responsible Party: Centennial Resource Production, Inc.

Contact mailing address: 500 W. Illinois Ave, Suite 500, Midland

Contact email: jamon.hohensee@cdevinc.com

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	NRM2024540841
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 372165

Contact Telephone: 432-241-4283

Incident # (assigned by OCD)

			n of Release		
titude 32.55063		0115	Longitud	de -103.44586	_
		(NAD 83 in a	decimal degrees to 5 a	decimal places)	
ite Name: Mango B	RM State 1H		Site Ty	pe: Production Facility	
ate Release Discove	red: 8/24/20		API# 30	0025405170000	
Jnit Letter Section	n Township	Range	С	County	
27	20S	35E	Lea		
rface Owner: 🔲 St	ate 🗌 Federal 🔲 7	ribal 🛚 Private	(Name:)	
		Nature an	ıd Volume o	of Palassa	
Ma Crude Oil	terial(s) Released (Select Volume Releas	all that apply and atta-	ch calculations or spec	cific justification for the volumes provided below)	
				Volume Recovered (bbls)0	
Produced Water	Volume Releas			Volume Recovered (bbls)	
	1	tion of dissolved	chloride in the	Yes No	
Condensate	produced water >10,000 mg/l? Volume Released (bbls)			Volume Recovered (bbls)	
☐ Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)		de units)	Volume/Weight Recovered (provide units)		
		•	,	(provide distribution)	
ause of Release					
verpressure of pack	ing in the stuffing bo	x on pump jack.	There were no free	e-standing fluids to be recovered. Source of spill wa	S
opped, and site was	secured. Site will be on was used to detern	remediated to sta	te standards and a	a closure report will be submitted to the OCD. Surface	ce are
rocity and coturation		nne me volume r	eleased.		



Incident ID	NRM2024540841
District RP	
Facility ID	
Application ID	

[NV 41 *	
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?	
☐ Yes ⊠ No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
,	when and by what means (phone, eman, etc)?
	Initial Response
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
	, and a supery material material and a supery material material and a supery
The source of the rele	ease has been stopped.
i	s been secured to protect human health and the environment.
I	
	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
<u></u>	ecoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
Der 10 15 20 9 D (4) NIM	AC the research to the second
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred
within a lined containmer	it area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation 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 environr	nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
addition OCD acceptance of	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.	140-141 report does not reneve the operator of responsionity for compliance with any other rederal, state, or local laws
Defeated Manager Tanager XX-1	
Printed Name: Jamon Hol	nensee Title: Sr. Environmental Analyst
Signature:	- 11.12 Date: 8-31-20
email: jamon.hohensee@o	cdevinc.com Telephone: 432-241-4283
	·
OCD Only	
Received by: Ramona	Marcus Date: 9/1/2020



Incident ID	
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)?		
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		
watercourse? Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the Yes- N		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the		
ordinary ingri-water mark):		
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?		
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?		
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?		
Are the lateral extents of the release within a 100-year floodplain?		
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 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 16-mile of the lateral extents of the release		
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release Boring or excavation logs		
Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody		
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 remedia		

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 dethods, 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.



Incident ID	
District RP	
Facility ID	
Application ID	

-



Incident ID	
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: Samon Hohensec Title: St. Environmental Analyst
Printed Name: Samon Hohevsec Title: St. Invionmental Analyst Signature: Date: 3-16-21
email: <u>Jamon. hohensee</u> Telephone: <u>432-241-4283</u>
OCD Only
Received by: Date:
Approved Approved with Attached Conditions of Approval Denied Deferral Approved
Signature: Date:



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

Incident ID	
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.

A scaled site and sampling diagram as described in 19.15.29	.11 NMAC
Photographs of the remediated site prior to backfill or photomust be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate OD	OC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification to the operation of the coaccordance with 19.15.29.13 NMAC including notification to the coacco	lations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
OCD Only Received by: Chad Hensley	Date: _04/30/2021
Received by.	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by:	Date: 04/30/2021
Chad Hensley Printed Name:	Title: Environmental Specialist Advanced



CLOSURE REQUEST AND REMEDIATION SUMMARY REPORT

Centennial Resource Development, Inc.
Mango BRM State 1H
Lea County, New Mexico
Unit Letter "C", Section 27, Township 20 South, Range 35 East
Latitude 32.55063° North, Longitude 103.44586° West
NMOCD Incident ID#: NRM2024540841

Prepared For:

Centennial Resource Development, Inc.

500 W. Illinois Avenue Suite 500 Midland, Texas 79701

Prepared By:

Etech Environmental & Safety Solutions, Inc.

P.O. Box 62228 Midland, Texas 79711

March 2021

Shannon M. English, P.G.

Shem on Ever

Project Manager

Matthew K. Green, P.G. Senior Project Manager

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APPENDICES

Appendix A – Photographic Documentation

Appendix B – Laboratory Analytical Reports

Appendix C – Release Notification and Corrective Action (Form C-141)

INTRODUCTION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Centennial Resource Development, Inc. (Centennial) has prepared this Closure Request and Remediation Summary Report for the Release Site known as Mango BRM State 1H. The legal description of the Release Site is Unit Letter "C", Section 27, Township 20 South, Range 35 East, in Lea County, New Mexico. The Release Site GPS coordinates are 32.55063° North and 103.44586° West. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site Details and Confirmation Sample Map.

On August 24, 2020, a crude oil release was discovered by Centennial at the Mango BRM State 1H Site. The release was the result of overpressure of packing in the stuffing box on the pump jack. Approximately ten (10) barrels of crude oil were released with zero (0) barrels recovered, resulting in a net loss of approximately ten (10) barrels of crude oil. On August 31, 2020, Centennial filed a *Release Notification and Corrective Action Form* (Form C-141) with the New Mexico Oil Conservation Division (NMOCD). The Form C-141 is provided as Appendix C. Photographic documentation for the site is provided as Appendix A.

NMOCD SITE CLASSIFICATION

A search of the groundwater database maintained by United States Geological Survey (USGS) did not identify any registered water wells within a quarter (1/4) mile of the Mango BRM State 1H Release Site. A further search of the USGS database identified the closest registered water well is USGS Well #: 323106103273401 located approximately two (2) miles southwest of the Release Site. The average depth to groundwater for USGS Well #: 323106103273401 should be encountered at approximately eighty-nine (89) feet below ground surface (bgs). Based on the NMOCD site classification system, ten (10) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one thousand (1,000) feet of the release. Based on the NMOCD site classification system, ten (10) points will be assigned to the Mango BRM State 1H Release Site as a result of this criterion. Based on insufficient groundwater data, the soil remediation levels for this site are as follows:

- Benzene 10 mg/Kg (ppm)
- BTEX -50 mg/Kg (ppm)
- TPH 100 mg/Kg (ppm)
- Chloride 600 mg/Kg (ppm)

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 25, 2020, Etech was assigned management responsibilities for soil sampling, site restoration, and reporting activities by Centennial.

On November 11th, 12th, 13th, 16th, and 17th, 2020, Etech utilized a heated pressure washer and degreaser to clean over sprayed equipment. On November 9th, 10th, 13th, and 16th-18th, 2020, Etech conducted excavation activities. On November 19, 2020, and November 24, 2020, following

excavation activities, twenty-four (24) composite bottom hole soil samples (BH-1 @ 6" through BH-5 @ 6", BH-6 @ 2', and BH-7 @ 6" through BH-24 @ 6") and ten (10) composite sidewall soil samples (NW-1 @ 6" through NW-3 @ 6", SW-1 @ 6" through SW-3 @ 6", SW-6 @ 1', EW-1 @ 6", EW-2 @ 6", and WW-2 @ 6") were collected from the excavated areas. Soil samples were submitted to Eurofins in Midland, Texas to be and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using EPA Method SW 846-8015M, and chloride using EPA Method E 300.0. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits and/or laboratory method detection limits with the exceptions of composite bottom hole soil samples BH-8 @ 6", BH-9 @ 6", and sidewall composite soil samples SW-6 @ 1' which exhibited TPH concentrations above NMOCD limits. Sidewall composite soil sample WW-2 @ 6" exhibited chloride concentrations above NMOCD limits. Please reference Figure 2 for site details and soil sampling locations. Based on analytical results, further excavation was needed for the areas represented by composite bottomhole samples BH-8 @ 6" and BH-9 @ 6" and sidewall composite soil samples SW-6 @ 1' and WW-2 @ 8".

On December 7th-10th, 2020, Etech conducted additional excavation activities. Following the additional excavation activities two (2) additional composite bottom hole soil sample (BH-8 @ 1' and BH-9 @ 1') and seven (7) additional composite sidewall soil samples (NW-8 @ 1', SW-6 @ 1', SW-8 @ 1', SEW-8 @ 1', EW-8 @ 1', WW-2 @ 1', and WW-8 @ 1') were collected from the excavated area. Soil samples were submitted to Eurofins and analyzed for BTEX, TPH, and chloride concentrations. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits and/or laboratory method detection limits with the exception of composite sidewall soil sample WW-2 @ 6" which exhibited chloride concentrations above NMOCD limits. Please reference Figure 2 for site details and soil sampling locations. Based on analytical results, further excavation was needed for the area represented by composite sidewall soil sample WW-2@ 6".

On December 29, 2020, following additional excavation activities, one (1) composite sidewall soil sample (WW-2 @ 1.5') was collected from the area represented by sidewall composite soil sample WW-2 @ 6" and submitted to Eurofins for chloride analysis. Please reference Figure 2 for site details and soil sampling locations. A review of laboratory analytical results indicated the collected composite soil sample was below applicable NMOCD limits.

Based on laboratory analytical results, all impacted soil has been removed from the release area. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are provided as Appendix B.

SOIL DISPOSAL AND CLOSURE REQUEST

On November 17th-20th, 2020 and January 14th, 15th, and 18th 2021, Etech, on behalf of Centennial, transported approximately 612 cubic yards of material to Sundance Services, Inc. Parabo Facility (NMOCD Permit #: NM-01-0003) located on Highway 18 near Eunice, New Mexico for disposal. On January 13th-14th, 2021, backfill activities were completed at the Release Site utilizing non-impacted, soil purchased from a local source and the impacted area was re-contoured to fit the surrounding topography.

Based on the analytical results of confirmation soil samples collected from the excavation, impacted soils were brought to surface and confirmation soil samples below applicable NMOCD regulatory limits. Etech, on behalf of Centennial, respectfully request that the NMOCD District 1 Office grant site closure to the Mango BRM State 1H Release Site (NMOCD Incident ID#: NRM2024540841).

LIMITATIONS

Etech has prepared this Closure Request and Remediation Summary Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Etech has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Centennial Resource Development, Inc. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Etech and/or Centennial Resource Development, Inc.

DISTRIBUTION

Copy 1: New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

1624 N. French Drive Hobbs, New Mexico 88210

Copy 2: Jamon Hohensee

Centennial Resource Development, Inc.

500 W. Illinois, Suite 500 Midland, Texas 79701

Copy 3: Etech Environmental & Safety Solutions, Inc.

P.O. Box 62228

Midland, Texas 79711

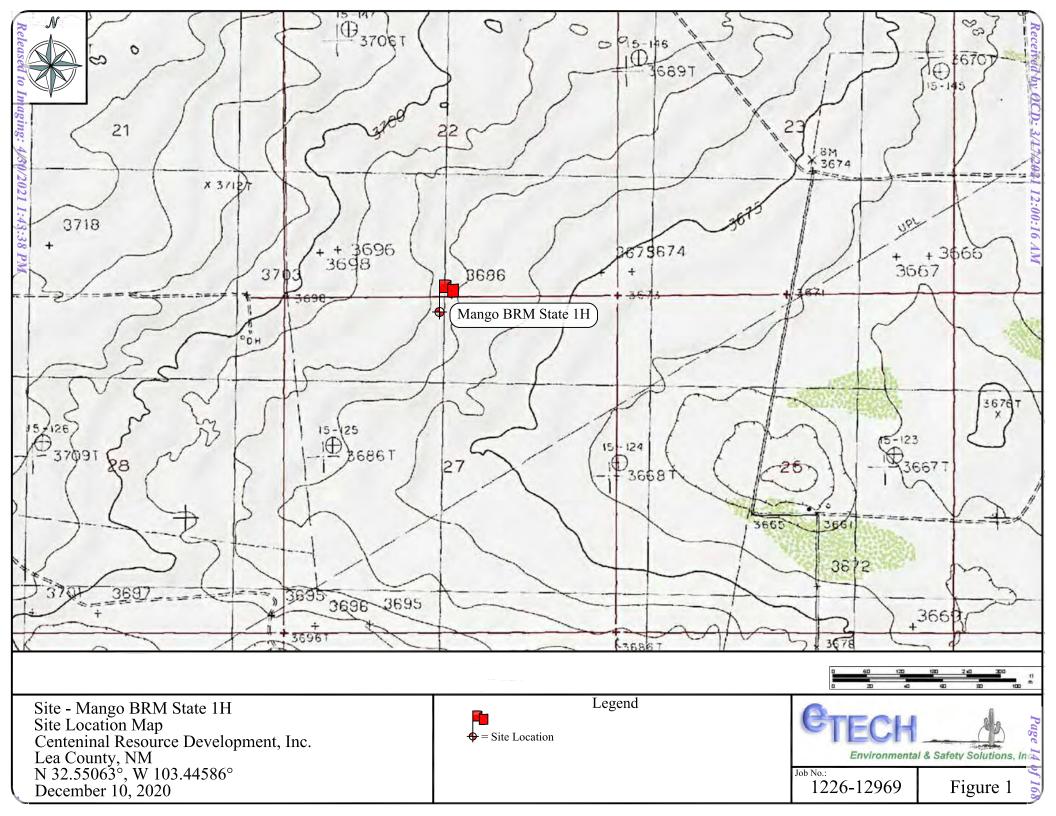
FIGURES

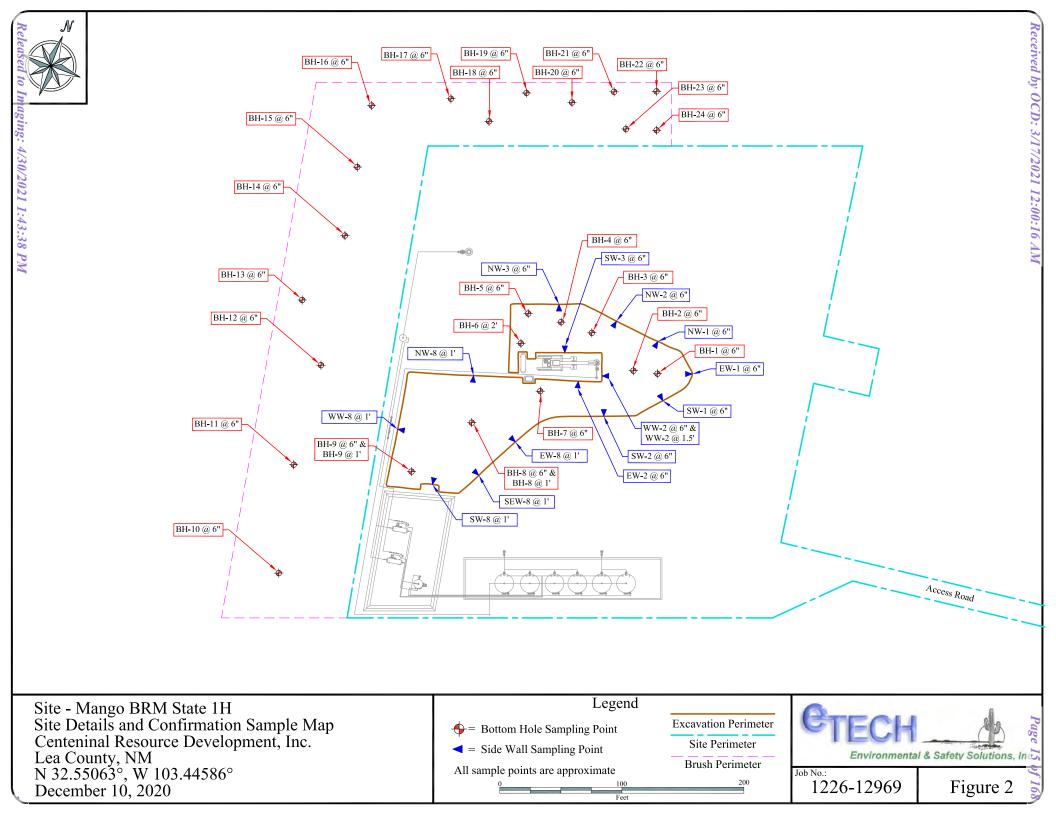
Figure 1 – Site Location Map

Figure 2 – Site Details and Confirmation Sample Map

Closure Request and Remediation Summary Report Mango BRM State 1H







TABLES

Table 1 - Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil

Closure Request and Remediation Summary Report Mango BRM State 1H



TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

				METHODS	Al. SW 846-80211		re reported in mg/K	g	_M	ETHOD: SW 801	5M		E 200.4
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p -	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	E 300.1 CHLORIDI
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
						Bottom Hole S	Sample Results						
ВН-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.5
BH-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34.8
ВН-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	79.9
BH-4 @ 6"	11/24/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.8
BH-5 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	89.0
ВН-6 @ 2'	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	92.9
ВН-7 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.0
BH-8 @ 6"	11/19/2020	ND	0.00234	0.00785	0.0147	0.0127	0.02740	0.03759	387	5,110	604	6,101	227
BH-8 @ 1'	12/10/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
ВН-9 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	843	128	971	344
ВН-9 @ 1'	12/10/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
ВН-10 @ 6"	11/19/2020	ND	0.00380	0.00282	0.00489	0.00392	0.008810	0.01543	ND	ND	ND	ND	14.6
ВН-11 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.9
ВН-12 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.72
ВН-13 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.20
ВН-14 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.42
ВН-15 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.8
ВН-16 @ 6"	11/19/2020	ND	0.00302	0.00251	0.00489	0.00365	0.008540	0.01407	ND	ND	ND	ND	6.80
ВН-17 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.83
ВН-18 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.29

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

				METHODS:	SW 846-80211		re reported in mg/K	g	М	ETHOD: SW 801	5M		E 300.1
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p -	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
BH-19 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.4
ВН-20 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.08
ВН-21 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.55
ВН-22 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.07
ВН-23 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.13
BH-24 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.80
				ì	ı	Sidewall Sa	mple Results					•	ı
NW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33.6
NW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.2
NW-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	385
NW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	325
SW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71.7
SW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.2
SW-3 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37.4
SW-6 @ 1'	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	244	ND	244	21.1
SW-6 @ 1'	12/8/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	-
SW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.64
SEW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.6
EW-1 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55.7
EW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.1
EW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.4

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

MANGO BRM STATE 1H RELEASE SITE

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

						concentrations a	1 0	C .						
	2.15777			METHODS:	SW 846-8021F	3		METHOD: SW 8015M						
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C_6 - C_{35}	CHLORIDE	
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg	
WW-2 @ 6"	11/19/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	603	
WW-2 @ 6"	12/8/2020	-	-	-	-	1	-	1	-	-	-	-	936	
WW-2 @ 1.5'	12/29/2020	-	-	-	-	ı	-	ı	-	ı	-	-	40.4	
WW-8 @ 1'	12/10/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

Bold and Yellow Highlighted indicates Analyte Above NMOCD Regulatory Limits

ND - Analyte not Detected at or above the Laboratory Reporting Limits

APPENDIX A

Photographic Documentation

Closure Request and Remediation Summary Report Mango BRM State 1H



Project Name: Mango BRM State 1H **Project No:** 12969

Photo No: 1.

Direction Taken:

Northwest

Description:

View of the release area.



Photo No:

2.

Direction Taken:

Northwest

Description:

View of the release area.



Project Name: Mango BRM State 1H

Project No: 12969

Photo No:

Direction Taken:

North

Description:

View of the release area.



Photo No: 4.

Direction Taken:

South

Description:

View of the excavated area.



Project Name: Mango BRM State 1H

Project No: 12969

Photo No: 5.

Direction Taken:

East

Description:

View of the excavated area.



Photo No:

Direction Taken:

West

Description:

View of the excavated area.



Project Name: Mango BRM State 1H **Project No:** 12969

Photo No: 7.

Direction Taken:

North

Description:

View of the remediated area.



Photo No: 8.

Direction Taken:

Southwest

Description:

View of the remediated area.



Project Name: Mango BRM State 1H **Project No:** 12969



APPENDIX B

Laboratory Analytical Reports

Closure Request and Remediation Summary Report Mango BRM State 1H





Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id:

Contact:

12969

Project Location:

Matthew Green

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

													- 1
	Lab Id:	678984-0	01	678984-0	02	678984-0	003	678984-0	004	678984-0	05	678984-0	006
Analysis Requested	Field Id:	BH-1 @	6"	NW-1 @	6"	SW-1 @ 6	5"	EW-1 @	5"	BH-2 @ 6	,"	NW-2 @	6"
Analysis Requesieu	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	SOIL		SOIL	
	Sampled:	11.19.2020 08:20		11.19.2020 08:25		11.19.2020 08:27		11.19.2020 08:32		11.19.2020 09:20		11.19.2020	09:25
BTEX by EPA 8021B	Extracted:	12.01.2020	08:00	12.01.2020 (08:00	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00
	Analyzed:	12.01.2020	13:19	12.01.2020	14:21	12.01.2020	14:42	12.01.2020	15:03	12.01.2020	15:23	12.01.2020	15:44
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Ethylbenzene		T LD	0.00200	1,2	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
m,p-Xylenes		112	0.00399	1,2	0.00400	ND	0.00401	ND	0.00402	ND	0.00402	ND	0.00403
o-Xylene		T LD	0.00200	1,2	0.00200	ND	0.00200	ND	0.00201	ND	0.00201	ND	0.00202
Total Xylenes		112	0.002000		0.002000		0.002000		0.002010	ND	0.002010	ND	0.002020
Total BTEX		ND	0.002000	ND (0.002000	ND	0.002000	ND	0.002010	ND	0.002010	ND	0.002020
Chloride by EPA 300	Extracted:	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00
	Analyzed:	11.25.2020	11:22	11.25.2020	11:38	11.25.2020	11:43	11.25.2020	11:48	11.25.2020	11:53	11.25.2020	12:09
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		19.5	5.00	33.6	5.03	71.7	4.99	55.7	4.97	34.8	5.05	17.2	4.98
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020 (08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00
	Analyzed:	11.26.2020	11:16	11.26.2020	12:23	11.26.2020	12:46	11.26.2020	13:08	11.26.2020	13:31	11.26.2020	13:53
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)	·	ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Diesel Range Organics (DRO)		ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Motor Oil Range Hydrocarbons (MRO)		ND	50.0	ND	50.0	ND	49.9	ND	49.9	ND	49.8	ND	50.0
Total TPH		ND	50.00	ND	50.00	ND	49.90	ND	49.90	ND	49.80	ND	50.00

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Received by OCD: 3/17/2021 12:00:16 AM the eurofins | Environment Testing |

Certificate of Analysis Summary 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id:

Contact:

12969

.

Project Location:

Matthew Green

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

	Lab Id:	678984-0	07	678984-00	08	678984-0	009	678984-0	010	678984-0	011	678984-0	012
Analysis Postered	Field Id:	SW-2@	6"	EW-2 @	6"	WW-2 @	6"	BH-3 @ 6	5"	NW-3 @ 6	6"	SW-3 @ 6	6"
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	SOIL		SOIL	_
	Sampled:	11.19.2020	11.19.2020 09:28		11.19.2020 09:30		11.19.2020 09:35		11.19.2020 10:00		10:05	11.19.2020	10:10
BTEX by EPA 8021B	Extracted:	12.01.2020 08:00		12.01.2020 (08:00	12.01.2020 08:00		12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00
	Analyzed:	12.01.2020	16:05	12.01.2020	6:25	12.01.2020	18:02	12.01.2020	18:23	12.01.2020	18:43	12.01.2020	19:04
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene	·	ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Toluene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Ethylbenzene		ND	0.00200	ND	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
m,p-Xylenes		ND	0.00399	ND	0.00398	ND	0.00398	ND	0.00399	ND	0.00400	ND	0.00402
o-Xylene		ND	0.00200	1,2	0.00199	ND	0.00199	ND	0.00200	ND	0.00200	ND	0.00201
Total Xylenes			0.002000	ND (0.001990		0.001990		0.002000	ND	0.002000	ND	0.002010
Total BTEX		ND	0.002000	ND (0.001990	ND	0.001990	ND	0.002000	ND	0.002000	ND	0.002010
Chloride by EPA 300	Extracted:	11.25.2020	11:00	11.25.2020	1:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00
	Analyzed:	11.25.2020	12:15	11.25.2020	2:20	11.25.2020	12:25	11.25.2020	12:30	11.25.2020	12:36	11.25.2020	12:51
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		75.2	5.00	23.1	5.02	603	4.97	79.9	4.99	385	4.96	37.4	5.04
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020 (08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00
	Analyzed:	11.26.2020	14:16	11.26.2020	4:38	11.26.2020	15:01	11.26.2020	15:23	11.26.2020	16:08	11.26.2020	16:30
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0
Diesel Range Organics (DRO)	ND 49.9		ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0	
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.9	ND	49.9	ND	49.9	ND	50.0
Total TPH		ND	49.90	ND	50.00	ND	49.90	ND	49.90	ND	49.90	ND	50.00

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id:

Project Location:

Contact:

12969

. . . .

Matthew Green

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

	Lab Id:	678984-0	13	678984-0	14	678984-0	15	678984-0	016	678984-0	017	678984-0	018
	Field Id:	BH-4 @	6"	BH-5 @	6"	BH-6 @ 2	,	SW-6 @	ı [,]	BH-7 @ 6	;"	BH-8 @ 6	5"
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	,
	Sampled:	11.24.2020	11:15	11.19.2020	10:35	11.19.2020	10:40	11.19.2020	10:45	11.19.2020	10:40	11.19.2020	10:45
BTEX by EPA 8021B	Extracted:	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00	12.01.2020	08:00
	Analyzed:	12.01.2020	19:24	12.01.2020	19:45	12.01.2020	20:06	12.01.2020	20:26	12.01.2020	20:47	12.01.2020	21:07
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	ND	0.00199
Toluene		ND	0.00200	ND	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.00234	0.00199
Ethylbenzene		112	0.00200	1,2	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.00785	0.00199
m,p-Xylenes		112	0.00401	1,2	0.00399	ND	0.00397	ND	0.00396	ND	0.00398	0.0147	0.00398
o-Xylene		ND	0.00200	1.12	0.00200	ND	0.00198	ND	0.00198	ND	0.00199	0.0127	0.00199
Total Xylenes		110	0.002000		0.002000		0.001980		0.001980	ND	0.001990	0.02740	0.001990
Total BTEX		ND	0.002000	ND (0.002000	ND	0.001980	ND	0.001980	ND	0.001990	0.03759	0.001990
Chloride by EPA 300	Extracted:	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:00
	Analyzed:	11.25.2020	12:57	11.25.2020	13:13	11.25.2020	13:18	11.25.2020	13:23	11.25.2020	13:28	11.25.2020	13:34
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		47.8	4.97	89.0	5.00	92.9	5.02	21.1	4.98	23.0	4.95	227	4.95
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00
	Analyzed:	11.26.2020	16:53	11.26.2020	17:15	11.26.2020	17:37	11.26.2020	18:00	11.26.2020	18:22	11.26.2020	18:45
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9	ND	50.0	387	49.9
Diesel Range Organics (DRO)		ND	49.9	ND	50.0	ND	49.8	244	49.9	ND	50.0	5110	49.9
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9	ND	50.0	604	49.9
Total TPH		ND	49.90	ND	50.00	ND	49.80	244.0	49.90	ND	50.00	6101	49.90

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id:

Contact:

12969

Matthew Green

Project Location:

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

													$\overline{}$
	Lab Id:	678984-0)19	678984-0	20	678984-0)21	678984-	022	678984-0	23	678984-0	024
Analysis Requested	Field Id:	BH-9 @	6"	BH-10 @	6"	BH-11 @	6"	BH-12 @	6"	BH-13 @	5"	BH-14 @	6"
Anaiysis Kequesieu	Depth:												
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	,
	Sampled:	11.19.2020	10:45	11.19.2020	10:48	11.19.2020	10:51	11.19.2020	10:54	11.19.2020	10:58	11.19.2020	11:00
BTEX by EPA 8021B	Extracted:	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00
	Analyzed:	12.02.2020	01:55	12.02.2020	02:16	12.02.2020	00:33	12.02.2020	02:36	12.02.2020	02:57	12.02.2020	03:17
	Units/RL:	mg/kg	RL										
Benzene		ND	0.00200										
Toluene		ND	0.00200	0.00380	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	0.00282	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m,p-Xylenes		ND	0.00400	0.00489	0.00400	ND	0.00400	ND	0.00400	ND	0.00400	ND	0.00400
o-Xylene		ND	0.00200	0.00392	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes		112	0.002000	0.008810	0.002000		0.002000		0.002000	ND	0.002000	ND	0.002000
Total BTEX		ND	0.002000	0.01543	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Chloride by EPA 300	Extracted:	11.25.2020	11:00	11.25.2020	11:00	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30
	Analyzed:	11.25.2020	13:39	11.25.2020	13:44	11.25.2020	17:10	11.25.2020	17:26	11.25.2020	17:31	11.25.2020	17:37
	Units/RL:	mg/kg	RL										
Chloride		344	4.95	14.6	5.05	11.9	5.00	9.72	5.00	9.20	5.00	8.42	5.00
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00
	Analyzed:	11.26.2020	19:07	11.26.2020	19:29	11.26.2020	11:16	11.26.2020	12:23	11.26.2020	12:46	11.26.2020	13:08
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Diesel Range Organics (DRO)		843	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Motor Oil Range Hydrocarbons (MRO)		128	49.9	ND	50.0	ND	49.8	ND	50.0	ND	50.0	ND	49.9
Total TPH		971.0	49.90	ND	50.00	ND	49.80	ND	50.00	ND	50.00	ND	49.90

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id: Contact:

Project Location:

12969

Matthew Green

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

	Lab Id:	678984-0	25	678984-0	26	678984-0)27	678984-0	028	678984-0)29	678984-0	030
Analusia Basusatad	Field Id:	BH-15 @	6"	BH-16 @	6"	BH-17 @	6"	BH-18 @	6"	BH-19 @	6"	BH-20 @	6"
Analysis Requested	Depth:												
	Matrix:	SOIL											
	Sampled:	11.19.2020	11:02	11.19.2020	11:03	11.19.2020	11:20	11.19.2020	11:30	11.19.2020	11:40	11.19.2020	13:01
BTEX by EPA 8021B	Extracted:	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00
	Analyzed:	12.02.2020	03:38	12.02.2020	05:02	12.02.2020	05:22	12.02.2020	05:43	12.02.2020	06:03	12.02.2020	06:24
	Units/RL:	mg/kg	RL										
Benzene		ND	0.00200										
Toluene		ND	0.00200	0.00302	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	0.00251	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m,p-Xylenes		ND	0.00400	0.00489	0.00400	ND	0.00400	ND	0.00400	ND	0.00400	ND	0.00400
o-Xylene		110	0.00200	0.00365	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes			0.002000	0.008540	0.002000		0.002000		0.002000	ND	0.002000	ND	0.002000
Total BTEX		ND	0.002000	0.01407	0.002000	ND	0.002000	ND	0.002000	ND	0.002000	ND	0.002000
Chloride by EPA 300	Extracted:	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30
	Analyzed:	11.25.2020	17:42	11.25.2020	17:58	11.25.2020	18:03	11.25.2020	18:08	11.25.2020	18:14	11.25.2020	18:19
	Units/RL:	mg/kg	RL										
Chloride		10.8	5.00	6.80	5.00	8.83	5.00	9.29	5.00	12.4	5.00	9.08	5.00
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00	11.26.2020	08:00
	Analyzed:	11.26.2020	13:31	11.26.2020	13:53	11.26.2020	14:16	11.26.2020	14:38	11.26.2020	15:01	11.26.2020	15:23
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Diesel Range Organics (DRO)	Range Organics (DRO)		49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	49.8	ND	49.9	ND	50.0	ND	50.0	ND	50.0
Total TPH		ND	49.90	ND	49.80	ND	49.90	ND	50.00	ND	50.00	ND	50.00

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Mango BRM State 1H

Project Id:

Project Location:

Contact:

12969

Matthew Green

Lea County, New Mexico

Date Received in Lab: Tue 11.24.2020 16:37

Report Date: 01.22.2021 10:08

Project Manager: Jessica Kramer

	Lab Id:	678984-0	31	678984-03	32	678984-0)33	678984-0	034		
	Field Id:	BH-21 @	6"	BH-22 @	6"	BH-23@ 6	5"	BH-24 @	6"		
Analysis Requested	Depth:	D11 21 C		B11 22 C		DI1 25 C (,	DII 21 C			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
			12.10								
	Sampled:	11.19.2020	13:10	11.19.2020	13:13	11.19.2020	13:18	11.19.2020	13:24		
BTEX by EPA 8021B	Extracted:	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00	12.01.2020	12:00		
	Analyzed:	12.02.2020	06:45	12.02.2020 (07:05	12.02.2020	07:26	12.02.2020	07:47		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		ND	0.00200		0.00200	ND	0.00200	ND	0.00200		
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200		
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200		
m,p-Xylenes		1.2	0.00400	1.2	0.00400	ND	0.00400	ND	0.00400		
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200		
Total Xylenes			0.002000		0.002000		0.002000		0.002000		
Total BTEX		ND	0.002000	ND (0.002000	ND	0.002000	ND	0.002000		
Chloride by EPA 300	Extracted:	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30	11.25.2020	11:30		
	Analyzed:	11.25.2020	18:24	11.25.2020	18:40	11.25.2020	18:45	11.25.2020	19:01		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		8.55	5.00	9.07	5.00	9.13	5.00	6.80	5.00		
TPH by SW8015 Mod	Extracted:	11.26.2020	08:00	11.26.2020 (08:00	11.26.2020	08:00	11.26.2020	08:00		
	Analyzed:	11.26.2020	16:08	11.26.2020	16:30	11.26.2020	16:53	11.26.2020	17:15		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9		
Diesel Range Organics (DRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9		
Motor Oil Range Hydrocarbons (MRO)		ND	49.9	ND	50.0	ND	49.8	ND	49.9	_	
Total TPH		ND	49.90	ND	50.00	ND	49.80	ND	49.90		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 678984

for

Etech Environmental & Safety Solution, Inc

Project Manager: Matthew Green

Mango BRM State 1H 12969 01.22.2021

Collected By: Client



1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)



01.22.2021

Project Manager: Matthew Green

Etech Environmental & Safety Solution, Inc

P.O. Box 62228 Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): 678984

Mango BRM State 1H

Project Address: Lea County, New Mexico

Matthew Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 678984. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 678984 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 678984

eurofins Environment Testing Xenco

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 @ 6"	S	11.19.2020 08:20		678984-001
NW-1 @ 6"	S	11.19.2020 08:25		678984-002
SW-1 @ 6"	S	11.19.2020 08:27		678984-003
EW-1 @ 6"	S	11.19.2020 08:32		678984-004
BH-2 @ 6"	S	11.19.2020 09:20		678984-005
NW-2 @ 6"	S	11.19.2020 09:25		678984-006
SW-2@ 6"	S	11.19.2020 09:28		678984-007
EW-2 @ 6"	S	11.19.2020 09:30		678984-008
WW-2 @ 6"	S	11.19.2020 09:35		678984-009
BH-3 @ 6"	S	11.19.2020 10:00		678984-010
NW-3 @ 6"	S	11.19.2020 10:05		678984-011
SW-3 @ 6"	S	11.19.2020 10:10		678984-012
BH-4 @ 6"	S	11.24.2020 11:15		678984-013
BH-5 @ 6"	S	11.19.2020 10:35		678984-014
BH-6 @ 2'	S	11.19.2020 10:40		678984-015
SW-6 @ 1'	S	11.19.2020 10:45		678984-016
BH-7 @ 6"	S	11.19.2020 10:40		678984-017
BH-8 @ 6"	S	11.19.2020 10:45		678984-018
BH-9 @ 6"	S	11.19.2020 10:45		678984-019
BH-10 @ 6"	S	11.19.2020 10:48		678984-020
BH-11 @ 6"	S	11.19.2020 10:51		678984-021
BH-12 @ 6"	S	11.19.2020 10:54		678984-022
BH-13 @ 6"	S	11.19.2020 10:58		678984-023
BH-14 @ 6"	S	11.19.2020 11:00		678984-024
BH-15 @ 6"	S	11.19.2020 11:02		678984-025
BH-16 @ 6"	S	11.19.2020 11:03		678984-026
BH-17 @ 6"	S	11.19.2020 11:20		678984-027
BH-18 @ 6"	S	11.19.2020 11:30		678984-028
BH-19 @ 6"	S	11.19.2020 11:40		678984-029
BH-20 @ 6"	S	11.19.2020 13:01		678984-030
BH-21 @ 6"	S	11.19.2020 13:10		678984-031
BH-22 @ 6"	S	11.19.2020 13:13		678984-032
BH-23@ 6"	S	11.19.2020 13:18		678984-033
BH-24 @ 6"	S	11.19.2020 13:24		678984-034

CASE NARRATIVE

eurofins Environment Testing Xenco

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Mango BRM State 1H

 Project ID:
 12969
 Report Date:
 01.22.2021

 Work Order Number(s):
 678984
 Date Received:
 11.24.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3143383 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by

re-analysis.

Samples affected are: 678984-018.

Batch: LBA-3143691 BTEX by EPA 8021B

Lab Sample ID 678984-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678984-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; Samples affected are: 678984-012.

Benzene, Ethylbenzene, Toluene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 678984-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018

CASE NARRATIVE

eurofins

Environment Testing
Xenco

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Mango BRM State 1H

 Project ID:
 12969
 Report Date:
 01.22.2021

 Work Order Number(s):
 678984
 Date Received:
 11.24.2020

Batch: LBA-3143699 BTEX by EPA 8021B

Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected;

Samples affected are: 678984-019.

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected;

Samples affected are: 678984-021 S,678984-030,678984-019.

Lab Sample ID 678984-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 678984-019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 678984-019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-1 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-001

Date Collected: 11.19.2020 08:20

Analytical Method: Chloride by EPA 300

Tech:

CHE

CHE

Date Prep: 11.25.2020 11:00 % Moisture:

Prep Method: E300P

Basis:

Wet Weight

Seq Number: 3143449

Analyst:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.5	5.00	mg/kg	11.25.2020 11:22		1

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst: Seq Number: 3143383 Date Prep:

11.26.2020 08:00

% Moisture:

Prep Method: SW8015P

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 11:16	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 11:16	U	1
Surrogate	C	as Number 9	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	119	%	70-130	11.26.2020 11:16
o-Terphenyl	84-15-1	110	%	70-130	11.26.2020 11:16

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-1 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-001

Date Collected: 11.19.2020 08:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143691

Tech: MNR

Analyst:

MNR

Date Prep: 12.01.2020 08:00 % Moisture:

Basis:

Wet Weight

Prep Method: SW5035A

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 13:19	UFX	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 13:19	UXF	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 13:19	UXF	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 13:19	UX	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 13:19	UX	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 13:19	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 13:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.01.2020 13:19	
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.01.2020 13:19	



Etech Environmental & Safety Solution, Inc, Midland, TX

11.25.2020 11:00

Mango BRM State 1H

Sample Id: **NW-1** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-002

Date Collected: 11.19.2020 08:25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE

CHE Date Prep:

% Moisture:

Seq Number: 3143449

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.6	5.03	mg/kg	11.25.2020 11:38		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 12:23	U	1
Surrogate	Ca	as Number 9	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	109	%	70-130	11.26.2020 12:23
o-Terphenyl	84-15-1	97	%	70-130	11.26.2020 12:23



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **NW-1** @ 6"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-002

Date Collected: 11.19.2020 08:25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst: MNR

Date Prep: 12.01.2020 08:00

% Moisture:

Seq Number: 3143691

1,4-Difluorobenzene

Basis: Wet Weight

12.01.2020 14:21

70-130

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.01.2020 14:21	U	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.01.2020 14:21	U	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.01.2020 14:21	U	1
m,p-Xylenes	179601-23-1	ND	0.00400		mg/kg	12.01.2020 14:21	U	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.01.2020 14:21	U	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.01.2020 14:21	U	1
Total BTEX		ND	0.002000		mg/kg	12.01.2020 14:21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	12.01.2020 14:21		

87

540-36-3

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-1 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-003

Date Collected: 11.19.2020 08:27

Analytical Method: Chloride by EPA 300

Analyst:

Tech:

Tech: CHE

Seq Number: 3143449

CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Prep Method: E300P

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.7	4.99	mg/kg	11.25.2020 11:43		1

Analytical Method: TPH by SW8015 Mod

ARM

ARM Analyst: Seq Number: 3143383

Date Prep:

11.26.2020 08:00

% Moisture:

Prep Method: SW8015P

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 12:46	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 12:46	U	1
Surrogate	C	as Number 9	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	105	%	70-130	11.26.2020 12:46
o-Terphenyl	84-15-1	93	%	70-130	11.26.2020 12:46

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-1 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-003

Date Collected: 11.19.2020 08:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143691

Prep Method: SW5035A

Tech:

MNR

MNR Analyst:

Date Prep: 12.01.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
m,p-Xylenes	179601-23-1	ND	0.00401	mg/kg	12.01.2020 14:42	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 14:42	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 14:42	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 14:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.01.2020 14:42	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 14:42	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: EW-1 @ 6" Matrix:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-004

Soil Date Collected: 11.19.2020 08:32

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

% Moisture:

Analyst:

CHE Seq Number: 3143449 Date Prep: 11.25.2020 11:00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.7	4.97	mg/kg	11.25.2020 11:48		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143383 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 13:08	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 13:08
o-Terphenyl	84-15-1	90	%	70-130	11.26.2020 13:08



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: EW-1 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-004

Date Collected: 11.19.2020 08:32

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst:

MNR

Date Prep:

% Moisture: 12.01.2020 08:00

Basis: Wet Weight

Seq Number: 3143691

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	N	D 0.00201		mg/kg	12.01.2020 15:03	U	1
Toluene	108-88-3	N	D 0.00201		mg/kg	12.01.2020 15:03	U	1
Ethylbenzene	100-41-4	N	D 0.00201		mg/kg	12.01.2020 15:03	U	1
m,p-Xylenes	179601-23-1	N	D 0.00402		mg/kg	12.01.2020 15:03	U	1
o-Xylene	95-47-6	N	D 0.00201		mg/kg	12.01.2020 15:03	U	1
Total Xylenes	1330-20-7	N	D 0.002010		mg/kg	12.01.2020 15:03	U	1
Total BTEX		N	D 0.002010		mg/kg	12.01.2020 15:03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	12.01.2020 15:03		
1,4-Difluorobenzene		540-36-3	81	%	70-130	12.01.2020 15:03		



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-2 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-005

Date Collected: 11.19.2020 09:20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

% Moisture:

CHE Analyst:

Date Prep:

11.25.2020 11:00

Seq Number: 3143449

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.8	5.05	mg/kg	11.25.2020 11:53		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143383 Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8		mg/kg	11.26.2020 13:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8		mg/kg	11.26.2020 13:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8		mg/kg	11.26.2020 13:31	U	1
Total TPH	PHC635	ND	49.80		mg/kg	11.26.2020 13:31	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	103	%	70-130	11.26.2020 13:31
o-Terphenyl	84-15-1	98	%	70-130	11.26.2020 13:31



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-2 @ 6" Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-005

Date Collected: 11.19.2020 09:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MNR

Analyst:

MNR

% Moisture: 12.01.2020 08:00

70-130

Seq Number: 3143691

4-Bromofluorobenzene

Basis: Wet Weight

12.01.2020 15:23

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00201		mg/kg	12.01.2020 15:23	U	1
Toluene	108-88-3	ND	0.00201		mg/kg	12.01.2020 15:23	U	1
Ethylbenzene	100-41-4	ND	0.00201		mg/kg	12.01.2020 15:23	U	1
m,p-Xylenes	179601-23-1	ND	0.00402		mg/kg	12.01.2020 15:23	U	1
o-Xylene	95-47-6	ND	0.00201		mg/kg	12.01.2020 15:23	U	1
Total Xylenes	1330-20-7	ND	0.002010		mg/kg	12.01.2020 15:23	U	1
Total BTEX		ND	0.002010		mg/kg	12.01.2020 15:23	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	87	%	70-130	12.01.2020 15:23		

97

460-00-4



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **NW-2** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-006

Date Collected: 11.19.2020 09:25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Basis: Wet Weight

Analyst: CHE Seq Number: 3143449

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 17.2
 4.98
 mg/kg
 11.25.2020 12:09
 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 13:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 13:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 13:53	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 13:53	U	1
Surrogate	C	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	96	%	70-130	11.26.2020 13:53
o-Terphenyl	84-15-1	89	%	70-130	11.26.2020 13:53

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **NW-2** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-006

Date Collected: 11.19.2020 09:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143691

Prep Method: SW5035A

Tech: Analyst: MNR

MNR

Date Prep: 12.01.2020 08:00

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Toluene	108-88-3	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Ethylbenzene	100-41-4	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
m,p-Xylenes	179601-23-1	ND	0.00403	mg/kg	12.01.2020 15:44	U	1
o-Xylene	95-47-6	ND	0.00202	mg/kg	12.01.2020 15:44	U	1
Total Xylenes	1330-20-7	ND	0.002020	mg/kg	12.01.2020 15:44	U	1
Total BTEX		ND	0.002020	mg/kg	12.01.2020 15:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	77	%	70-130	12.01.2020 15:44	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.01.2020 15:44	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-2@ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-007

Date Collected: 11.19.2020 09:28

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Basis:

Wet Weight

CHE Analyst:

Seq Number: 3143449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	75.2	5.00	mg/kg	11.25.2020 12:15		1

Analytical Method: TPH by SW8015 Mod

ARM

Tech: Analyst:

Seq Number: 3143383

ARM

Date Prep:

11.26.2020 08:00

% Moisture:

Prep Method: SW8015P

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 14:16	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	94	%	70-130	11.26.2020 14:16
o-Terphenyl	84-15-1	91	%	70-130	11.26.2020 14:16



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-2@ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-007

Date Collected: 11.19.2020 09:28

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

% Moisture:

MNR Analyst:

Date Prep:

Seq Number: 3143691

12.01.2020 08:00 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 16:05	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 16:05	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 16:05	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 16:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.01.2020 16:05	
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.01.2020 16:05	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **EW-2** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-008

Date Collected: 11.19.2020 09:30

Analytical Method: Chloride by EPA 300

Seq Number: 3143449

Date Collected: 11.19.2020 09:30

Prep Method: E300P

Tech:
Analyst:

CHE

CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.1	5.02	mg/kg	11.25.2020 12:20		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 14:38	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **EW-2** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-008

Date Collected: 11.19.2020 09:30

12.01.2020 08:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Date Prep:

% Moisture:

Analyst:

MNR

Basis: Wet Weight

Seq Number: 3143691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Toluene	108-88-3	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Ethylbenzene	100-41-4	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
m,p-Xylenes	179601-23-1	ND	0.00398	mg/kg	12.01.2020 16:25	U	1
o-Xylene	95-47-6	ND	0.00199	mg/kg	12.01.2020 16:25	U	1
Total Xylenes	1330-20-7	ND	0.001990	mg/kg	12.01.2020 16:25	U	1
Total BTEX		ND	0.001990	mg/kg	12.01.2020 16:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	12.01.2020 16:25	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 16:25	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: WW-2 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-009

Date Collected: 11.19.2020 09:35

Analytical Method: Chloride by EPA 300

Seq Number: 3143449

Prep Method: E300P

CHE Tech:

% Moisture:

CHE Analyst:

Date Prep: 11.25.2020 11:00

Basis:

Wet Weight

Analysis Date Parameter Cas Number Result RLUnits Flag Dil Chloride 16887-00-6 603 11.25.2020 12:25 4.97 mg/kg

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 15:01	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 15:01	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 15:01
o-Terphenyl	84-15-1	98	%	70-130	11.26.2020 15:01



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **WW-2** @ **6**"

Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-009

Date Collected: 11.19.2020 09:35

12.01.2020 08:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

% Moisture:

Analyst: MNR

Basis: Wet Weight

12.01.2020 18:02

70-130

Seq Number: 3143691

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199		mg/kg	12.01.2020 18:02	U	1
Toluene	108-88-3	ND	0.00199		mg/kg	12.01.2020 18:02	U	1
Ethylbenzene	100-41-4	ND	0.00199		mg/kg	12.01.2020 18:02	U	1
m,p-Xylenes	179601-23-1	ND	0.00398		mg/kg	12.01.2020 18:02	U	1
o-Xylene	95-47-6	ND	0.00199		mg/kg	12.01.2020 18:02	U	1
Total Xylenes	1330-20-7	ND	0.001990		mg/kg	12.01.2020 18:02	U	1
Total BTEX		ND	0.001990		mg/kg	12.01.2020 18:02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	92	%	70-130	12.01.2020 18:02		

85

540-36-3

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-3 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-010

Date Collected: 11.19.2020 10:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE CHE

Date Prep: 11.25.2020 11:00 % Moisture:

Analyst: Seq Number: 3143449

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	79.9	4.99	mg/kg	11.25.2020 12:30		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: ARM

ARM

Seq Number: 3143383

Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 15:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 15:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 15:23	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 15:23	U	1
Surrogate	C	as Number 9	% Recovery	Units	Limits	Analysis Date	Flag	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-3 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-010

MNR

Date Collected: 11.19.2020 10:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

% Moisture:

Analyst: Seq Number: 3143691 Date Prep: 12.01.2020 08:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 18:23	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 18:23	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 18:23	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 18:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.01.2020 18:23	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.01.2020 18:23	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: NW-3 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-011

Date Collected: 11.19.2020 10:05

Analytical Method: Chloride by EPA 300

Seq Number: 3143449

Prep Method: E300P

Tech: Analyst: CHE CHE

Date Prep:

11.25.2020 11:00

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	385	4.96	mg/kg	11.25.2020 12:36		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143383 Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 16:08	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: NW-3 @ 6" Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-011

Date Collected: 11.19.2020 10:05

Analytical Method: BTEX by EPA 8021B

12.01.2020 08:00

Tech: MNR

MNR

70-130

% Moisture:

Basis: Wet Weight

12.01.2020 18:43

Prep Method: SW5035A

Analyst: Seq Number: 3143691

1,4-Difluorobenzene

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.01.2020 18:43	U	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.01.2020 18:43	U	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.01.2020 18:43	U	1
m,p-Xylenes	179601-23-1	ND	0.00400		mg/kg	12.01.2020 18:43	U	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.01.2020 18:43	U	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.01.2020 18:43	U	1
Total BTEX		ND	0.002000		mg/kg	12.01.2020 18:43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	118	%	70-130	12.01.2020 18:43		

77

540-36-3



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **SW-3** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-012

Date Collected: 11.19.2020 10:10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep:

% Moisture:

Seq Number: 3143449

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.4	5.04	mg/kg	11.25.2020 12:51		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep:

11.26.2020 08:00

11.25.2020 11:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 16:30	U	1
Surrogate	C	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	94	%	70-130	11.26.2020 16:30
o-Terphenyl	84-15-1	84	%	70-130	11.26.2020 16:30



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **SW-3** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-012

Date Collected: 11.19.2020 10:10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MN

MNR

% Moisture:

Analyst: MNR

Date Prep: 12.01.2020 08:00

Basis: Wet Weight

Seq Number: 3143691

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00201		mg/kg	12.01.2020 19:04	U	1
Toluene	108-88-3	ND	0.00201		mg/kg	12.01.2020 19:04	U	1
Ethylbenzene	100-41-4	NE	0.00201		mg/kg	12.01.2020 19:04	U	1
m,p-Xylenes	179601-23-1	NE	0.00402		mg/kg	12.01.2020 19:04	U	1
o-Xylene	95-47-6	NE	0.00201		mg/kg	12.01.2020 19:04	U	1
Total Xylenes	1330-20-7	NE	0.002010		mg/kg	12.01.2020 19:04	U	1
Total BTEX		NE	0.002010		mg/kg	12.01.2020 19:04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	82	%	70-130	12.01.2020 19:04		
4-Bromofluorobenzene		460-00-4	52	%	70-130	12.01.2020 19:04	**	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-4 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-013

Date Collected: 11.24.2020 11:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

CHE

Date Prep: 11.25.2020 11:00 % Moisture:

Analyst:

Seq Number: 3143449

Basis: Wet Weight

Analysis Date Parameter Cas Number Result RLUnits Flag Dil Chloride 16887-00-6 47.8 11.25.2020 12:57 4.97 mg/kg

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 16:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 16:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 16:53	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 16:53	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	89	%	70-130	11.26.2020 16:53
o-Terphenyl	84-15-1	84	%	70-130	11.26.2020 16:53

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-4** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-013

Date Collected: 11.24.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

1,11,11

% Moisture:

Analyst: MNR

Date Prep: 12.01.2020 08:00

Basis: Wet Weight

Seq	Number:	3143691
DCG	runnoci.	01.0071

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NI	0.00200		mg/kg	12.01.2020 19:24	U	1
Toluene	108-88-3	NI	0.00200		mg/kg	12.01.2020 19:24	U	1
Ethylbenzene	100-41-4	NI	0.00200		mg/kg	12.01.2020 19:24	U	1
m,p-Xylenes	179601-23-1	NI	0.00401		mg/kg	12.01.2020 19:24	U	1
o-Xylene	95-47-6	NI	0.00200		mg/kg	12.01.2020 19:24	U	1
Total Xylenes	1330-20-7	NI	0.002000		mg/kg	12.01.2020 19:24	U	1
Total BTEX		NI	0.002000		mg/kg	12.01.2020 19:24	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	12.01.2020 19:24		
1,4-Difluorobenzene		540-36-3	84	%	70-130	12.01.2020 19:24		

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-5** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-014

Date Collected: 11.19.2020 10:35

Analytical Method: Chloride by EPA 300

vaic Conceicd. 11.17.2020 10.55

Tech: C

Analyst:

CHE CHE

Date Prep: 11.25.2020 11:00

% Moisture:

Seq Number: 3143449

Basis: Wet Weight

Prep Method: E300P

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.0	5.00	mg/kg	11.25.2020 13:13		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 17:15	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 17:15	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	107	%	70-130	11.26.2020 17:15
o-Terphenyl	84-15-1	102	%	70-130	11.26.2020 17:15



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-5** @ **6**"

Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-014

Date Collected: 11.19.2020 10:35

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

0/ 3

12.01.2020 08:00

Teen. White

% Moisture:

Analyst: MNR Seq Number: 3143691

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
m,p-Xylenes	179601-23-1	ND	0.00399	mg/kg	12.01.2020 19:45	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.01.2020 19:45	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.01.2020 19:45	U	1
Total BTEX		ND	0.002000	mg/kg	12.01.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.01.2020 19:45	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.01.2020 19:45	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-6 @ 2' Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-015

Date Collected: 11.19.2020 10:40

Analytical Method: Chloride by EPA 300

Cas Number

16887-00-6

Prep Method: E300P

Tech:

CHE

CHE

Date Prep: 11.25.2020 11:00

RL

5.02

% Moisture:

Analyst: Seq Number: 3143449

Parameter

Chloride

Basis: Wet Weight

Analysis Date Units Flag Dil 11.25.2020 13:18

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep:

Result

92.9

11.26.2020 08:00

Prep Method: SW8015P

Basis:

% Moisture:

mg/kg

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8		mg/kg	11.26.2020 17:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8		mg/kg	11.26.2020 17:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8		mg/kg	11.26.2020 17:37	U	1
Total TPH	PHC635	ND	49.80		mg/kg	11.26.2020 17:37	U	1
Surrogate	C	as Number 9	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	101	%	70-130	11.26.2020 17:37
o-Terphenyl	84-15-1	117	%	70-130	11.26.2020 17:37



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-6 @ 2' Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-015

Date Collected: 11.19.2020 10:40

12.01.2020 08:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MNR

Date Prep:

% Moisture:

Basis:

Wet Weight

MNR Analyst: Seq Number: 3143691

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NI	0.00198		mg/kg	12.01.2020 20:06	U	1
Toluene	108-88-3	NI	0.00198		mg/kg	12.01.2020 20:06	U	1
Ethylbenzene	100-41-4	NI	0.00198		mg/kg	12.01.2020 20:06	U	1
m,p-Xylenes	179601-23-1	NI	0.00397		mg/kg	12.01.2020 20:06	U	1
o-Xylene	95-47-6	NI	0.00198		mg/kg	12.01.2020 20:06	U	1
Total Xylenes	1330-20-7	NI	0.001980		mg/kg	12.01.2020 20:06	U	1
Total BTEX		NI	0.001980		mg/kg	12.01.2020 20:06	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	101	%	70-130	12.01.2020 20:06		
1,4-Difluorobenzene		540-36-3	85	%	70-130	12.01.2020 20:06		

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-6 @ 1' Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-016

Date Collected: 11.19.2020 10:45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Seq Number: 3143449

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	4.98	mg/kg	11.25.2020 13:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

11.26.2020 18:00

Tech:

ARM

ARM Analyst: Seq Number: 3143383

o-Terphenyl

Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

70-130

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	NE	49.9		mg/kg	11.26.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	244	49.9		mg/kg	11.26.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	NE	49.9		mg/kg	11.26.2020 18:00	U	1
Total TPH	PHC635	244.0	49.90		mg/kg	11.26.2020 18:00		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	102	%	70-130	11.26.2020 18:00		

120

84-15-1



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: SW-6 @ 1' Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-016

Date Collected: 11.19.2020 10:45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MNR

12.01.2020 08:00

MNR Analyst:

Date Prep:

% Moisture:

Seq Number: 3143691

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00198		mg/kg	12.01.2020 20:26	U	1
Toluene	108-88-3	ND	0.00198		mg/kg	12.01.2020 20:26	U	1
Ethylbenzene	100-41-4	ND	0.00198		mg/kg	12.01.2020 20:26	U	1
m,p-Xylenes	179601-23-1	ND	0.00396		mg/kg	12.01.2020 20:26	U	1
o-Xylene	95-47-6	ND	0.00198		mg/kg	12.01.2020 20:26	U	1
Total Xylenes	1330-20-7	ND	0.001980		mg/kg	12.01.2020 20:26	U	1
Total BTEX		ND	0.001980		mg/kg	12.01.2020 20:26	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	F
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.01.2020 20:26	
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.01.2020 20:26	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-7 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-017

Date Collected: 11.19.2020 10:40

Analytical Method: Chloride by EPA 300

11.25.2020 11:00

Prep Method: E300P

Tech:

CHE

Date Prep:

% Moisture:

Basis:

Wet Weight

CHE Analyst:

Seq Number: 3143449

Analysis Date Parameter Cas Number Result RLUnits Flag Dil Chloride 16887-00-6 11.25.2020 13:28 23.0 4.95 mg/kg

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143383 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 18:22	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 18:22	U	1
Surrogate	Ca	as Number '	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	113	%	70-130	11.26.2020 18:22
o-Terphenyl	84-15-1	109	%	70-130	11.26.2020 18:22



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-7** @ **6**"

Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-017

Date Collected: 11.19.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

MAID

% Moisture:

Analyst: MNR Seq Number: 3143691 12.01.2020 08:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Toluene	108-88-3	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Ethylbenzene	100-41-4	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
m,p-Xylenes	179601-23-1	ND	0.00398	mg/kg	12.01.2020 20:47	U	1
o-Xylene	95-47-6	ND	0.00199	mg/kg	12.01.2020 20:47	U	1
Total Xylenes	1330-20-7	ND	0.001990	mg/kg	12.01.2020 20:47	U	1
Total BTEX		ND	0.001990	mg/kg	12.01.2020 20:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.01.2020 20:47	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.01.2020 20:47	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-8 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-018

Date Collected: 11.19.2020 10:45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

Analyst:

CHE CHE

Date Prep:

% Moisture: 11.25.2020 11:00

Basis: Wet Weight

Seq Number: 3143449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	227	4.95	mg/kg	11.25.2020 13:34		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

11.26.2020 18:45

11.26.2020 18:45

Tech:

ARM

ARM Analyst: Seq Number: 3143383

1-Chlorooctane

o-Terphenyl

Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

70-130

70-130

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	387	49.9		mg/kg	11.26.2020 18:45		1
Diesel Range Organics (DRO)	C10C28DRO	5110	49.9		mg/kg	11.26.2020 18:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	604	49.9		mg/kg	11.26.2020 18:45		1
Total TPH	PHC635	6101	49.90		mg/kg	11.26.2020 18:45		1
Surrogate	•	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

129

135

111-85-3

84-15-1

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Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-8** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-018

Date Collected: 11.19.2020 10:45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

- -- --

% Moisture:

Analyst: MNR Seq Number: 3143691 Date Prep: 12.01.2020 08:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00199	mg/kg	12.01.2020 21:07	U	1
Toluene	108-88-3	0.00234	0.00199	mg/kg	12.01.2020 21:07		1
Ethylbenzene	100-41-4	0.00785	0.00199	mg/kg	12.01.2020 21:07		1
m,p-Xylenes	179601-23-1	0.0147	0.00398	mg/kg	12.01.2020 21:07		1
o-Xylene	95-47-6	0.0127	0.00199	mg/kg	12.01.2020 21:07		1
Total Xylenes	1330-20-7	0.02740	0.001990	mg/kg	12.01.2020 21:07		1
Total BTEX		0.03759	0.001990	mg/kg	12.01.2020 21:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.01.2020 21:07	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.01.2020 21:07	

Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-9 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-019

Date Collected: 11.19.2020 10:45

Analytical Method: Chloride by EPA 300

Seq Number: 3143449

Tech:

Analyst:

CHE

CHE

Date Prep:

11.25.2020 11:00

% Moisture:

Prep Method: E300P

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	344	4.95	mg/kg	11.25.2020 13:39		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

11.26.2020 19:07

Tech:

ARM

Analyst: ARM Seq Number: 3143383

o-Terphenyl

Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

70-130

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	NE	49.9		mg/kg	11.26.2020 19:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	843	49.9		mg/kg	11.26.2020 19:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	128	49.9		mg/kg	11.26.2020 19:07		1
Total TPH	PHC635	971.0	49.90		mg/kg	11.26.2020 19:07		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	109	%	70-130	11.26.2020 19:07		

113

84-15-1



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-9** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Wet Weight

Lab Sample Id: 678984-019

Date Collected: 11.19.2020 10:45

12.01.2020 12:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Analyst:

MNR Date Prep:

% Moisture:

Basis:

Seq Number: 3143699

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NI	0.00200		mg/kg	12.02.2020 01:55	U	1
Toluene	108-88-3	NI	0.00200		mg/kg	12.02.2020 01:55	U	1
Ethylbenzene	100-41-4	NI	0.00200		mg/kg	12.02.2020 01:55	U	1
m,p-Xylenes	179601-23-1	NI	0.00400		mg/kg	12.02.2020 01:55	U	1
o-Xylene	95-47-6	NI	0.00200		mg/kg	12.02.2020 01:55	U	1
Total Xylenes	1330-20-7	NI	0.002000		mg/kg	12.02.2020 01:55	U	1
Total BTEX		NI	0.002000		mg/kg	12.02.2020 01:55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	0	%	70-130	12.02.2020 01:55	**	
1,4-Difluorobenzene		540-36-3	0	%	70-130	12.02.2020 01:55	**	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-10 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-020

Date Collected: 11.19.2020 10:48

11.25.2020 11:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst:

CHE

Date Prep:

% Moisture:

Basis: Wet Weight

Seq Number: 3143449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	5.05	mg/kg	11.25.2020 13:44		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143383 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 19:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 19:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 19:29	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 19:29	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	98	%	70-130	11.26.2020 19:29
o-Terphenyl	84-15-1	102	%	70-130	11.26.2020 19:29



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-10 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-020

Date Collected: 11.19.2020 10:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143699

Prep Method: SW5035A

Tech:

Analyst:

MNR MNR

Date Prep:

12.01.2020 12:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.02.2020 02:16	U	1
Toluene	108-88-3	0.00380	0.00200		mg/kg	12.02.2020 02:16		1
Ethylbenzene	100-41-4	0.00282	0.00200		mg/kg	12.02.2020 02:16		1
m,p-Xylenes	179601-23-1	0.00489	0.00400		mg/kg	12.02.2020 02:16		1
o-Xylene	95-47-6	0.00392	0.00200		mg/kg	12.02.2020 02:16		1
Total Xylenes	1330-20-7	0.008810	0.002000		mg/kg	12.02.2020 02:16		1
Total BTEX		0.01543	0.002000		mg/kg	12.02.2020 02:16		1
Surrogate	c	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-11 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-021

Date Collected: 11.19.2020 10:51

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE

CHE

Date Prep:

11.25.2020 11:30

% Moisture:

Basis:

Wet Weight

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.9	5.00	mg/kg	11.25.2020 17:10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

11.26.2020 11:16

Tech:

ARM

ARM Analyst:

Date Prep:

% Moisture: 11.26.2020 08:00

70-130

Basis:

Wet Weight

Seq Number: 3143386

o-Terphenyl

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8		mg/kg	11.26.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8		mg/kg	11.26.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8		mg/kg	11.26.2020 11:16	U	1
Total TPH	PHC635	ND	49.80		mg/kg	11.26.2020 11:16	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-130	11.26.2020 11:16		

81

84-15-1

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-11** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-021

Date Collected: 11.19.2020 10:51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: Mi

MNR

% Moisture:

Analyst: MNR

Date Prep: 12.01.2020 12:00

Basis: Wet Weight

12.02.2020 00:33

70-130

Seq Number: 3143699

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.02.2020 00:33	UXF	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.02.2020 00:33	UFX	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.02.2020 00:33	UFX	1
m,p-Xylenes	179601-23-1	ND	0.00400		mg/kg	12.02.2020 00:33	UXF	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.02.2020 00:33	UXF	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.02.2020 00:33	U	1
Total BTEX		ND	0.002000		mg/kg	12.02.2020 00:33	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	4	460-00-4	88	%	70-130	12.02.2020 00:33		

85

540-36-3



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-12** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-022

Date Collected: 11.19.2020 10:54

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

Date Prep:

11.25.2020 11:30

% Moisture:

Basis:

Wet Weight

Analyst: CHE

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	9.72	5.00	mg/kg	11.25.2020 17:26		1	_

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 12:23	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 12:23	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 12:23
o-Terphenyl	84-15-1	81	%	70-130	11.26.2020 12:23

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-12 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Prep Method: SW5035A

Lab Sample Id: 678984-022

Date Collected: 11.19.2020 10:54

Analytical Method: BTEX by EPA 8021B

Tech: MNR

Analyst:

MNR

12.01.2020 12:00

% Moisture:

Seq Number: 3143699

Date Prep: Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00200		mg/kg	12.02.2020 02:36	U	1
Toluene	108-88-3	NE	0.00200		mg/kg	12.02.2020 02:36	U	1
Ethylbenzene	100-41-4	NE	0.00200		mg/kg	12.02.2020 02:36	U	1
m,p-Xylenes	179601-23-1	NE	0.00400		mg/kg	12.02.2020 02:36	U	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.02.2020 02:36	U	1
Total Xylenes	1330-20-7	NE	0.002000		mg/kg	12.02.2020 02:36	U	1
Total BTEX		NE	0.002000		mg/kg	12.02.2020 02:36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	106	%	70-130	12.02.2020 02:36		
1,4-Difluorobenzene		540-36-3	78	%	70-130	12.02.2020 02:36		

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-13 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-023

Date Collected: 11.19.2020 10:58

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

Date Prep:

% Moisture: 11.25.2020 11:30

Basis: Wet Weight

Analyst:

CHE Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.20	5.00	mg/kg	11.25.2020 17:31		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143386 Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 12:46	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 12:46	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 12:46
o-Terphenyl	84-15-1	79	%	70-130	11.26.2020 12:46



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-13** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-023

Date Collected: 11.19.2020 10:58

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

3.63.75

% Moisture:

Analyst: MNR Seq Number: 3143699 Date Prep: 12.01.2020 12:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 02:57	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 02:57	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 02:57	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 02:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.02.2020 02:57	
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.02.2020 02:57	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-14** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-024

Date Collected: 11.19.2020 11:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

Analyst:

CHE

CHE

Date Prep: 11.25.2020 11:30

% Moisture:

Seq Number: 3143456

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.42	5.00	mg/kg	11.25.2020 17:37		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 13:08	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 13:08	U	1
Surrogate	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	88	%	70-130	11.26.2020 13:08
o-Terphenyl	84-15-1	80	%	70-130	11.26.2020 13:08



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-14 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-024

Date Collected: 11.19.2020 11:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MNR

% Moisture:

MNR Analyst: Seq Number: 3143699

Date Prep: 12.01.2020 12:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 03:17	U	1	-
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 03:17	U	1	
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 03:17	U	1	
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 03:17	U	1	
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 03:17	U	1	
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 03:17	U	1	
Total BTEX		ND	0.002000	mg/kg	12.02.2020 03:17	U	1	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.02.2020 03:17	
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.02.2020 03:17	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-15 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-025

Date Collected: 11.19.2020 11:02

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

Analyst:

CHE

CHE

Date Prep: 11.25.2020 11:30 % Moisture:

Basis:

Wet Weight

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.8	5.00	mg/kg	11.25.2020 17:42		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143386 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 13:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 13:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 13:31	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 13:31	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	93	%	70-130	11.26.2020 13:31
o-Terphenyl	84-15-1	82	%	70-130	11.26.2020 13:31



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-15 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-025

Date Collected: 11.19.2020 11:02

12.01.2020 12:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Date Prep:

% Moisture:

Analyst:

MNR Seq Number: 3143699

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 03:38	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 03:38	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 03:38	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 03:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.02.2020 03:38	
1,4-Difluorobenzene	540-36-3	75	%	70-130	12.02.2020 03:38	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-16** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-026

Date Collected: 11.19.2020 11:03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

Date Prep:

11.25.2020 11:30 % N

% Moisture:

Basis: Wet Weight

Analyst: CHE

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.80	5.00	mg/kg	11.25.2020 17:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Wet Weight

Flag

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8	mg/kg	11.26.2020 13:53	U	1
Total TPH	PHC635	ND	49.80	mg/kg	11.26.2020 13:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	97	%	70-130	11.26.2020 13:53
o-Terphenyl	84-15-1	87	%	70-130	11.26.2020 13:53



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-16** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-026

Date Collected: 11.19.2020 11:03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

R

% Moisture:

Analyst:

MNR

Date Prep: 12.01.2020 12:00

Basis: Wet Weight

Seq Number: 3143699

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.02.2020 05:02	U	1
Toluene	108-88-3	0.00302	0.00200		mg/kg	12.02.2020 05:02		1
Ethylbenzene	100-41-4	0.00251	0.00200		mg/kg	12.02.2020 05:02		1
m,p-Xylenes	179601-23-1	0.00489	0.00400		mg/kg	12.02.2020 05:02		1
o-Xylene	95-47-6	0.00365	0.00200		mg/kg	12.02.2020 05:02		1
Total Xylenes	1330-20-7	0.008540	0.002000		mg/kg	12.02.2020 05:02		1
Total BTEX		0.01407	0.002000		mg/kg	12.02.2020 05:02		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	102	%	70-130	12.02.2020 05:02		
1,4-Difluorobenzene		540-36-3	82	%	70-130	12.02.2020 05:02		



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-17** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-027

Date Collected: 11.19.2020 11:20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

CHE

1 25 2020 11.20

% Moisture:

Analyst:

Seq Number: 3143456

Date Prep: 11.25.2020 11:30

Basis: Wet Weight

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 8.83
 5.00
 mg/kg
 11.25.2020 18:03
 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 14:16	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 14:16	U	1
Surrogate	C	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	92	%	70-130	11.26.2020 14:16
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 14:16



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-17** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-027

Date Collected: 11.19.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech:

MNR

% Moisture:

Analyst:

MNR

Date Prep: 12.01.2020 12:00

Basis: Wet Weight

12.02.2020 05:22

70-130

Seq Number: 3143699

1,4-Difluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00200		mg/kg	12.02.2020 05:22	U	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.02.2020 05:22	U	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.02.2020 05:22	U	1
m,p-Xylenes	179601-23-1	NE	0.00400		mg/kg	12.02.2020 05:22	U	1
o-Xylene	95-47-6	NE	0.00200		mg/kg	12.02.2020 05:22	U	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.02.2020 05:22	U	1
Total BTEX		ND	0.002000		mg/kg	12.02.2020 05:22	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	12.02.2020 05:22		

86

540-36-3

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-18 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-028

Date Collected: 11.19.2020 11:30

11.25.2020 11:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE CHE

Date Prep:

% Moisture:

Basis:

Wet Weight

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.29	5.00	mg/kg	11.25.2020 18:08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143386 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 14:38	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 14:38	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	93	%	70-130	11.26.2020 14:38
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 14:38



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-18 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-028

Date Collected: 11.19.2020 11:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143699

Prep Method: SW5035A

Flag

U

Dil

1

Tech: MNR

Analyst:

MNR

Date Prep:

12.01.2020 12:00

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 05:43
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 05:43
Ethylbenzene	100-41-4	ND	0.00200	mø/kø	12.02.2020.05:43

1
1
1
1
1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	12.02.2020 05:43	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.02.2020 05:43	



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-19 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-029

Date Collected: 11.19.2020 11:40

RL

5.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

CHE Tech:

Analyst:

Parameter

Chloride

CHE

Date Prep:

12.4

Result

11.25.2020 11:30

Units

mg/kg

% Moisture:

Analysis Date

11.25.2020 18:14

Seq Number: 3143456

Basis:

Wet Weight

Flag

Dil

Analytical Method: TPH by SW8015 Mod

Cas Number

16887-00-6

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 15:01	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 15:01	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	96	%	70-130	11.26.2020 15:01
o-Terphenyl	84-15-1	90	%	70-130	11.26.2020 15:01



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-19 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-029

Date Collected: 11.19.2020 11:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

MNR

% Moisture:

Analyst: Seq Number: 3143699 Date Prep: 12.01.2020 12:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 06:03	U	1
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 06:03	U	1
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 06:03	U	1
Total BTEX		ND	0.002000	mg/kg	12.02.2020 06:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	12.02.2020 06:03	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.02.2020 06:03	

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-20 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-030

Date Collected: 11.19.2020 13:01

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

% Moisture:

Analyst:

CHE

Date Prep: 11.25.2020 11:30

Seq Number: 3143456

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	9.08	5.00	mg/kg	11.25.2020 18:19		1	_

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst:

Seq Number: 3143386

Date Prep:

11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 15:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 15:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 15:23	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 15:23	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	92	%	70-130	11.26.2020 15:23
o-Terphenyl	84-15-1	83	%	70-130	11.26.2020 15:23



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-20** @ **6**"

Matrix: Soil

Date Prep:

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-030

Date Collected: 11.19.2020 13:01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

1,11,11

% Moisture:

Analyst: MNR

MNR

12.01.2020 12:00 % Moisture: Basis: Wet Weight

Seq Number: 3143699

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NI	0.00200		mg/kg	12.02.2020 06:24	U	1
Toluene	108-88-3	NI	0.00200		mg/kg	12.02.2020 06:24	U	1
Ethylbenzene	100-41-4	NI	0.00200		mg/kg	12.02.2020 06:24	U	1
m,p-Xylenes	179601-23-1	NI	0.00400		mg/kg	12.02.2020 06:24	U	1
o-Xylene	95-47-6	NI	0.00200		mg/kg	12.02.2020 06:24	U	1
Total Xylenes	1330-20-7	NI	0.002000		mg/kg	12.02.2020 06:24	U	1
Total BTEX		NI	0.002000		mg/kg	12.02.2020 06:24	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	50	%	70-130	12.02.2020 06:24	**	
1,4-Difluorobenzene		540-36-3	88	%	70-130	12.02.2020 06:24		

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-21 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-031

Date Collected: 11.19.2020 13:10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

CHE

Date Prep: 11.25.2020 11:30 % Moisture:

Analyst:

Seq Number: 3143456

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.55	5.00	mg/kg	11.25.2020 18:24		1

Analytical Method: TPH by SW8015 Mod

ARM

Tech: Analyst:

Seq Number: 3143386

ARM

Date Prep:

11.26.2020 08:00

% Moisture:

Prep Method: SW8015P

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 16:08	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 16:08	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	85	%	70-130	11.26.2020 16:08
o-Terphenyl	84-15-1	77	%	70-130	11.26.2020 16:08



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-21 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-031

Date Collected: 11.19.2020 13:10

Analytical Method: BTEX by EPA 8021B

1,4-Difluorobenzene

Prep Method: SW5035A

Tech:

MNR MNR

Date Prep: 12.01.2020 12:00 % Moisture:

Analyst: Seq Number: 3143699

Basis: Wet Weight

12.02.2020 06:45

70-130

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.02.2020 06:45	U	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.02.2020 06:45	U	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.02.2020 06:45	U	1
m,p-Xylenes	179601-23-1	ND	0.00400		mg/kg	12.02.2020 06:45	U	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.02.2020 06:45	U	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.02.2020 06:45	U	1
Total BTEX		ND	0.002000		mg/kg	12.02.2020 06:45	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	98	%	70-130	12.02.2020 06:45		

80

540-36-3



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-22 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-032

Date Collected: 11.19.2020 13:13

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

CHE Analyst:

11.25.2020 11:30

% Moisture:

Seq Number: 3143456

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.07	5.00	mg/kg	11.25.2020 18:40		1

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

ARM Analyst: Seq Number: 3143386 Date Prep: 11.26.2020 08:00 % Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	50.0		mg/kg	11.26.2020 16:30	U	1
Total TPH	PHC635	ND	50.00		mg/kg	11.26.2020 16:30	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	87	%	70-130	11.26.2020 16:30
o-Terphenyl	84-15-1	78	%	70-130	11.26.2020 16:30

Dil 1

1



Certificate of Analytical Results 678984

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-22** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-032

Date Collected: 11.19.2020 13:13

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Total BTEX

Date Prep: 12.01.2020 12:00

% Moisture:

mg/kg

Basis: Wet Weight

12.02.2020 07:05

U

Analyst: MNR

Seq Number: 3143699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag]
Benzene	71-43-2	ND	0.00200	mg/kg	12.02.2020 07:05	U	
Toluene	108-88-3	ND	0.00200	mg/kg	12.02.2020 07:05	U	
Ethylbenzene	100-41-4	ND	0.00200	mg/kg	12.02.2020 07:05	U	
m,p-Xylenes	179601-23-1	ND	0.00400	mg/kg	12.02.2020 07:05	U	
o-Xylene	95-47-6	ND	0.00200	mg/kg	12.02.2020 07:05	U	
Total Xylenes	1330-20-7	ND	0.002000	mg/kg	12.02.2020 07:05	U	

ND

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	12.02.2020 07:05	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.02.2020 07:05	

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Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-23**@ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-033

Date Collected: 11.19.2020 13:18

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE

CHE

Date Prep: 11.25.2020 11:30

% Moisture:

Basis: Wet Weight

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.13	5.00	mg/kg	11.25.2020 18:45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.8		mg/kg	11.26.2020 16:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.8		mg/kg	11.26.2020 16:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.8		mg/kg	11.26.2020 16:53	U	1
Total TPH	PHC635	ND	49.80		mg/kg	11.26.2020 16:53	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	95	%	70-130	11.26.2020 16:53
o-Terphenyl	84-15-1	88	%	70-130	11.26.2020 16:53



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-23@ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-033

Date Collected: 11.19.2020 13:18

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MNR

Date Prep:

% Moisture: 12.01.2020 12:00

Basis: Wet Weight

MNR Analyst:

Seq Number: 3143699

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00200		mg/kg	12.02.2020 07:26	U	1
Toluene	108-88-3	NE	0.00200		mg/kg	12.02.2020 07:26	U	1
Ethylbenzene	100-41-4	NE	0.00200		mg/kg	12.02.2020 07:26	U	1
m,p-Xylenes	179601-23-1	NE	0.00400		mg/kg	12.02.2020 07:26	U	1
o-Xylene	95-47-6	NE	0.00200		mg/kg	12.02.2020 07:26	U	1
Total Xylenes	1330-20-7	NE	0.002000		mg/kg	12.02.2020 07:26	U	1
Total BTEX		NE	0.002000		mg/kg	12.02.2020 07:26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	12.02.2020 07:26		
1,4-Difluorobenzene		540-36-3	80	%	70-130	12.02.2020 07:26		



Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: **BH-24** @ **6**"

Matrix: Soil

Date Received:11.24.2020 16:37

Lab Sample Id: 678984-034

Date Collected: 11.19.2020 13:24

11.25.2020 11:30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst:

CHE

Date Prep:

% Moisture:

Basis: Wet Weight

Seq Number: 3143456

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.80	5.00	mg/kg	11.25.2020 19:01		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

ARM

Analyst: ARM Seq Number: 3143386 Date Prep: 11.26.2020 08:00

% Moisture:

Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	ND	49.9		mg/kg	11.26.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	ND	49.9		mg/kg	11.26.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	ND	49.9		mg/kg	11.26.2020 17:15	U	1
Total TPH	PHC635	ND	49.90		mg/kg	11.26.2020 17:15	U	1
Surrogate	Ca	as Number %	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
1-Chlorooctane	111-85-3	89	%	70-130	11.26.2020 17:15
o-Terphenyl	84-15-1	80	%	70-130	11.26.2020 17:15

Etech Environmental & Safety Solution, Inc, Midland, TX

Mango BRM State 1H

Sample Id: BH-24 @ 6" Matrix: Soil Date Received:11.24.2020 16:37

Lab Sample Id: 678984-034

Date Collected: 11.19.2020 13:24

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

MNR Tech:

MNR

% Moisture:

Analyst: Seq Number: 3143699 Date Prep: 12.01.2020 12:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00200		mg/kg	12.02.2020 07:47	U	1
Toluene	108-88-3	ND	0.00200		mg/kg	12.02.2020 07:47	U	1
Ethylbenzene	100-41-4	ND	0.00200		mg/kg	12.02.2020 07:47	U	1
m,p-Xylenes	179601-23-1	ND	0.00400		mg/kg	12.02.2020 07:47	U	1
o-Xylene	95-47-6	ND	0.00200		mg/kg	12.02.2020 07:47	U	1
Total Xylenes	1330-20-7	ND	0.002000		mg/kg	12.02.2020 07:47	U	1
Total BTEX		ND	0.002000		mg/kg	12.02.2020 07:47	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.02.2020 07:47
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.02.2020 07:47



Flagging Criteria

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- ** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate MS Matrix Spike MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

E300P Analytical Method: Chloride by EPA 300 Prep Method: Seg Number: 3143449 Matrix: Solid Date Prep: 11.25.2020

7715957-1-BLK LCS Sample Id: 7715957-1-BKS LCSD Sample Id: 7715957-1-BSD MB Sample Id:

RPD MB Spike LCS LCS Limits %RPD Units Analysis LCSD LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date Chloride < 5.00 250 258 103 259 90-110 0 20 11.25.2020 11:11 104 mg/kg

Analytical Method: Chloride by EPA 300

Xenco

E300P Prep Method: Seq Number: 3143456 Matrix: Solid Date Prep: 11.25.2020

LCS Sample Id: 7715965-1-BKS LCSD Sample Id: 7715965-1-BSD MB Sample Id: 7715965-1-BLK

MB Spike LCS LCS LCSD LCSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result 20 11.25.2020 17:00 Chloride < 5.00 250 261 104 263 105 90-110 1 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: 3143449 Matrix: Soil Date Prep: 11.25.2020

MS Sample Id: 678984-001 S MSD Sample Id: 678984-001 SD Parent Sample Id: 678984-001

Spike **RPD Parent** MS MS %RPD Units Analysis MSD **MSD** Limite Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec Chloride 250 20 11.25.2020 11:27 19.5 276 103 2.77 103 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

3143449 Matrix: Soil Seq Number: Date Prep: 11.25.2020

Parent Sample Id: 678984-011 MS Sample Id: 678984-011 S MSD Sample Id: 678984-011 SD

RPD Parent Spike MS MS MSD MSD Limits %RPD Units Analysis Flag **Parameter** Result Limit Date Result Amount %Rec %Rec Result 11.25.2020 12:41 20 Chloride 385 248 651 107 650 107 90-110 0 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: Seq Number: 3143456 Matrix: Soil Date Prep: 11.25.2020

678984-021 SD Parent Sample Id: 678984-021 MS Sample Id: 678984-021 S MSD Sample Id:

Parent Spike MS MS Limits RPD Units Analysis MSD MSD Flag **Parameter** Result Limit Date Result Amount %Rec Result %Rec 11.25.2020 17:16 Chloride 11.9 250 269 103 2.70 103 90-110 0 20 mg/kg

Analytical Method: Chloride by EPA 300

Parent

3143456 Seq Number: Matrix: Soil Date Prep: 11.25.2020

678984-031 S MSD Sample Id: 678984-031 SD MS Sample Id: Parent Sample Id: 678984-031 MS

MS

Spike %RPD RPD **MSD** MSD Analysis Flag **Parameter** Result Result Limit Date Amount %Rec %Rec Result 11.25.2020 18:29 102 20 Chloride 8.55 250 264 264 102 90-110 0 mg/kg

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result

Limits

%RPD

= MS/LCS Result = MSD/LCSD Result

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

E300P

Units

E300P

E300P

Prep Method:

Prep Method:

Prep Method:

Flag

Flag



QC Summary 678984

Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method:TPH by SW8015 ModPrep Method:SW8015PSeq Number:3143383Matrix:SolidDate Prep:11.26.2020MB Sample Id:7716025-1-BLKLCS Sample Id:7716025-1-BKSLCSD Sample Id:7716025-1-BSD

RPD MB Spike LCS LCS Limits %RPD Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec %Rec Limit Date Result Gasoline Range Hydrocarbons (GRO) 1000 928 93 20 11.26.2020 10:30 < 50.0 948 95 70-130 2. mg/kg 11.26.2020 10:30 Diesel Range Organics (DRO) 1000 1090 109 1060 70-130 3 20 mg/kg < 50.0 106 MB MB LCS LCS LCSD Limits Units Analysis LCSD

Surrogate Flag %Rec Flag Flag Date %Rec %Rec 11.26.2020 10:30 1-Chlorooctane 101 117 117 70-130 % 11.26.2020 10:30 o-Terphenyl 99 112 111 70-130 %

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

 Seq Number:
 3143386
 Matrix:
 Solid
 Date Prep:
 11.26.2020

 MB Sample Id:
 7716029-1-BLK
 LCS Sample Id:
 7716029-1-BSD

MB Spike LCS LCS Limits %RPD **RPD** Units Analysis LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) 912 91 20 11.26.2020 10:30 < 50.0 1000 945 95 70-130 4 mg/kg 11.26.2020 10:30 Diesel Range Organics (DRO) < 50.0 1000 925 93 881 88 70-130 5 20 mg/kg

MB MB LCS LCS LCSD Limits Units LCSD Analysis Surrogate %Rec %Rec Flag Flag %Rec Flag Date 11.26.2020 10:30 1-Chlorooctane 97 102 98 70-130 % 11.26.2020 10:30 o-Terphenyl 99 97 90 70-130 %

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3143383 Matrix: Solid Date Prep: 11.26.2020

MB Sample Id: 7716025-1-BLK

Analytical Method:TPH by SW8015 ModPrep Method:SW8015PSeq Number:3143386Matrix:SolidDate Prep:11.26.2020

MB Sample Id: 7716029-1-BLK

Motor Oil Range Hydrocarbons (MRO)

ND

mg/kg 11.26.2020 10:07

Flag

Flag



Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method: TPH by SW8015 Mod SW8015P Prep Method: Seq Number: 3143383 Matrix: Soil Date Prep: 11.26.2020 Parent Sample Id: 678984-001 MS Sample Id: 678984-001 S MSD Sample Id: 678984-001 SD

RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD MSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.0 1000 20 11.26.2020 11:38 1150 115 1080 108 70-130 6 mg/kg 11.26.2020 11:38 mg/kg Diesel Range Organics (DRO) < 50.0 1000 1130 113 1100 70-130 3 20 110

MS MS **MSD** Limits Units Analysis MSD **Surrogate** %Rec Flag Flag Date %Rec 11.26.2020 11:38 1-Chlorooctane 118 109 70-130 % 11.26.2020 11:38 o-Terphenyl 89 86 70-130 %

SW8015P Analytical Method: TPH by SW8015 Mod Prep Method: 3143386 Seq Number: Matrix: Soil Date Prep: 11.26.2020 MS Sample Id: 678984-021 S MSD Sample Id: 678984-021 SD Parent Sample Id: 678984-021

Parent Spike MS MS MSD Limits %RPD **RPD** Units Analysis MSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 11.26.2020 11:38 Gasoline Range Hydrocarbons (GRO) 92 20 < 50.0 999 924 870 70-130 87 6 mg/kg 11.26.2020 11:38 Diesel Range Organics (DRO) < 50.0 999 935 94 911 91 70-130 3 20 mg/kg

MS MS MSD Limits Units MSD Analysis **Surrogate** Date %Rec Flag %Rec Flag 11.26.2020 11:38 1-Chlorooctane 96 93 70-130 % o-Terphenyl 11.26.2020 11:38 85 78 70-130 %

SW5035A Analytical Method: BTEX by EPA 8021B Prep Method: Seq Number: 3143691 Matrix: Solid Date Prep: 12.01.2020

LCS Sample Id: 7716252-1-BKS LCSD Sample Id: 7716252-1-BSD MB Sample Id: 7716252-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	I
Benzene	< 0.00200	0.100	0.0857	86	0.110	110	70-130	25	35	mg/kg	12.01.2020 10:57	
Toluene	< 0.00200	0.100	0.0893	89	0.102	102	70-130	13	35	mg/kg	12.01.2020 10:57	
Ethylbenzene	< 0.00200	0.100	0.0870	87	0.0988	99	70-130	13	35	mg/kg	12.01.2020 10:57	
m,p-Xylenes	< 0.00400	0.200	0.169	85	0.190	95	70-130	12	35	mg/kg	12.01.2020 10:57	
o-Xylene	< 0.00200	0.100	0.0866	87	0.0959	96	70-130	10	35	mg/kg	12.01.2020 10:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		94		70-130	%	12.01.2020 10:57
4-Bromofluorobenzene	92		93		91		70-130	%	12.01.2020 10:57

Flag



Etech Environmental & Safety Solution, Inc

Mango BRM State 1H

Analytical Method:BTEX by EPA 8021BPrep Method:SW5035ASeq Number:3143699Matrix:SolidDate Prep:12.01.2020MB Sample Id:7716253-1-BLKLCS Sample Id:7716253-1-BKSLCSD Sample Id:7716253-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	1
Benzene	< 0.00200	0.100	0.102	102	0.109	109	70-130	7	35	mg/kg	12.02.2020 11:11	
Toluene	< 0.00200	0.100	0.0984	98	0.103	103	70-130	5	35	mg/kg	12.02.2020 11:11	
Ethylbenzene	< 0.00200	0.100	0.100	100	0.107	107	70-130	7	35	mg/kg	12.02.2020 11:11	
m,p-Xylenes	< 0.00400	0.200	0.191	96	0.203	102	70-130	6	35	mg/kg	12.02.2020 11:11	
o-Xylene	< 0.00200	0.100	0.0942	94	0.101	101	70-130	7	35	mg/kg	12.02.2020 11:11	
Surrogate	MB %Rec	MB Flag	LC %F		LCS Flag	LCSI			mits	Units	Analysis Date	

 1,4-Difluorobenzene
 81
 91
 92
 70-130
 %
 12.02.2020 11:11

 4-Bromofluorobenzene
 96
 92
 95
 70-130
 %
 12.02.2020 11:11

Analytical Method:BTEX by EPA 8021BPrep Method:SW5035ASeq Number:3143691Matrix:SoilDate Prep:12.01.2020

Parent Sample Id: 678984-001 MS Sample Id: 678984-001 S MSD Sample Id: 678984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0387	39	0.0759	76	70-130	65	35	mg/kg	12.01.2020 11:39	XF
Toluene	< 0.00200	0.0998	0.0458	46	0.0683	68	70-130	39	35	mg/kg	12.01.2020 11:39	XF
Ethylbenzene	< 0.00200	0.0998	0.0257	26	0.0383	38	70-130	39	35	mg/kg	12.01.2020 11:39	XF
m,p-Xylenes	< 0.00399	0.200	0.0748	37	0.0985	49	70-130	27	35	mg/kg	12.01.2020 11:39	X
o-Xylene	< 0.00200	0.0998	0.0505	51	0.0633	63	70-130	22	35	mg/kg	12.01.2020 11:39	X

MS MS MSD MSD Limits Units Analysis **Surrogate** Flag Flag Date %Rec %Rec 12.01.2020 11:39 91 1,4-Difluorobenzene 76 70-130 % 12.01.2020 11:39 4-Bromofluorobenzene 105 98 70-130 %

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

 Seq Number:
 3143699
 Matrix:
 Soil
 Date Prep:
 12.01.2020

 Parent Sample Id:
 678984-021
 MS Sample Id:
 678984-021 S
 MSD Sample Id:
 678984-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0353	35	0.0918	92	70-130	89	35	mg/kg	12.01.2020 22:51	XF
Toluene	< 0.00200	0.100	0.0278	28	0.0897	90	70-130	105	35	mg/kg	12.01.2020 22:51	XF
Ethylbenzene	< 0.00200	0.100	0.0251	25	0.0888	89	70-130	112	35	mg/kg	12.01.2020 22:51	XF
m,p-Xylenes	< 0.00400	0.200	0.0474	24	0.171	86	70-130	113	35	mg/kg	12.01.2020 22:51	XF
o-Xylene	< 0.00200	0.100	0.0312	31	0.0866	87	70-130	94	35	mg/kg	12.01.2020 22:51	XF

Surrogate	MS %Rec	MS Flag	111010	ISD Limits Flag	Units	Analysis Date
1,4-Difluorobenzene	95		89	70-130	%	12.01.2020 22:51
4-Bromofluorobenzene	67	**	97	70-130	%	12.01.2020 22:51

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference [D] = 100*(C-A) / B RPD = 200* | (C-E) / (C+E) | [D] = 100 * (C) / [B] Log Diff = Log(Sample Duplic

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result

C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec



Address:

City, State ZIP:

PO Box 62228 Midland, Texas 79711 432-563-2200

Email: Matt@etechenv.com wesley@etechenv.com

Project Manager:

Matt Green

Company Name:

Etech Environmental & Safety Solutions, Inc

Bill to: (if different)
Company Name:
Address:

Centennial

City, State ZIP:

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701

Atlanta, GA (770) 449-8800

Work Order No: 678984

Revised Date101419 Rev 2019 1								
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169	1	4						3
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Received by: (Signature) Date/Time	Relinquished by: (Signature)	me	Date/Time		Received by: (Signature	Received	ture)	Relinquished by: (Signature)
ond the control gotiated.	of Xenco. A minimum charge of \$75,00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	s incurred by ti but not analyze	nitted to Xenco,	each sample sub	charge of \$5 for	ach project and a	.00 will be applied to	of Xenco. A minimum charge of \$7
and conditions	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for the co	(enco, its affilia	int company to	se order from clic	es a valid purcha	samples constitut	and relinquishment of	Notice: Signature of this document of service. Xenco will be liable only
NORM TAT circle one:7 day, 5 day , Rush 3 day				1				
		×	1 X		1000	11/19/2020		BH-3 @ 6"
		×	1 ×		935	11/19/2020		WW-2 @ 6"
		×	1 ×		930	11/19/2020		EW-2 @ 6"
		×	1 X		928	11/19/2020		SW-2 @ 6"
		×	1 ×		925	11/19/2020		NW-2 @ 6"
		×	1 ×		920	11/19/2020		BH-2 @ 6"
		×	-1 ×		832	11/19/2020		EW-1 @ 6"
		×	1 ×		827	11/19/2020		SW-1 @ 6"
		×	1 ×		825	11/19/2020		NW-1 @ 6"
		×	ı ×		820	11/19/2020		BH-1 @ 6"
Sample Comments		BTEX 8	Code TPH 80	Depth Numb	Time Sampled	Date Sampled	n Matrix	Sample Identification
lab, if received by 4:30pm					rs:	Total Containers	Yes No (N/A)	Sample Custody Seals:
121). G	tor: (Correction Factor	Yes No (N/A	Cooler Custody Seals:
Zn Acetate+ NaOH: Zn					711		(Yes No	Received Intact:
MeOH: Me	-				Thermometer JD	7	2.010.D	Temperature (°C):
NaOH: Na			3/1	Yes) No	Wet Ice: /	Yes (No)	Temp Blank:	SAMPLE RECEIPT
None: NO				<i>y</i>	OE +0C# ·	pat# or L	AFE# OF	PO#:
HCL: HL					Due Date	silets	Wesley Desilets	Sampler's Name:
H2S04: H2					Rush:	W Mexico	Lea County, New Mexico	Project Location
HNO3: HN					CONTRACT		12969	Project Number:
Preservative Codes	ANALYSIS REQUEST			Turn Around	l Tun	State 1H	Mango BRM State 1H	Project Name:

Reporting:Level I ☐ Level I I ☐ PST/UST ☐ TRRF☐ Level I ☑

ADaPT []

Other: contract

Deliverables: EDD

Work Order Comments

www.xenco.com

State of Project: NM



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701

Atlanta, GA (770) 449-8800

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	OCUMPACION)	24-1K			<u>Γ</u>	1		har s	White he
Date/Time	Recejved by: (Signature)	Relinquished by (Signature)	Te	Date/Time		(e)	Received by: (Signature)	Received I		(Signature)	Relinquished by: (Signature)
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	es beyond the control	or service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be applied to each project and a charge of \$5 for each sample submitted to Xenco.	incurred by	r expenses	losses o	onsibility for any r each sample sı	sume any respo	s and shall not as ach project and a	it of samples applied to ea	ble only for the cos je of \$75.00 will be	or service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco hut not analyzed. These forms will be
	terms and conditions	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	nco, its affi	npany to Xe	client cor	nase order from (tes a valid purch	samples constitu	ishment of s	cument and relinqu	Notice: Signature of this do
7 day, 5 day , Rush 3 day	NORM TAT circle one: 7 da										
			×	×	1		1048	11/19/2020		<u>ල</u>	BH-10 @ 6"
			×	×	-		1045	11/19/2020		6"	BH-9 @ 6"
			×	×	_		1045	11/19/2020		6"	BH-8 @ 6"
			×	×	_		1040	11/19/2020		<u>ြ</u>	BH-7 @ 6"
			×	×	_		1045	11/19/2020		1-	SW-6 @ 1'
			×	×	_		1040	11/19/2020		2'	BH-6 @ 2'
			×	×			1035	11/19/2020		6"	BH-5 @ 6"
			×	×	_	11:15 00	1	11/24/2020		O _I	BH-4 @ 6"
			×	×	-		1010	11/19/2020		6"	SW-3 @ 6"
			×	×	_		1005	11/19/2020		ယူ	NW-3 @ 3"
Sample Comments	Sa		Chlorid	TPH 80 BTEX 8	Numb Code	Depth	Time Sampled	Date Sampled	Matrix	fication	Sample Identification
lab, if received by 4:30pm	lat, stan				er of		ers:	Total Containers:	N/A	: Yes No	Sample Custody Seals:
				<u>-</u>	Co		ctor:	Correction Factor:	NA	Yes No	Cooler Custody Seals:
Zn Acetate+ NaOH· Zn	Zn Acetat				nta				S _O	Yes	Received Intact:
<u> </u>	MeOH: Me				inei	D	Thermometer ID				Temperature (°C):
w '	NaOH: Na				rs/Pı	Yes No	Wet ice:	Yes No	Temp Blank:		SAMPLE RECEIPT
	None: NO				rese		#00# B() 10 4/80	AFE# OF		PO#:
ī	HOI: H				rva)ate:	Due Date	silets	Wesley Desilets	5	Sampler's Name:
ن :	H2S04: H2				tive		Rush:	Lea County, New Mexico	ounty, Ne	Lea Co	Project Location
Z	HNO3: HN					RACT □	CONTRACT		12969		Project Number:
Preservative Codes	Pre	ANALYSIS REQUEST				Turn Around	2	State 1H	Mango BRM State 1H	Man	Project Name:
Other: contract	Deliverables: EDD ☐ ADaPT ☐		y@etech	m wesle	env.co	Email: Matt@etechenv.com wesley@etechenv.com	Email:			432-563-2200	Phone:
TRRF☐ Level N☐	Reporting:Level I Level I PST/UST TR	Reporti			P	City, State ZIP			79711	Midland, Texas 79711	City, State ZIP:
	State of Project: NM	Stat				Address:				PO Box 62228	Address:
RC ∏Superfund ∏	Program: UST/PST	Progra	3	Centennial		Company Name:	ons, Inc	Safety Soluti	nental & S	Etech Environmental & Safety Solutions, Inc	Company Name:
	Work Order Comments				int)	Bill to: (if different)				Matt Green	Project Manager:
of	www.xenco.com Page							-			

4	
	Work Order No:
	Pr No:
	2010
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Revised Date101419 Rev. 2019.1



Chain of Custody

Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Atlanta, GA (770) 449-8800

Address:	PO Box 62228		Address:				State of Project: NM
City, State ZIP:	Midland, Texas 79711	11	City, State ZIP	te ZIP:		Rep	Reporting:Level I Level I PST/UST TRRF Level I
Phone:	432-563-2200		Email: Matt@e	Email: Matt@etechenv.com_wesley@etechenv.com	ley@eteche		Deliverables: EDD ☐ ADaPT ☐ Other: contract
Project Name:	Mango Bi	Mango BRM State 1H	Turn Around	ā		ANALYSIS REQUEST	Preservative Codes
Project Number:	1	12969	CONTRACT				HNO3: HN
Project Location	Lea County	Lea County, New Mexico	Rush:	tive			1300A: L3
Sampler's Name:	Wesle	Wesley Desilets	Due Date:	rva			
PO#:	#EE#	1 10	OE +CC#	ese		-	
SAMPLE RECEIPT	IPT Temp Blank:	Yes No	Wet Ice: Yes	S/Pro			NOTE: NO
Temperature (°C):			-				MacCit: Na
Received Intact:	Yes No			ntai			Zn Anglatet Nagou: Zn
Cooler Custody Seals	Yes No	N/A Correction Factor:	ctor:	Coi	00		Lii Awaic F NaOri, Zii
Sample Custody Seals	Yes No	N/A Total Containers	S.S.	5M			IAI starts the day received by the lab, if received by 4:30pm
Sample Identification	tification Matrix	trix Date Sampled	Time Depth	Numbe Code TPH 801	BTEX 86		Sample Comments
BH-11 @ 6"	@ 6"	11/19/2020	1051	1 ×			
BH-12 @ 6"	@ 6	11/19/2020	1054	1 ×	×		
BH-13 @ 6"	@ 6	11/19/2020	1058	1 ×	\dashv		
BH-14 @ 6"	@ 6"	11/19/2020	1100		×		
BH-15 @ 6"	ල ල	11/19/2020	1102	_	×		
BH-16 @ 6"	<u>ල</u>	11/19/2020	1103	1 ×	×		
BH-17 @ 6"	@ 6"	11/19/2020	1120	1 ×	×		
BH-18 @ 6"	@ 6"	11/19/2020	1130	1 ×	×		
BH-19 @ 6"	@ 6"	11/19/2020	1140	1 X	×		
BH-20 @ 6'	@ 6"	11/19/2020	1301	1 X 3	x x		
							NORM TAT circle one:7 day, 5 day , Rush 3 day
Notice: Signature of this d of service. Xenco will be I of Xenco. A minimum cha	locument and relinquishme liable only for the cost of sa lige of \$75.00 will be applie	int of samples constitu amples and shall not as id to each project and a	tes a valid purchase order sume any responsibility for charge of \$5 for each sam	from client company to X or any losses or expenses ple submitted to Xenco, t	(enco, its affiliat s incurred by the but not analyzed	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from cilent company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ard terms and conditions stances beyond the control reviously negotiated.
Relinquished by: (Signature)	(Signature)	Received t	Received by (Signature)	Date/Time	me	Relinquished by (Signature)	/Reβpeived by: (Signature) Date/Time
3 Work to	hote (K	11-24-0-0	2	Bere	Annount
Ch.					6		

Company Name: Project Manager:

PO Box 62228

Address: Company Name: Bill to: (if different)

Centennial

Etech Environmental & Safety Solutions, Inc

Matt Green

Revised Date101419 Rev. 2019.1

Work Order Comments

www.xenco.com



City, State ZIP:

Midland, Texas 79711

132-563-2200

Email: Matt@etechenv.com wesley@etechenv.com

Deliverables: EDD

Reporting:Level I Level II PST/UST TRRF Level IV

ADaPT \square

Other: contract

Work Order Comments

State of Project: NM

Project Manager: Company Name:

Etech Environmental & Safety Solutions, Inc

Bill to: (if different)

Company Name:
Address:
City, State ZIP:

Centennial

Matt Green

Address:

PO Box 62228

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Atlanta, GA (770) 449-8800

Work Order No: 678984

Project Name:	Mango BRM State 1H	1 State 1H	Tun	Turn Around		_		-
Project Location	Lea County, New Mexico	Vew Mexico	Rush:		tive	_	\perp	_
Sampler's Name:	Wesley Desilets	Desilets	Due Date:		rva			
PO#:	AFE# OI	Q.	LOE +00#		ese			
SAMPLE RECEIPT	Temp Blank:	Yes	Wet Ice:	Yes No	s/Pr			
Temperature (°C);			ਰ∤		ner			
Received Intact:	Yes No				ntai			
Cooler Custody Seals:	ᅙ	Correction Factor:	ctor:		Col			900
Sample Custody Seals:		ш	ers:		r of			es E3
Sample Identification	on Matrix	X Date Sampled	Time Sampled	Depth	Numbe Code	TPH 80	BTEX 8	Chlorid
вн-21 @ 6"		11/19/2020	1310		_			×
ВН-22 @ 6"		11/19/2020	1313		1	×	×	×
BH-23 @ 6"		11/19/2020	1318		1	×	×	×
BH-24 @ 6"		11/19/2020	1324		_	×	×	×
						lacksquare	\sqcup	\sqcup
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	nt and relinquishment nly for the cost of sam \$75.00 will be applied !	of samples constite ples and shall not a o each project and	ites a valid purchas ssume any respons a charge of \$5 for ea	se order from cl sibility for any lo ach sample sut	lient com losses or bmitted to	pany to expense o Xenco,	Xenco, i s incurr but not	its affilia red by th analyze
Relinquished by: (Signature)	nature)	Received	Received by: (Signature)			Date/Time	ime	
While The	18		ne			24-2	2) 2
5								6

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 11.24.2020 04.37.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 678984

Temperature Measuring device used: IR8

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	er/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?		N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquished	ed/ received?	Yes	
#10 Chain of Custody agrees with sample la	bels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated to	est(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		N/A	
#18 Water VOC samples have zero headspa	ice?	N/A	

* Must be completed for after-hours delivery	of samples prior to placing in the refrigerator
Analyst:	PH Device/Lot#:

Checklist completed by:	Brianna Teel	Date: <u>11.24.2020</u>
Checklist reviewed by:	Jessica Vramer	Date: <u>11.25.2020</u>













































City, State ZIP:

PO Box 62228 Midland, Texas 79711 432-563-2200

Email: Matt@etechenv.com wesley@etechenv.com

Company Name:
Address:

Etech Environmental & Safety Solutions, Inc

Address:

City, State ZIP:

Bill to: (if different)

Company Name:

Centennial

Project Manager:

Matt Green



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Atlanta, GA (770) 449-8800

Work Order No:
60
1035

Project Name:	Mango BRM State 1H	Turn Around				ANAI VOICE	1		
Project Number:	12969	CONTRACT				- ANAL I OIO N	TOIO KEQUEO I		Preservative Codes
Project Location	Lea County, New Mexico	Rush:	ive	+	+			<u> </u>	HNO3: HN
Sampler's Name:	Wesley Desilets	Due Date:	i vat						H2S04: H2
PO#:	AFE# or path or LOE	ģ.)sei						HCL: HL
SAMPLE RECEIPT	ik: Yes No	Wet Ice (Yes) No	/Pre						None: NO
Temperature (°C):		8	ers						NaOH: Na
Received Intact:	Yes No		tain						МеОН: Ме
Cooler Custody Seals:	οľ		Con						Zn Acetate+ NaOH: Zn
Sample Custody Seals:	No (N/A	\$* 	r of (TAT starts the day recevied by the
Sample Identification	Matrix Date Sampled	Time Depth	lumbe Code	PH 801	hloride				Sample Comments
BH-8 @ 1'	S 12/10/2020	1000		-	┪				
BH-9 @ 1'	S 12/10/2020	1015	_	× :	+				
NW-8 @ 1'	S 12/10/2020	1020	_	-	× ×				
EW-8 @ 1'	S 12/10/2020	1025	_	×	× ×				
SEW-8 @ 1'	S 12/10/2020	1030		×	×				
SW-8 @ 1'	S 12/10/2020	1035	-	×	×				
		Managara and Amara a	.'					NORM TAT circ	NORM TAT circle one: 7 day, 5 day , Rush 3 day
Notice: Signature of this documen of service. Xenco will be liable on of Xenco. A minimum charge of \$	voice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$76.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	a vaild purchase order from ime any responsibility for any narge of \$5 for each sample s	client comp / losses or e submitted to	any to Xexpenses Xenco, b	nco, its a incurred I ut not ana	ffiliates and subcontractors. It as: by the client if such losses are due lyzed. These terms will be enforce	tors. It assigns standard terms and condi- ses are due to circumstances beyond the c be enforced unless previously negotiated.	onditions the control ated.	
Relinquished by: (Signature)	nature) Received by: (Signature)	(Signature)	0	Date/Time	1e	Relinquished by: (Sig	by: (Signature)	Received by∕/Signature	nature) Date/Time
3 May Misk	Buc	7	12-1:	5-20	2-15-20 800	282		WIK	12,
On .						6			

Revised Date101419 Rev. 2019.1

Reporting:Level I ☐ Level I ☐ PST/US ☐ TRR ☐ Level I ☐

ADaPT 🗆

Other: contract

Deliverables: EDD

Work Order Comments

www.xenco.com

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State of Project: NM























Chain of Custody

Houston, TX (281) 24 Midland, TX (432) : Hobbs, NM (575) 39 Tampa, FL (813) 620-2

240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 D-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

TIOJECT WATERGET. IVIALL GIEET		Bill to: (if different)			Wash Order Commo)
	Etech Environmental & Safety Solutions, Inc	Company Name:	Centennial	Dr	Program: ST/PST PBB Brownfield DBB	וֹבֿ
		Address:			State of Project: NM	_ apenuna_
City, State ZIP: Midland, Texas 79711	711	City, State ZIP:		Rej	Reporting:Level Level PST/U	TRP Level[]
Phone: 432-563-2200	Email:	Matt@etechenv.	com wesley@etech	Email: Matt@etechenv.com wesley@etechenv.com (www.beliverables: EDD	A	7
Project Name: Mango BF	Mango BRM State 1H Tu	Turn Around		ANALYSIS REQUEST		Preservative Codes
Project Number: 12	12969 CONTI	CONTRACT			HNO3: HN	· EN
Project Location Lea County	v Mexico				L300A	5 3
	\$	ate:	<u>12000000</u>			
					None. No	
SAMPLE RECEIPT Temp Blank:	Yes No	Yes No			No de No	· 3
Temperature (°C):	Then				Mach	
Received Intact: Yes No	12-8				Zn Acetate	Zn Acetate+ NaOH: Zn
Cooler Custody Seals: Yes No N	N/A Sorrection Factor:	()	00			1001. 11
Sample Custody Seals: Yes No N	N/A Jotal Containers:	er of)21B		IAI s	I AT starts the day recevied by the lab, if received by 4:30pm
Sample Identification Mar	Matrix Date Time Sampled	Depth Number Code	TPH 80 BTEX 8 Chlorid		8	Sample Comments
ww-2@ 6" 5	12/8/2020 745	_	ď			
SW-6@ ' S			ð			
						-
					NORM TAT circle one: 7 day, 5 day, Rush 3 day	day, 5 day , Rush 3 day
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of space.	ent of samples constitutes a valid pur samples and shall not assume any res	rchase order from clien	t company to Xenco, its aff	filiates and subcontractors. It assigns s y the client if such losses are due to cire	s. It assigns standard terms and conditions	
Relinquished by: (Signature)	Received by: (Signature)	re)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
3 Wholy West	Buch	12:	12-13-20 QDO 2	86-56	Losse	12.15.208:30
Ch			6			

Work Order No: (08)036

Revised Date101419 Rev. 2019.1



















Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Mildland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Atlanta, GA (770) 449-8800

	Matt Green Flech Environmental	9 Cafata Cala				Work Order Comments
y Name:	Etech Environmental & Safety Solutions, Inc	& Safety Solut		e: Centennial	P	Program: UST/PST PRF Brownfield RR
Address:	PO Box 62228		Address:			State of Project: NM
City, State ZIP:	Midland, Texas 79711		City, State ZIP		Re	Reporting:Level Level PST/US
Phone:	432-563-2200		Email: Matt@etecl	Email: Matt@etechenv.com wesley@etechenv.com		∏ ! ! !
Project Name:	Mango BRM State 1H	1 State 1H	Turn Around		NAI YSIS REOLE	
Project Number:	12969	69	CONTRACT			
Project Location	Lea County, New Mexico	Vew Mexico	Rush:			
Sampler's Name:	Wesley Desilets	Desilets	Due Date:			
PO#	Are#	or palls or	OF +OC#			
SAMPLE RECEIPT	Tem		Wet loe: Yes No			
Temperature (°C):			₹ }			
Received Intact:	Yes					
Cooler Custody Seals:	Yes No	Correction Factor				
Sample Custody Seals:	Yes No	Total Containers:		5M 21B		
Sample Identification	ification Matrix	Date Sampled	Time Depth	TPH 80° BTEX 86		
WW-2 @ 1.5	1.5	12/29/2020	815			
						NORM TAT circle one :
Notice: Signature of this do of service. Xenco will be li of Xenco. A minimum char	ocument and relinquishment able only for the cost of san rge of \$75.00 will be applied	of samples consti ples and shall not to each project and	tutes a valid purchase order fron assume any responsibility for ar I a charge of \$5 for each sample	lent company to Xenco, its affiliat osses or expenses incurred by the bmitted to Xenco, but not analyzed	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated	andard terms and conditions umstances beyond the control
Relinquished by	(Signature)	Received I	Received by (Signature)	Date/Time Re	Relinquished by: (Signature)	Received by: (Signature)
1 MA Mor	3			2/31 11:25 2		
51 6) 4		
				ō		

Revised Date101419 Rev. 2019.1

APPENDIX C

Release Notification and Corrective Action Form (Form C-141)

Closure Request and Remediation Summary Report Mango BRM State 1H



Received by OCD: 3/17/2021 12:00:16 AM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210 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	NRM2024540841
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Cause of Many		ciiiiai Resource i i	roduction, Inc		OGRID: 372	2165		
Contact Name: Jamon Hohensee Contact Telephone: 432-241-4283 Contact email: jamon.hohensee@cdevinc.com Incident # (assigned by OCD)					Contact Tele	ephone: 432-241	-4283	
Contact emai	il: jamon.ho	hensee@cdevinc.c	com		Incident # (a	ssigned by OCD)		
Contact mail Texas 79705		: 500 W. Illinois A	ve, Suite 500, M	Aidland				
			Locatio	n of Re	lease So	urce		
Latitude 32.5	5063		(NAD 83 in 6	L decimal degre	ongitude -10 lees to 5 decima	03.44586 l places)		
Site Name: M	Iango BRM	State 1H		5	Site Type: Pi	roduction Facili	ty	
Date Release	Discovered	: 8/24/20		1	API# 300254	405170000		
Unit Letter	Section	Township	Range	1 2 2 2 2 2	County	/		
С	27	20S	35E	Lea				
Crude Oil		Volume Release		ch calculation				v)
	Materia	l(c) Dalanced (Salact a	II that apply and atta	ch calculation	ne or enacific in	ctification for the ve	dumes provided below	w)
Crude Oil		Volume Release	ed (bbls) 10	ch calculation		stification for the vo Volume Recove Volume Recove	ered (bbls)0	v)
		Volume Release	ed (bbls) 10			Volume Recove	ered (bbls)0	v)
Produced	Water	Volume Release Volume Release Is the concentrate produced water	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l?		n the	Volume Recove Volume Recove Yes No	ered (bbls)0 ered (bbls)	v)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)		n the	Volume Recove Volume Recove Yes No Volume Recove	ered (bbls)0 ered (bbls)	v)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	l chloride i	n the	Volume Recove Volume Recove Yes No Volume Recove Volume Recove	ered (bbls)0 ered (bbls) ered (bbls) ered (bbls) ered (Mcf)	
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	l chloride i	n the	Volume Recove Volume Recove Yes No Volume Recove Volume Recove	ered (bbls)0 ered (bbls)	
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	d chloride is	n the	Volume Recove Volume Recove Yes No Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrof)	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	d chloride is ide units)	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (provent erecovered for every	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	ide units) There were ate standare	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (prov	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	ide units) There were ate standare	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (prov	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	ide units) There were ate standare	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (prov	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentrate produced water Volume Release	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	ide units) There were ate standare	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (prov	ride units)
Produced Condensa	Water	Volume Release Volume Release Is the concentral produced water Volume Release Volume Release Volume/Weight in the stuffing box cured. Site will be a	ed (bbls) 10 ed (bbls) tion of dissolved >10,000 mg/l? ed (bbls)	ide units) There were ate standare	n the	Volume Recove Volume Recove Volume Recove Volume Recove Volume/Weight	ered (bbls) ered (bbls) ered (bbls) ered (bbls) ered (Mcf) ered (Mrcf) ered (prov	ride units)

Received by OCD: 3/17/2021 12:00:16 AM
Form C-141
State of New Mexico
Oil Conservation Division Oil Conservation Division

Incident ID	NRM2024540841
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 no	otice 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
☐ The source of the rele	ease has been stopped.
	as been secured to protect human health and the environment.
	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and managed appropriately.
•	d above have <u>not</u> been undertaken, explain why:
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remedia a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurrent area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environment failed to adequately investig	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endangment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations has take and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local law
Printed Name: Jamon Ho Signature:	Title: Sr. Environmental Analyst Date: 5-7-20
email: jamon.hohensee@	cdevinc.com Telephone: 432-241-4283
OCD Only	
Received by: Ramona	a Marcus Date: 9/1/2020

Received by OCD:	3/17/2021	12:00:16	AM
Form C-141			St

ate of New Mexico Oil Conservation Division

	Page 164 of 168
Incident ID	
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.

hat is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)
id this release impact groundwater or surface water?	Yes No
re the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant atercourse?	Yes No
re the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the rdinary high-water mark)?	☐ Yes ☐ No
re the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, r church?	☐ Yes ☐ No
re the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used y less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
re the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
re the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh rater well field?	Yes No
re the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
re the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
re the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
re the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
old the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☐ No
tach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ventamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soi
haracterization 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 well Field data Data table of soil contaminant concentration data Depth to water determination	ls.
Determination of water sources and significant watercourses within ½-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 	

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.

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District RP		
Facility ID		
Application ID		- 11 - 1 - 11

regulations all operators are required to report and/or file certain release notice public health or the environment. The acceptance of a C-141 report by the Called 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:	Title:
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:

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Remediation Plan

Remediation Plan	Checklist: Each of the following items must be included in	the plan.	
Scaled sitemap Estimated volu Closure criteria	ption of proposed remediation technique with GPS coordinates showing delineation points me of material to be remediated a is to Table 1 specifications subject to 19.15.29.12(C)(4) NMA dule for remediation (note if remediation plan timeline is more		approval is required)
Deferral Requests	Only: Each of the following items must be confirmed as pa	rt of any request fo	or deferral of remediation.
Contamination deconstruction.	must be in areas immediately under or around production equ	ipment where reme	diation could cause a major facility
☐ Extents of cont	amination must be fully delineated.		
Contamination	does not cause an imminent risk to human health, the environment	ment, or groundwat	ter.
rules and regulation which may endang liability should the surface water, hum	t the information given above is true and complete to the best on all operators are required to report and/or file certain release er public health or the environment. The acceptance of a C-14 ir operations have failed to adequately investigate and remedia an health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or re	e notifications and p 1 report by the OC te contamination th a C-141 report doe	perform corrective actions for release D does not relieve the operator of lat pose a threat to groundwater,
Printed Name:	Title:		
Signature:	Date:		
email:	Telephone	: :	
OCD Only		11-11-11-11	
Received by:	Date:		
Approved	Approved with Attached Conditions of Approval	☐ Denied	☐ Deferral Approved
Signature:	Date:		_
leased to Imaging	: 4/30/2021 1:43:38 PM		

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

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Application ID	

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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.

9.15.29.11 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)		
iate ODC District office must be notified 2 days prior to final sampling)		
d complete to the best of my knowledge and understand that pursuant to OCD rules file certain release notifications and perform corrective actions for releases which otance of a C-141 report by the OCD does not relieve the operator of liability and remediate contamination that pose a threat to groundwater, surface water, stance of a C-141 report does not relieve the operator of responsibility for for regulations. The responsible party acknowledges they must substantially to the conditions that existed prior to the release or their final land use in a to the OCD when reclamation and re-vegetation are complete.		
Title:		
Date:		
Telephone:		
Date:		
ble party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible aws and/or regulations.		
Date:		
Date: Title:		

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III
1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 20982

CONDITIONS OF APPROVAL

Operator:			OGRID:		Action Type:
CENTENNIAL RESOURCE PRODUCTION	1001 17th Street, Suite 1800	Denver, CO80202	372165	20982	C-141

OCD Reviewer	Condition
chensley	None