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January 7, 2020

Mr. Mike Bratcher
Emergency Response Coordinator
NMOCD District 2
811 South First Street
Artesia, NM 88210

Subject: **Closure Report**
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Dear Mr. Bratcher:

Please consider this as the final report of a produced water release that occurred northeast on the intersection of US Highway 285 and County Road 271, approximately 2.1-miles south of Malaga, Eddy County New Mexico. The release occurred in Unit Letter C, Section 26, Township 24S, Range 28E (see Figure 1 for Location Map) at coordinates (32.195900, -104.061030). This report contains information related to the assessment, response activities and the subsequent cleanup.

BACKGROUND INFORMATION

The spill occurred on April 28, 2018 when a high density polyethylene (HDPE) pipeline carrying produced water failed and release approximately 1,000 barrels of produced water onto the surrounding undeveloped land/pasture. Vacuum truck(s) recovered approximately 700 barrels of produced water following the spill. The spill was reported to have traveled approximately 350 yards to the west, along the pipeline right of way and surrounding pasture.

RESPONSE AND REMEDIATE CHRONOLOGY

04/28/18	A failure in the HDPE pipeline released approximately 1,000 barrels of produced water to the pipeline right-of-way and surrounding pasture. Approximately 700 barrels of the released produced water were recovered at the time of the release.
05/29/18	Four soil borings, MBS2-A, MBS2-B, MBS2-C, and MBS2-D, were installed in the spill area to provide vertical delineation of contamination.
11/15/18	Surficial soil sampling was conducted. Twenty-eight (28) samples were collected at various locations across the spill area at depths of <0.5 feet below ground surface.
11/29-30/18	Additional soil sampling was conducted in areas of samples collected 05/29/18, near MBS2-A and MBS2-D, and on 11/15/18 near samples SS1 through SS-25.
12/05/18	Soil excavated to 4 feet in the vicinity of S19, S20, S21, S22 & S23.
12/09/18	Sixty-two (62) foot deep temporary monitoring well was installed at the site to determine current depth to groundwater.
12/10/18	Temporary well determined to be dry and will be abandoned.

12/18/18 Six (6) confirmation samples collected from excavated areas in areas of samples S17, S18, S19, S20, S21, S22 & S23.

01/17/19 Confirmation samples collected after excavation of S-4, S-7, S-8, S-10, B2 (MBS2-C) and B3 MBS2-C) sample areas.

01/29/19 Excavation completed in all areas, except the three zones crossing the active subsurface pipeline.

02/01/19 Excavation initiated in areas of the subsurface pipeline, but greater than 5 feet from the pipeline location.

02/04/19 Confirmation samples collected after excavation of S1, S3, S5, S12, S15, S16, and B4 sample areas.

02/19/19 Pipe Support and Backfill Plan is prepared to provide structural support to the underground pipeline to ensure proper support during and after the excavation activities are conducted to remove chloride-contaminated soil surrounding the pipeline. Specification for the flowable fill mix to be used to below the pipeline to provide support are included in the Plan.

02/20-23/19 Confirmation samples collected after excavation of S12, S14, S25, and B1 (MBS2-A) sample areas.

02/26/19 Excavation around the pipeline was initiated using a Guzzler vacuum truck. A structural engineer provided oversight of the structural supports during the excavation and backfilling of the excavation with flowable fill.

04/05/19 All excavations were backfilled and hauling of soil to the landfill was completed. Surface of site was restored to pre-excavation conditions.

SAMPLING & ANALYSIS

Four soil borings installed on May 29, 2018 with thirty-seven (37) samples analyzed for chlorides using SM4500CI-B, sixteen (16) samples were analyzed for benzene, toluene, ethylbenzene xylenes (BTEX) using EPA Method 8021B, and total petroleum hydrocarbons (TPH) using EPA Method 8015M.

Twenty-five (25) assessment soil samples and three (3) background soil samples were collected November 15, 2018 and analyzed for chlorides using EPA Method 300.0. Sample locations for the assessment samples are included as Figure 2.

On November 29-30, 2018, an additional 25 soil samples were collected in locations near samples SS-1 through SS-25, and borings MBS2-A and MBS2-D. The samples were analyzed for chlorides using EPA Method 300.0.

Following excavation, confirmation samples were collected on December 18, 2018, January 17, 2019, February 4, 2019, and February 20, 2019, and analyzed to chlorides using EPA Method 300.0, TPH using EPA Method 8015D, and VOCs using EPA Method 8260B. Tables of analytical results are attached. The extent of excavation and confirmation sample locations are included on Figure 3.

Confirmation sample results indicate that sample less than 4 feet below ground surface (bgs) in the spill area have a chloride concentration of less than 600 mg/kg, and samples 4 feet or greater bgs have a chlorides concentration of less than 10,000 mg/kg. Confirmation sample analyses for TPH and VOCs recorded concentrations less than the laboratory reporting limits for all samples. Laboratory reports detailing the laboratory sample results are attached.

Based on the analytical results, no additional remedial activities are proposed.

REMEDIATION OF CONTAMINATION

Based on the laboratory results of samples collected in May and November 2018, excavation was initiated to remove soil exceeding a chlorides concentration of 600 mg/kg at a depth of less than 4 feet bgs, or a chlorides concentration greater than 10,000 mg/kg at depth of 4 feet or greater in the spill area. Due to the presence of a subsurface pipeline that crossed the spill area, a structural engineer was contracted to design a support system and specifications for backfill to ensure the stability of the pipeline during and after excavation activities. See the chronology for the dates of these activities.

WASTE CLASSIFICATION AND DISPOSAL

Waste was classified at non-regulated and non-hazardous waste. The excavated chlorides-impacted soil was transported to Lea Land, LLC Oil Field Waste Landfill in Carlsbad, New Mexico for disposal. Manifests are attached.

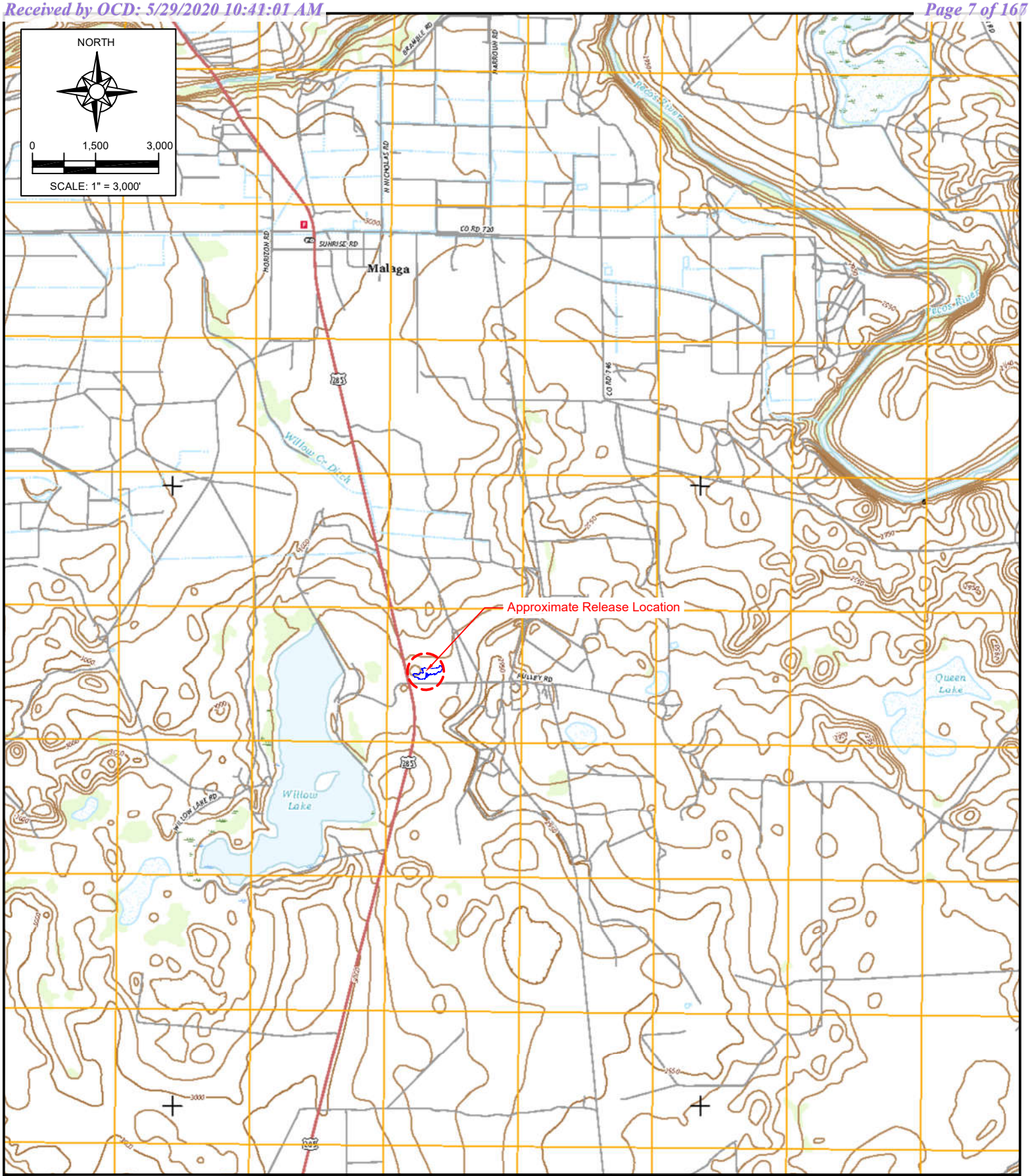
Please confirm that nothing else is being required for this spill incident. If you should have any questions or would like to discuss anything related to this incident, please feel free to contact me at 713-343-4482 x210 or tim.craft@atcgs.com.

Sincerely,

Timothy L. Craft, P.E.
Senior Project Manager
ATC Group Services LLC

ATTACHMENTS

FIGURES



Project Location Map

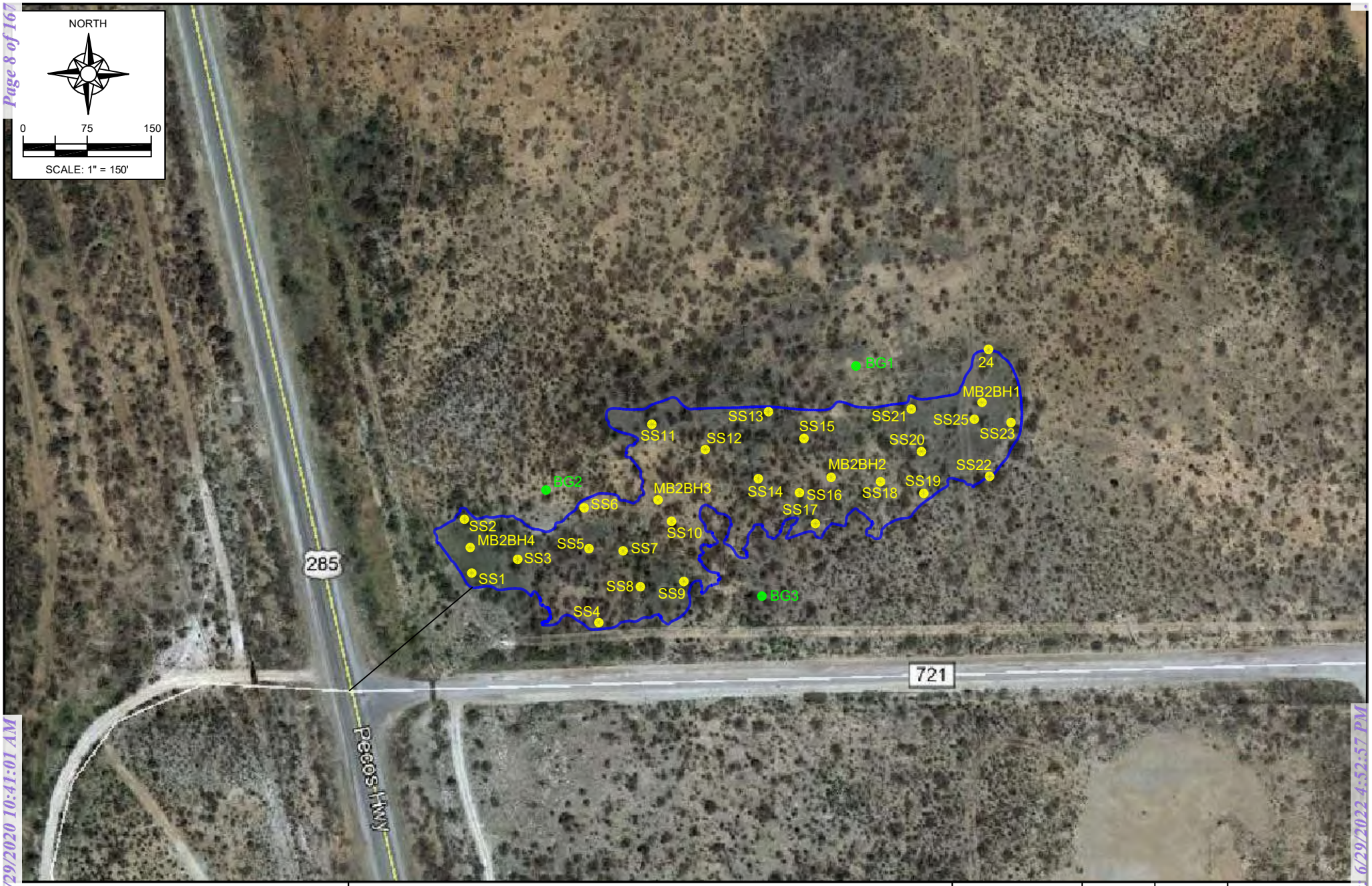
Mewbourne Oil Company
Produced Water Line Release
NEC of US Highway 285 & CR 721 (Pulley Rd)
Malaga, NM 88263

NMOCD # Queen 2324

LEGEND

PROJECT NUMBER:	FIGURE	CHECKED BY:	SCALE: SEE ABOVE
Z073HES001	1		DRAWN BY: TC

ATC —AN ATLAS COMPANY—



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roduced Water Line Release
EC of US Highway 285 & CR 721 (Pulley Rd)
alaga, NM 88263

MOCD # Queen 2324

LEGEND

= Pre-Excavation Sample Location

= Background Sample Location

= Approximate Spill Area

PROJECT NUMBER:	FIGURE	CHECKED BY:	SCALE: SEE ABOVE
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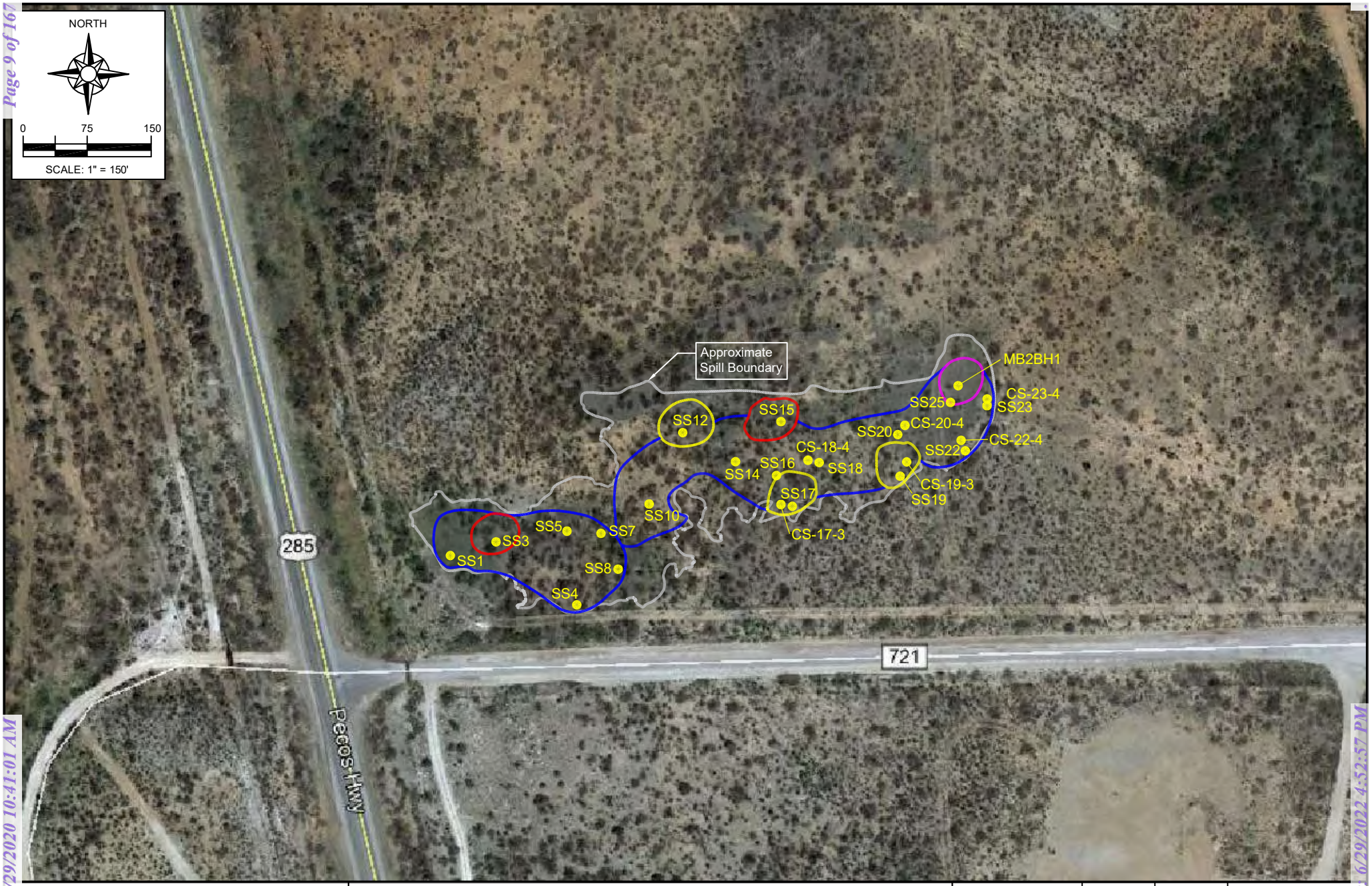
—AN ATLAS COMPANY—



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ewbourne Oil Company
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EC of US Highway 285 & CR 721 (Pulley Rd)
alaga, NM 88263

MOCD # Queen 2324

LEGEND

= Confirmation Sample Location
= Excavated to 2 feet bgs
= Excavated to 2 feet bgs
= Excavated to 4 feet bgs
= Excavated to 8 feet bgs

PROJECT NUMBER:	FIGURE	CHECKED BY:	SCALE: SEE ABOVE
Z073HES001	3		DRAWN BY: TC

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TABLES

Table 1
Soil Sample Analyses - Chlorides
Mewbourne Oil Company Produced Water Line Release
NEC of US Highway 285 & CR 721 (Pulley Rd)
Malaga, NM 88263
NMOCD # Queen 2324

Sample ID	Date	Depth (feet)	Chlorides mg/kg
MBS2-A-1	5/29/2018	1	17,000
MBS2-A-2	5/29/2018	2	9,800
MBS2-A-3	5/29/2018	3	11,000
MBS2-A-4	5/29/2018	4	9,800
B1-4	11/30/2018	4	6,900
B1-6	11/30/2018	6	17,000
MB-1-7	2/23/2019	7	1,600
MBS2-A-9	5/29/2018	9	672
B1-10	11/30/2018	10	210
MBS2-A-14	5/29/2018	14	592
MBS2-A-19	5/29/2018	19	64
MBS2-A-24	5/29/2018	24	96
MBS2-A-29	5/29/2018	29	128
MBS2-B-1	5/29/2018	1	12,000
MBS2-B-2	5/29/2018	2	12,400
MBS2-B-3	5/29/2018	3	13,200
MBS2-B-4	5/29/2018	4	8,600
MB-2-4	1/17/2019	4	1,900
MBS2-B-9	5/29/2018	9	6,400
MBS2-B-14	5/29/2018	14	2,760
MBS2-B-19	5/29/2018	19	112
MBS2-B-24	5/29/2018	24	640
MBS2-B-29	5/29/2018	29	128
MBS2-B-34	5/29/2018	34	160
MBS2-C-1	5/29/2018	1	10,400
MBS2-C-2	5/29/2018	2	8,660
MBS2-C-3	5/29/2018	3	6,320
MBS2-C-4	5/29/2018	4	7,860
MB-3-4	1/17/2019	4	1,100
MBS2-C-9	5/29/2018	9	4,560
MBS2-C-14	5/29/2018	14	1,300
MBS2-C-19	5/29/2018	19	176
MBS2-C-24	5/29/2018	24	80
MBS2-C-29	5/29/2018	29	384

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Sample ID	Date	Depth (feet)	Chlorides mg/kg
MBS2-D-1	5/29/2018	1	14,400
MBS2-D-2	5/29/2018	2	17,200
MBS2-D-3	5/29/2018	3	13,500
MBS2-D-4	5/29/2018	4	8,930
MB-4-4	2/4/2019	4	230
MBS2-D-9	5/29/2018	9	7,460
MBS2-D-14	5/29/2018	14	5,840
MBS2-D-19	5/29/2018	19	976
MBS2-D-24	5/29/2018	24	160
MBS2-D-29	5/29/2018	29	416
B4-4	11/30/2018	4	7,700
B4-6	11/30/2018	6	2,800
B4-15	11/30/2018	15	1,900
SS-1	11/15/2018	<0.5	1,400
SS-1	11/30/2018	<0.5	2,800
CS-1-4	2/4/2019	4	2,000
SS-2	11/15/2018	<0.5	43
SS-2-1	11/29/2018	1	19
SS-3	11/15/2018	<0.5	21
SS-3-1	11/29/2018	1	2,800
CS-3-2	2/4/2019	2	76
SS-4	11/15/2018	<0.5	6,100
SS-4	11/30/2018	<0.5	5,600
CS-4-4	1/17/2019	4	2,400
SS-5	11/15/2018	<0.5	2,000
SS-5	11/30/2018	<0.5	3,900
CS-5-4	2/4/2019	4	870
SS-6	11/15/2018	<0.5	10
SS-6-1	11/29/2018	1	49
SS-7	11/15/2018	<0.5	6,200
SS-7	11/30/2018	<0.5	5,800
CS-7-4	1/17/2019	4	980
SS-8	11/15/2018	<0.5	6,800
SS-8	11/30/2018	<0.5	34
CS-8-4	1/17/2019	4	110
SS-9	11/15/2018	<0.5	32
SS-9-1	11/29/2018	1	160
SS-10	11/15/2018	<0.5	3,400
SS-10	11/30/2018	<0.5	5,400
CS-10-4	1/17/2019	4	1,500

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Sample ID	Date	Depth (feet)	Chlorides mg/kg
SS-11	11/15/2018	<0.5	4
SS-11-1	11/29/2018	1	5
SS-12	11/15/2018	<0.5	10
SS-12-1	11/29/2018	1	17
CS-12-3	2/4/2019	3	5,200
CS-12-4	2/20/2019	4	2,300
SS-13	11/15/2018	<0.5	520
SS-13-1	11/29/2018	1	38
SS-14	11/15/2018	<0.5	3,300
SS-14	11/30/2018	<0.5	2,800
CS-14-4	2/22/2019	4	2,500
SS-15	11/15/2018	<0.5	50
SS-15-1	11/29/2018	1	1,100
CS-15-2	2/4/2019	2	58
SS-16	11/15/2018	<0.5	4,500
SS-16	11/30/2018	<0.5	5,600
CS-16-4	2/4/2019	4	4,100
SS-17	11/15/2018	<0.5	310
SS-17-1	11/29/2018	1	5,000
CS-17-3	12/18/2018	3	9
SS-18	11/15/2018	<0.5	3,300
SS-18	11/30/2018	<0.5	1,000
CS-18-4	12/18/2018	4	480
SS-19	11/15/2018	<0.5	35
SS-19-1	11/29/2018	1	11,000
CS-19-3	12/18/2018	3	490
SS-20	11/15/2018	<0.5	2,700
SS-20	11/30/2018	<0.5	6,100
CS-20-4	12/18/2018	4	480
SS-21	11/15/2018	<0.5	<2.0
SS-21-1	11/29/2018	1	17
SS-22	11/15/2018	<0.5	4,400
SS-22	11/30/2018	<0.5	7,400
CS-22-4	12/18/2018	4	6
SS-23	11/15/2018	<0.5	5,500
SS-23	11/30/2018	<0.5	8,600
CS-23-4	12/18/2018	4	2,500
SS-24	11/15/2018	<0.5	9
SS-24-1	11/29/2018	1	18

Table 1
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NEC of US Highway 285 & CR 721 (Pulley Rd)
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Sample ID	Date	Depth (feet)	Chlorides mg/kg
SS-25	11/15/2018	<0.5	4,000
SS-25	11/30/2018	<0.5	2,600
CS-25-4	2/21/2019	4	2,400
Background Samples			
BG-1	11/15/2018	<0.5	160
BG-2	11/15/2018	<0.5	10
BG-3	11/15/2018	<0.5	44

*Cleanup Level for Chloride concentrations in soil above 4 feet: 600mg/kg

Cleanup Level for Chloride concentrations in soil 4 feet or deeper: 10,000 mg/kg

Shaded samples indicate soil that was later excavated and removed from site.

Table 2
Soil Sample Analyses - TPH
Mewbourne Oil Company Produced Water Line Release
NEC of US Highway 285 & CR 721 (Pulley Rd)
Malaga, NM 88263
NMOCD # Queen 2324

Sample ID	Date	Depth (feet)	TPH - GRO*
			mg/kg
CS-17-3	12/18/2018	3	<5.0
CS-18-4	12/18/2018	4	<5.0
CS-19-3	12/18/2018	3	<5.0
CS-20-4	12/18/2018	4	<5.0
CS-22-4	12/18/2018	4	<5.0
CS-23-4	12/18/2018	4	<5.0
CS-10-4	1/17/2019	4	<5.0
CS-4-4	1/17/2019	4	<5.0
CS-7-4	1/17/2019	4	<5.0
CS-8-4	1/17/2019	4	<5.0
MB-2-4	1/17/2019	4	<5.0
MB-3-4	1/17/2019	4	<5.0
CS-12-3	2/4/2019	3	<5.0
CS-1-4	2/4/2019	4	<5.0
CS-15-2	2/4/2019	2	<5.0
CS-16-4	2/4/2019	4	<5.0
CS-3-2	2/4/2019	2	<5.0
CS-5-4	2/4/2019	4	<5.0
MB-4-4	2/4/2019	4	<5.0
CS-12-4	2/20/2019	4	<5.0
CS-14-4	2/20/2019	4	<5.0
CS-25-4	2/20/2019	4	<5.0
MB-1-7	2/20/2019	7	<5.0

*Gasoline Range Organics (GROs) are quantitated against a gasoline standard

Table 3
Soil Sample Analyses - TPH
Mewbourne Oil Company Produced Water Line Release
NEC of US Highway 285 & CR 721 (Pulley Rd)
Malaga, NM 88263
NMOCD # Queen 2324

Sample ID	Date	Depth (feet)	TPH		
			C10-22	>C22-32	Total
			mg/kg	mg/kg	mg/kg
CS-17-3	12/18/2018	3	-	-	-
CS-18-4	12/18/2018	4	-	-	-
CS-19-3	12/18/2018	3	-	-	-
CS-20-4	12/18/2018	4	-	-	-
CS-22-4	12/18/2018	4	-	-	-
CS-23-4	12/18/2018	4	-	-	-
CS-10-4	1/17/2019	4	<30	<100	<130
CS-4-4	1/17/2019	4	<30	<100	<130
CS-7-4	1/17/2019	4	<30	<100	<130
CS-8-4	1/17/2019	4	<30	<100	<130
MB-2-4	1/17/2019	4	<30	<100	<130
MB-3-4	1/17/2019	4	<30	<100	<130
CS-12-3	2/4/2019	3	<30	<100	<130
CS-1-4	2/4/2019	4	<30	<100	<130
CS-15-2	2/4/2019	2	<30	<100	<130
CS-16-4	2/4/2019	4	<30	<100	<130
CS-3-2	2/4/2019	2	<30	<100	<130
CS-5-4	2/4/2019	4	<30	<100	<130
CS-MB4-4	2/4/2019	4	<30	<100	<130
CS-12-4	2/20/2019	4	<30	<100	<130
CS-14-4	2/20/2019	4	<30	<100	<130
CS-25-4	2/20/2019	4	<30	<100	<130
CS-MB1-7	2/20/2019	7	<30	<100	<130

Table 4
Soil Sample Analyses
Mewbourne Oil Company Produced Water Line Release
NEC of US Highway 285 & CR 721 (Pulley Rd)
Malaga, NM 88263
NMOCD # Queen 2324

Sample ID	Date	Depth (feet)	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	Dibromochloromethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cas-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropane	cis-1,30Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene	4-Isopropyltoluene	Methyl t-butyl ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	1,1,2,2,-Tetrachloroethane	Tetrachloroethene	Toluene	1,2,3-Trychlorobenzene	1,1,1,-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,2,5-Trimethylbenzene	Vinyl Choloride	Xylenes, Total
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
CS-17-3	12/18/18	3	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-18-4	12/18/18	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-19-3	12/18/18	3	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-20-4	12/18/18	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-22-4	12/18/18	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-23-4	12/18/18	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-10-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-4-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-7-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-8-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
MB-2-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
MB-3-4	01/17/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-12-3	02/04/19	3	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-1-4	02/04/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-15-2	02/04/19	2	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-16-4	02/04/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-3-2	02/04/19	2	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-5-4	02/04/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
MB-4-4	02/04/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-12-4	02/20/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-14-4	02/20/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
CS-25-4	02/20/19	4	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15
MB-1-7	02/20/19	7	<0.040	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.15	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.15

PHOTOGRAPHIC DOCUMENTATION

Photographic Documentation
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Photo 1: View of stockpiled soil awaiting transportation to landfill.

Photo 2: View of a portion of the excavated area.

Photographic Documentation
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Photo 3: View of excavation of impacted soil.

Photo 4: View of a portion of the excavated area.

Photographic Documentation
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Photo 5: View of a portion of the excavated area.

Photo 6: View of a portion of the excavated area.

Photographic Documentation
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Photo 7: View of the drilling of the temporary water well to 62 feet (dry).

Photo 8: View of a portion of the excavated area around the buried pipeline.

Photographic Documentation
Mewbourne Oil Company Produced Water Pipeline Spill
NEC of US Highway 285 & CR 271 (Pulley Road)
2.1 Miles South of Malaga (Eddy County), NM 88263
NMOCD ID: Queen 2324

Photo 9: View of the placement of flowable fill to support the pipeline prior to backfilling.

Photo 10: View during the placement of backfill above the buried pipeline.

LABORATORY REPORTS

CARDINAL Laboratories

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

June 12, 2018

JACE CARAWAY

RX-SOIL INC.

201 MAIN STREET, SUITE 1360

FORT WORTH, TX 76102

RE: MB

Enclosed are the results of analyses for samples received by the laboratory on 06/08/18 9:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - A - 1' (H801572-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *113 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**17000**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2018	ND	172	85.8	200	18.5	
DRO >C10-C28*	<10.0	10.0	06/08/2018	ND	172	85.9	200	20.5	
EXT DRO >C28-C36	<10.0	10.0	06/08/2018	ND					

Surrogate: 1-Chlorooctane *91.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *104 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - A - 2' (H801572-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9800**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	172	85.8	200	18.5	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	172	85.9	200	20.5	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *87.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *98.6 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - A - 3' (H801572-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**11000**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *98.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.3 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - A - 4' (H801572-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9800**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *93.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.9 %* *37.6-147*

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Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - A - 9' (H801572-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - A - 14' (H801572-06)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - A - 19' (H801572-07)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - A - 24' (H801572-08)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - A - 29' (H801572-09)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	06/11/2018	ND	416	104	400	3.92	

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Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 1' (H801572-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12000**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *93.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.3 %* *37.6-147*

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Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 2' (H801572-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12400**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *92.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.0 %* *37.6-147*

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Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 3' (H801572-12)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**13200**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *94.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.4 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 4' (H801572-13)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8600**	16.0	06/11/2018	ND	416	104	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *94.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *88.9 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 9' (H801572-14)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6400**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - B - 14' (H801572-15)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2760**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - B - 19' (H801572-16)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	06/11/2018	ND	416	104	400	3.92	

Sample ID: MBS2 - B - 24' (H801572-17)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	06/11/2018	ND	416	104	400	3.77	QM-07

Sample ID: MBS2 - B - 29' (H801572-18)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	06/11/2018	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - B - 34' (H801572-19)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	06/11/2018	ND	416	104	400	3.77	

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Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - C - 1' (H801572-20)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**10400**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *93.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.5 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - C - 2' (H801572-21)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8660**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *89.1 %* *41-142*

Surrogate: 1-Chlorooctadecane *82.0 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - C - 3' (H801572-22)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6320**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *90.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *83.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - C - 4' (H801572-23)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7860**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *90.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *84.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - C - 9' (H801572-24)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4560**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - C - 14' (H801572-25)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1300**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - C - 19' (H801572-26)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - C - 24' (H801572-27)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - C - 29' (H801572-28)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	06/11/2018	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - D - 1' (H801572-29)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**14400**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *89.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *82.0 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - D - 2' (H801572-30)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**17200**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *91.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *84.4 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - D - 3' (H801572-31)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**13500**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *85.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *79.1 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - D - 4' (H801572-32)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2018	ND	1.92	96.2	2.00	1.53	
Toluene*	<0.050	0.050	06/09/2018	ND	1.95	97.7	2.00	0.809	
Ethylbenzene*	<0.050	0.050	06/09/2018	ND	1.98	98.8	2.00	0.343	
Total Xylenes*	<0.150	0.150	06/09/2018	ND	5.79	96.6	6.00	0.562	
Total BTEX	<0.300	0.300	06/09/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8930**	16.0	06/11/2018	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/09/2018	ND	205	102	200	3.07	
DRO >C10-C28*	<10.0	10.0	06/09/2018	ND	218	109	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	06/09/2018	ND					

Surrogate: 1-Chlorooctane *90.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *83.2 %* *37.6-147*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

RX-SOIL INC.
JACE CARAWAY
201 MAIN STREET, SUITE 1360
FORT WORTH TX, 76102
Fax To: NA

Received:	06/08/2018	Sampling Date:	05/29/2018
Reported:	06/12/2018	Sampling Type:	Soil
Project Name:	MB	Sampling Condition:	Cool & Intact
Project Number:	S #2	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: MBS2 - D - 9' (H801572-33)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7460**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - D - 14' (H801572-34)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5840**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - D - 19' (H801572-35)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**976**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - D - 24' (H801572-36)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	06/11/2018	ND	416	104	400	3.77	

Sample ID: MBS2 - D - 29' (H801572-37)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	06/11/2018	ND	400	100	400	3.92	QM-07

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 4

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	RKSOIL	**BILL TO**	
Project Manager:	JACE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	940-210-2051 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MB S#42	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDES	TPH (EXT)	BTEX
H801572																	
1	MBS2-A-1'	G				X					X		05/24	0900	X	X	X
2	MBS2-A-2'															X	X
3	MBS2-A-3'															X	X
4	MBS2-A-4'															X	X
5	MBS2-A-9'																
6	MBS2-A-14'																
7	MBS2-A-19'																
8	MBS2-A-24'																
9	MBS2-A-29'	✓				✓					✓		✓	2000	✓		

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Relinquished By: JM	Date: 6-8-18	Received By: Tamara Oldaker	
	Time: 9:35		
Relinquished By:	Date:	Received By:	
	Time:		
Delivered By: (Circle One) 3.8°	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) TO. #15	
Sampler - UPS - Bus - Other: Corrected 3.7°			

Phone Result:	☐ Yes	☐ No	Add'l Phone #:
Fax Result:	☐ Yes	☐ No	Add'l Fax #:
REMARKS:			

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 4

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	RKSOIL	**BILL TO**	ANALYSIS REQUEST
Project Manager:	JACE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #: 940-210-2051	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MB S#2	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	CHLORIDES	TPH (EXT)	BTEX
H801572																	
10	MBS2-B-1'	G				X					X		05/29	0900	X	X	X
11	MBS2-B-2'															X	X
12	MBS2-B-3'															X	X
13	MBS2-B-4'															X	X
14	MBS2-B-9'																
15	MBS2-B-14'																
16	MBS2-B-19'																
17	MBS2-B-24'																
18	MBS2-B-29'																
19	MBS2-B-34'	↓				↓					↓		↓	2000	↓		

Relinquished By:	Date: 6-8-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 9:35	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) 2.8°
Sampler - UPS - Bus - Other: Corrected 2.75°

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) VE. #75

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 4

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	RKSOIL	**BILL TO**	
Project Manager:	JACE CARMAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	940-210-2051 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MB S#12	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: CHLORIDES	TPH (EXT)	BTEX
H801572																	
20	MBS2-C-1'	G				X					X		05/24	0900	X	X	X
21	MBS2-C-2'															X	X
22	MBS2-C-3'															X	X
23	MBS2-C-4'															X	X
24	MBS2-C-9'																
25	MBS2-C-14'																
26	MBS2-C-19'																
27	MBS2-C-24'																
28	MBS2-C-29'													2000			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 6-8-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 9:35	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) 2.8°C
Sampler - UPS - Bus - Other: Corrected 2.7°C

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	TO #175

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4 of 4

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	RKSOIL	**BILL TO**	ANALYSIS REQUEST
Project Manager:	JACE CARAWAY	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	440-210-2051 Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	MB S#42	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	JACOB MICKLE	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	CHLORIDES	TPH (EXT)	BTEX
H801572																	
29	MBS2-D-1'	G				X					X		05/29	0900	X	X	X
30	MBS2-D-2'	|				|					|			|	X	X
31	MBS2-D-3'	|				|					|			|	X	X
32	MBS2-D-4'	|				|					|			|	X	X
33	MBS2-D-9'	|				|					|			|		
34	MBS2-D-14'	|				|					|			|		
35	MBS2-D-19'	|				|					|			|		
36	MBS2-D-24'	↓				↓					↓		↓	2000	↓		
37	MBS2-D-29'														✓		

Relinquished By:	Date: 6-8-18	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 9:35	Tamara Oldaker	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) 2.8°	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) TP-#75
Sampler - UPS - Bus - Other: Corrected 2.2°C		

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11591

Project Name: 2991

Project Number: 2991

Date Received: 11/16/2018

Date Reported: 11/20/2018

Chain of Custody Received: ☑

Analytical Method: 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 2ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-1	AZ11591-001	11/16/2018	11/15/2018	Soil
SS-2	AZ11591-002	11/16/2018	11/15/2018	Soil
SS-3	AZ11591-003	11/16/2018	11/15/2018	Soil
SS-4	AZ11591-004	11/16/2018	11/15/2018	Soil
SS-5	AZ11591-005	11/16/2018	11/15/2018	Soil
SS-6	AZ11591-006	11/16/2018	11/15/2018	Soil
SS-7	AZ11591-007	11/16/2018	11/15/2018	Soil
SS-8	AZ11591-008	11/16/2018	11/15/2018	Soil
SS-9	AZ11591-009	11/16/2018	11/15/2018	Soil
SS-10	AZ11591-010	11/16/2018	11/15/2018	Soil
SS-11	AZ11591-011	11/16/2018	11/15/2018	Soil
SS-12	AZ11591-012	11/16/2018	11/15/2018	Soil
SS-13	AZ11591-013	11/16/2018	11/15/2018	Soil
SS-14	AZ11591-014	11/16/2018	11/15/2018	Soil
SS-15	AZ11591-015	11/16/2018	11/15/2018	Soil
SS-16	AZ11591-016	11/16/2018	11/15/2018	Soil
SS-17	AZ11591-017	11/16/2018	11/15/2018	Soil
SS-18	AZ11591-018	11/16/2018	11/15/2018	Soil
SS-19	AZ11591-019	11/16/2018	11/15/2018	Soil
SS-20	AZ11591-020	11/16/2018	11/15/2018	Soil
SS-21	AZ11591-021	11/16/2018	11/15/2018	Soil
SS-22	AZ11591-022	11/16/2018	11/15/2018	Soil
SS-23	AZ11591-023	11/16/2018	11/15/2018	Soil
SS-24	AZ11591-024	11/16/2018	11/15/2018	Soil
SS-25	AZ11591-025	11/16/2018	11/15/2018	Soil
BG-1	AZ11591-026	11/16/2018	11/15/2018	Soil
BG-2	AZ11591-027	11/16/2018	11/15/2018	Soil
BG-3	AZ11591-028	11/16/2018	11/15/2018	Soil

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-1	AZ11591-001	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1400	mg/kg	11/19/18	11/19/18	D2,	20

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-2	AZ11591-002	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	43	mg/kg	11/19/18	11/19/18	D1,	20

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-3	AZ11591-003	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	21	mg/kg	11/19/18	11/19/18	--	1

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-4	AZ11591-004	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6100	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-5	AZ11591-005	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2000	mg/kg	11/19/18	11/19/18	D2,	20

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-6	AZ11591-006	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	9.8	mg/kg	11/19/18	11/19/18	--	1

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-7	AZ11591-007	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6200	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-8	AZ11591-008	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6800	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-9	AZ11591-009	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	32	mg/kg	11/19/18	11/19/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-10	AZ11591-010	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3400	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-11	AZ11591-011	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3.5	mg/kg	11/19/18	11/19/18	--	1

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-12	AZ11591-012	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	9.7	mg/kg	11/19/18	11/19/18		1

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-13	AZ11591-013	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	520	mg/kg	11/19/18	11/19/18	D2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-14	AZ11591-014	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3300	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-15	AZ11591-015	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	50	mg/kg	11/19/18	11/19/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-16	AZ11591-016	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	4500	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-17	AZ11591-017	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	310	mg/kg	11/19/18	11/19/18	D2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-18	AZ11591-018	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3300	mg/kg	11/19/18	11/19/18	D2,	100

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-19	AZ11591-019	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	35	mg/kg	11/19/18	11/19/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-20	AZ11591-020	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2700	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-21	AZ11591-021	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	<2.0	mg/kg	11/19/18	11/19/18	D1,	2

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-22	AZ11591-022	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	4400	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-23	AZ11591-023	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5500	mg/kg	11/19/18	11/19/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-24	AZ11591-024	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	9.3	mg/kg	11/19/18	11/19/18	D1,	2

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11591
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-25	AZ11591-025	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	4000	mg/kg	11/19/18	11/19/18	D2,	100

BG-1	AZ11591-026	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	160	mg/kg	11/19/18	11/19/18	D2,	100

BG-2	AZ11591-027	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	9.7	mg/kg	11/19/18	11/19/18	D1,	2

BG-3	AZ11591-028	11/16/2018	11/15/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	44	mg/kg	11/19/18	11/19/18	D1,	2

Method Blank						Soil	
MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBBV1119181	Chloride	300.0	<1.0	mg/kg	11/19/18	11/19/18	--	1

Method Blank						Soil	
MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBBV1119182	Chloride	300.0	<1.0	mg/kg	11/19/18	11/19/18	--	1

QA/QC Report
for Inorganics

Reference #: ENT AZ11591 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	11/19/2018	11/20/2018	11/20/2018	AZ11591-020	2700	10000	13400	13500	107	108	1	80-120	20	--
Chloride	11/19/2018	11/20/2018	11/20/2018	AZ11591-012	9.70	100	105	105	95	95	0	80-120	20	--
Chloride	11/19/2018	11/19/2018	11/19/2018	AZ11591-005	2000	5000	6790	6800	96	96	0	80-120	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	11/19/2018	11/19/2018	11/19/2018	BV1119182	50.0	47.6	47.4	95	95	0	90-110	20	--
Chloride	11/19/2018	11/19/2018	11/19/2018	BV1119182	50.0	47.6	47.4	95	95	0	90-110	20	--
Chloride	11/19/2018	11/19/2018	11/19/2018	BV1119181	50.0	45.5	45.4	91	91	0	90-110	20	--

Data Qualifier Definitions

Qualifier

D1 = Sample required dilution due to matrix.
D2 = Sample required dilution due to high concentration of target analyte.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: AZ11591
Page 1 of 2

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

REQUIRED TURN AROUND TIME: Standard: ____
72 Hours: ____ 48 Hours: X 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 & PULLEY RD
ADDRESS:	2541 E. UNIVERSITY DR		MALAGA, NM
	PHOENIX, AZ 85034	P.O. #:	2231
PHONE:	602-267-1900 FAX: 602-267-1973	SAMPLED BY:	BOB VITTAL

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	ANALYSIS REQUEST / PRESERVATIVE: 300.0 CHLORIDE	REMARKS/PRECAUTIONS
SS-1	1	11/15/18	0925	SS	JAR	X	-001
SS-2	↓	↓	0935	↓	↓	X	-002
SS-3			0941			X	-003
SS-4			0953			X	-004
SS-5			1003			X	-005
SS-6			1013			X	-006
SS-7			1022			X	-007
SS-8			1030			X	-008
SS-9			1043			X	-009
SS-10			1051			X	-010
SS-11			1100			X	-011
SS-12			1107			X	-012
SS-13			1116			X	-013
SS-14	↓	↓	1126	↓	↓	X	-014

Total No. of Samples: Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By: BC Vittal	Date/Time: 11/16/18 @ 1415	Received By: OCAAZ Jana Jowell	Date/Time: 11/16/18 1415
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact ____ On Ice Y 1.8 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon, in writing, with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup sample

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: AZ11591
Page 2 of 2

REQUIRED TURN AROUND TIME: Standard: ____
72 Hours: ____ 48 Hours: X 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 & PULLEY RD
ADDRESS:	2541 E. UNIVERSITY DR		MALAGA, NM
	PHOENIX, AZ 85034	P.O. #:	2231
PHONE:	602-267-1988 FAX: 602-267-1973	SAMPLED BY:	BOB VITTAL

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	ANALYSIS REQUEST / PRESERVATIVE: 300.0 CHLORIDE	REMARKS/PRECAUTIONS
SS-15	1	11/15/18	1140	SS	JAR	X	-015
SS-16			1149			X	-016
SS-17			1200			X	-017
SS-18			1208			X	-018
SS-19			1217			X	-019
SS-20			1225			X	-020
SS-21			1233			X	-021
SS-22			1249			X	-022
SS-23			1257			X	-023
SS-24			1306			X	-024
SS-25			1316			X	-025
BG-1			1326			X	-026
BG-2			1340			X	-027
BG-3	↓	↓	1350	↓	↓	X	-028

Total No. of Samples: Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
Bob Vittal	11/16/18 @ 1415	Jana Jowell OCA AZ	11/16/18 1415
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact ____ On Ice Y 1.8 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon, in writing, with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup sample

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11614

Project Name: Brine Spill New Mexico

Project Number: 2991

Date Received: 12/3/2018

Date Reported: 12/5/2018

Chain of Custody Received: ☑

Analytical Method: 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 6ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-2-1	AZ11614-001	12/3/2018	11/29/2018	Soil
SS-3-1	AZ11614-002	12/3/2018	11/29/2018	Soil
SS-6-1	AZ11614-003	12/3/2018	11/29/2018	Soil
SS-9-1	AZ11614-004	12/3/2018	11/29/2018	Soil
SS-13-1	AZ11614-005	12/3/2018	11/29/2018	Soil
SS-11-1	AZ11614-006	12/3/2018	11/29/2018	Soil
SS-15-1	AZ11614-007	12/3/2018	11/29/2018	Soil
SS-17-1	AZ11614-008	12/3/2018	11/29/2018	Soil
SS-19-1	AZ11614-009	12/3/2018	11/29/2018	Soil
SS-21-1	AZ11614-010	12/3/2018	11/29/2018	Soil
SS-24-1	AZ11614-011	12/3/2018	11/29/2018	Soil
SS-12-1	AZ11614-012	12/3/2018	11/29/2018	Soil
SS-1	AZ11614-013	12/3/2018	11/30/2018	Soil
SS-4	AZ11614-014	12/3/2018	11/30/2018	Soil
SS-5	AZ11614-015	12/3/2018	11/30/2018	Soil
SS-7	AZ11614-016	12/3/2018	11/30/2018	Soil
SS-8	AZ11614-017	12/3/2018	11/30/2018	Soil
SS-10	AZ11614-018	12/3/2018	11/30/2018	Soil
SS-14	AZ11614-019	12/3/2018	11/30/2018	Soil
SS-16	AZ11614-020	12/3/2018	11/30/2018	Soil
SS-18	AZ11614-021	12/3/2018	11/30/2018	Soil
SS-20	AZ11614-022	12/3/2018	11/30/2018	Soil
SS-22	AZ11614-023	12/3/2018	11/30/2018	Soil
SS-23	AZ11614-024	12/3/2018	11/30/2018	Soil
SS-25	AZ11614-025	12/3/2018	11/30/2018	Soil
B1-4	AZ11614-026	12/3/2018	11/30/2018	Soil
B1-6	AZ11614-027	12/3/2018	11/30/2018	Soil
B1-10	AZ11614-028	12/3/2018	11/30/2018	Soil
B4-4	AZ11614-029	12/3/2018	11/30/2018	Soil
B4-6	AZ11614-030	12/3/2018	11/30/2018	Soil
B4-15	AZ11614-031	12/3/2018	11/30/2018	Soil

Mr. John Kennedy
EnTech
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Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-2-1	AZ11614-001	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	19	mg/kg	12/03/18	12/04/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-3-1	AZ11614-002	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2800	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-6-1	AZ11614-003	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	49	mg/kg	12/03/18	12/04/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-9-1	AZ11614-004	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	160	mg/kg	12/03/18	12/04/18	D2,	5

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-13-1	AZ11614-005	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	38	mg/kg	12/03/18	12/04/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-11-1	AZ11614-006	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5.3	mg/kg	12/03/18	12/04/18	--	1

Mr. John Kennedy
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Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-15-1	AZ11614-007	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1100	mg/kg	12/03/18	12/04/18	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-17-1	AZ11614-008	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5000	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-19-1	AZ11614-009	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	11000	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-21-1	AZ11614-010	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	17	mg/kg	12/03/18	12/04/18	--	1

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-24-1	AZ11614-011	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	18	mg/kg	12/03/18	12/04/18	D1,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-12-1	AZ11614-012	12/3/2018	11/29/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3100	mg/kg	12/03/18	12/04/18	D2,	100

Mr. John Kennedy
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2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-1	AZ11614-013	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2800	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-4	AZ11614-014	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5600	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-5	AZ11614-015	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	3900	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-7	AZ11614-016	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5800	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-8	AZ11614-017	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	34	mg/kg	12/03/18	12/04/18	D1,	5

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-10	AZ11614-018	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5400	mg/kg	12/03/18	12/04/18	D2,	100

Mr. John Kennedy
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Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-14	AZ11614-019	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2800	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-16	AZ11614-020	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5600	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-18	AZ11614-021	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1000	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-20	AZ11614-022	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6100	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-22	AZ11614-023	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	7400	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-23	AZ11614-024	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	8600	mg/kg	12/03/18	12/04/18	D2,	200

Mr. John Kennedy
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2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-25	AZ11614-025	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2600	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B1-4	AZ11614-026	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6900	mg/kg	12/03/18	12/04/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B1-6	AZ11614-027	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	17000	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B1-10	AZ11614-028	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	210	mg/kg	12/03/18	12/04/18	D1,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B4-4	AZ11614-029	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	7700	mg/kg	12/03/18	12/04/18	D2,	200

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B4-6	AZ11614-030	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2800	mg/kg	12/03/18	12/04/18	D2,	200

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11614
Project Name: Brine Spill New Mexico
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
B4-15	AZ11614-031	12/3/2018	11/30/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1900	mg/kg	12/03/18	12/04/18	D2,	200

Method Blank — Soil

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBTT1203181	Chloride	300.0	<1.0	mg/kg	12/03/18	12/04/18	--	1

Method Blank — Soil

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBTT1203182	Chloride	300.0	<1.0	mg/kg	12/03/18	12/04/18	--	1

QA/QC Report
for Inorganics

Reference #: ENT AZ11614 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	12/4/2018	12/4/2018	12/4/2018	AZ11614-002	2800	10000	13100	13200	103	104	1	80-120	20	--
Chloride	12/4/2018	12/4/2018	12/4/2018	AZ11614-012	3100	10000	13400	13500	103	104	1	80-120	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	12/4/2018	12/4/2018	12/4/2018	BV1204181	50.0	49.0	48.9	98	98	0	90-110	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	12/4/2018	12/4/2018	12/4/2018	BV1204183	50.0	49.2	49.4	98	99	0	90-110	20	--

Data Qualifier Definitions

Qualifier

D1 = Sample required dilution due to matrix.
D2 = Sample required dilution due to high concentration of target analyte.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

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Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: AZ11614
Page 1 of 3

REQUIRED TURN AROUND TIME: Standard: ____
72 Hours: ____ 48 Hours: X 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 @ PULLEY RD MALAGA, NM
ADDRESS:	2541 E. UNIVERSITY DR PHOENIX, AZ 85034	P.O. #:	2245
PHONE:	602.267.1900 FAX: 602.267.1973	SAMPLED BY:	BOB VITTAL

ANALYSIS REQUEST / PRESERVATIVE: 300.0 CHLORIDE

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	300.0 CHLORIDE	REMARKS/PRECAUTIONS
SS-2-1	1	11.29.18	1015	SS	JAR	X	-001
SS-3-1			1020			X	-002
SS-6-1			1025			X	-003
SS-9-1			1030			X	-004
SS-13-1			1035			X	-005
SS-11-1			1040			X	-006
SS-15-1			1045			X	-007
SS-17-1			1050			X	-008
SS-19-1			1055			X	-009
SS-21-1			1100			X	-010
SS-24-1			1105			X	-011
SS-12-1	↓	↓	1110	↓	↓	X	-012

Total No. of Samples: 12 Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time: 11/30/18 @ 15:16	Received By:	Date/Time: 12/1/18 15:16
Relinquished By:	Date/Time: 12/3/18 10:13	Received By: OCAAZ	Date/Time: 12/3/18 1013
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact ____ On Ice Y 5.6 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon, in writing, with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup sampl

Analysis Request & Chain of Custody Record

Lab Job No.: AZ111614 Page: 2 of 3

ORANGE COAST ANALYTICAL, INC.
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Phoenix, AZ 85040
Phone: (480) 736-0960 Fax: (480) 736-0970

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Environmental Technologies	Project Name:	Brine Spill New Mexico
Send Report To:	John Kennedy	Project Number:	
Email:	Jkennedy@entech-us.com	PO #:	
Address:		Address (City / State):	New Mexico
		EDD Required:	
Phone:	Fax:	Sampled By:	~~Joe Osborn~~ NC Nick Christofferson

REQUESTED TURN-AROUND-TIME
Standard: ____
72 Hour: ____
48 Hour: X
24 Hour: ____

Customer Sample IDs	No. of Containers	Sample Date	Sample Time	Sample Matrix	Container Type	ANALYSIS REQUEST / PRESERVATION: EPA300	REMARKS / INSTRUCTIONS
SS-1	1	11/30/18	9:40	Soil	Glass Jar	X	-013
SS-4	1	11/30/18	10:00	Soil	Glass Jar	X	-014
SS-5	1	11/30/18	9:50	Soil	Glass Jar	X	-015
SS-7	1	11/30/18	10:15	Soil	Glass Jar	X	-016
SS-8	1	11/30/18	10:31	Soil	Glass Jar	X	-017
SS-10	1	11/30/18	10:22	Soil	Glass Jar	X	-018
SS-14	1	11/30/18	11:27	Soil	Glass Jar	X	-019
SS-16	1	11/30/18	10:42	Soil	Glass Jar	X	-020
SS-18	1	11/30/18	10:49	Soil	Glass Jar	X	-021
SS-20	1	11/30/18	11:36	Soil	Glass Jar	X	-022
SS-22	1	11/30/18	11:44	Soil	Glass Jar	X	-023
SS-23	1	11/30/18	12:21	Soil	Glass Jar	X	-024
SS-25	1	11/30/18	12:21	Soil	Glass Jar	X	-025

No. of Samples: 13 Method of Shipment: Carry In Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date: 12-1-18 Time: 3:56 pm	Received By:	Date: 12-1-18 Time: 3:56PM
Company:		Company: ENTECH	
Relinquished By:	Date: 12/3/18 Time: 10:13	Received By: Dana Dowell	Date: 12/3/18 Time: 1013
Company: ENTECH		Company: OCA AZ	
Relinquished By:	Date: Time:	Received For OCA By:	Date: Time:
Company:		Company:	

Sample Matrix: DW - Drinking Water; GW - Groundwater; AQ - Aqueous; WW - Wastewater; SS - Soil / Solid; SW - Stormwater; OT - Other

Sample Integrity: Intact: ____ On Ice: (Yes) No @ 5.6 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon, in writing, by Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup samples upon completion of all analyses.

Analysis Request & Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

3002 Dow Avenue, Suite 532
Tustin, CA 92780
Phone: (714) 832-0064 Fax: (714) 832-0067

4620 East Elwood Street, Suite 4
Phoenix, AZ 85040
Phone: (480) 736-0960 Fax: (480) 736-0970

Lab Job No.: AZ11614 Page: 3 of 3

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Environmental Technologies	Project Name:	Brine Spill New Mexico
Send Report To:	John Kennedy	Project Number:	
Email:	Jkennedy@entech-us.com	PO #:	
Address:		Address (City / State):	New Mexico
		EDD Required:	
Phone:	Fax:	Sampled By:	Joe Osborn

REQUESTED TURN-AROUND-TIME: Standard: ____ 72 Hour: ____ 48 Hour: X 24 Hour: ____

Customer Sample IDs	No. of Containers	Sample Date	Sample Time	Sample Matrix	Container Type	EPA300	REMARKS / INSTRUCTIONS
B1-4	1	11/30/18	13:28	Soil	Glass Jar	X	-026
B1-6	1	11/30/18	13:34	Soil	Glass Jar	X	-027
B1-10	1	11/30/18	13:47	Soil	Glass Jar	X	-028
B4-4	1	11/30/18	13:51	Soil	Glass Jar	X	-029
B4-6	1	11/30/18	13:56	Soil	Glass Jar	X	-030
B4-15	1	11/30/18	14:11	Soil	Glass Jar	X	-031

No. of Samples: 6 Method of Shipment: Carry In Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date: 12-1-18 Time: 3:36 Company:	Received By:	Date: 12-1-18 Time: 3:56 PM Company: ENTECH
Relinquished By:	Date: 12/3/18 Time: 10:13 Company: ENTECH	Received By: Dana Dowell	Date: 12/3/18 Time: 1013 Company: OCA AZ
Relinquished By:	Date: Time: Company:	Received For OCA By:	Date: Time: Company:

Sample Matrix: DW - Drinking Water; GW - Groundwater; AQ - Aqueous; WW - Wastewater; SS - Soil / Solid; SW - Stormwater; OT - Other

Sample Integrity: Intact: ____ On Ice: (Yes) / No @ 5.6 °C

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11642

Project Name: 2991

Project Number: 2991

Date Received: 12/20/2018

Date Reported: 12/28/2018

Chain of Custody Received: ☑

Analytical Method: 8015D, 8015AZ, 8260B, 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 3ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-23-4	AZ11642-001	12/20/2018	12/18/2018	Soil
CS-22-4	AZ11642-002	12/20/2018	12/18/2018	Soil
CS-19-3	AZ11642-003	12/20/2018	12/18/2018	Soil
CS-20-4	AZ11642-004	12/20/2018	12/18/2018	Soil
CS-18-4	AZ11642-005	12/20/2018	12/18/2018	Soil
CS-17-3	AZ11642-006	12/20/2018	12/19/2018	Soil

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-23-4	AZ11642-001	12/20/2018	12/18/2018	12/18/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	91

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-22-4	AZ11642-002	12/20/2018	12/18/2018	12/18/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	117

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-19-3	AZ11642-003	12/20/2018	12/18/2018	12/18/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	99

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-20-4	AZ11642-004	12/20/2018	12/18/2018	12/18/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	104

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-18-4	AZ11642-005	12/20/2018	12/18/2018	12/18/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	107

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-17-3	AZ11642-006	12/20/2018	12/19/2018	12/19/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	117

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT1221181			12/21/2018	12/21/2018	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	113

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 26-150 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-23-4	AZ11642-001	12/20/2018	12/18/2018	12/18/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	86	42-139 %
Toluene-d8:	70	55-130 %
4-Bromofluorobenzene:	57	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-22-4	AZ11642-002	12/20/2018	12/18/2018	12/18/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	82	42-139 %
Toluene-d8:	71	55-130 %
4-Bromofluorobenzene:	58	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-19-3	AZ11642-003	12/20/2018	12/18/2018	12/18/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	80	42-139 %
Toluene-d8:	71	55-130 %
4-Bromofluorobenzene:	58	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-20-4	AZ11642-004	12/20/2018	12/18/2018	12/18/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	76	42-139 %
Toluene-d8:	71	55-130 %
4-Bromofluorobenzene:	56	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-18-4	AZ11642-005	12/20/2018	12/18/2018	12/18/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	77	42-139 %
Toluene-d8:	70	55-130 %
4-Bromofluorobenzene:	57	55-130 %

Dilution Factor: 1

Data Qualifiers: None

12/28/2018

Mr. John Kennedy
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Phoenix, AZ, 85034

Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-17-3	AZ11642-006	12/20/2018	12/19/2018	12/19/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	79	42-139 %
Toluene-d8:	72	55-130 %
4-Bromofluorobenzene:	59	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
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Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT1220181			12/20/2018	12/26/2018	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	97	42-139 %
Toluene-d8:	66	55-130 %
4-Bromofluorobenzene:	57	55-130 %

Dilution Factor: 1
Data Qualifiers: None

12/28/2018

Mr. John Kennedy
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Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-23-4	AZ11642-001	12/20/2018	12/18/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2500	mg/kg	12/21/18	12/21/18	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-22-4	AZ11642-002	12/20/2018	12/18/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	6.1	mg/kg	12/21/18	12/21/18	--	1

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-19-3	AZ11642-003	12/20/2018	12/18/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	490	mg/kg	12/21/18	12/21/18	D2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-20-4	AZ11642-004	12/20/2018	12/18/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	480	mg/kg	12/21/18	12/21/18	D1,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-18-4	AZ11642-005	12/20/2018	12/18/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	480	mg/kg	12/21/18	12/21/18	D1,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-17-3	AZ11642-006	12/20/2018	12/19/2018	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	9.0	mg/kg	12/21/18	12/21/18	D1,	2

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Lab Reference #: ENT AZ11642
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
Method Blank				Soil

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBBV1221183	Chloride	300.0	<1.0	mg/kg	12/21/18	12/21/18	--	1

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015D)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/21/2018
Date of Analysis: 12/21/2018
Dup Date of Analysis: 12/21/2018
Laboratory Sample #: AZ11642-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11642

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.0	25	25	23	100	92	8	70-132	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Bromochlorobenzene	112	112	☐

LCS	LCSD	Qual
96	99	☐

ACP % RC
26-150

Laboratory Control Sample

Date of Extraction: 12/21/2018
Date of Analysis: 12/21/2018
Dup Date of Analysis: 12/21/2018
Laboratory Sample #: TT1221181
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	25	23	21	92	84	9	70-131	28	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/26/2018
Date of Analysis: 12/26/2018
Dup Date of Analysis: 12/26/2018
Laboratory Sample #: 24038-003
MS/MSD Qualifiers: None
Reference #: ENT AZ11642

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.00	0.0100	0.00978	0.0101	98	101	3	53-130	20	☐
Benzene	0.00	0.0100	0.0101	0.0112	101	112	10	67-135	20	☐
Trichloroethene	0.00	0.0100	0.0108	0.0114	108	114	5	70-130	20	☐
Toluene	0.00	0.0100	0.00893	0.00974	89	97	9	69-130	20	☐
Chlorobenzene	0.00	0.0100	0.00956	0.0104	96	104	8	70-130	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Dibromofluoromethane	94	95	☐
Toluene-d8	68	68	☐
4-Bromofluorobenzene	60	58	☐

LCS	LCSD	Qual
95	93	☐
67	68	☐
58	59	☐

ACP % RC
42-139
55-130
55-130

Laboratory Control Sample

Date of Extraction: 12/26/2018
Date of Analysis: 12/26/2018
Dup Date of Analysis: 12/26/2018
Laboratory Sample #: MN1226181
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
1,1-Dichloroethene	0.0100	0.0107	0.0108	107	108	1	54-130	20	☐
Benzene	0.0100	0.0117	0.0122	117	122	4	66-137	20	☐
Trichloroethene	0.0100	0.0127	0.0120	127	120	6	70-130	20	☐
Toluene	0.0100	0.00989	0.0103	99	103	4	70-130	20	☐
Chlorobenzene	0.0100	0.0111	0.0113	111	113	2	70-130	20	☐

QA/QC Report
for Inorganics

Reference #: ENT AZ11642 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	12/21/2018	12/21/2018	12/21/2018	AZ11642-002	6.10	50.0	54.1	53.9	96	96	0	80-120	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	12/21/2018	12/21/2018	12/21/2018	BV1221183	50.0	48.2	48.1	96	96	0	90-110	20	--

Data Qualifier Definitions

Qualifier

D1 = Sample required dilution due to matrix.
D2 = Sample required dilution due to high concentration of target analyte.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: AZ11642
Page 1 of 1

REQUIRED TURN AROUND TIME: Standard: X
72 Hours: _____ 48 Hours: _____ 24 Hours: _____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 @ PULLEY RD
ADDRESS:	2541 E. UNIVERSITY DR		MALAGA, NM
	PHOENIX, AZ 85034	P.O. #:	2260
PHONE:	602-267-1900 FAX: 602-267-1973	SAMPLED BY:	BOB VITTAL

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	ANALYSIS REQUEST / PRESERVATIVE: 8260B VOC's	8015 TPH Full Range	300.0 Chloride	REMARKS/PRECAUTIONS
CS-23-4	3	12/18/18	0805	SS	JARS + VOA	X	X	X	-001
CS-24-4	3	12/18/18	0815	SS	JARS + VOA	X	X	X	-002
CS-19-3	3	12/18/18	0825	SS	JARS + VOA	X	X	X	-003
CS-20-4	3	12/18/18	0835	SS	JARS + VOA	X	X	X	-004
CS-18-4	3	12/18/18	0845	SS	JARS + VOA	X	X	X	-005
CS-17-3	3	12/19/18	0730	SS	JARS + VOA	X	X	X	-006

Total No. of Samples: 6 Method of Shipment: HAND

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
BV Vittal	12/20/18 @ 1045	OCAAZ Jana Jowell	12/20/18 1045
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact _____ On Ice Y 2.6 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon, in writing, with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup sample

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11686

Project Name: 2991

Project Number: 2991

Date Received: 1/18/2019

Date Reported: 1/22/2019

Chain of Custody Received: ☑

Analytical Method: 8015D, 8015AZ, 8260B, 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 3ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
MB-2-4	AZ11686-001	1/18/2019	1/17/2019	Soil
CS-10-4	AZ11686-002	1/18/2019	1/17/2019	Soil
CS-8-4	AZ11686-003	1/18/2019	1/17/2019	Soil
MB-3-4	AZ11686-004	1/18/2019	1/17/2019	Soil
CS-7-4	AZ11686-005	1/18/2019	1/17/2019	Soil
CS-4-4	AZ11686-006	1/18/2019	1/17/2019	Soil

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-2-4	AZ11686-001	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	105

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-10-4	AZ11686-002	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	89

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-8-4	AZ11686-003	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	98

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-3-4	AZ11686-004	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	106

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-7-4	AZ11686-005	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	103

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 26-150 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-4-4	AZ11686-006	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	107

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 26-150 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0118192			1/18/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	104

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 26-150 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-2-4	AZ11686-001	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	79
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-10-4	AZ11686-002	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	80
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-8-4	AZ11686-003	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	81
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-3-4	AZ11686-004	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	78
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-7-4	AZ11686-005	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 78
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-4-4	AZ11686-006	1/18/2019	1/17/2019	1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 78
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0121191			1/21/2019	1/21/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 82
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-2-4	AZ11686-001	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	91	42-139 %
Toluene-d8:	93	55-130 %
4-Bromofluorobenzene:	82	55-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-10-4	AZ11686-002	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	88	42-139 %
Toluene-d8:	95	55-130 %
4-Bromofluorobenzene:	83	55-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-8-4	AZ11686-003	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	88	42-139 %
Toluene-d8:	93	55-130 %
4-Bromofluorobenzene:	81	55-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
MB-3-4	AZ11686-004	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	90	42-139 %
Toluene-d8:	94	55-130 %
4-Bromofluorobenzene:	80	55-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-7-4	AZ11686-005	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	87	42-139 %
Toluene-d8:	97	55-130 %
4-Bromofluorobenzene:	84	55-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-4-4	AZ11686-006	1/18/2019	1/17/2019	1/17/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	84	42-139 %
Toluene-d8:	90	55-130 %
4-Bromofluorobenzene:	77	55-130 %

Dilution Factor: 1

Data Qualifiers: None

1/22/2019

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0118191			1/18/2019	1/21/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	106	42-139 %
Toluene-d8:	90	55-130 %
4-Bromofluorobenzene:	84	55-130 %

Dilution Factor: 1

Data Qualifiers: None

1/22/2019

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
MB-2-4	AZ11686-001	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1900	mg/kg	01/20/19	01/21/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-10-4	AZ11686-002	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1500	mg/kg	01/20/19	01/21/19	D2,	100

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-8-4	AZ11686-003	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	110	mg/kg	01/20/19	01/21/19	D2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
MB-3-4	AZ11686-004	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1100	mg/kg	01/20/19	01/21/19	D2, E2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-7-4	AZ11686-005	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	980	mg/kg	01/20/19	01/21/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-4-4	AZ11686-006	1/18/2019	1/17/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2400	mg/kg	01/20/19	01/21/19	D2,	50

Mr. John Kennedy
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2541 E. University Dr
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Lab Reference #: ENT AZ11686
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
Method Blank				Soil

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBMN0120192	Chloride	300.0	<1.0	mg/kg	01/20/19	01/21/19	--	1

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015D)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: AZ11686-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11686

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.0	25	21	21	84	84	0	70-132	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Bromochlorobenzene	93	94	☐

LCS	LCSD	Qual
93	92	☐

ACP % RC
26-150

Laboratory Control Sample

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: TT0121192
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	25	22	23	88	92	4	70-131	28	☐

QA/QC Report
for
Total Petroleum Hydrocarbons, C10-C32 (8015AZ)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: AZ11686-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11686

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
EFH	0.00	1000	1000	1000	100	100	0	64-130	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
o-Terphenyl	93	93	☐

LCS	LCSD	Qual
84	87	☐

ACP % RC
70-130

Laboratory Control Sample

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: TP0121191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
EFH	1000	940	980	94	98	4	70-130	20	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: AZ11686-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11686

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.00	0.0100	0.00721	0.00666	72	67	8	53-130	20	☐
Benzene	0.00	0.0100	0.0100	0.00905	100	91	10	67-135	20	☐
Trichloroethene	0.00	0.0100	0.00964	0.00903	96	90	7	70-130	20	☐
Toluene	0.00	0.0100	0.00875	0.00772	88	77	13	69-130	20	☐
Chlorobenzene	0.00	0.0100	0.00982	0.00896	98	90	9	70-130	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Dibromofluoromethane	102	104	☐
Toluene-d8	89	87	☐
4-Bromofluorobenzene	80	80	☐

LCS	LCSD	Qual
109	110	☐
88	90	☐
81	82	☐

ACP % RC
42-139
55-130
55-130

Laboratory Control Sample

Date of Extraction: 1/21/2019
Date of Analysis: 1/21/2019
Dup Date of Analysis: 1/21/2019
Laboratory Sample #: HT0121191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
1,1-Dichloroethene	0.0100	0.00852	0.00801	85	80	6	54-130	20	☐
Benzene	0.0100	0.0107	0.0104	107	104	3	66-137	20	☐
Trichloroethene	0.0100	0.0112	0.0109	112	109	3	70-130	20	☐
Toluene	0.0100	0.00946	0.00899	95	90	5	70-130	20	☐
Chlorobenzene	0.0100	0.0104	0.0102	104	102	2	70-130	20	☐

QA/QC Report
for Inorganics

Reference #: ENT AZ11686 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	1/21/2019	1/21/2019	1/21/2019	AZ11686-004	1100	1000	2170	2170	107	107	0	80-120	20	E2,

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	1/21/2019	1/21/2019	1/21/2019	BV0121192	50.0	48.5	48.8	97	98	1	90-110	20	--

Data Qualifier Definitions

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.
E2 = Concentration estimated. Analyte exceeded calibration range.

AZ11686-004	300.0	Chloride	MS/MSD

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: AZ11686
Page 1 of 1

ORANGE COAST ANALYTICAL, INC. www.ocalab.com
3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

REQUIRED TURN AROUND TIME: Standard: ____
72 Hours: ____ 48 Hours: X 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 @ PULLEY RD MALAGA, NM
ADDRESS:	2541 E. UNIVERSITY DR PHOENIX, AZ 85034	P.O. #:	2295
PHONE:	602.267.1900 FAX: 602.267.1973	SAMPLED BY:	BOB VITTAL

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	8260B VOC's	8015 TPH FULL RANGE	300.0 CHLORIDE	REMARKS/PRECAUTIONS
MB-2-4	2	1/17/19	0905	SS	VOA+ JAR	X	X	X	AZ11686-001
CS-10-4			0915			X	X	X	-002
CS-8-4			0925			X	X	X	-003
MB-3-4			0935			X	X	X	-004
CS-7-4			0945			X	X	X	-005
CS-4-4	↓	↓	0955	↓	↓	X	X	X	-006

Total No. of Samples: 6 Method of Shipment: Hand

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
Bob Vittal	1/18/19 @ 1350	Tim Pugh	1-18-19 1350
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix:
DW - Drinking Water
GW - Groundwater
WW - Wastewater
SS - Soil/Solid
OT- Other

Sample Integrity:
Intact Y On Ice Y 2.8 °C

Payment is the responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon in writing. Orange Coast Analytical, Inc. Also

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11734

Project Name: 2991

Project Number: 2991

Date Received: 2/21/2019

Date Reported: 2/25/2019

Chain of Custody Received: ☑

Analytical Method: 8015D, 8015AZ, 8260B, 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 1ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-12-4	AZ11734-001	2/21/2019	2/20/2019	Soil
CS-25-4	AZ11734-002	2/21/2019	2/20/2019	Soil
CS-14-4	AZ11734-003	2/21/2019	2/20/2019	Soil
CS-MB1-7	AZ11734-004	2/21/2019	2/20/2019	Soil

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-4	AZ11734-001	2/21/2019	2/20/2019	2/20/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	104
		* Acceptable Recovery:	27-149 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-25-4	AZ11734-002	2/21/2019	2/20/2019	2/20/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	105
		* Acceptable Recovery:	27-149 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-14-4	AZ11734-003	2/21/2019	2/20/2019	2/20/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	96
		* Acceptable Recovery:	27-149 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB1-7	AZ11734-004	2/21/2019	2/20/2019	2/20/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	103
		* Acceptable Recovery:	27-149 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0221191			2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	86
		* Acceptable Recovery:	27-149 %

Dilution Factor: 1
Data Qualifiers: None

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-4	AZ11734-001	2/21/2019	2/20/2019	2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	83
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-25-4	AZ11734-002	2/21/2019	2/20/2019	2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	82
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-14-4	AZ11734-003	2/21/2019	2/20/2019	2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	80
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB1-7	AZ11734-004	2/21/2019	2/20/2019	2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	84
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0221191			2/21/2019	2/21/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate:	% RC*
o-Terphenyl	81

* Acceptable Recovery: 70-130 %

Dilution Factor: 1

Data Qualifiers: None

2/25/2019

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-4	AZ11734-001	2/21/2019	2/20/2019	2/20/2019	2/22/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	93	49-130 %
Toluene-d8:	88	60-130 %
4-Bromofluorobenzene:	72	48-130 %

Dilution Factor: 1

Data Qualifiers: None

2/25/2019

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-25-4	AZ11734-002	2/21/2019	2/20/2019	2/20/2019	2/22/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	87	49-130 %
Toluene-d8:	87	60-130 %
4-Bromofluorobenzene:	72	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-14-4	AZ11734-003	2/21/2019	2/20/2019	2/20/2019	2/22/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	89	49-130 %
Toluene-d8:	86	60-130 %
4-Bromofluorobenzene:	73	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB1-7	AZ11734-004	2/21/2019	2/20/2019	2/20/2019	2/22/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl Chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	86	49-130 %
Toluene-d8:	89	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0221191			2/21/2019	2/22/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Naphthalene	91-20-3	<0.15
Bromochloromethane	74-97-5	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromodichloromethane	75-27-4	<0.050	Styrene	100-42-5	<0.050
Bromoform	75-25-2	<0.050	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
Bromomethane	74-83-9	<0.25	Tetrachloroethene	127-18-4	<0.050
n-Butylbenzene	104-51-8	<0.050	Toluene	108-88-3	<0.050
sec-Butylbenzene	135-98-8	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chlorobenzene	108-90-7	<0.050	Trichloroethene	79-01-6	<0.050
Chloroethane	75-00-3	<0.25	Trichlorofluoromethane	75-69-4	<0.25
Chloroform	67-66-3	<0.050	1,2,3-Trichloropropane	96-18-4	<0.050
Chloromethane	74-87-3	<0.25	1,2,4-Trimethylbenzene	95-63-6	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
4-Chlorotoluene	106-43-4	<0.050	Vinyl chloride	75-01-4	<0.050
Dibromochloromethane	124-48-1	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dibromoethane	106-93-4	<0.050			
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	112	49-130 %
Toluene-d8:	79	60-130 %
4-Bromofluorobenzene:	68	48-130 %

Dilution Factor: 1
Data Qualifiers: None

2/25/2019

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Lab Reference #: ENT AZ11734
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-12-4	AZ11734-001	2/21/2019	2/20/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2300	mg/kg	02/25/19	02/25/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-25-4	AZ11734-002	2/21/2019	2/20/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2400	mg/kg	02/25/19	02/25/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-14-4	AZ11734-003	2/21/2019	2/20/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2500	mg/kg	02/25/19	02/25/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-MB1-7	AZ11734-004	2/21/2019	2/20/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	1600	mg/kg	02/25/19	02/25/19	D2,	50

Method Blank							Soil
MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBBV0225191	Chloride	300.0	<1.0	mg/kg	02/25/19	02/25/19	--	1

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015D)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/21/2019
Date of Analysis: 2/21/2019
Dup Date of Analysis: 2/21/2019
Laboratory Sample #: AZ11732-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11734

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.0	25	23	21	92	84	9	70-133	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Bromochlorobenzene	84	91	☐

LCS	LCSD	Qual
81	87	☐

ACP % RC
27-149

Laboratory Control Sample

Date of Extraction: 2/21/2019
Date of Analysis: 2/21/2019
Dup Date of Analysis: 2/21/2019
Laboratory Sample #: TT0221192
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	25	24	23	96	92	4	70-132	28	☐

QA/QC Report
for
Total Petroleum Hydrocarbons, C10-C32 (8015AZ)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/21/2019
Date of Analysis: 2/21/2019
Dup Date of Analysis: 2/21/2019
Laboratory Sample #: AZ11732-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11734

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
EFH	0.00	1000	980	970	98	97	1	63-130	21	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
o-Terphenyl	93	93	☐

LCS	LCSD	Qual
90	91	☐

ACP % RC
70-130

Laboratory Control Sample

Date of Extraction: 2/21/2019
Date of Analysis: 2/21/2019
Dup Date of Analysis: 2/21/2019
Laboratory Sample #: TT0221191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
EFH	1000	970	1100	97	110	13	70-130	20	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/22/2019
Date of Analysis: 2/22/2019
Dup Date of Analysis: 2/22/2019
Laboratory Sample #: AZ11734-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11734

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.00	0.0100	0.00725	0.00666	73	67	8	57-130	20	☐
Benzene	0.00	0.0100	0.0108	0.0103	108	103	5	68-136	20	☐
Trichloroethene	0.00	0.0100	0.00975	0.00961	98	96	1	70-133	20	☐
Toluene	0.00	0.0100	0.00920	0.00922	92	92	0	66-133	20	☐
Chlorobenzene	0.00	0.0100	0.0103	0.0101	103	101	2	70-134	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Dibromofluoromethane	86	88	☐
Toluene-d8	85	88	☐
4-Bromofluorobenzene	71	71	☐

LCS	LCSD	Qual
113	117	☐
80	80	☐
71	70	☐

ACP % RC
49-130
60-130
48-130

Laboratory Control Sample

Date of Extraction: 2/22/2019
Date of Analysis: 2/22/2019
Dup Date of Analysis: 2/22/2019
Laboratory Sample #: HT0222191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
1,1-Dichloroethene	0.0100	0.00897	0.00832	90	83	8	61-130	20	☐
Benzene	0.0100	0.0119	0.0112	119	112	6	66-138	20	☐
Trichloroethene	0.0100	0.0115	0.0108	115	108	6	70-134	20	☐
Toluene	0.0100	0.00940	0.00922	94	92	2	68-132	20	☐
Chlorobenzene	0.0100	0.0111	0.0106	111	106	5	70-134	20	☐

QA/QC Report
for Inorganics

Reference #: ENT AZ11734 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	2/25/2019	2/25/2019	2/25/2019	AZ11734-001	2300	5000	7610	7620	106	106	0	90-110	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	2/25/2019	2/25/2019	2/25/2019	BV0225191	50.0	47.0	47.3	94	95	1	90-110	20	--

Data Qualifier Definitions

Qualifier

D2 = Sample required dilution due to high concentration of target analyte.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: AZ11734
Page 1 of 1

REQUIRED TURN AROUND TIME: Standard: ____ 72 Hours: ____ 48 Hours: X 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	ENTECH	PROJECT NAME:	2991
SEND REPORT TO:	JOHN KENNEDY	NUMBER:	2991
EMAIL:	labs@entech-us.com	ADDRESS:	NM285 @ PULLEY RD
ADDRESS:	2541 E. UNIVERSITY DR		MALAGA, NM
	PHOENIX, AZ 85034	P.O. #:	2327
PHONE:	602.267.1900 FAX: 602.267.1973	SAMPLED BY:	BOB V. TYRL

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	ANALYSIS REQUEST / PRESERVATIVE: 8260B VOC's	8015 TPH Full Range	300.0 Chloride	REMARKS/PRECAUTIONS
CS-12-4	2	2.20.19	0835	SS	VOA JAR	+	+	+	
CS-25-4	2	2.20.19	0855	SS	VOA JAR	+	+	+	
CS-14-4	2	2.20.19	0930	SS	VOA JAR	+	+	+	
CS-MB1-7	2	2.20.19	1110	SS	JAR VOA	+	+	+	

Total No. of Samples: Method of Shipment:

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By: BC	Date/Time: 2/21/19 @ 1520	Received By: OCA AZ Dana Dowell	Date/Time: 2/21/19 1520
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact ____ On Ice Y 1.2 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within [illegible] days from invoice date unless otherwise agreed upon, in writing, with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to pickup sample

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

4620 East Elwood Street, Suite 4 Phoenix, AZ 85040

(480) 736-0960

Laboratory Certification (ADHS) No.: AZ0558, AZ0646
Expiration Date: 2018

Laboratory Director's Name:
Mark Noorani

Client: EnTech

Laboratory Reference: ENT AZ11711

Project Name: 2991

Project Number: 2991

Date Received: 2/5/2019

Date Reported: 2/7/2019

Chain of Custody Received: ☑

Analytical Method: 8015D, 8015AZ, 8260B, 300.0,

Mark Noorani, Laboratory Director

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 1ºC, on ice.

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-MB4-4	AZ11711-001	2/5/2019	2/4/2019	Soil
CS-1-4	AZ11711-002	2/5/2019	2/4/2019	Soil
CS-5-4	AZ11711-003	2/5/2019	2/4/2019	Soil
CS-3-2	AZ11711-004	2/5/2019	2/4/2019	Soil
CS-16-4	AZ11711-005	2/5/2019	2/4/2019	Soil
CS-12-3	AZ11711-006	2/5/2019	2/4/2019	Soil
CS-15-2	AZ11711-007	2/5/2019	2/4/2019	Soil

Mr. John Kennedy
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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB4-4	AZ11711-001	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	101

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-1-4	AZ11711-002	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	84

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-5-4	AZ11711-003	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	97

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-3-2	AZ11711-004	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	103

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-16-4	AZ11711-005	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	100

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. John Kennedy
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Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Gasoline Range Organics - GROs (EPA 8015D)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-3	AZ11711-006	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	97

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-15-2	AZ11711-007	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	110

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0205192			2/5/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<5.0	Bromochlorobenzene	105

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 27-149 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. John Kennedy
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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB4-4	AZ11711-001	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 80
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-1-4	AZ11711-002	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 83
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-5-4	AZ11711-003	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 80
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-3-2	AZ11711-004	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg
C10-22	<30
C22-32	<100
Total	<130

Surrogate: % RC*
o-Terphenyl 79
* Acceptable Recovery: 70-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. John Kennedy
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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Total Petroleum Hydrocarbons, C10-C32 (8015AZ)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-16-4	AZ11711-005	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	82
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-3	AZ11711-006	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	83
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-15-2	AZ11711-007	2/5/2019	2/4/2019	2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	80
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTP0206191			2/6/2019	2/6/2019	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
C10-22	<30	o-Terphenyl	72
C22-32	<100	* Acceptable Recovery:	70-130 %
Total	<130		

Dilution Factor: 1
Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-MB4-4	AZ11711-001	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	87	49-130 %
Toluene-d8:	90	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. John Kennedy
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Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-1-4	AZ11711-002	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	90	49-130 %
Toluene-d8:	91	60-130 %
4-Bromofluorobenzene:	78	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-5-4	AZ11711-003	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	87	49-130 %
Toluene-d8:	91	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-3-2	AZ11711-004	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	85	49-130 %
Toluene-d8:	92	60-130 %
4-Bromofluorobenzene:	77	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-16-4	AZ11711-005	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	87	49-130 %
Toluene-d8:	90	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-12-3	AZ11711-006	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	86	49-130 %
Toluene-d8:	90	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
CS-15-2	AZ11711-007	2/5/2019	2/4/2019	2/4/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl Chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	84	49-130 %
Toluene-d8:	91	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1

Data Qualifiers: None

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Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBTT0205191			2/5/2019	2/6/2019	Soil

ANALYTE	CAS #	mg/kg	ANALYTE	CAS #	mg/kg
Benzene	71-43-2	<0.040	Methyl t-butyl ether (MTBE)	1634-04-4	<0.050
Bromobenzene	108-86-1	<0.050	Methylene chloride	75-09-2	<0.25
Bromochloromethane	74-97-5	<0.050	Naphthalene	91-20-3	<0.15
Bromodichloromethane	75-27-4	<0.050	n-Propylbenzene	103-65-1	<0.050
Bromoform	75-25-2	<0.050	Styrene	100-42-5	<0.050
Bromomethane	74-83-9	<0.25	1,1,2,2-Tetrachloroethane	79-34-5	<0.050
n-Butylbenzene	104-51-8	<0.050	Tetrachloroethene	127-18-4	<0.050
sec-Butylbenzene	135-98-8	<0.050	Toluene	108-88-3	<0.050
tert-Butylbenzene	98-06-6	<0.050	1,2,3-Trichlorobenzene	87-61-6	<0.050
Carbon tetrachloride	56-23-5	<0.050	1,1,1-Trichloroethane	71-55-6	<0.050
Chlorobenzene	108-90-7	<0.050	1,1,2-Trichloroethane	79-00-5	<0.050
Chloroethane	75-00-3	<0.25	Trichloroethene	79-01-6	<0.050
Chloroform	67-66-3	<0.050	Trichlorofluoromethane	75-69-4	<0.25
Chloromethane	74-87-3	<0.25	1,2,3-Trichloropropane	96-18-4	<0.050
2-Chlorotoluene	95-49-8	<0.050	1,2,4-Trimethylbenzene	95-63-6	<0.050
4-Chlorotoluene	106-43-4	<0.050	1,3,5-Trimethylbenzene	108-67-8	<0.050
Dibromochloromethane	124-48-1	<0.050	Vinyl chloride	75-01-4	<0.050
1,2-Dibromoethane	106-93-4	<0.050	Xylenes, Total	1330-20-7	<0.15
1,2-Dichlorobenzene	95-50-1	<0.050			
1,3-Dichlorobenzene	541-73-1	<0.050			
1,4-Dichlorobenzene	106-46-7	<0.050			
Dichlorodifluoromethane	75-71-8	<0.25			
1,1-Dichloroethane	75-34-3	<0.050			
1,2-Dichloroethane	107-06-2	<0.050			
1,1-Dichloroethene	75-35-4	<0.050			
cis-1,2-Dichloroethene	156-59-2	<0.050			
trans-1,2-Dichloroethene	156-60-5	<0.050			
1,2-Dichloropropane	78-87-5	<0.050			
1,3-Dichloropropane	142-28-9	<0.050			
2,2-Dichloropropane	594-20-7	<0.050			
1,1-Dichloropropene	563-58-6	<0.050			
cis-1,3-Dichloropropene	10061-01-5	<0.050			
trans-1,3-Dichloropropene	10061-02-6	<0.050			
Ethylbenzene	100-41-4	<0.050			
Isopropylbenzene	98-82-8	<0.050			
4-Isopropyltoluene	99-87-6	<0.050			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	111	49-130 %
Toluene-d8:	84	60-130 %
4-Bromofluorobenzene:	76	48-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-MB4-4	AZ11711-001	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	230	mg/kg	02/06/19	02/06/19	D2,	10

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-1-4	AZ11711-002	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	2000	mg/kg	02/06/19	02/06/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-5-4	AZ11711-003	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	870	mg/kg	02/06/19	02/06/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-3-2	AZ11711-004	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	76	mg/kg	02/06/19	02/06/19	D1,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-16-4	AZ11711-005	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	4100	mg/kg	02/06/19	02/06/19	D2,	50

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-12-3	AZ11711-006	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	5200	mg/kg	02/06/19	02/06/19	D2,	100

Mr. John Kennedy
EnTech
2541 E. University Dr
Phoenix, AZ, 85034

Lab Reference #: ENT AZ11711
Project Name: 2991
Project #: 2991

Inorganics

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CS-15-2	AZ11711-007	2/5/2019	2/4/2019	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Chloride	300.0	58	mg/kg	02/06/19	02/06/19	D1,	50

Method Blank — Soil

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBBV0206196	Chloride	300.0	<1.0	mg/kg	02/06/19	02/06/19	--	1

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015D)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: AZ11711-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11711

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.0	25	23	22	92	88	4	70-133	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Bromochlorobenzene	81	81	☐

LCS	LCSD	Qual
87	82	☐

ACP % RC
27-149

Laboratory Control Sample

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: TT0206191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	25	22	22	88	88	0	70-132	28	☐

QA/QC Report
for
Total Petroleum Hydrocarbons, C10-C32 (8015AZ)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: AZ11711-001
MS/MSD Qualifiers: None
Reference #: ENT AZ11711

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
EFH	0.00	1000	1000	1000	100	100	0	63-130	21	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
o-Terphenyl	96	96	☐

LCS	LCSD	Qual
94	89	☐

ACP % RC
70-130

Laboratory Control Sample

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: TP0206191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
EFH	1000	980	980	98	98	0	70-130	20	☐

QA/QC Report
for
Volatile Organic Compounds (EPA 8260B)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: AZ11711-005
MS/MSD Qualifiers: None
Reference #: ENT AZ11711

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
1,1-Dichloroethene	0.00	0.0100	0.00868	0.00874	87	87	1	57-130	20	☐
Benzene	0.00	0.0100	0.0116	0.0113	116	113	3	68-136	20	☐
Trichloroethene	0.00	0.0100	0.0111	0.0110	111	110	1	70-133	20	☐
Toluene	0.00	0.0100	0.00994	0.00927	99	93	7	66-133	20	☐
Chlorobenzene	0.00	0.0100	0.0110	0.0105	110	105	5	70-134	20	☐

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual
Dibromofluoromethane	98	103	☐
Toluene-d8	86	84	☐
4-Bromofluorobenzene	75	73	☐

LCS	LCSD	Qual
112	108	☐
85	84	☐
75	77	☐

ACP % RC
49-130
60-130
48-130

Laboratory Control Sample

Date of Extraction: 2/6/2019
Date of Analysis: 2/6/2019
Dup Date of Analysis: 2/6/2019
Laboratory Sample #: HT0206191
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
1,1-Dichloroethene	0.0100	0.00810	0.00678	81	68	18	61-130	20	☐
Benzene	0.0100	0.0106	0.00962	106	96	10	66-138	20	☐
Trichloroethene	0.0100	0.0105	0.00938	105	94	11	70-134	20	☐
Toluene	0.0100	0.00858	0.00792	86	79	8	68-132	20	☐
Chlorobenzene	0.0100	0.00980	0.00914	98	91	7	70-134	20	☐

QA/QC Report
for Inorganics

Reference #: ENT AZ11711 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Analyte	Date of Extraction	MS Date of Analysis	MSD Date of Analysis	Laboratory Sample #	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Chloride	2/6/2019	2/6/2019	2/6/2019	AZ11711-002	2000	5000	7320	7320	106	106	0	90-110	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

Analyte	Date of Extraction	LCS Date of Analysis	LCSD Date of Analysis	Laboratory Sample #	SPC CONC	LCS	LCSD	%LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qual
Chloride	2/6/2019	2/6/2019	2/6/2019	BV0206196	50.0	48.3	48.2	97	96	0	90-110	20	--

Data Qualifier Definitions

Qualifier

D1 = Sample required dilution due to matrix.
D2 = Sample required dilution due to high concentration of target analyte.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: AZ1174
Page 1 of 1

REQUIRED TURN AROUND TIME: Standard: ______ 72 Hours: ______ 48 Hours: X 24 Hours: ______

CUSTOMER INFORMATION	
COMPANY:	ENTECH
SEND REPORT TO:	JOHN KENNEDY
EMAIL:	labs@entech-us.com
ADDRESS:	2541 E. UNIVERSITY DR PHOENIX, AZ 85034
PHONE:	602-267-1900 FAX: 602-267-1973

PROJECT INFORMATION	
PROJECT NAME:	2991
NUMBER:	2991
ADDRESS:	NM 285 @ PULLEY RD MALAGA, NM
P.O. #:	2309
SAMPLED BY:	BOB VITTAL

ANALYSIS REQUEST / PRESERVATIVE: 8260B VOC's; 8015 TPH FULL RANGE; 300.0 CHLORIDE

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	8260B VOC's	8015 TPH FULL RANGE	300.0 CHLORIDE	REMARKS/PRECAUTIONS
CS-MB4-4	2	2/4/19	1110	SS	VOA + JAR	X	X	X	AZ1171-001
CS-1-4	↓	↓	1120	↓	↓	X	X	X	-002
CS-5-4	↓	↓	1130	↓	↓	X	X	X	-003
CS-3-~~4~~ 2 (TI 2/5/19)	↓	↓	1140	↓	↓	X	X	X	-004
CS-16-4	↓	↓	1205	↓	↓	X	X	X	-005
CS-12-3	↓	↓	1215	↓	↓	X	X	X	-006
CS-15-2	↓	↓	1225	↓	↓	X	X	X	-007

Total No. of Samples: 7 Method of Shipment: Hand

Preservative: 1 = Ice 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	2/5/19 @ 1434	Tim [signature]	2-5-19 1434
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:

Sample Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; SS - Soil/Solid; OT- Other

Sample Integrity: Intact Y On Ice Y 1.0 °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon in writing with Orange Coast Analytical Inc. All samples remain the property of the client...

Sample Receipt Report

Laboratory Reference: HTS 24117 Logged in by MM

Received:	01/29/19 09:29	Company Name:	HTS Environmental
Method of Shipment:	Hand Delivered	Project Manager:	Ms. Jasmine Rubalcava
Shipping Container:	N/A	Project Name:	TRN Foam Plastics
# Shipping Containers:	0	Project #:	

Sample Quantity
1 Solid

Chain of Custody	Complete ☑	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☐	Yes, Blue ☐	No ☑
Temperature	24°C		
Shipping Intact	Yes ☑	N/A ☐	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☑	No ☐
Samples Intact	Yes ☑		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☑	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☑	No ☐
Proper Test Containers	Yes ☑		No ☐
Proper Test Preservations	Yes ☑		No ☐
Samples Within Hold Times	Yes ☑		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☑	No ☐
Sample Labels	Complete ☑	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☑	N/A ☐	No ☐

Notes

Client Notified _____ By _____ On _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 8510

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 8510
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	None	6/29/2022