

Electronic Correspondence

April 26, 2017

Ms. Olivia Yu Environmental Specialist, District I Oil Conservation Division, EMNRD Olivia.yu@state.nm.us **APPROVED** By Olivia Yu at 7:42 am, May 04, 2017

NMOCD approves the delineation and remediation workplan for 1RP-4564.

Re: Corrective Action Plan - 4564 Enervest Operating Jack B-30 #2 Tank Battery Lightning Strike Legal: Unit B, Sec 30, T24S R37E, Lea County, NM Latitude/Longitude: 32.1946487/ -103.1989975 Etech Proj. Number: 498-7876-000 Depth to Groundwater: 117-121 feet - Chevron/Texaco Lea County Depth to Groundwater Map - USGS National Water Information System: Web Interface Release Type: Produced Water and Crude Oil Contaminants of Concern (COCs) TPH 5000 mg/kg

Benzene BTEX Chlorides Threshold Levels 5000 mg/kg 10 mg/kg 50 mg/kg 600 mg/kg

Dear Olivia:

Etech Environmental & Safety Solutions, Inc. (Etech) is submitting the following corrective action plan on the aforementioned site for your review and approval.

Background

On January 15, 2017, lightning struck tanks located at the Enervest Operating Jack B-30 #2 lease causing a release of fluids inside the location's soil containment, and a small amount of fluid on the adjoining well pad and pasture. Approximately 80 barrels (bbls) of produced water and ten (10) bbls of crude oil were released. Approximately 85 bbls of fluid were recovered and disposed. Tank bottoms and solids were jetted using a hot oiler and taken to disposal.

An assessment and initial sampling were conducted of the impacted area on January 23, 2017 by Etech. It was determined that the release was inside the soil containment, on the well pad, and on the pasture. The release impacted an area of approximately 10,270 square feet.

Soil samples were collected by hand auger from four (4) locations of the impacted area (See Annotated Aerial Imagery). The results of field tests of the soil samples determined that chloride levels ranged from less than 320 mg/kg to 1100 mg/kg (See Attachment A, Annotated Aerial Imagery). In addition, the field tested soil samples displaying concentrations less than 320 mg/kg were submitted to Permian Basin Environmental Laboratory (PBELAB) and analyzed for chlorides, TPH, benzene, and BTEX. The laboratory results determined that the chloride levels ranged from 8.5 mg/kg to 68.2 mg/kg, TPH levels ranged from no analytical detection to 8,150 mg/kg, benzene levels ranged from no analytical detection to

0.0581 mg/kg, and BTEX levels ranged from no analytical detection to 0.6262 mg/kg (See Table 1 Summary of Delineation Sampling Analytical Results below).

On February 9, 2017, a third party contractor was mobilized to the site to begin remediation by removal in an attempt to prevent further vertical migration of constituents of concern. A backhoe was utilized to excavate the impacted area approximately twelve (12) inches to twenty-four (24) inches below ground surface (bgs). A total of approximately four hundred eight (408) cubic yards of impacted soil were excavated and hauled for disposal at Sundance Services, Incorporated.

On February 17, 2017, Etech returned to the site to conduct additional delineation soil sampling and confirmation soil sampling. Delineation soil sampling was conducted utilizing a backhoe to excavate six (6) test trenches and collect twenty-three (23) soil samples labeled Test Trench 1 6.5', Test Trench 1 8', Test Trench 2 8', Test Trench 2 9', Test Trench 3 6', Test Trench 3 8.5', Test Trench 4 5.5', Test trench 4 7.5', Test Trench 5 2' through Test Trench 5 9', and Test Trench 6 2' through Test Trench 6 8' (See Annotated Aerial Imagery). The soil samples were submitted to PBELAB to be analyzed for chloride concentrations. In addition, six (6) confirmation soil samples labeled Bottom Hole 1 6", Bottom Hole 2 24 ", Bottom Hole 3 18", Bottom Hole 4 6", Bottom Hole 5 12", and Bottom Hole 6 12" were collected from the bottom of the excavation (See Attachment B, Annotated Aerial Imagery). The soil samples were submitted to PBELAB and analyzed for chlorides, TPH, benzene, and BTEX.

The laboratory results for the samples collected from the test trenches determined that the chloride levels ranged from 14.1 mg/kg to 1,900 mg/kg (See Table 1 Summary of Delineation Sampling Analytical Results below). The laboratory results for the bottom hole samples determined that the chloride levels ranged from 48.8 mg/kg to 1,180 mg/kg, TPH levels ranged from no analytical detection to 10,700 mg/kg, benzene levels ranged from no analytical detection to 0.509 mg/kg, and BTEX levels ranged from no analytical detection to 39.349 mg/kg (See Table 2 Summary of Remediation Sampling Analytical Results below). It should be noted that precipitation from a rain event that occurred approximately on Sunday February 12, 2017 apparently caused chlorides to wick to and concentrate at surface depths of the excavation in the pasture. Sample results from delineation soil samples collected on January 23, 2017 determined the range of chloride concentrations to be 14.9 to 43.2 mg/kg at or above the current excavation depths. The chloride concentrations now range from 1,130 to 1,180 mg/kg as determined from confirmation soil samples collected on February 17, 2017.

On April 11, 2017, Etech returned to the site to conduct additional delineation soil sampling at the Bottom Hole 5 and Test Trench 5 location in order to delineate chloride concentrations to below 600 mg/kg. An air rotary drill rig was utilized to perform one (1) boring and collect three (3) soil samples labeled Boring 1 10', Boring 1 15', and Boring 1 20' (See Attachment B, Annotated Aerial Imagery and Attachment C, Well Record & Log). The soil samples were submitted to PBELAB and analyzed for chlorides.

The laboratory results for the samples collected from the boring determined that chloride levels were below 600 mg/kg and ranged from 6.73 mg/kg to 10.7 mg/kg (See Table 1 Summary of Delineation Sampling Analytical Results below). It appears that a layer of cemented sandstone observed in the bottom of Test Trench 5 and in Boring 1 prevented the further downward migration of chlorides.

		Summa	ry of Delin	Table eation Sai	e 1 mpling Ana	lytical Res	ults		
Sample ID	Depth	Date	C6-C12	>C12- C28	>C28- C35	Total TPH (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Chlorides (mg/kg)
Auger Hole 1	6-12"	1/23/17	ND	ND	ND	ND	ND	ND	22.6

Auger Hole 1	12-18"	1/23/17	ND	ND	ND	ND	ND	ND	11.2
Auger Hole 2	18-24"	1/23/17	ND	ND	ND	ND	0.00137	0.00137	43.2
Auger Hole 2	30-36"	1/23/17	ND	ND	ND	ND	ND	ND	9.71
Auger Hole 3	0-6″	1/23/17	1,200	5,710	1,230	8,150	0.0581	26.3181	8.45
Auger Hole 3	6-12"	1/23/17	ND	105	ND	105	0.00171	0.00665	14.9
Auger Hole 4	0-6″	1/23/17	ND	390	65.3	456	ND	0.6262	68.2
Auger Hole 4	6-12"	1/23/17	ND	71.5	ND	71.5	0.00144	0.00144	19.0
Test Trench 1	6.5′	2/17/17	NA	NA	NA	NA	NA	NA	67.6
Test Trench 1	8'	2/17/17	NA	NA	NA	NA	NA	NA	155
Test Trench 2	8'	2/17/17	NA	NA	NA	NA	NA	NA	32.2
Test Trench 2	9'	2/17/17	NA	NA	NA	NA	NA	NA	169
Test Trench 3	6'	2/17/17	NA	NA	NA	NA	NA	NA	14.1
Test Trench 3	8.5′	2/17/17	NA	NA	NA	NA	NA	NA	66.0
Test Trench 4	5.5′	2/17/17	NA	NA	NA	NA	NA	NA	215
Test Trench 4	7.5′	2/17/17	NA	NA	NA	NA	NA	NA	34.2
Test Trench 5	2'	2/17/17	ND	201	53.8	255	NA	NA	395
Test Trench 5	3'	2/17/17	NA	NA	NA	NA	NA	NA	315
Test Trench 5	4'	2/17/17	NA	NA	NA	NA	NA	NA	412
Test Trench 5	5'	2/17/17	NA	NA	NA	NA	NA	NA	257
Test Trench 5	6'	2/17/17	NA	NA	NA	NA	NA	NA	192
Test Trench 5	7'	2/17/17	NA	NA	NA	NA	NA	NA	308
Test Trench 5	8'	2/17/17	NA	NA	NA	NA	NA	NA	418
Test Trench 5	9'	2/17/17	NA	NA	NA	NA	NA	NA	988
Test Trench 6	2'	2/17/17	NA	NA	NA	NA	NA	NA	1,900
Test Trench 6	3'	2/17/17	NA	NA	NA	NA	NA	NA	123
Test Trench 6	4'	2/17/17	NA	NA	NA	NA	NA	NA	261
Test Trench 6	5'	2/17/17	NA	NA	NA	NA	NA	NA	209
Test Trench 6	6'	2/17/17	NA	NA	NA	NA	NA	NA	326
Test Trench 6	7'	2/17/17	NA	NA	NA	NA	NA	NA	387
Test Trench 6	8'	2/17/17	NA	NA	NA	NA	NA	NA	410
Boring 1	10′	4/11/17	NA	NA	NA	NA	NA	NA	10.7
Boring 1	15′	4/11/17	NA	NA	NA	NA	NA	NA	6.73
Boring 1	20′	4/11/17	NA	NA	NA	NA	NA	NA	8.37

ND denotes no analytical detection. NA denotes not applicable

Bold denotes analytical results above regulatory guidelines

	Table 2 Summary of Remediation Sampling Analytical Results												
Sample ID	Depth	Date	C6-C12	>C12- C28	>C28- C35	Total TPH (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Chlorides (mg/kg)				
Bottom Hole 1	6"	2/17/17	ND	ND	ND	ND	ND	ND	48.8				
Bottom Hole 2	24″	2/17/17	ND	ND	ND	ND	ND	ND	1,130				
Bottom Hole 3	18"	2/17/17	ND	42.4	ND	42.4	ND	ND	1,180				
Bottom Hole 4	6″	2/17/17	31.4	179	ND	210	ND	ND	609				
Bottom Hole 5	12"	2/17/17	4,330	5,520	847	10,700	0.509	39.349	391				

	Bottom Hole 6	12"	2/17/17	102	375	51.9	529	ND	0.43	1,330
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ND denotes no analytical detection.

Bold denotes analytical results above regulatory guidelines

Depth to Groundwater Data

Depth to groundwater data was obtained from the Chevron/Texaco Lea County Depth to Groundwater Map and the USGS National Water Information System: Web Interface. The New Mexico Office of the State Engineer (OSE) Hydrology Bureau collaborates with the U. S. Geological Survey (USGS) to collect, store and make available measurements of water levels in over 2,200 wells across the state of New Mexico. Therefore, OSE groundwater data is part of the USGS National Water Information System database.

The USGS data correlates well with the Chevron/Texaco Lea County Depth to Groundwater Map data. The data points nearest the Jack B-30 #2 indicate that the depth to groundwater is between 117 feet (USGS 321131103115601 24S.37E.19.234442) to 121 feet (USGS 321127103112801 24S.37E.20.333441) below ground surface (bgs). These data points are approximately .22 miles north and .52 miles southeast of the Jack B-30 #2 location, respectively. In contrast, shallower depth to groundwater data points is observed approximately 1.77 miles to over 2.0 miles away from the Jack B-30 #2 location.

Attachment D contains an image of the pertinent area of the Chevron/ Texaco Lea County Depth to Groundwater Map with the location of the Jack B-30 #2 denoted, a map displaying the location of the Jack B-30 #2 and surrounding USGS data points, and the data files for the USGS data points displayed on the map.

Depth and Method of Remediation

The following table displays the depth and method of remediation for each of the sample location areas. In addition, it describes whether the sample location is on the pad or in the pasture and the status of the remediation.

Table 3 Summary of Depth and Method of Remediation										
Sample Location	Location Type	Depth (bgs)	Method of Remediation	Status						
Bottom Hole 1	Pad	6″	Excavation	Completed						
Bottom Hole 2	Pasture	30″	Excavation	Pending						
Bottom Hole 3	Pasture	24"	Excavation	Pending						
Bottom Hole 4	Pad	6″	Excavation	Completed						
Bottom Hole 5	Pad	Surface	Excavation/Plastic Liner	Pending						
Bottom Hole 6	Pad	Surface	Excavation/Plastic Liner	Pending						

Scope of Work

The corrective action for this site will be excavation and disposal of impacted soils. In addition, a plastic liner will be installed at the tank battery area. The corrective action goals for this project will be 600 mg/kg of chlorides, 5,000 mg/kg for TPH, 10 mg/kg for benzene, and 50 mg/kg for BTEX. The particulars for remediation will involve the actions summarized as follows:

- 1. The pasture area represented by the Bottom Hole 2 and Test Trench 2 soil sample locations will be excavated to a depth of 30 inches bgs. The pasture area represented by the Bottom Hole 3 and Test Trench 3 soil sample locations will be excavated to a depth of 24 inches bgs. (See Attachment A, Annotated Aerial Imagery for the demarcation of the two areas).
- 2. At the pad area represented by the Bottom Hole 5 and Test Trench 5 and Bottom Hole 6 and Test Trench 6 soil sample locations:

- Excavate to a depth of 24 inches bgs at the Bottom Hole 5 and Test Trench 5 area.
- Excavate to a depth of 36 inches bgs at the Bottom Hole 6 and Test Trench 6 area.
- See Annotated Aerial Imagery for the demarcation of the two areas.
- 3. Haul all excavated soils to an NMOCD approved facility for disposal.
- 4. Collect bottom hole and sidewall confirmation soil samples from the remediated areas to confirm that corrective action goals have been met.
- 5. If the results of analysis indicate that the contaminants of concern levels are above regulatory threshold levels, additional remediation and confirmation soil sampling will be conducted until corrective action goals are met. If the depth of excavation becomes prohibitive (i.e., six (6) feet or greater) the company may request to be allowed to emplace a plastic liner in the pasture area.
- 6. Once corrective action goals have been met in the pasture area, the pasture area will be backfilled with clean top soil of the kind removed and seeded with BLM #2 seed blend or other seed blend as approved by the NMOCD and BLM. The seeded area will be monitored for growth and the operator will repeat seeding until a successful vegetative cover is achieved.
- Once corrective action goals have been met in the pad area represented by Bottom Hole 5 and Test Trench 5 and Bottom Hole 6 and Test Trench 6 locations, the pad area will be backfilled with clean fill.
- 8. The battery containment will be rebuilt and incorporate the installation of a plastic liner at ground surface. The plastic liner will then be covered with clean fill. The plastic liner will prevent any further recharge to the impacted soils beneath it, so that vertical migration of the constituents of concern is prevented. In addition, the plastic liner will prevent the downward migration of fluids from any potential future releases at the tank battery area.
- 9. The battery will be returned to operation.

Notifications and Special Conditions

- 1. The OCD will be notified prior to the commencement of on-site operations.
- 2. The OCD will be notified prior to each sampling event to allow the opportunity to witness the sampling events. Splits will be made available if requested.
- 3. A final report documenting the closure of the site will be submitted along with a final C-141.

Thank you for your assistance on this matter. Should you have any questions, require additional information, or have any additional stipulations for this site, please contact me at (432) 563-2200 (office) or via email at geoff@etechenv.com.

Respectfully:

Heald Germy

Geoff Leking, Project Manager Etech Environmental & Safety Solutions, Inc.

Attachment A Initial C-141

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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Address	1217 Hwy 12		NM 88252			Telephone N		-			
Facility Na	me Jack	B-30 #2				Facility Typ	e Tank Battery	,			
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pOY1701753884

Attachment B Annotated Aerial Imagery



Excavate to 24 inches bgs

Excavation demarcation line

AH 2 • BH 2 TT 2 AH

AI

Excavate to 30 inches bgs

100 ft

Excavate to 36 inches bgs

Attachment C Well Record & Log



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

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é.	1	SIGNAT	IRE OF DRILLE	R / PRINT SIGNEE NAME	:	DATE	
		NAL TOP	•. 		were	ECORD & LOG (Version	06/08/20121
	E OSE INTERI	NAL USE		POD NUMBER TRN NL		TCOVD & TOG (A612100	0000020123
	CATION					P	AGE 2 OF 2

Attachment D Photograph Log



View of front of tank battery looking to the southwest.



View of tank battery containment looking to the northwest.



View of well pad east of the tank battery looking north.



View of pasture south of tank battery looking west.



View of pasture west of tank battery looking northwest.



View of well pad north of tank battery looking south.



View of boring Auger Hole 2.



View of boring Auger Hole 3 (center foreground).



View of boring Auger Hole 4.



View of front of tank battery looking west after remediation activities.



View of well pad east of the tank battery looking west after remediation activities.



View of pasture south of tank battery looking southwest after remediation activities.



View of pasture west of tank battery looking northwest after remediation activities.



View of well pad north of tank battery looking south after remediation activities.



View of Bottom Hole 1 sample location.



View of Bottom Hole 2 sample location.



View of Bottom Hole 3 sample location.



View of Bottom Hole 4 sample location.



View of Test Trench 1 after excavation.



View of Test Trench 2 after excavation.



View of Test Trench 3 after excavation.



View of Test Trench 4 during excavation.



View of Test Trench 5 after excavation.



View of Test Trench 6 after excavation.



View of Test Trench 1 after backfill.



View of Test Trench 2 after backfill.



View of Test Trench 3 after backfill .



View of Test Trench 4 after backfill.



View of Test Trench 5 after backfill.



View of Test Trench 6 after backfill.



View of air rotary drill rig preparing to perform Boring 1.



View of performance of Boring 1.



View of Boring 1 at completion.



View of Boring 1 after plugging and abandonment.

Attachment E Depth to Groundwater Data







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Groundwater levels for New Mexico

Search Results -- 1 sites found

Agency code = usgs site_no list = • 321131103093401

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

USGS 321131103093401 24S.37E.21.444221

Lea County, New Mexico Latitude 32°11'31", Longitude 103°09'34" NAD27 Land-surface elevation 3,203 feet above NAVD88 The depth of the well is 74 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

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

Date	Time	7 Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	7 Status	7 Method of measurement	? Measuring agency	? Source of measurem
1953-03-02	2	1	0 69.64			1	2	1	,	

	Description	
	Peacifying	
)	Date is accurate to the Day	
8	Water level accuracy to nearest hundredth of a foot	
	The reported water-level measurement represents a static level	
1	Unknown	
	Not determined	
Ē.	Source is unknown.	
6 C	Approved for publication Processing and review completed.	
		Water level accuracy to nearest hundredth of a foot The reported water-level measurement represents a static level Unknown Not determined Source Is unknown.

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Groundwater levels for New Mexico

Search Results -- 1 sites found

Agency code = usgs site_no list =

321152103115601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321152103115601 24S.37E.19.234442

Lea County, New Mexico Latitude 32°11'52", Longitude 103°11'56" NAD27 Land-surface elevation 3,280 feet above NAVD88 The depth of the well is 160 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

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

Date	Time	7 Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	7 Method of measurement	? Measuring agency	7 Source of measurem
1953-03-0	05	11	D 117.43				2			

	Explanation
Code	Description
D	Date is accurate to the Day
2	Water level accuracy to nearest hundredth of a foot
	The reported water-level measurement represents a static level
U	Unknown
	Not determined
U	Source is unknown.
A	Approved for publication - Processing and review completed.
	D 2 U U

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Groundwater levels for New Mexico

Search Results -- 1 sites found

Agency code = usgs site_no list = • 321131103093401

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

USGS 321131103093401 24S.37E.21.444221

Lea County, New Mexico Latitude 32°11'31", Longitude 103°09'34" NAD27 Land-surface elevation 3,203 feet above NAVD88 The depth of the well is 74 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer. **Output formats**

output ionnats	
	1

Date	Time	7 Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	7 Water- level accuracy	? Status	7 Method of measurement	? Measuring agency	? Source of measurem
1953-03-0)2	1	69.64			. L	2		J	

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

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Groundwater levels for New Mexico

Search Results -- 1 sites found

Agency code = usgs site_no list = • 321127103112801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321127103112801 24S.37E.20.333441

Lea County, New Mexico Latitude 32°11'27", Longitude 103°11'28" NAD27 Land-surface elevation 3,268 feet above NAVD88 This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer. Output formats

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

Date	Time	Water- level date- time accuracy	1	level, feet below land surface	level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy		7 Status		? Method of measurement		? Measuring agency	? Source of measurem
1968-02-27			D	122.07				2		R		U		
1970-12-02			D	121.60				2		R		U		
1976-01-15			D	121,55				2				U		
1981-03-18			D	121.12				2				U		
1986-03-05			D	120,69				2				U		
1991-05-21			D	120.78				2				U		
1996-02-28			13	120.54				2				5		

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



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Search Results -- 1 sites found

Agency code = usgs site_no list = • 321008103114001

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

USGS 321008103114001 24S.37E.31.243442

Lea County, New Mexico Latitude 32°10'08", Longitude 103°11'40" NAD27 Land-surface elevation 3,240 feet above NAVD88 The depth of the well is 100 feet below land surface. This well is completed in the Ogallala Formation (1210GLL) local aquifer.

 Output formats

 Table of data

 Tab-separated data

 Graph of data

 Reselect period

Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	7 Status	? Method of measurement	? Measuring agency	? Source of measurem
1965-10-22		D	75.98	-	1	2				
1970-12-10	i.	D	74.96			2		U		
1976-01-14	6	D	76.17			2	6.1	U		
1981-03-18	P	D	74.17			2	è	U		
1986-03-11	2	D	74.90			2		U		
1991-05-22		D	73.53			2		U		

		Explanation
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	υ	Unknown
Measuring agency		Not determined
Source of measurement	υ	Source is unknown.
Water-level approval status	A	Approved for publication Processing and review completed.

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Groundwater levels for New Mexico

Search Results -- 1 sites found

Agency code = usgs site_no list = • 321125103093001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321125103093001 24S.37E.28.242233

Lea County, New Mexico Latitude 32°11'28", Longitude 103°09'37" NAD27 Land-surface elevation 3,205.00 feet above NGVD29 The depth of the well is 770 feet below land surface. This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

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

Date	Time	? Water- level date- time accuracy		Water evel, eet below and surface	Water level, feet above specific vertical datum	Referenced vertical datum	7 Water- level accuracy	7 Status	7 Method of measurement	? Measuring agency	7 Source of measureme
1981-03-17	l		D	255.43				2		1.	
1986-03-05	i.		D	263.20				2	L.	J	
1991-05-21	9		D	277.06			10	2	1	J	
1996-02-28			D	291.80			2	2	5	5	
2001-03-07			D	303.74			-	2	5	5	

		Explanation
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown
Measuring agency		Not determined
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O"),
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication Processing and review completed.



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Agency code = usgs site_no list =

• 321106103092801

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

USGS 321106103092801 24S.37E.28.424241

Lea County, New Mexico Latitude 32°11'06", Longitude 103°09'28" NAD27 Land-surface elevation 3,199 feet above NAVD88 The depth of the well is 110 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Out	but formats
Table of data	
Tab-separated data	
Graph of data	
Reselect period	

Date	Time	7 Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1977-10-2	27		D 57.24		1		2	1	J	

		Explanation
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	А	Approved for publication - Processing and review completed.

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Agency code = usgs site_no list =

321107103094101

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321107103094101 24S.37E.28.241444

Lea County, New Mexico Latitude 32°11'07", Longitude 103°09'41" NAD27 Land-surface elevation 3,203 feet above NAVD88 The depth of the well is 80 feet below land surface. This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output forma	ts
Table of data	
Tab-separated data	
Graph of data	
Reselect period	

Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	7 Water- level accuracy	7 Status	7 Method of measurement	? Measuring agency	? Source of measurem
1976-01-1	4	(57.71			1	2		1	1

	Explanation
Code	Description
D	Date is accurate to the Day
2	Water level accuracy to nearest hundredth of a foot
	The reported water-level measurement represents a static level
U	Unknown
	Not determined
U	Source is unknown.
А	Approved for publication Processing and review completed.
	D 2 U U

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Geographic Area: New Mexico Data Category: √ G0 Groundwater V

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Groundwater levels for New Mexico

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Agency code = usgs site_no list =

• 321110103093901

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321110103093901 245.37E.28.24213

Lea County, New Mexico Latitude 32°11'10", Longitude 103°09'39" NAD27 Land-surface elevation 3,201 feet above NAVD88 This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer. **Output formats**

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

Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	7 Status	7 Method of measurement	? Measuring agency	7 Source of measurem
] [1		
1965-10-14	ŧ.		64.46				2	U		
1968-02-26	5		64.42				2 R	U		
1970-12-10)	t	64.66				2 P	U		
1976-01-14		I	64.42				2	U		
1981-03-17	2	I	64.39				2	U		

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

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Attachment F Analytical Results

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Tim McMinn E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa, TX 79765

Project: Jack B-30 #2 Tank Battery Lightening Strike Project Number: 498-7876-000 Location: JAL NM

Lab Order Number: 7A25001



NELAP/TCEQ # T104704156-13-3

Report Date: 02/01/17

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765 Project: Jack B-30 #2 Tank Battery Lightening Strike Project Number: 498-7876-000 Project Manager: Tim McMinn Fax: (432) 563-2213

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Auger Hole 1 6-12"	7A25001-01	Soil	01/23/17 14:20	01-25-2017 09:16
Auger Hole 1 12-18"	7A25001-02	Soil	01/23/17 14:25	01-25-2017 09:16
Auger Hole 2 18-24"	7A25001-03	Soil	01/23/17 15:05	01-25-2017 09:16
Auger Hole 2 30-36"	7A25001-04	Soil	01/23/17 15:10	01-25-2017 09:16
Auger Hole 3 0-6"	7A25001-05	Soil	01/23/17 15:40	01-25-2017 09:16
Auger Hole 3 6-12"	7A25001-06	Soil	01/23/17 15:45	01-25-2017 09:16
Auger Hole 4 0-6"	7A25001-07	Soil	01/23/17 16:10	01-25-2017 09:16
Auger Hole 4 6-12"	7A25001-08	Soil	01/23/17 16:15	01-25-2017 09:16

Auger Hole 1 6-12" 7A25001-01 (Soil)

			001-01 (50	.,					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Pern	nian Basin E	nvironme	ital Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00208	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		111 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.5 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA / S	Standard Metho	ds							
Chloride	22.6	1.04	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by	y EPA Method 8	015M							
C6-C12	ND	26.0	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		92.9 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		96.3 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Auger Hole 1 12-18"

7A25001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironme	ntal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00211	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.2 %	75-125		P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.4 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Metho	ds							
Chloride	11.2	1.05	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	26.3	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		92.4 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		96.0 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Auger Hole 2 18-24"

7A25001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perr	nian Basin F	Invironme	ntal Lab, 1	L.P.				
Organics by GC									
Benzene	0.00137	0.00109	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00217	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.8 %	75-125		P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Metho	ds							
Chloride	43.2	1.09	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	8.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	27.2	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		91.4 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		97.7 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Auger Hole 2 30-36"

7A25001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironmen	ital Lab, l	P .				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00220	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.1 %	75-125		P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA	Standard Metho	ds							
Chloride	9.71	1.10	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	9.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8	015M							
C6-C12	ND	27.5	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		92.0 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		96.1 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Fax: (432) 56	53-2213						
		0	• Hole 3 0- 001-05 (So						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pe	rmian Basin E	nvironme	ıtal Lab, I	P.				
Organics by GC									
Benzene	0.0581	0.0211	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	1.56	0.0421	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	5.76	0.0211	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	13.4	0.0421	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (0)	5.54	0.0211	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.8 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA / Stand	ard Meth	ods							
Chloride	8.45	1.05	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA	Method	8015M							
C6-C12	1200	263	mg/kg dry	10	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C12-C28	5710	263	mg/kg dry	10	P7A3005	01/27/17	01/28/17	TPH 8015M	
>C28-C35	1230	263	mg/kg dry	10	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		115 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1	30	P7A3005	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	8150	263	mg/kg dry	10	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Auger Hole 3 6-12"

7A25001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Cnvironmer	ıtal Lab, l	L.P.				
Organics by GC									
Benzene	0.00171	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00208	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	0.00309	0.00208	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (0)	0.00185	0.00104	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.2 %	75-125		P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.6 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Methoo	ds							
Chloride	14.9	1.04	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C	C35 by EPA Method 80	015M							
C6-C12	ND	26.0	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C12-C28	105	26.0	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		93.9 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		98.9 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	105	26.0	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Fax: (432) 56	53-2213						
		U	: Hole 4 0- 001-07 (Soi						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	·mian Basin E	Invironmer	ntal Lab, l	L.P.				
Organics by GC									
Benzene	ND	0.0233	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.0465	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	0.458	0.0233	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	0.107	0.0465	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (0)	0.0612	0.0233	mg/kg dry	20	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.0 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by EPA / Stand	ard Meth	ods							
Chloride	68.2	1.16	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	14.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA	Method	8015M							
C6-C12	ND	29.1	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C12-C28	390	29.1	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C28-C35	65.3	29.1	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		91.8 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		95.9 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	456	29.1	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Auger Hole 4 6-12"

7A25001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironme	ntal Lab, I	L .P.				
Organics by GC									
Benzene	0.00144	0.00108	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Toluene	ND	0.00215	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		109 %	75-125		P7A3012	01/26/17	01/27/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.5 %	75-1	25	P7A3012	01/26/17	01/27/17	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Metho	ds							
Chloride	19.0	1.08	mg/kg dry	1	P7A2704	01/27/17	01/30/17	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7A2601	01/26/17	01/26/17	% calculation	
Total Petroleum Hydrocarbons C6-0	C35 by EPA Method 8	015M							
C6-C12	ND	26.9	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C12-C28	71.5	26.9	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		91.7 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Surrogate: o-Terphenyl		94.5 %	70-1	30	P7A3006	01/27/17	01/28/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	71.5	26.9	mg/kg dry	1	[CALC]	01/27/17	01/28/17	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
5		Emnt	Cinto	Level	Result	JUNEC	Linus	11.0	Luint	1,0103
Batch P7A3012 - General Preparation (GC)										
Blank (P7A3012-BLK1)				Prepared: 0	1/26/17 A	nalyzed: 01	/27/17			
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200								
Ethylbenzene	ND	0.00100								
Xylene (p/m)	ND	0.00200								
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0527		"	0.0600		87.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.0668		"	0.0600		111	75-125			
LCS (P7A3012-BS1)				Prepared: 0	1/26/17 A	nalyzed: 01	/27/17			
Benzene	0.0910	0.00100	mg/kg wet	0.100		91.0	70-130			
Toluene	0.0967	0.00200		0.100		96.7	70-130			
Ethylbenzene	0.112	0.00100		0.100		112	70-130			
Xylene (p/m)	0.201	0.00200		0.200		101	70-130			
Xylene (o)	0.0970	0.00100		0.100		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.0713		"	0.0600		119	75-125			
Surrogate: 1,4-Difluorobenzene	0.0562		"	0.0600		93.6	75-125			
LCS Dup (P7A3012-BSD1)				Prepared: 0	1/26/17 A	nalyzed: 01	/27/17			
Benzene	0.0901	0.00100	mg/kg wet	0.100		90.1	70-130	0.950	20	
Toluene	0.0964	0.00200	"	0.100		96.4	70-130	0.311	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	70-130	1.81	20	
Xylene (p/m)	0.200	0.00200	"	0.200		100	70-130	0.588	20	
Xylene (o)	0.0987	0.00100	"	0.100		98.7	70-130	1.70	20	
Surrogate: 4-Bromofluorobenzene	0.0762		"	0.0600		127	75-125			S-G0
Surrogate: 1,4-Difluorobenzene	0.0578		"	0.0600		96.3	75-125			
Matrix Spike (P7A3012-MS1)	Sou	urce: 7A25001	-01	Prepared: 0	<u>1/2</u> 6/17 A	nalyzed: 01	/27/17			
Benzene	0.122	0.00104	mg/kg dry	0.104	ND	118	80-120			
Toluene	0.109	0.00208	"	0.104	ND	105	80-120			
Ethylbenzene	0.122	0.00104	"	0.104	ND	117	80-120			
Xylene (p/m)	0.220	0.00208	"	0.208	ND	105	80-120			
Xylene (o)	0.110	0.00104	"	0.104	ND	106	80-120			
Surrogate: 4-Bromofluorobenzene	0.0646		"	0.0625		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.0613		"	0.0625		98.1	75-125			

Permian Basin Environmental Lab, L.P.

Fax: (432) 563-2213

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P7A3012 - General Preparation (GC)

Matrix Spike Dup (P7A3012-MSD1)	Sour	ce: 7A25001	-01	Prepared: 0	1/26/17 A	nalyzed: 0	1/27/17			
Benzene	0.147	0.00104	mg/kg dry	0.104	ND	141	80-120	18.4	20	QM-07
Toluene	0.140	0.00208	"	0.104	ND	134	80-120	24.6	20	QM-07
Ethylbenzene	0.142	0.00104	"	0.104	ND	137	80-120	15.6	20	QM-07
Xylene (p/m)	0.229	0.00208	"	0.208	ND	110	80-120	4.10	20	
Xylene (o)	0.123	0.00104	"	0.104	ND	118	80-120	10.8	20	
Surrogate: 1,4-Difluorobenzene	0.0608		"	0.0625		97.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.0681		"	0.0625		109	75-125			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Kesuit	Liiiit	Units	Level	Kesuit	/0KEC	Lillins	KFD	Liiiit	Notes
Batch P7A2601 - *** DEFAULT PREP ***										
Blank (P7A2601-BLK1)				Prepared &	Analyzed	d: 01/26/17				
% Moisture	ND	0.1	%							
Duplicate (P7A2601-DUP1)	Sour	ce: 7A25002-	-19	Prepared &	Analyzed	d: 01/26/17				
% Moisture	16.0	0.1	%		16.0			0.00	20	
Duplicate (P7A2601-DUP2)	Sour	ce: 7A25009-	•02	Prepared &	Analyzed	d: 01/26/17				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch P7A2704 - *** DEFAULT PREP ***										
Blank (P7A2704-BLK1)				Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	ND	1.00	mg/kg wet							
LCS (P7A2704-BS1)				Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	429	1.00	mg/kg wet	400		107	80-120			
LCS Dup (P7A2704-BSD1)				Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	428	1.00	mg/kg wet	400		107	80-120	0.133	20	
Duplicate (P7A2704-DUP1)	Sour	ce: 7A24011-	-01	Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	15900	58.1	mg/kg dry		16900			6.19	20	
Duplicate (P7A2704-DUP2)	Sour	ce: 7A25001-	.04	Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	9.74	1.10	mg/kg dry		9.71			0.226	20	
Matrix Spike (P7A2704-MS1)	Sour	ce: 7A24011-	-01	Prepared: 0	1/27/17	Analyzed: 01	/30/17			
Chloride	16200	58.1	mg/kg dry	2330	16900	NR	80-120			

Permian Basin Environmental Lab, L.P.

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P7A3005 - TX 1005										
Blank (P7A3005-BLK1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	86.0		"	100		86.0	70-130			
Surrogate: o-Terphenyl	45.1		"	50.0		90.2	70-130			
LCS (P7A3005-BS1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	921	25.0	mg/kg wet	1000		92.1	75-125			
>C12-C28	807	25.0	"	1000		80.7	75-125			
Surrogate: 1-Chlorooctane	97.0		"	100		97.0	70-130			
Surrogate: o-Terphenyl	47.1		"	50.0		94.3	70-130			
LCS Dup (P7A3005-BSD1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	902	25.0	mg/kg wet	1000		90.2	75-125	2.17	20	
>C12-C28	834	25.0	"	1000		83.4	75-125	3.24	20	
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	50.6		"	50.0		101	70-130			
Matrix Spike (P7A3005-MS1)	Sour	ce: 7A25001	1-04	Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	913	27.5	mg/kg dry	1100	ND	83.1	75-125			
>C12-C28	912	27.5	"	1100	ND	83.0	75-125			
Surrogate: 1-Chlorooctane	122		"	110		111	70-130			
Surrogate: o-Terphenyl	52.7		"	54.9		95.9	70-130			
Batch P7A3006 - TX 1005										
Blank (P7A3006-BLK1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	ND	25.0	mg/kg wet			-				
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	54.0		"	50.0		108	70-130			

Permian Basin Environmental Lab, L.P.

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P7A3006 - TX 1005										
LCS (P7A3006-BS1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	828	25.0	mg/kg wet	1000		82.8	75-125			
>C12-C28	816	25.0	"	1000		81.6	75-125			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	56.3		"	50.0		113	70-130			
LCS Dup (P7A3006-BSD1)				Prepared: (01/27/17 A	nalyzed: 01	/28/17			
C6-C12	815	25.0	mg/kg wet	1000		81.5	75-125	1.62	20	
>C12-C28	820	25.0	"	1000		82.0	75-125	0.514	20	
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	54.2		"	50.0		108	70-130			
Matrix Spike (P7A3006-MS1)	Sou	rce: 7A24008	8-03	Prepared: (01/27/17 A	nalyzed: 01	/29/17			
C6-C12	966	27.8	mg/kg dry	1110	29.3	84.3	75-125			
>C12-C28	1010	27.8	"	1110	188	74.1	75-125			QM-0:
Surrogate: 1-Chlorooctane	136		"	111		122	70-130			
Surrogate: o-Terphenyl	71.9		"	55.6		129	70-130			
Matrix Spike Dup (P7A3006-MSD1)	Sou	rce: 7A24008	8-03	Prepared: (01/27/17 A	nalyzed: 01	/29/17			
C6-C12	894	27.8	mg/kg dry	1110	29.3	77.8	75-125	7.95	20	
>C12-C28	1000	27.8	"	1110	188	73.4	75-125	0.957	20	QM-0:
Surrogate: 1-Chlorooctane	134		"	111		120	70-130			
Surrogate: o-Terphenyl	70.8		"	55.6		128	70-130			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:

Date: 2/1/2017

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

Sun Barron

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc.	Project:	Jack B-30 #2 Tank Battery Lightening Strike	Fax: (432) 563-2213
13000 West County Road 100	Project Number:	498-7876-000	
Odessa TX, 79765	Project Manager:	Tim McMinn	

Permian Basin Environmental Lab, L.P.

Relinquished by MCSUNO 1125/1797:10	Relinquished by Date Time Relinquished by Jake Time Relinquished by Jake Time			Auger Hole H C	Hele	Hole 3	4 Augen Hole 2 30-36"	Hole 2	Hole 1	Auger Hole 1 6-12"	LAB # (lab use only)		(lab use only) AN 15(11)	Sampler Signature: Jecuto UNIS	2. 10 b	Telephone No: 432-563-2200	City/State/Zip: Midland, Texas 79708	Company Address: PO Box 8469	Company Name Etech Environmental & Safety Solutions, Inc.	Project Manager: Tim McMinn		Etech Environmental & Saf
e Received by ELOT.	e Received by: MM SSLAP e Received by:		5191 1	1610	1545	1540	1510	1505	1425	1.23,17 1420	Date Sampled			e-ma		Fay Nr			itions, Inc.			& Safetv Solutions.
N											No. of Containers Ice HNO3 HCI H ₂ SO4 NaOH Na ₂ S ₂ O3	Preservation & # of Containers	Brinne etecheny,	e-mail: Tim@etechenv.com-	2. TUE-UUU-EE IU	Fay No. 432-562-2213					12800 W. Hwy 80 E Odessa, Texas 79765	Inc
125-11 dillo Tee	Date Time Cu 1/25/17 9210 Cu Date Time										None Other (Specify) DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other TPH: 418.1 (8015M) 1005 10 Cations (Ca, Mg, Na, K) Anions (Cl, SO4, CO3, HCO3)	Matrix 06		Ň		Perort Format:	P0 #	Project Loc:	Project #:	Project Name:		CHAIN OF CLIST
Temperature Upon Receipt	Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered by Sampler/Client Rep. ? by Courier? UPS DHL										SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Volatiles Semivolatiles BTEX (2021) (5030 or BTEX 82 RCI N.O.R.M. Chlorides	Se [Analyze For:		X Standard TRRP		Jon NM	H98-7876-	Jack B-30 #2	Phone: 432-563-2200 Fax: 432-563-2213	CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
	Federa Contraction of the start										RUSH TAT (Pre-Schedule) 24 Standard TAT	48, 7	2 hrs			NPDES			000	Tennik Barrier	3 5 1 2 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Tim McMinn E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa, TX 79765

Project: Enervest JackB-30 #2 Tank Battery Lightning Strike Project Number: 498-7876-000 Location: Jal, NM

Lab Order Number: 7B20006



NELAP/TCEQ # T104704156-13-3

Report Date: 03/08/17

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765 Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom Hole 1 6"	7B20006-01	Soil	02/17/17 13:15	02-20-2017 09:35
Test Trench 1 6.5'	7B20006-02	Soil	02/17/17 17:35	02-20-2017 09:35
Test Trench 1 8'	7B20006-03	Soil	02/17/17 17:50	02-20-2017 09:35
Bottom Hole 2 24"	7B20006-04	Soil	02/17/17 13:20	02-20-2017 09:35
Test Trench 2 8'	7B20006-05	Soil	02/17/17 16:55	02-20-2017 09:35
Test Trench 2 9'	7B20006-06	Soil	02/17/17 17:00	02-20-2017 09:35
Bottom Hole 3 18"	7B20006-07	Soil	02/17/17 13:25	02-20-2017 09:35
Test Trench 3 6'	7B20006-08	Soil	02/17/17 17:10	02-20-2017 09:35
Test Trench 3 8.5'	7B20006-09	Soil	02/17/17 17:20	02-20-2017 09:35
Bottom Hole 4 6"	7B20006-10	Soil	02/17/17 13:30	02-20-2017 09:35
Test Trench 4 5.5'	7B20006-11	Soil	02/17/17 17:25	02-20-2017 09:35
Test Trench 4 7.5'	7B20006-12	Soil	02/17/17 17:30	02-20-2017 09:35
Bottom Hole 5 12"	7B20006-13	Soil	02/17/17 10:55	02-20-2017 09:35
Test Trench 5 2'	7B20006-14	Soil	02/17/17 11:00	02-20-2017 09:35
Test Trench 5 3'	7B20006-15	Soil	02/17/17 11:05	02-20-2017 09:35
Test Trench 5 4'	7B20006-16	Soil	02/17/17 16:05	02-20-2017 09:35
Test Trench 5 5'	7B20006-17	Soil	02/17/17 16:10	02-20-2017 09:35
Test Trench 5 6'	7B20006-18	Soil	02/17/17 16:15	02-20-2017 09:35
Test Trench 5 7'	7B20006-19	Soil	02/17/17 16:20	02-20-2017 09:35
Test Trench 5 8'	7B20006-20	Soil	02/17/17 16:25	02-20-2017 09:35
Test Trench 5 9'	7B20006-21	Soil	02/17/17 16:30	02-20-2017 09:35
Bottom Hole 6 12"	7B20006-22	Soil	02/17/17 10:40	02-20-2017 09:35
Test Trench 6 2'	7B20006-23	Soil	02/17/17 10:45	02-20-2017 09:35
Test Trench 6 3'	7B20006-24	Soil	02/17/17 10:50	02-20-2017 09:35
Test Trench 6 4'	7B20006-25	Soil	02/17/17 15:30	02-20-2017 09:35
Test Trench 6 5'	7B20006-26	Soil	02/17/17 15:35	02-20-2017 09:35
Test Trench 6 6'	7B20006-27	Soil	02/17/17 15:40	02-20-2017 09:35
Test Trench 6 7'	7B20006-28	Soil	02/17/17 15:50	02-20-2017 09:35
Test Trench 6 8'	7B20006-29	Soil	02/17/17 16:00	02-20-2017 09:35

Bottom Hole 1 6'' 7B20006-01 (Soil)

		7020	000-01 (50)	1)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Environmen	tal Lab,	L.P.				
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Toluene	ND	0.00206	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
General Chemistry Parameters by EPA /	Standard Metho	ds							
Chloride	48.8	1.03	mg/kg dry	1	P7B2318	02/23/17	02/24/17	EPA 300.0	
% Moisture	3.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 h	oy EPA Method 8	015M							
C6-C12	ND	25.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		98.4 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: o-Terphenyl		109 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	02/21/17	02/21/17	calc	

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proje Project Numb Project Manag	er: 498-78	76-000	#2 Tank Ba	ttery Lightnii	ng St	Fax: (432) 5	63-2213		
Test Trench 1 6.5' 7B20006-02 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Perm	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stan	dard Methods	i									
Chloride	67.6	1.04	mg/kg dry	1	P7B2318	02/23/17	02/24/17	EPA 300.0			
% Moisture	4.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proje Project Numł roject Manag	oer: 498-78	76-000	#2 Tank Ba	ttery Lightnii	ng St	Fax: (432) 56	53-2213			
Test Trench 1 8' 7B20006-03 (Soil)												
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes			
	Permi	an Basin E	nvironme	ntal Lab, I	P.							
General Chemistry Parameters by EPA / Stan	dard Methods											
Chloride	155	1.08	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0				
% Moisture	7.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation				

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Bottom Hole 2 24"

7B20006-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	1ian Basin E	nvironmer	ital Lab, I	P.				
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Toluene	ND	0.00213	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	75-125		P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	1130	1.06	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0	
% Moisture	6.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8()15M							
C6-C12	ND	26.6	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		92.1 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: o-Terphenyl		103 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	02/21/17	02/21/17	calc	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765	Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn							Fax: (432) 5	63-2213
			Гrench 2)06-05 (So	•					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.				
General Chemistry Parameters by EPA / Stan	dard Methods								
Chloride % Moisture	32.2 9.0	1.10 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation	

	Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn							53-2213
			-					
Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permi	an Basin Ei	nvironme	ntal Lab, l	P.				
dard Methods								
169			1	P7B2403	02/24/17	02/27/17	EPA 300.0	
	Pr Result Permia dard Methods	Project Numb Project Manag Test 7 7B200 Result Limit Permian Basin En dard Methods 169 1.12	Project Number: 498-78 Project Manager: Tim M Test Trench 2 7B20006-06 (So Reporting Result Units Permian Basin Environmen dard Methods 169 1.12 mg/kg dry	Project Number: 498-7876-000 Project Manager: Tim McMinn Test Trench 2 9' 7B20006-06 (Soil) Result Eimit Units Dilution Permian Basin Environmental Lab, I dard Methods 169 1.12 mg/kg dry 1	Project Number: 498-7876-000 Project Manager: Tim McMinn Test Trench 2 9' 7B20006-06 (Soil) Reporting Result Limit Units Dilution Batch Permian Basin Environmental Lab, L.P. dard Methods 169 1.12 mg/kg dry 1 P7B2403	Project Number: 498-7876-000 Project Manager: Tim McMinn Test Trench 2 9' 7B20006-06 (Soil) Result Limit Units Dilution Batch Prepared Permian Basin Environmental Lab, L.P. dard Methods 169 1.12 mg/kg dry 1 P7B2403 02/24/17	Project Number: 498-7876-000 Project Manager: Tim McMinn Test Trench 2 9' 7B20006-06 (Soil) Result Limit Units Dilution Batch Prepared Analyzed Permian Basin Environmental Lab, L.P. dard Methods 169 1.12 mg/kg dry 1 P7B2403 02/24/17 02/27/17	Project Number: 498-7876-000 Project Manager: Tim McMinn Test Trench 2 9' 7B20006-06 (Soil) Result Limit Units Dilution Batch Prepared Analyzed Method Permian Basin Environmental Lab, L.P. dard Methods 169 1.12 mg/kg dry 1 P7B2403 02/24/17 02/27/17 EPA 300.0

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Bottom Hole 3 18"

7B20006-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Pern	nian Basin E	Cnvironme	ntal Lab, l	L .P.					
Organics by GC										
Benzene	ND	0.00104	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B		
Toluene	ND	0.00208	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B		
Ethylbenzene	ND	0.00104	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B		
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B		
Xylene (o)	ND	0.00104	mg/kg dry	1	P7B2203	02/21/17	02/21/17	EPA 8021B		
Surrogate: 1,4-Difluorobenzene		105 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B		
Surrogate: 4-Bromofluorobenzene		110 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B		
General Chemistry Parameters by EP	A / Standard Method	ls								
Chloride	1180	1.04	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0		
% Moisture	4.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation		
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 8	015M								
C6-C12	ND	26.0	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M		
>C12-C28	42.4	26.0	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M		
>C28-C35	ND	26.0	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M		
Surrogate: 1-Chlorooctane		91.2 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M		
Surrogate: o-Terphenyl		102 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M		
Total Petroleum Hydrocarbon C6-C35	42.4	26.0	mg/kg dry	1	[CALC]	02/21/17	02/21/17	calc		
E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project:Enervest JackB-30 #2 Tank Battery Lightning StFax: (432) 563-2213Project Number:498-7876-000Foject Manager:Project Manager:Tim McMinn								
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			French 3)06-08 (So	-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, l	P.					
General Chemistry Parameters by EPA / Stan	dard Methods									
Chloride % Moisture	14.1 8.0	1.09 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation		

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numl	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 oject Number: 498-7876-000 ject Manager: Tim McMinn								
Test Trench 3 8.5' 7B20006-09 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stand	lard Methods	i									
Chloride % Moisture	66.0 8.0	1.09 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn

Bottom Hole 4 6"

7B20006-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmer	ntal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.0220	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Toluene	ND	0.0440	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Ethylbenzene	ND	0.0220	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (p/m)	ND	0.0440	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (o)	ND	0.0220	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		84.6 %	75-125		P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.2 %	75-125		P7B2203	02/21/17	02/21/17	EPA 8021B	
General Chemistry Parameters by EF	PA / Standard Method	ls							
Chloride	609	1.10	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0	
% Moisture	9.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	015M							
C6-C12	31.4	27.5	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C12-C28	179	27.5	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		90.7 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	210	27.5	mg/kg dry	1	[CALC]	02/21/17	02/21/17	calc	

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	Project:Enervest JackB-30 #2 Tank Battery Lightning StFax: (432) 563-2213ect Number:498-7876-000ect Manager:Tim McMinn								
Test Trench 4 5.5' 7B20006-11 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stand	lard Methods										
Chloride % Moisture	215 6.0	1.06 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	roject: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 imber: 498-7876-000 nager: Tim McMinn								
Test Trench 4 7.5' 7B20006-12 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	P.						
General Chemistry Parameters by EPA / Stand	ard Methods										
Chloride % Moisture	34.2 11.0	1.12 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proje Project Numb Project Manaş		76-000	Fax: (432) 5	63-2213			
			n Hole 5 1 006-13 (So						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Per	mian Basin E	nvironmei	ntal Lab, I	P.				
Organics by GC									
Benzene	0.509	0.0230	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Toluene	6.81	0.0460	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Ethylbenzene	7.41	0.0230	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (p/m)	17.7	0.0460	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (o)	6.92	0.0230	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.1 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
General Chemistry Parameters by EPA / St	andard Meth	ods							
Chloride	391	1.15	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0	
% Moisture	13.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method	8015M							
C6-C12	4330	144	mg/kg dry	5	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C12-C28	5520	144	mg/kg dry	5	P7B2207	02/21/17	02/21/17	TPH 8015M	
<u>>C28-C35</u>	847	144	mg/kg dry	5	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	

88.6 %

144 mg/kg dry

10700

70-130

5

Surrogate: o-Terphenyl

C6-C35

Total Petroleum Hydrocarbon

P7B2207

[CALC]

02/21/17

02/21/17

02/21/17

02/21/17

TPH 8015M

calc

Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn

Test Trench 5 2'

7B20006-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
- mayee	Kesut	Liint	Cinto	Briation	Daten	rieparea	7 maryzed	meniou	Notes		
Permian Basin Environmental Lab, L.P.											
General Chemistry Parameters by EPA	A / Standard Methods										
Chloride	395	1.08	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0			
% Moisture	7.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation			
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	15M									
C6-C12	ND	26.9	mg/kg dry	1	P7C0205	02/28/17	03/01/17	TPH 8015M			
>C12-C28	201	26.9	mg/kg dry	1	P7C0205	02/28/17	03/01/17	TPH 8015M			
>C28-C35	53.8	26.9	mg/kg dry	1	P7C0205	02/28/17	03/01/17	TPH 8015M			
Surrogate: 1-Chlorooctane		103 %	70-1.	30	P7C0205	02/28/17	03/01/17	TPH 8015M			
Surrogate: o-Terphenyl		113 %	70-1.	30	P7C0205	02/28/17	03/01/17	TPH 8015M			
Total Petroleum Hydrocarbon C6-C35	255	26.9	mg/kg dry	1	[CALC]	02/28/17	03/01/17	calc			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 Project Number: 498-7876-000 roject Manager: Tim McMinn									
Test Trench 5 3' 7B20006-15 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permian Basin Environmental Lab, L.P.										
General Chemistry Parameters by EPA / Stan	dard Methods										
Chloride	315	1.08	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0			
% Moisture	7.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 Jumber: 498-7876-000 anager: Tim McMinn								
			French 5)06-16 (So	-							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Star	dard Methods										
Chloride % Moisture	412 7.0	1.08 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-221 roject Number: 498-7876-000 oject Manager: Tim McMinn								
			French 5 006-17 (So	-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	P .					
General Chemistry Parameters by EPA / Stan	dard Methods									
Chloride % Moisture	257 12.0	1.14 0.1	mg/kg dry %	1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation		

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	oject: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 mber: 498-7876-000 lager: Tim McMinn								
Test Trench 5 6' 7B20006-18 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stand	lard Methods										
Chloride	192		mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0			
% Moisture	14.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 Jumber: 498-7876-000 anager: Tim McMinn								
Test Trench 5 7' 7B20006-19 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stand	lard Methods										
Chloride	308	1.14	mg/kg dry	1	P7B2403	02/24/17	02/27/17	EPA 300.0			
% Moisture	12.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		roject Numb	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-22 amber: 498-7876-000 anager: Tim McMinn							
			French 5)06-20 (So	•						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.					
General Chemistry Parameters by EPA / Stan	dard Methods									
Chloride % Moisture	418 8.0	1.09 0.1	mg/kg dry %	1 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation		

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numl	ct: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 56 cr: 498-7876-000 cr: Tim McMinn							
			Trench 5 006-21 (So	-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.					
General Chemistry Parameters by EPA / Star	dard Methods									
Chloride % Moisture	988 7.0	5.38 0.1	mg/kg dry %	5 1	P7B2403 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation		

E Tech Environmental & Safety Solutions, Inc.
13000 West County Road 100
Odessa TX, 79765

Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn

Bottom Hole 6 12"

7B20006-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	nvironme	ntal Lab, 1	L.P.				
Organics by GC									
Benzene	ND	0.0222	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Toluene	ND	0.0444	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Ethylbenzene	0.120	0.0222	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (p/m)	0.214	0.0444	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Xylene (0)	0.0960	0.0222	mg/kg dry	20	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.1 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-1	25	P7B2203	02/21/17	02/21/17	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Method	ls							
Chloride	1330	5.56	mg/kg dry	5	P7B2403	02/24/17	02/27/17	EPA 300.0	
% Moisture	10.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	
Total Petroleum Hydrocarbons C6-C	C35 by EPA Method 80	015M							
C6-C12	102	27.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C12-C28	375	27.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
>C28-C35	51.9	27.8	mg/kg dry	1	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		91.1 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1	30	P7B2207	02/21/17	02/21/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	529	27.8	mg/kg dry	1	[CALC]	02/21/17	02/21/17	calc	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	Project:Enervest JackB-30 #2 Tank Battery Lightning StFax: (432) 563-2213Number:498-7876-000Manager:Tim McMinn								
Test Trench 6 2' 7B20006-23 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.						
General Chemistry Parameters by EPA / Stand	ard Methods										
Chloride % Moisture	1900 5.0	5.26 0.1	mg/kg dry %	5 1	P7B2404 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project:Enervest JackB-30 #2 Tank Battery Lightning StFax: (432) 563-2213Project Number:498-7876-000Project Manager:Tim McMinn							
			French 6)06-24 (So	-					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironme	ntal Lab, I	P.				
General Chemistry Parameters by EPA / Star	dard Methods								
Chloride	123	1.05	mg/kg dry	1	P7B2404	02/24/17	02/27/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proje Project Numb roject Manag	oer: 498-78	76-000	#2 Tank Ba	ttery Lightnii	ng St	Fax: (432) 56	53-2213
			Trench 6 006-25 (So	-					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironme	ntal Lab, I	P.				
General Chemistry Parameters by EPA / Stan	dard Methods								
Chloride	261	1.08	mg/kg dry	1	P7B2404	02/24/17	02/27/17	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-22 et Number: 498-7876-000 et Manager: Tim McMinn							
			Гrench б)06-26 (So	-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.					
General Chemistry Parameters by EPA / Stan	dard Methods									
Chloride	209	1.06	mg/kg dry	1	P7B2404	02/24/17	02/27/17	EPA 300.0		
% Moisture	6.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation		

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numl	Project: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2 umber: 498-7876-000 anager: Tim McMinn							
			Trench 6 006-27 (So	•						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.					
General Chemistry Parameters by EPA / Stan	dard Methods									
Chloride	326	1.06	mg/kg dry	1	P7B2404	02/24/17	02/27/17	EPA 300.0		
% Moisture	6.0	0.1	%	1	P7B2102	02/21/17	02/21/17	% calculation		

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project Numb	roject: Enervest JackB-30 #2 Tank Battery Lightning St Fax: (432) 563-2213 umber: 498-7876-000 unager: Tim McMinn								
Test Trench 6 7' 7B20006-28 (Soil)											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
	Permi	an Basin E	nvironme	ntal Lab, I	P.						
General Chemistry Parameters by EPA / Stan	dard Methods										
Chloride % Moisture	387 11.0	1.12 0.1	mg/kg dry %	1	P7B2404 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation			

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Project:Enervest JackB-30 #2 Tank Battery Lightning StFax: (432) 563-2213Project Number:498-7876-000Project Manager:Tim McMinn								
			Гrench б)06-29 (So	-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
	Permi	an Basin E	nvironme	ntal Lab, I	P .					
General Chemistry Parameters by EPA / Star	dard Methods									
Chloride % Moisture	410 9.0	1.10 0.1	mg/kg dry %	1 1	P7B2404 P7B2102	02/24/17 02/21/17	02/27/17 02/21/17	EPA 300.0 % calculation		

Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyta	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notas
Analyte	Result	Limit	Units	Level	Result	70KEU	LIIIIIS	κťυ	Limit	Notes
Batch P7B2203 - General Preparation (GC)	1									
Blank (P7B2203-BLK1)				Prepared &	Analyzed:	02/21/17				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0644		"	0.0600		107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0646		"	0.0600		108	75-125			
LCS (P7B2203-BS1)				Prepared &	Analyzed:	02/21/17				
Benzene	0.0938	0.00100	mg/kg wet				70-130			
Toluene	0.0981	0.00200	"				70-130			
Ethylbenzene	0.114	0.00100	"				70-130			
Xylene (p/m)	0.210	0.00200	"				70-130			
Xylene (o)	0.104	0.00100					70-130			
Surrogate: 1,4-Difluorobenzene	0.0652		"	0.0600		109	75-125			
Surrogate: 4-Bromofluorobenzene	0.0690		"	0.0600		115	75-125			
LCS Dup (P7B2203-BSD1)				Prepared &	Analyzed:	02/21/17				
Benzene	0.0918	0.00100	mg/kg wet				70-130		20	
Toluene	0.0969	0.00200	"				70-130		20	
Ethylbenzene	0.116	0.00100	"				70-130		20	
Xylene (p/m)	0.208	0.00200	"				70-130		20	
Xylene (o)	0.105	0.00100	"				70-130		20	
Surrogate: 4-Bromofluorobenzene	0.0693		"	0.0600		116	75-125			
Surrogate: 1,4-Difluorobenzene	0.0655		"	0.0600		109	75-125			
Matrix Spike (P7B2203-MS1)	Sou	irce: 7B20006	-01	Prepared &	Analyzed:	02/21/17				
Benzene	0.112	0.00103	mg/kg dry	•	ND		80-120			
Toluene	0.118	0.00206	"		ND		80-120			
Ethylbenzene	0.124	0.00103			ND		80-120			
Xylene (p/m)	0.221	0.00206	"		ND		80-120			
Xylene (o)	0.112	0.00103			ND		80-120			
Surrogate: 1,4-Difluorobenzene	0.0678		"	0.0619		110	75-125			
Surrogate: 4-Bromofluorobenzene	0.0670		"	0.0619		108	75-125			

Permian Basin Environmental Lab, L.P.

Project: Enervest JackB-30 #2 Tank Battery Lightning St Project Number: 498-7876-000 Project Manager: Tim McMinn Fax: (432) 563-2213

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch P7B2203 - General Preparation (GC)

Matrix Spike Dup (P7B2203-MSD1)	Sour	ce: 7B20006	-01	Prepared & Ana	alyzed: 02/21	/17		
Benzene	0.111	0.00103	mg/kg dry	1	ND	80-120	20	1
Toluene	0.115	0.00206	"	1	ND	80-120	20	1
Ethylbenzene	0.122	0.00103	"	1	ND	80-120	20	1
Xylene (p/m)	0.213	0.00206	"	1	ND	80-120	20	1
Xylene (o)	0.106	0.00103	"	ſ	ND	80-120	20)
Surrogate: 1,4-Difluorobenzene	0.0674		"	0.0619	10	9 75-125		
Surrogate: 4-Bromofluorobenzene	0.0709		"	0.0619	11	5 75-125		

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7B2102 - *** DEFAULT PREP ***		2	00	20.01	result	,	2		2	1.0005
Blank (P7B2102-BLK1)				Draparad &	Analyza	d: 02/21/17				
% Moisture	ND	0.1	%	i icparcu a	c Analyzo	u. 02/21/17				
Blank (P7B2102-BLK2)				Prepared &	z Analyze	d: 02/21/17				
% Moisture	ND	0.1	%							
Duplicate (P7B2102-DUP1)	Sou	rce: 7B20003-	-08	Prepared &	z Analyze	d: 02/21/17				
% Moisture	10.0	0.1	%		11.0			9.52	20	
Duplicate (P7B2102-DUP2)	Sou	rce: 7B20004-	-11	Prepared &	a Analyze	d: 02/21/17				
% Moisture	7.0	0.1	%		8.0			13.3	20	
Duplicate (P7B2102-DUP3)	Sou	rce: 7B20006-	25	Prepared &	a Analyze	d: 02/21/17				
% Moisture	6.0	0.1	%		7.0			15.4	20	
Batch P7B2318 - *** DEFAULT PREP ***										
Blank (P7B2318-BLK1)				Prepared: ()2/23/17	Analyzed: 02	2/24/17			
Chloride	ND	1.00	mg/kg wet							
LCS (P7B2318-BS1)				Prepared: ()2/23/17	Analyzed: 02	2/24/17			
Chloride	433	1.00	mg/kg wet	400		108	80-120			
LCS Dup (P7B2318-BSD1)				Prepared: ()2/23/17	Analyzed: 02	2/24/17			
Chloride	434	1.00	mg/kg wet	400		108	80-120	0.178	20	
Duplicate (P7B2318-DUP1)	Sou	rce: 7B20003-	-16	Prepared: ()2/23/17	Analyzed: 02	2/24/17			
Chloride	56.4	1.08	mg/kg dry		52.8	•		6.60	20	

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Notes
Batch P7B2318 - *** DEFAULT PREP ***										
Duplicate (P7B2318-DUP2)	Sou	rce: 7B20004	-05	Prepared: (02/23/17	Analyzed: 0	2/24/17			
Chloride	4250	27.2	mg/kg dry		4240			0.410	20	
Matrix Spike (P7B2318-MS1)	Sou	rce: 7B20003	-16	Prepared: (02/23/17	Analyzed: 0	2/24/17			
Chloride	1090	1.08	mg/kg dry	1080	52.8	96.9	80-120			
Batch P7B2403 - *** DEFAULT PREP ***										
Blank (P7B2403-BLK1)				Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	ND	1.00	mg/kg wet	-		•				
LCS (P7B2403-BS1)				Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	431	1.00	mg/kg wet	400		108	80-120			
LCS Dup (P7B2403-BSD1)				Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	439	1.00	mg/kg wet	400		110	80-120	1.81	20	
Duplicate (P7B2403-DUP1)	Sou	rce: 7B20006	-03	Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	156	1.08	mg/kg dry		155			0.581	20	
Duplicate (P7B2403-DUP2)	Sou	rce: 7B20006	-13	Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	392	1.15	mg/kg dry		391			0.176	20	
Matrix Spike (P7B2403-MS1)	Sou	rce: 7B20006	-03	Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	1430	1.08	mg/kg dry	1080	155	118	80-120			
Batch P7B2404 - *** DEFAULT PREP ***										
Blank (P7B2404-BLK1)				Prepared: (02/24/17	Analyzed: 0	2/27/17			
Chloride	ND	1.00	mg/kg wet	-		-				

Permian Basin Environmental Lab, L.P.

		р. <i>(</i> ;		0 1	0		0/DEC		DDD	
		Reporting	TT '4	Spike	Source		%REC	DDD	RPD	NT (
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P7B2404 - *** DEFAULT PREP ***										
LCS (P7B2404-BS1)				Prepared: (02/24/17	Analyzed: 02	/27/17			
Chloride	431	1.00	mg/kg wet	400		108	80-120			
LCS Dup (P7B2404-BSD1)				Prepared: (02/24/17	Analyzed: 02	/27/17			
Chloride	420	1.00	mg/kg wet	400		105	80-120	2.52	20	
Duplicate (P7B2404-DUP1)	Sour	ce: 7B20006	-23	Prepared: (02/24/17	Analyzed: 02	/27/17			
Chloride	1940	5.26	mg/kg dry		1900			2.14	20	
Duplicate (P7B2404-DUP2)	Sour	ce: 7B21001	-02	Prepared: (02/24/17	Analyzed: 02	/27/17			
Chloride	2290	10.8	mg/kg dry		2830			21.1	20	
Matrix Spike (P7B2404-MS1)	Sour	ce: 7B20006	-23	Prepared: (02/24/17	Analyzed: 02	/27/17			
Chloride	3060	5.26	mg/kg dry	1050	1900	110	80-120			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7B2207 - TX 1005										
Blank (P7B2207-BLK1)				Prepared &	Analyzed:	02/21/17				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	130		"	100		130	70-130			
Surrogate: o-Terphenyl	74.7		"	50.0		149	70-130			S-GC
LCS (P7B2207-BS1)				Prepared &	Analyzed:	02/21/17				
C6-C12	1190	25.0	mg/kg wet	1000		119	75-125			
>C12-C28	1110	25.0	"	1000		111	75-125			
Surrogate: 1-Chlorooctane	124		"	100		124	70-130			
Surrogate: o-Terphenyl	68.3		"	50.0		137	70-130			S-GC
LCS Dup (P7B2207-BSD1)				Prepared &	Analyzed:	02/21/17				
C6-C12	1180	25.0	mg/kg wet	1000		118	75-125	1.26	20	
>C12-C28	1080	25.0	"	1000		108	75-125	3.02	20	
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	65.9		"	50.0		132	70-130			S-GC
Matrix Spike (P7B2207-MS1)	Sou	rce: 7B20011	-05	Prepared: ()2/21/17 A	nalyzed: 02	2/22/17			
C6-C12	1620	29.1	mg/kg dry	1160	19.2	138	75-125			QM-05
>C12-C28	2370	29.1	"	1160	308	177	75-125			QM-05
Surrogate: 1-Chlorooctane	132		"	116		114	70-130			
Surrogate: o-Terphenyl	50.1		"	58.1		86.2	70-130			
Matrix Spike Dup (P7B2207-MSD1)	Sou	rce: 7B20011	-05	Prepared: ()2/21/17 A	nalyzed: 02	2/22/17			
C6-C12	1660	29.1	mg/kg dry	1160	19.2	141	75-125	2.42	20	QM-05
>C12-C28	2380	29.1	"	1160	308	178	75-125	0.454	20	QM-05
Surrogate: 1-Chlorooctane	133		"	116		114	70-130			
Surrogate: o-Terphenyl	62.7		"	58.1		108	70-130			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P7C0205 - TX 1005										
Blank (P7C0205-BLK1)				Prepared: (02/28/17 A	nalyzed: 03	/01/17			
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	89.1		"	100		89.1	70-130			
Surrogate: o-Terphenyl	50.7		"	50.0		101	70-130			
LCS (P7C0205-BS1)				Prepared: (02/28/17 A	nalyzed: 03	01/17			
C6-C12	797	25.0	mg/kg wet	1000		79.7	75-125			
>C12-C28	1120	25.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	52.0		"	50.0		104	70-130			
LCS Dup (P7C0205-BSD1)				Prepared: (02/28/17 A	nalyzed: 03	/01/17			
C6-C12	792	25.0	mg/kg wet	1000		79.2	75-125	0.624	20	
>C12-C28	1130	25.0		1000		113	75-125	0.862	20	
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	48.1		"	50.0		96.3	70-130			
Matrix Spike (P7C0205-MS1)	Sou	rce: 7B20006	-21	Prepared: (02/28/17 A	nalyzed: 03	/02/17			
C6-C12	907	26.9	mg/kg dry	1080	ND	84.4	75-125			
>C12-C28	1200	26.9		1080	ND	111	75-125			
Surrogate: 1-Chlorooctane	127		"	108		119	70-130			
Surrogate: o-Terphenyl	61.5		"	53.8		114	70-130			
Matrix Spike Dup (P7C0205-MSD1)	Sou	rce: 7B20006	-21	Prepared: (02/28/17 A	nalyzed: 03	/02/17			
C6-C12	928	26.9	mg/kg dry	1080	ND	86.3	75-125	2.21	20	
>C12-C28	1280	26.9	"	1080	ND	119	75-125	6.59	20	
Surrogate: 1-Chlorooctane	126		"	108		117	70-130			
Surrogate: o-Terphenyl	69.0		"	53.8		128	70-130			

Permian Basin Environmental Lab, L.P.

Notes and Definitions

S-GC	Surrogate recovery outside of control limits.	The data was accepted based of	on valid recovery	of the remaining surrogate.

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike

Report Approved By:

Dup Duplicate

Bun Barron

3/8/2017

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Date:

Relinguished by:	Relinguished by:	Charles of the Marine	Decial Instructions:	UBOTTOM HOLE 4	9 TestTrench 3	Test Trench 3	1 Bottom Hole 3	V Test Trench Z	5 Test Trench 2	y Bottom Hole 2	5 Test Jcench 1	1/ Test Trench 1	Battom Hole 1	LAB # (lab use only)	ORDER # 7620000		Sampler Signature:	Telephone No: 432-563-2200	City/State/Zip: Midland,	Company Address: PO Box 8469	Company Name Etech En	Project Manager: Tim. 1		Etecn Environme
2/20/17 7:52	Date Time	Date Time		6"	8,5	0	181	9-	∞_	241"	8	6,5	6=			 	mill Bush	2200	Midland, Texas 79708	3469	Etech Environmental & Safety Solutions, Inc.	McMinn		Environmental & Safety Solutions, Inc
Received by ELOT:	Received by:	Received by:		4 13	L1		[]]3) (6	<u>[]</u>			2.17.17 13	Date Sampled							ions, Inc.			ty Solution
R				1330 14 12000	1720 XIII	1710 XIC	1325	100 X100		1320 1000	1750 800	1735 1 200	1315 1800	Time Sampled No. of Containers Ice HNO ₃ HCI	Preservation	Briannetec	e-mail: <u>Geoffacte</u>	Fax No: 432-563-2213					12800 W Odessa,	
1-10-1-	Date	2/2s/17												HCI H ₂ SO ₄ NaOH Na ₂ S ₂ O ₃ None Other (Specify) DW=Drinking Water SL=Sludge	s # of Containers	_	teuneny, com						12800 W. Hwy 80 E Odessa, Texas 79765	
	Time	Time	Labora Sample VOCs I										S NOOD	GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other TPH: 418.1 8015M 005 100 Cations (Ca, Mg, Na, K) Anions (Cl, SO4, CO3, HCO3) SAR / ESP / CEC	TOTAL:			Report Format:	P0 #	Project Loc:	Project #: 4	Project Name: Jo		CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
Temperature Upon Receipt:	Sampler/Client Rep. ? Counier? UPS DHL	Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered	Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace?											Metals: As Ag Ba Cd Cr Pb Hg t Volatiles Semivolatiles BTE (80218)5030 or BTEX 826 RCI N.O.R.M.		Analyze For:		Standard TRRP		el, NM	498-7876-00	30 #2	Phone: 432-563-2200 Fax: 432-563-2213	RECORD AND AN.
Juno 6	Fector	ZZZ	Ì											Chlorides RUSH TAT (Pre-Schedule) 24, Standard TAT	48, 72 hrs						0	Tauk Battery	200 113	ALYSIS REQUES

Relinquished by: Date Time	by:		Trench 5 -	Trench 5	Trench	ហ	1 is Test Trench 5 3'	· IV Test Trench 5 21	12 Bottom Hole 5 12"	/ J'L TREST TREACH 4 J.S'	11 Test Trench 4 5.5'	LAB # (lab use only)	ORDER # VEOUWW	(lab use only) A A A A	Sampler Signature: Stort Linut	Telephone No: 432-563-2200	City/State/Zip: Midland, Texas 79708	Company Address: PO Box 8469	Company Name Etech Environmental & Safety Solutions, Inc	Project Manager: T; M McMinn	Etech Environmental & Safety Solutions, Inc
Time Received by:	Time Received by										2,17,17	Date Sampled							afety Solutions, Inc.		Safety Sol
ELOT:	ST.	1625 1	1620	1615	1610	1602	1051	1100	1055	1730 1	7 1725 1	Time Sampled No. of Containers		L.	e-mail: Qec	Fax No: 432-563-2213					utions, Inc
R												Ice HNO ₃ HCI H ₂ SO ₄ NaOH Na ₂ S ₂ O ₃	Preservation & # of Containers	ingletechen	e-mail: Geoff @ Etechenu.com	563-2213				Odessa, Texas 79765	12800 W. Hwy 80 E
2	Date Time											None Other (Specify) DW=Drinking Water SL=Sludge GW = Groundwater S=Soit/Solid NP=Non-Potable Specify Other TPH: 418.1 (8015M) 1005 100	Matrix	·com	iCOM	Report Format:		Projec	Pro	Project Name:	CHAIN OF C
المربيب ومستحد والمستخدمة والمستحد والمستحد والمستحد والمستحد والمستحد والمستحد والمستحد والمستحد والمستحد والم												Cations (Ca, Mg, Na, K) Anions (Cl, SO4, CO3, HCO3) SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg S Volatiles Semivolatiles BTEX (6021B) 6030 or BTEX 826	se 🗌	Analyze For		iat: 🗙 Standard	P0 #	Project Loc: Jest, NM	Project #: 498-787	ENERVIEST 4: Jack B-3	CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Phone: 432-563-2200
												RCI N.O.R.M Chlorides		For:					6-000	12-563-2213 C #2 Tauk	ECORD AND ANALYSIS REC Phone: 432-563-2200
	22222											RUSH TAT (Pre-Schedule) 24, Standard TAT	48, 72 h	rs	1				· [Batter Page 41	

Relinquished by:	Relinquished by:	Charles by	Beling issad by	Special instructions:	Whest Trench le	Test Trench 6	1/2/ lest Trench 6	W Test Tranch 6	US Test Trench 6	Trench !	21 Test Trench 6	22 Bottom Hole 6	U Test Trench 5	LAB # (lab use only)	ORDER # 1000000	(lab use only) A A A	Sampler Signature:	Telephone No: 432-563-2200	City/State/Zip: Midland	Company Address: PO Box 8469	Company Name Etech I	Project Manager:	
Date Time	Date	Date			0	1	6	51	Ц	4	21	(2 ¹⁴	4					3-2200	Midland, Texas 79708	x 8469	Etech Environmental & Safety Solutions, Inc.		
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)T /		B			<	1550	1240		1530		1045		1630 1	Time Sampled No. of Containers			e-mail:	Fax No: 432-					
7														ice HNO3 HCI H2SO4 NaOH	Preservation & # of C			432-563-2213					12800 W. Hwy Odessa, Texas
	Date	alan/17												Na ₂ S ₂ O ₃ None Other (Specify) DW=Drinking Water SL=Studge GW = Groundwater S=Soil/Solid	of Containers Matrix			Repo					б
		Time Custody		Laborat Sample										NP=Non-Potable Specify Other TPH: 418.1 (8015m) 1005 10 Cations (Ca, Mg, Na, K) 1005 10 10 Anions (Cl, SO4, CO3, HCO3) SAR / ESP / CEC 10 10		TCLP:		Report Format:	PO#:	Project Loc:	Project #:	Project Name:	
	ampler/Client Rep. ? ourier? UPS	Custody seals on container(s) Custody seals on cooler(s) Sample Hand Delivered	VOCs Free of Headspace?	Laboratory Comments: Sample Containers Intact?									-	Metals: As Ag Ba Cd Cr Pb Hg Volatiles Semivolatiles BTEX 8021B 0030 or BTEX 826 RCI				Standard					Phone: 432-563-2200 Fax: 432-563-2213
1 VIV V		i S	E	$\mathbf{\hat{S}}$										N.O.R.M.									3-2200 3-2213
71	N Lone Star	z z z	z	z										RUSH TAT (Pre-Schedule) 24, Standard TAT	48, 72	nrs							e 42 of 4

PERMIAN BASIN ENVIRONMENTAL LAB, LP 1400 Rankin Hwy Midland, TX 79701



Analytical Report

Prepared for:

Tim McMinn E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa, TX 79765

Project: Jack B-30 #2 Tank Battery Lightning Strike Project Number: 498-7876-000 Location: Jal NM

Lab Order Number: 7D12006



NELAP/TCEQ # T104704156-13-3

Report Date: 04/18/17

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765 Project: Jack B-30 #2 Tank Battery Lightning Strike Project Number: 498-7876-000 Project Manager: Tim McMinn Fax: (432) 563-2213

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Boring 1 10'	7D12006-01	Soil	04/11/17 10:30	04-12-2017 09:12
Boring 1 15'	7D12006-02	Soil	04/11/17 10:40	04-12-2017 09:12
Boring 1 20'	7D12006-03	Soil	04/11/17 10:50	04-12-2017 09:12

Boring 1 10' 7D12006-01 (Soil)

		/D12	000-01 (50	II)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permia	n Basin E	nvironme	ntal Lab, I	P .				
General Chemistry Parameters by H	EPA / Standard Methods								
Chloride	10.7	1.06	mg/kg dry	1	P7D1302	04/13/17	04/17/17	EPA 300.0	
% Moisture	6.0	0.1	%	1	P7D1701	04/17/17	04/17/17	% calculation	

Permian Basin Environmental Lab, L.P.

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proj Project Numl Project Manaș	ber: 498-78	76-000	a Battery Lig	htning Strike		Fax: (432) 50	63-2213
			ring 1 15' 006-02 (So	il)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	ian Basin E	nvironme	ntal Lab, l	L.P.				
General Chemistry Parameters by EPA / Stan	dard Methods	5							
Chloride % Moisture	6.73 8.0	1.09 0.1	mg/kg dry %	1 1	P7D1302 P7D1701	04/13/17 04/17/17	04/17/17 04/17/17	EPA 300.0 % calculation	

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765		Proj Project Numl Project Manaş	ber: 498-78	76-000	Battery Lig	htning Strike		Fax: (432) 5	63-2213
			ring 1 20' 006-03 (So						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin E	nvironme	ntal Lab, I	L.P.				
General Chemistry Parameters by EPA / Stan	dard Methods	i							
Chloride % Moisture	8.37 7.0	1.08 0.1	mg/kg dry %	1 1	P7D1303 P7D1701	04/13/17 04/17/17	04/17/17 04/17/17	EPA 300.0 % calculation	

Permian Basin Environmental Lab, L.P.

		Papartina		Spiles	Source		%REC		RPD	
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	Limit	Notes
Batch P7D1302 - *** DEFAULT PREP ***										
Blank (P7D1302-BLK1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	ND	1.00	mg/kg wet							
LCS (P7D1302-BS1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	392	1.00	mg/kg wet	400		98.1	80-120			
LCS Dup (P7D1302-BSD1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	392	1.00	mg/kg wet	400		98.1	80-120	0.0229	20	
Duplicate (P7D1302-DUP1)	Sou	rce: 7D10008	8-58	Prepared: 0	04/13/17	Analyzed: 04/17/17				
Chloride	305	1.05	mg/kg dry		305			0.114	20	
Duplicate (P7D1302-DUP2)	Source: 7D10008-7		8-76	Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	985	5.05	mg/kg dry		985			0.00512	20	
Matrix Spike (P7D1302-MS1)	Sou	rce: 7D10008	8-58	Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	1310	1.05	mg/kg dry	1050	305	95.8	80-120			
Batch P7D1303 - *** DEFAULT PREP ***										
Blank (P7D1303-BLK1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	ND	1.00	mg/kg wet	-		-				
LCS (P7D1303-BS1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	391	1.00	mg/kg wet	400		97.8	80-120			
LCS Dup (P7D1303-BSD1)				Prepared: 0	04/13/17	Analyzed: 04	4/17/17			
Chloride	404	1.00	mg/kg wet	400		101	80-120	3.28	20	

Permian Basin Environmental Lab, L.P.

Permian Basin Environmental Lab, L.P.

					_					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7D1303 - *** DEFAULT PREP ***										
Duplicate (P7D1303-DUP1)	Sour	-ce: 7D12007	-01	Prepared: (04/13/17 A	nalyzed: 04	/17/17			
Chloride	2130	5.21	mg/kg dry		2360			10.6	20	
Duplicate (P7D1303-DUP2)	Sour	Source: 7D12011-01 Prepared: 04/13/17 Analyzed: 04/17/17		/17/17						
Chloride	88.2	1.02	mg/kg dry		89.8			1.82	20	
Matrix Spike (P7D1303-MS1)	Sour	-ce: 7D12007	-01	Prepared: (04/13/17 A	nalyzed: 04	/17/17			
Chloride	3170	5.21	mg/kg dry	1040	2360	77.8	80-120			QM-05
Batch P7D1701 - *** DEFAULT PREP ***										
Blank (P7D1701-BLK1)				Prepared &	k Analyzed	: 04/17/17				
% Moisture	ND	0.1	%							
Duplicate (P7D1701-DUP1)	Sour	ce: 7D10008	-26	Prepared 8	Analyzed	: 04/17/17				
% Moisture	4.0	0.1	%		5.0			22.2	20	
Duplicate (P7D1701-DUP2)	Sour	ce: 7D10008	-53	Prepared 8	Analyzed	: 04/17/17				
% Moisture	7.0	0.1	%		7.0			0.00	20	
Duplicate (P7D1701-DUP3)	Sour	·ce: 7D10008	-82	Prepared &	Analyzed:	: 04/17/17				
% Moisture	14.0	0.1	%	*	15.0			6.90	20	
Duplicate (P7D1701-DUP4)	Sour	ce: 7D11003	-03	Prepared &	a Analyzed	: 04/17/17				
% Moisture	9.0	0.1	%		8.0			11.8	20	
Duplicate (P7D1701-DUP5)	Sour	·ce: 7D12006	-01	Prepared 8	Analyzed:	: 04/17/17				
% Moisture	6.0	0.1	%		6.0			0.00	20	

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7D1701 - *** DEFAULT PREP ***										
Duplicate (P7D1701-DUP6)	Sour	rce: 7D12011-	16	Prepared &	Analyzed:	04/17/17				
% Moisture	3.0	0.1	%		3.0			0.00	20	

Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- BULK Samples received in Bulk soil containers
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:

Bun Barron

4/18/2017

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

Date:

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