

Cotton Hills 23 26 27 Federal Com #001H New Mexico Oil Conservation Division (NMOCD) Incident ID # NAB1915130679

### **Prepared For:**

Chevron Mid-Continent Business Unit (MCBU)

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June 2022

Cotton Hills 23 26 27 Federal Com #001H Produced Water Spill Site Eddy County, New Mexico NMOCD Incident ID #NAB1915130679

Chevron Mid-Continent Business Unit (MCBU)

June 10, 2022

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### 1. Introduction

On behalf of Chevron Mid-Continent Business Unit (MCBU), AECOM Technical Services, Inc. (AECOM) has prepared this *Site Closure Report and Limited Deferral Request* to describe soil excavation and confirmation sampling results associated with remediation activities conducted in March and April 2022 to address soil impacts resulting from two overlapping produced water releases that occurred at the Cotton Hills 23 26 27 Federal Com #001H site in Eddy County, New Mexico ("the Site").

### 2. Site Setting and Background

The Site is located at Latitude 32.0345573° North, Longitude 104.1587753° West in Eddy County, New Mexico (**Figure 1**). The Site operations features include a caliche pad, producing oil well with pump jack, product flow lines and an electrical service line. An active tank battery and associated oil and gas production equipment are present on an adjacent caliche pad immediately west of the well pad. The Site is located on U.S. Bureau of Land Management (BLM) land.

The Site and adjacent tank battery are surrounded by undeveloped property. Operations near the Site are for oil and gas exploration, development, production, or storage only. No sensitive environmental and/or ecological receptors were identified within the search criteria distances described in 19.15.29.11 and 19.15.29.12.C.(4) New Mexico Administrative Code (NMAC).

The soils underlying the caliche well pad (1 to 2 feet thick) are comprised of calcareous clay with silty sand seams to approximately 5 feet below ground surface (ft bgs). In soil boring PCH-15 (advanced during the previous site assessment sampling), the calcareous clay is underlain by calcareous sandstone to a depth of 15 ft bgs. Silty calcareous clay and caliche are present from approximately 15 to 28 ft bgs, which is underlain by calcareous sandstone to a depth of approximately 35 ft bgs. Calcareous clay with abundant caliche seams is present between 35 ft bgs and the total depth of the boring at a depth of 51 ft bgs. Groundwater was not observed to a depth of 51 ft bgs in soil boring PCH-15.

### 2.1 Hydrocarbon Release History

It is noted that two separate releases occurred at this location in 2019 from the same source (pump jack) and which overlapped one another (release upon a release). Therefore, a copy of this report has been submitted separately for each release incident ID, however the remedial activities are the same for the two releases. The two releases are described as follows.

On May 15, 2019, approximately 14.29 barrels (bbls) of produced water with a dissolved chloride concentration greater than 10,000 milligrams per liter (mg/L) were reported to have been released to an unlined well pad. The release was associated with a pumping unit packing failure. Approximately 10 bbls of produced water were reported to have been recovered. **The New Mexico Oil Conservation Division (NMOCD) assigned Incident ID #NAB1915130679 to the May 2019 release**.

On October 22, 2019, a wellhead stuffing box failure resulted in approximately 18.01 bbls of produced water and 0.62 bbls of oil being released to the unlined well pad within the same area as the May 2019 release. Approximately 10.5 bbls of produced water and 0.5 bbls of oil were reported to have been recovered. **The NMOCD assigned Incident ID #NRM1936556814 to the October 2019 release.** 

This report has been submitted to address the first of the two releases, the May 2019 release, assigned Incident ID #NAB1915130679. Form C-141 for the May 2019 release is included in Appendix A.

### 2.2 Soil Assessment and Delineation History

The following soil assessment/delineation activities have been conducted at the Site.

- In June 2019, seven initial hand auger borings (CH-01 through CH-07) were drilled to a depth of 1 ft bgs at the Site. The hand auger borings were terminated due to auger refusal in caliche well pad material. The shallow soil assessment activities were documented in the *Initial Site Assessment/Characterization Report* dated August 2019.
- In December 2019, seven air rotary delineation borings (PCH-8 through PCH-14) were drilled and sampled to depths of 5 to 10 ft bgs. In addition, soil boring PCH-15 was drilled to a depth of 51 ft bgs to evaluate the potential presence of groundwater to that depth. No groundwater was observed to a depth of 51 ft bgs in boring PCH-15. Therefore, groundwater is assumed to be present between 51 and 100 ft bgs beneath the Site.
- In July 2020, four air rotary borings (CH-16 through CH-19) were drilled and sampled for additional horizontal delineation of impacted soil. Based on the soil sampling data collected, the extent of petroleum hydrocarbon and chloride regulatory exceedances was delineated to the south, west and east.
- In April 2021, hand auger borings CH-20 through CH-22 were drilled and sampled for horizontal delineation of impacted soil north of boring CH-17.

The soil analytical results were compared to *Table I, Closure Criteria for Soils Impacted by a Release* provided in 19.15.29.12 NMAC, which includes the following:

Closure Criteria for	Table I Soils Impacted by a Release	
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/L TDS	Constituent	Limit
	Chloride	600 mg/kg
< E0 foot has	TPH (GRO+DRO+MRO)	100 mg/kg
≤ 50 feet bgs	Benzene	10 mg/kg
	BTEX	50 mg/kg
	Chloride	10,000 mg/kg
51 fact 100 fact has	TPH (GRO+DRO+MRO)	2,500 mg/kg
51 feet – 100 feet bgs	Benzene	10 mg/kg
	BTEX	50 mg/kg

Based on the absence of groundwater to a depth of 51 ft bgs as described above for boring PCH-15, the applicable closure criteria for the Site are 10,000 mg/kg for chloride and 2,500 mg/kg for TPH.

The soil analytical results for the Site were also compared to the chloride regulatory limit of 600 mg/kg and the TPH regulatory limit of 100 mg/kg specified for the upper four feet of soil under 19.15.29.13.D.(1) NMAC for *RESTORATION*, *RECLAMATION AND RE-VEGETATION*.

The assessment and delineation soil boring results indicated chloride and total petroleum hydrocarbon (TPH) concentrations exceeded the regulatory limits described above for 19.15.29.12 NMAC and 19.15.29.13.D.(1) NMAC. None of the reported benzene and/or BTEX (benzene, toluene, ethylbenzene and xylenes) concentrations exceeded the applicable regulatory limits.

Soil boring locations are shown on **Figure 2**. Previous soil assessment and delineation results are shown on **Figure 3**.

The soil assessment and delineation activities were documented in the *Delineation Report and Remediation Plan(s)* dated July 2021<sup>1</sup>. As shown on **Figure 4**, remediation of impacted soil (excavation and offsite disposal) was proposed to a maximum depth of 4 ft bgs for the area encompassing borings CH-01 through CH-05, PCH-10, PCH-11, PCH-13, PCH-14, PCH-15, and CH-17.

In an email dated October 5, 2021, the NMOCD approved the submitted *Application for administrative* approval of a release notification and corrective action (C-141), with the following conditions:

• The Workplan/Remediation Plan is approved with the following conditions: Borehole to 51' showing no groundwater allows for floor samples to be delineated/excavated to 10,000 mg/kg for chlorides, 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) for vertical delineation. Only sample points on pad that require a major facility deconstruction will be deferred. Remove contaminants safely around equipment/pipelines with a hydrovac. If you believe a certain area will require a deferral, please make sure that it has been fully delineated and specify the exact soil sample locations. The OCD needs to see that every measure has been taken to remediate the release before a deferral can be granted. After all possible contaminated soil has been removed, a formal deferral request will need to be uploaded to the OCD payment portal for review.

A copy of the email and subsequent project correspondence is provided in **Appendix A**.

### 3. Soil Remediation/Reclamation

During March and April 2022, soil remediation/reclamation was performed to address the following regulatory requirements applicable to the site:

- Soil remediation requirements in *Table I, Closure Criteria for Soils Impacted by a Release* provided in 19.15.29.12 NMAC; and
- Soil reclamation requirements under 19.15.29.13.D.(1) NMAC.

The following activities occurred prior to initiation of soil remediation/reclamation:

- On March 18, 2022, a pipeline/utility clearance request was submitted through the NM811 One-Call service for the proposed remediation area at the Site.
- On March 24, 2022, AECOM provided email notification to Mr. Robert Hamlet, NMOCD Artesia, office, of the soil remediation/reclamation and associated confirmation sampling activities scheduled to begin at the Site either March 28<sup>th</sup> or 29<sup>th</sup>, 2022.
- On March 25, 2022, AECOM provided email notification of the scheduled soil remediation/reclamation activities to Mr. James Amos, BLM Carlsbad Field Office.

Soil remediation/reclamation activities were initiated at the Site on March 29, 2022. Remediation/reclamation was performed by excavation and off-site disposal of impacted soil. The impacted soil was excavated to depths of 2 to 4 ft bgs in the approximate area shown on **Figure 5**. The soil remediation/reclamation and associated confirmation sampling activities are summarized below.

### 3.1 Soil Confirmation Sampling and Analytical Results

In conjunction with excavation of impacted soil, confirmation samples were collected from the walls and bottom of the excavation. Per NMOCD requirements, representative five-point composite samples were

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<sup>&</sup>lt;sup>1</sup> Note – separate reports were submitted for each of the two releases; however, both reports contain the same sample data and information with the exception of referencing one or the other releases.

collected from the walls and base of the excavation, approximately every 50 ft and 200 square ft respectively. No wet or discolored (stained) areas were observed during excavation, therefore no individual grab samples were collected (i.e., all samples are composites). Where the excavation extended to previous clean delineation sample locations, these sample results were also utilized to further confirm the removal of the impacted soil (i.e., CH-06, CH-07, PCH-08 and PCH-12 for walls and base samples for borings with samples below 2 and/or 4 ft bgs). Samples were also collected from any remaining areas that could not be fully excavated and where deferral is being requested (under the electrical line only, which could not be moved). The soil confirmation samples were collected in clean, laboratory-provided sample containers, labeled, and placed on ice in laboratory-provided coolers. AECOM completed Chain of Custody forms and delivered the samples to the Eurofins laboratory in Carlsbad, New Mexico.

The soil confirmation samples were submitted for laboratory analysis of chloride by EPA Method 300.0, and for TPH by EPA Method 8015NM as presented in the remedial work plan. Select soil samples were also submitted for analysis of BTEX by EPA Method 8021B, although no previous exceedances of BTEX were reported.

None of confirmation samples exhibited concentrations that exceeded the closure criteria of 10,000 mg/kg chloride and 2,500 mg/kg TPH for sites where groundwater occurs at a depth of 51 to 100 ft bgs. The TPH concentration of 148 mg/kg reported for the sample collected from a depth of approximately 2 ft bgs at sample location B-21 exceeded the soil reclamation standard of 100 mg/kg. Additional soil was removed and resampling was conducted at this location. None of the other confirmation samples indicated TPH concentrations in excess of 100 mg/kg. Chloride concentrations in excess of the 600 mg/kg reclamation standard for the upper four feet of soil were reported for several confirmation samples as described below and for which additional soil was removed and resampling conducted. The confirmation soil sampling results are summarized in **Table 1**. Laboratory analytical reports are provided in **Appendix B**. **Table 2** also presents the previous delineation sample results for locations remaining following the remedial excavation and **Table 3** presents the previous assessment sample results for locations that were removed during the remedial excavation. This data was previously submitted.

### 3.1.1 Excavation Wall Confirmation Samples

Five-part composite confirmation samples were collected from the excavation walls as shown on **Figure 5** and described below.

- West Wall Confirmation samples were initially collected at three locations along the west wall of the excavation (i.e., samples WW-1, WW-2, and WW-3). The initial sample results for WW-1 indicated a chloride concentration of 285 mg/kg. Over-excavation and re-sampling were required three times at sample location WW-2 (i.e., samples WW-2A, WW-2B, and WW-2C) and one time at sample location WW-3 (i.e., sample WW-3A) before the confirmation samples exhibited chloride concentrations below 600 mg/kg. The final chloride concentrations for samples WW-2C and WW-3A were 104 mg/kg and 525 mg/kg, respectively.
- North Wall In addition to the previous northern delineation associated with the laboratory results for samples collected from boring PCH-12, confirmation samples were initially collected at three locations along the north wall of the excavation (i.e., samples NW-1, NW-2, and NW-3). The initial sample results for samples NW-1 and NW-3 indicated chloride concentrations of 95 mg/kg and 379 mg/kg, respectively. Over-excavation and re-sampling were required twice at sample location NW-2 (i.e., samples NW-2A and NW-2B) before confirmation sample NW-2B exhibited a chloride concentration (37.4 mg/kg) below the soil reclamation limit of 600 mg/kg.
- <u>East Wall</u> In addition to the previous eastern delineation associated with the laboratory results for samples collected from borings CH-06 and PCH-08, a confirmation sample was initially collected at one location along the east wall of the excavation (i.e., sample EW-1). Sample EW-1 indicated a chloride concentration of 1,070 mg/kg. Subsequent to over-excavation, sample EW-1A exhibited a chloride concentration of 566 mg/kg.
- South Wall Confirmation samples were collected at three locations along the south wall of the
  excavation (i.e., samples SW-1, SW-2, and SW-3) and all three samples exhibited chloride
  concentrations below the soil reclamation limit of 600 mg/kg. Vacuum excavation was also
  conducted on the north side of the pump jack in order to remove the impacted soil which could not
  be removed with the excavator without risk of damage to the pump jack.

### 3.1.2 Excavation Base Confirmation Samples

A total of 35, five-part composite samples were collected (i.e., B-1 through B-26 and ELD-1 and ELD-2) along the base of the excavation as shown on **Figure 5**. The western portion of the excavation was initially extended to a depth of approximately 4 ft bgs, which satisfies the soil remediation/reclamation requirements approved by the NMOCD. Base samples were collected from locations B-1 through B-13 in the western portion of the excavation and the analytical results were compared to the closure criteria for sites where groundwater is present between 51 and 100 ft bgs. The laboratory analytical results for borings B-1 through B-13 were below the applicable closure criteria of 10,000 mg/kg for chloride and 2,500 mg/kg for TPH. Base samples B-1 and B-3 were also compared to the reclamation criteria since they were collected at depths less than 4 ft bgs.

The eastern portion of the excavation was initially extended to a depth of approximately 2 ft bgs and base confirmation samples were collected from locations B-14 through B-26. Based on the initial sampling results, the excavation was extended to 4 ft bgs and base samples were re-collected in the areas represented by sample locations B-15, B-16, B-18, B-21, and B-25 as shown on **Figure 5**. In the eastern portion of the excavation, all final base samples collected from 2 ft bgs exhibited chloride concentrations below 600 mg/kg and all final base samples collected from 4 ft bgs exhibited chloride concentrations below 10,000 mg/kg.

Hydrovac equipment was used to removal additional soil that could not be safely excavated around the pump jack and the electrical service line north of the pump jack. The soil over the electrical line was removed using the hydrovac until the line was visible and the upper foot of soil over the line and area was removed with an excavator. However, since the electrical line could not be removed, a limited area of soil was left in place along the electrical line until such time that production operations are discontinued at the

Site and the electrical line is taken out of service. As requested by NMOC two representative samples (i.e., ELD-1 and ELD-2) were collected for laboratory analysis from the area along the electrical line where deferral of soil remediation is proposed until production operations are discontinued at the Site and the electrical line is taken out of service. The laboratory analytical results for samples ELD-1 and ELD-2 indicated chloride concentrations of 2,020 mg/kg and 699 mg/kg, respectively. The TPH concentrations for both samples were below the soil reclamation limit of 100 mg/kg and BTEX results were reported below the sample detection limits (SDLs). The total volume of soil with chloride concentrations greater than 600 mg/kg remaining around the electric line is estimated to be 50 cubic yards.

### 4. Soil Disposition and Excavation Backfilling

Approximately 1,660 cubic yards of excavated soil was transported to the R360 Environmental Solutions (R360) Red Bluff Facility near Orla, Texas for disposal as oil and gas exploration and production (E&P) exempt wastes. Soil disposal documentation is provided in **Appendix C**. Site photographs are provided in **Appendix D**.

Prior to backfilling of the excavation, Brad Wynne of AECOM provided James Amos of the BLM Carlsbad Field Office with the soil confirmation sampling results and obtained BLM approval to backfill the excavation.

Caliche backfill from the Arcosa Aggregates pit near Orla, Texas was used to backfill the excavation. Prior to use, two sample of the backfill material was collected for laboratory analysis of chloride, TPH and BTEX using the laboratory analytical methods described above. The laboratory analytical results for the backfill samples indicated BTEX and TPH concentrations below laboratory method detection limits and chloride concentrations well below the soil reclamation limit of 600 mg/kg. **Table 4** presents the backfill sample results and the laboratory analytical report is included in **Appendix B**.

### 5. Conclusions

Based on completion of remediation/reclamation through excavation and offsite disposal of impacted soil, no further action is currently recommended for the Site based on the following:

- The final excavation wall samples and base samples collected less than 4 ft bgs, exhibited chloride and TPH concentrations below the soil reclamation limits of 600 mg/kg and 100 mg/kg, respectively.
- None of the 4-ft depth samples exhibited chloride and/or TPH concentrations that exceeded the applicable closure criteria 10,000 mg/kg and 2,500 mg/kg, respectively.
- All samples collected and analyzed for BTEX were reported with concentrations below the SDLs.
- Deferral of soil remediation is proposed for a limited area and small volume of soil (approximately 50 cubic yards) along the electrical service line north of the pump jack. Remediation of impacted soil in this area will be completed when production operations are discontinued at the Site and the electrical line is taken out of service.

## **Tables**

**A**=COM

Table 1
Cotton Hills - Confirmatory Soil Analytical Results - Remedial Excavation Samples
Chevron MCBU
Lea County, New Mexico

Ol olomos	Same Orthon	Sample Depth	Total	Total Petroleum Hydrocarbons (EPA 8015 NM)	arbons (EPA 801.	5 NM)		Volatile Organics (EPA 8021B)	s (EPA 8021B)		Chloride
California de la califo	Sample Date	Interval (ft bgs)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	(Method 300.0)
	(4- ()	0-4				100	10				009
regulatory Limits (mg/kg)	its (mg/kg)	> 4	ı	1	:	2,500	ı	1	1	1	10,000
NW-1	03/29/22	0-3	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00404	92
NW-2*	04/01/22	0-2	<49.8	<49.8	<49.8	<49.8		1		1	2,000
NW-2A*	04/05/22	0 - 2	ı	-	-	-	-	1	-	1	1,280
NW-2B	04/07/22	0-2	ı	-	1	1	·	1	,	1	37.4
NW-3	04/01/22	0-2	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00397	379
EW-1*	04/01/22	0-3	<49.8	<49.8	<49.8	<49.8		1		1	1,070
EW-1A	04/05/22	0 - 3	1					•		1	266
SW-1	03/31/22	0 - 4	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	336
SW-2	04/01/22	0 - 4	<50.0	<0.05>	<50.0	<50.0	·	1	,	1	294
SW-3	04/01/22	0-3	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	74
WW-1	03/29/22	0 - 4	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	285
WW-2*	03/30/22	0 - 4	<49.9	<49.9	<49.9	<49.9		1		1	2,050
WW-2A*	04/01/22	0 - 4	ī	-	-	-	-	1	-	1	1,020
WW-2B*	04/05/22	0 - 4	i	-	-	-	•	-	-	•	1,360
WW-2C	04/07/22	0 - 4		-	-	-	-				104
WW-3*	03/30/22	0 - 4	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00397	8,480
WW-3A	04/05/22	0 - 4	-	-	-	-	-	-	-		525
B-1	03/29/22	0 - 4	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	136
B-2*	03/29/22	0 - 4	<49.8	85.5	<49.8	98	-			•	2,100
B-2A	04/01/22	> 4		-		•					370
B-3	03/29/22	0 - 4	<49.9	<49.9	<49.9	<49.9	-	-	-	-	229
B-4	03/29/22	> 4	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	275
B-5	03/30/22	> 4	<49.8	<49.8	<49.8	<49.8	-				1,500
B-6	03/30/22	> 4	<50.0	<50.0	<50.0	<50.0	-	-	-	-	1,450
B-7	03/30/22	> 4	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	617
B-8	03/30/22	> 4	<50.0	<50.0	<50.0	<50.0					88
B-9	03/30/22	> 4	<50.0	<50.0	<50.0	<50.0	-	-	-	-	1,160
B-10	03/31/22	> 4	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00396	225
B-11	03/31/22	> 4	<50.0	86.2	<50.0	98	-	-	_	-	681
B-12	03/31/22	> 4	<50.0	52.9	<50.0	53		-			1,440
B-13	03/31/22	> 4	<49.8	115	<49.8	115	<0.00201	<0.00201	<0.00201	<0.00402	64
B-14	04/01/22	> 2	<49.9	<49.9	<49.9	<49.9	-	-	-	1	614**



Cotton Hills - Confirmatory Soil Analytical Results - Remedial Excavation Samples Chevron MCBU

Lea County, New Mexico

Orango	of O June 3	Sample Depth	Total	Total Petroleum Hydrocarbons (EPA 8015 NM)	arbons (EPA 801	5 NM)		Volatile Organi	Volatile Organics (EPA 8021B)		Chloride
Sample	Sample Date	Interval (ft bgs)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	(Method 300.0)
imi I motolimo	to (mon/len)	0-4	:	:		100	10	:	ı	1	009
regulatory Limits (mg/kg)	ts (mg/kg)	> 4		-		2,500			-	-	10,000
B-15*	04/01/22	> 2	<50.0	<50.0	<50.0	<50.0					1,260
B-15A	04/05/22	> 4	-		-			-		1	427
B-16*	04/01/22	0 - 4	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	1,140
B-16A	04/05/22	> 4	1								253
B-17	04/01/22	0 - 4	<49.9	<49.9	<49.9	<49.9	1	-	-	1	419
B-18*	04/01/22	0 - 4	<50.0	<50.0	<50.0	<50.0	-		-		728
B-18A	04/05/22	> 4	-	-	-		_		-	-	12
B-19	04/01/22	0 - 4	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	86800.0>	392
B-20	04/01/22	0 - 4	<49.9	<49.9	<49.9	<49.9					191
B-21*	04/01/22	0 - 4	<49.9	148	<49.9	148	-	-	-	-	208
B-21A	04/05/22	> 4	<49.8	<49.8	<49.8	<49.8			-	-	-
B-22*	04/01/22	0 - 4	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	969
B-22A	04/05/22	> 4	-	-	-	1	-		-	-	201
B-23	04/01/22	0 - 4	<49.9	<49.9	<49.9	<49.9			-	-	596
B-24	04/01/22	0 - 4	<49.8	<49.8	<49.8	<49.8		_		-	582
B-25*	04/01/22	0 - 4	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	723
B-25A	04/05/22	> 4		•	-			-			202
B-26	04/05/22	0 - 4	ı	•	-	-	-	-		•	504
ELD-1	04/05/22	2-3	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	2,020
ELD-2	04/05/22	2-3	<49.8	51.2	<49.8	51.2	<0.00200	<0.00200	<0.00200	<0.00400	699
ELD-DUP	04/05/22	dup of ELD-2	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00401	838

- 1. \* Additional soil excavated and sample re-collected at this location following receipt of initial results. 2. Soil analyses performed by Eurofins Xenco Laboratories, LLC in Midland, TX
- 3. Units for all analytical data provided are mg/kg (milligrams per kilogram).
- 4. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).
  - 5. "ft bgs" feet below ground surface.
    - 6. "NA" Not Analyzed
      - 7. "ND" Not Detected
- 8. "GRO" Gasoline Range Organic Compounds
- 9. "DRO" Diesel Range Organic Compounds

10. "MRO" - Motor Oil/Lube Range Organic Compounds

- 11. J Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).
  - 13. E Indicates that the result is greater than the MQL and the concentration is an estimated value. 12. U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL
- 15. Bold and Shaded Reported concentration exceeds Regulatory Limits for 0-4' bgs. 14. Bold - Detectable concentration that exceeds laboratory method reporting limits.

- Bold and Shaded Reported concentration exceeds Regulatory Limits for > 4" bgs.
   "--" Indicates that no applicable regulatory limit exists for that analyte.
   "-- Sample result within range of concentation variability therefore additional soil not removed at this location.

Table 2
Cotton Hills - Previous Soil Delineation Sample Locations Remaining Following Excavation
Chevron MCBU Spill Sites
Lea County, New Mexico

9				Tot	'al Petroleum H <sub>)</sub>	lydroc	Total Petroleum Hydrocarbons (EPA 8015 NM)	15 NM)		Volatile Orga	Volatile Organics (EPA 8260B)	60B)		Chloride
Sample ID	sample Date	(ft bgs)	GRO (C6-C10)		DRO (C10-C28)		MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	nzene	Total Xylenes	(Methods 9056A, 9250 and 300.0)
	, , , , , , , , , , , , , , , , , , ,	0-4			:			100	10		-			009
Regulatory Limits (mg/kg)	ts (mg/kg)	<b>4</b> <	ı		ŀ		1	2,500	1	1	1		:	10,000
CH-06 - 0-1	06/26/19	0-1	0.0631	Π	34.6 U	Π	34.6 U	ND	0.000618 U	0.00135	U 0.001	Π	0.00111 U	237
CH-07 - 0-1	06/26/19	0-1	0.0631	Π	34.3 U	Π	34.3 U	ND	0.000667 U	0.00146	U 0.00108	3 N	0.0012 U	50.9
		0-1,	ΑN		NA		NA	NA	ΝΑ	ΑN	N		ΝΑ	161
		1'-2'	ΑN		NA		NA	NA	ΝΑ	ΑN	ΝΑ		ΝΑ	43.7
-	07/07/07	0'-2'	0.016	n	U.89	٦	6.7	7.59	ΑN	Ϋ́	ΑN		ΝΑ	NA
o E D	61/01/71	2'-3'	ΑN		NA		NA	NA	ΝΑ	Ϋ́	ΑN		ΝΑ	95.4
		3'-4'	ΑN		NA		NA	NA	ΑN	Ϋ́	Ν		ΝΑ	54.0
		4'-5'	ΑN		NA		NA	NA	ΝΑ	Ϋ́	ΑN		ΝΑ	58.3
		0-1,	ΑN		NA		NA	NA	NA	ΑN	NA		NA	133
		1'-2'	ΑN		NA		NA	NA	ΝΑ	ΑN	NA		ΝΑ	140
0	10/10/10	0-2,	0.012	Λ	3.8		7.7	11.5	NA	ΑN	NA		NA	NA
	61 /01 /71	2-3'	ΝΑ		NA		NA	NA	NA	N	NA		NA	102
		3'-4'	ΝΑ		NA		NA	NA	NA	ΑN	NA		NA	206
		4'-5'	ΝΑ		NA		NA	NA	NA	NA	NA		NA	346
PCH-10	12/18/19	4'-5'	ΝA		NA		NA	NA	NA	NA	NA		NA	159
PCH-11	12/18/19	4'-5'	ΝΑ		NA		NA	NA	NA	NA	NA		NA	130
		0-1,	ΝΑ		NA		NA	NA	NA	NA	NA		NA	165
		1'-2'	NA		NA		NA	NA	NA	NA	NA		NA	62.6
- C	10/10/10	0-2,	0.012	Π		٦	8.5	9.12	NA	NA	NA		NA	NA
N - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	61/01/71	2'-3'	NA		NA		NA	NA	NA	NA	NA		NA	55.3
		3'-4'	NA		NA		NA	NA	NA	NA	NA		NA	31.5
		4'-5'	NA		NA		NA	NA	NA	NA	NA		NA	27.9
		2'-3'	ΝA		NA		NA	NA	NA	NA	NA		NA	220
PCH-13	12/18/19	3'-4'	NA		NA		NA	NA	NA	NA	NA		NA	64.7
		4'-5'	NA	H	NA		NA	NA	NA	NA	NA		NA	90.8
		4'-5'	ΝA		NA		NA	NA	NA	NA	NA		NA	603
PCH-14	12/18/19	5'-7.75'	NA		NA		NA	NA	NA	NA	NA		NA	441
		7.5'-10'	0.011	Π	4.1		6.2	10.3	ΝΑ	A	NA		NA	693
		4'-5'	NA		NA		NA	NA	AN	NA	NA		NA	416
PCH-15	12/18/19	5'-7.5'	NA		NA		NA	NA	NA	N	NA		NA	9.66
		7.5'-10'	0,011	n	1.1 J	٦	3.3	4.4	NA	Ϋ́	Ϋ́		NA	68

## AECOM

Cotton Hills - Previous Soil Delineation Sample Locations Remaining Following Excavation Chevron MCBU Spill Sites Table 2

Lea County, New Mexico

9			1	otal Petroleum Hyo	Total Petroleum Hydrocarbons (EPA 8015 NM)	115 NM)		Volatile Organi	Volatile Organics (EPA 8260B)		Chloride
Sample ID	Sample Date	(ft bgs)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	(Methods 9050A, 9250 and 300.0)
imi I motolimo	(ma/(ca)	0-4	:	-		100	10	:			009
regulatory Limits (mg/kg)	ts (mg/kg)	> 4			-	2,500	1	-	-		10,000
		0-1,	NA	NA	ΑN	NA	ΑN	NA	ΝΑ	NA	162
		1'-2'	AN	NA	NA	NA	NA	NA	ΑN	NA	121
CH-16	07/29/20	2'-3'	NA	NA	NA	NA	ΝA	NA	ΑN	NA	185
		3'-4'	AN	NA	NA	NA	NA	NA	ΑN	NA	100
		4'-5'	NA	NA	NA	NA	NA	NA	NA	NA	34.1
CH 17	06/06/20	3'-4'	AN	NA	NA	NA	NA	NA	ΑN	NA	371
1-10	01123120	4'-5'	NA	NA	NA	NA	NA	NA	NA	NA	311
		0-1,	NA	NA	NA	NA	NA	NA	NA	NA	30.4
		1'-2'	VΑ	NA	NA	NA	NA	NA	NA	NA	418
CH-18	07/29/20	2'-3'	NA	NA	NA	NA	ΝΑ	NA	ΑN	NA	403
		3'-4'	NA	NA	NA	NA	NA	NA	NA	NA	253
		4'-5'	NA	NA	NA	NA	NA	NA	NA	NA	273
		0-1.	NA	NA	NA	NA	NA	NA	NA	NA	80.3
		1'-2'	NA	NA	NA	NA	NA	NA	NA	NA	143
CH-19	07/29/20	2'-3'	0.012 U	1.2 J	9.1	10.3	0.00054 U	0.00065 U	U 92000.0	0.0011 U	246
		3'-4'	NA	2.3	7.8	10.1	NA	NA	NA	NA	150
		4'-5'	NA	NA	NA	NA	NA	NA	NA	NA	102
CH-20	04/30/21	0-1,	NA	NA	NA	NA	NA	NA	NA	NA	55.4
07-10	04/00/21	1-2'	NA	NA	NA	NA	NA	NA	NA	NA	58.1

1. Soil analyses performed by TestAmerica Laboratories, Inc. in Houston, TX (June 2019 samples), ALS Environmental in Houston, TX

(December 2019 and July 2020 samples), and Eurofins Xenco Laboratories, LLC in Midland, TX (April 2021 samples).

2. Units for all analytical data provided are mg/kg (milligrams per kilogram).

3. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).

4. "ft bgs" - feet below ground surface.

5. "NA" - Not Analyzed

6. "ND" - Not Detected

7. "GRO" - Gasoline Range Organic Compounds

9. "MRO" - Motor Oil/Lube Range Organic Compounds 8. "DRO" - Diesel Range Organic Compounds

10. J - Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).

11. U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL

12. E - Indicates that the result is greater than the MQL and the concentration is an estimated value.

13. Bold - Detectable concentration that exceeds laboratory method reporting limits.

14. Bold and Shaded - Reported concentration exceeds Regulatory Limits for 0-4' bgs.

15. Bold and Shaded - Reported concentration exceeds Regulatory Limits for > 4' bgs. 16. "--" Indicates that no applicable regulatory limit exists for that analyte.

## AECOM

Cotton Hills - Previous Soil Assessment Sample Locations Removed During Remedial Excavation Chevron MCBU Lea County, New Mexico

Chloride	(Methods 9050A, 9250 and 300.0)	009	10,000	2,610	8,060	4,070	24,000	4,510	865	922	NA	361	209	682	444	NA	309	274	1,460	224	NA	987	3,720	1,730	1,290	2,750	1,560	1,480	627	5,630	3,670	1,070
	Total Xylenes	,	ı	0.230	0.00103 U	0.00104 U	19.2	0.189	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
:s (EPA 8260B)	Ethylbenzene			0.00496	0.00929 U	0.000936 U	0.848	0.00224 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organics (EPA 8260B)	Toluene			0.0103	0.00126 U	0.00127 U	1.50	0.00215 J	NA	Ϋ́	ΑN	NA	NA	ΑN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzene	10		0.000582 U	0.000574 U	U 872000.0	0.001340	0.005630 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15 NM)	TPH GRO+DRO+MRO	100	2,500	7,027	129	447	38,084	7,988	NA	NA	11.0	NA	NA	NA	NA	10.6	NA	NA	NA	NA	8.26	NA	3,000	NA	NA	NA	NA	5.3	NA	NA	NA	NA
rocarbons (EPA 80	MRO (C28-C36)	1		1210	58	144	7410	1,120	AN	٩	10	AN	NA	ΑN	NA	9.3	NA	NA	AN	NA	7.3	NA	1500	NA	NA	AN	NA	4.1	NA	NA	NA	NA
Total Petroleum Hydrocarbons (EPA 8015 NM)	DRO (C10-C28)	ı		5,490	70.8	303	30,500	6,700	NA	AN	ر 1.0	NA	NA	NA	NA	1.3 J	NA	NA	NA	NA	J 96.0	NA	1500	NA	NA	NA	NA	1.2 J	NA	NA	NA	NA
1	GRO (C6-C10)			327	0.0834	0.065 U	174 E	168	NA	NA	0.012 U	NA	NA	NA	NA	0.012 U	NA	NA	NA	NA	0.011 U	NA	0.012 U	NA	NA	NA	NA	0.012 U	NA	NA	NA	NA
Sample	(ft bgs)	0-4	> 4	0-1	0-1	0-1	0-1	0-1	0-1,	1'-2'	.5-0	2'-3'	3'-4'	.1-0	1:-2	.7-0	2'-3'	3'-4'	.1-0	1'-2'	0-2'	.1-0	1'-2'	2'-3'	3'-4'	.1-0	1'-2'	2'-3'	3'-4'	0-1,	1'-2'	2'-3'
of Commo	Sample Date	to (medien)	(By/Bill) si	06/26/19	06/26/19	06/26/19	06/26/19	06/26/19			12/18/19					12/18/19				12/18/19			12/10/10	61/01/7			12/18/10	61017			07/29/20	
Of Stames	Sample ID	imi I motorno	regulatory Ellints (ing/kg)	CH-01 - 0-1	CH-02 - 0-1	CH-03 - 0-1	CH-04 - 0-1	CH-05 - 0-1			PCH-10					PCH-11				PCH-13			PCU 14	<u>-</u>			PCu 16	2			CH-17	

1. Soil analyses performed by TestAmerica Laboratories, Inc. in Houston, TX (June 2019 samples), ALS Environmental in Houston, TX

(December 2019 and July 2020 samples), and Eurofins Xenoo Laboratories, LLC in Midland, TX (April 2021 samples).

2. Units for all analytical data provided are mg/kg (milligrams per kilogram).

3. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).

4. "It bgs" - feet below ground surface.

5. "NA" - Not Analyzed 6. "ND" - Not Detected

7. "GRO" - Gasoline Range Organic Compounds

8. "DRO" - Diesel Range Organic Compounds 9. "MRO" - Motor Oil/Lube Range Organic Compounds

Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).
 U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL.

12. E - Indicates that the result is greater than the MOL and the concentration is an estimated value.

13. Bold - Detectable concentration that exceeds laboratory method reporting limits.

14. Bold and Shaded - Reported concentration exceeds Regulatory Limits for 0-4\* bgs.

15. Bold and Shaded - Reported concentration exceeds Regulatory Limits for > 4\* bgs.

16. "-" indicates that no applicable regulatory limit exists for that analyte.

**AECOM** 

# Cotton Hills - Backfill Sample Analytical Results Lea County, New Mexico Chevron MCBU Table 4

Sample ID	Sample Date	Sample	7	otal Petroleum Hyc	Total Petroleum Hydrocarbons (EPA 8015 NM)	015 NM)		Volatile Organi	Volatile Organics (EPA 8021B)		Chloride
	(ft bgs)	(# bgs)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C36)	TPH GRO+DRO+MRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	(Method 300.0)
(m) major I imperimed	140 (may/lea)	0-4	ŀ	1	:	100	10	1	1	ı	009
regulatory Limi	its (mg/kg)	> 4	-	-		2,500	-				10,000
BFM-1	03/28/22	0-4	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	115
BFM-2	03/28/22	na	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	132

1. Soil analyses performed by Eurofins Xenco Laboratories, LLC in Midland, TX

2. Units for all analytical data provided are mg/kg (milligrams per kilogram).

3. Regulatory Limits are from 19.15.29 New Mexico Administrative Code (NMAC).

4. "ft bgs" - feet below ground surface.

5. "NA" - Not Analyzed

7. "GRO" - Gasoline Range Organic Compounds 6. "ND" - Not Detected

8. "DRO" - Diesel Range Organic Compounds

9. "MRO" - Motor Oil/Lube Range Organic Compounds

10. J- Indicates that the result is less than the Method Quantitation Limit (MQL) but greater than or equal to the Sample Detection Limit (SDL).

11. U - Indicates that the analyte was analyzed but not detected at or above the laboratory SDL.

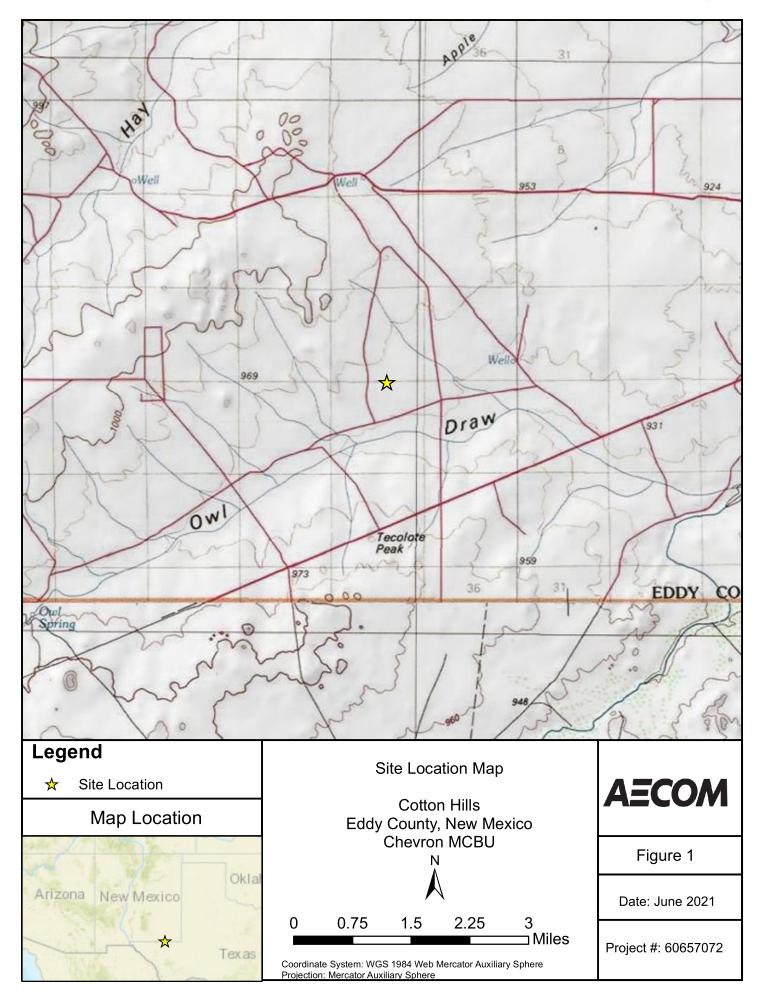
12. E - Indicates that the result is greater than the MQL and the concentration is an estimated value.

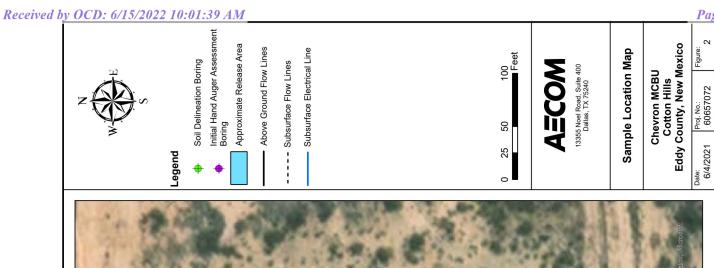
13. Bold - Detectable concentration that exceeds laboratory method reporting limits.

 Bold and Shaded - Reported concentration exceeds Regulatory Limits for > 4' bgs.
 "--" Indicates that no applicable regulatory limit exists for that analyte. 14. Bold and Shaded - Reported concentration exceeds Regulatory Limits for 0-4' bgs

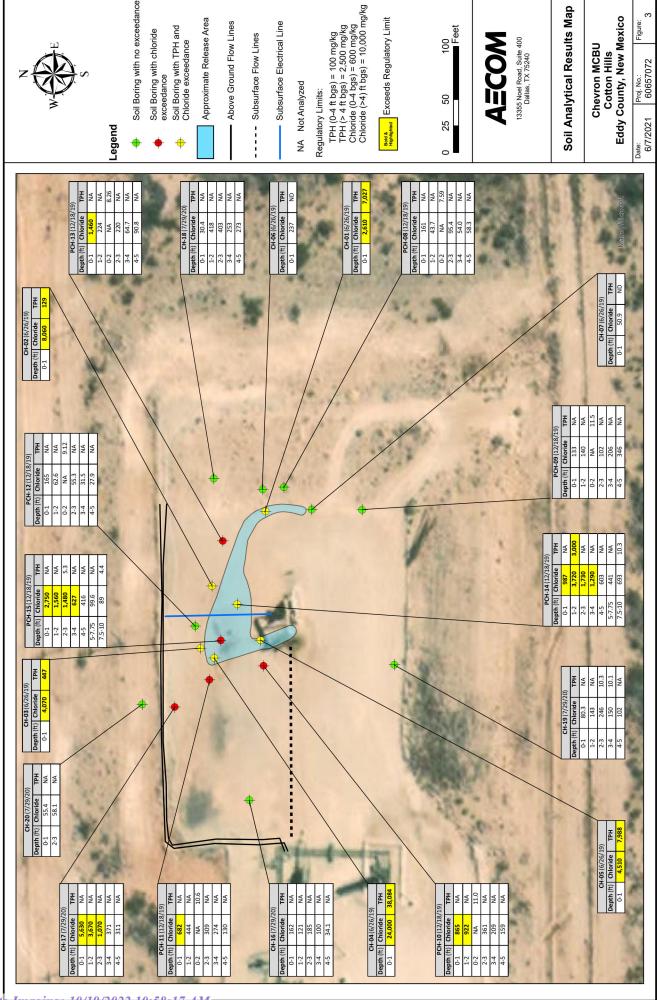
"--" Indicates that no applicable regulatory limit exists for that analyte.

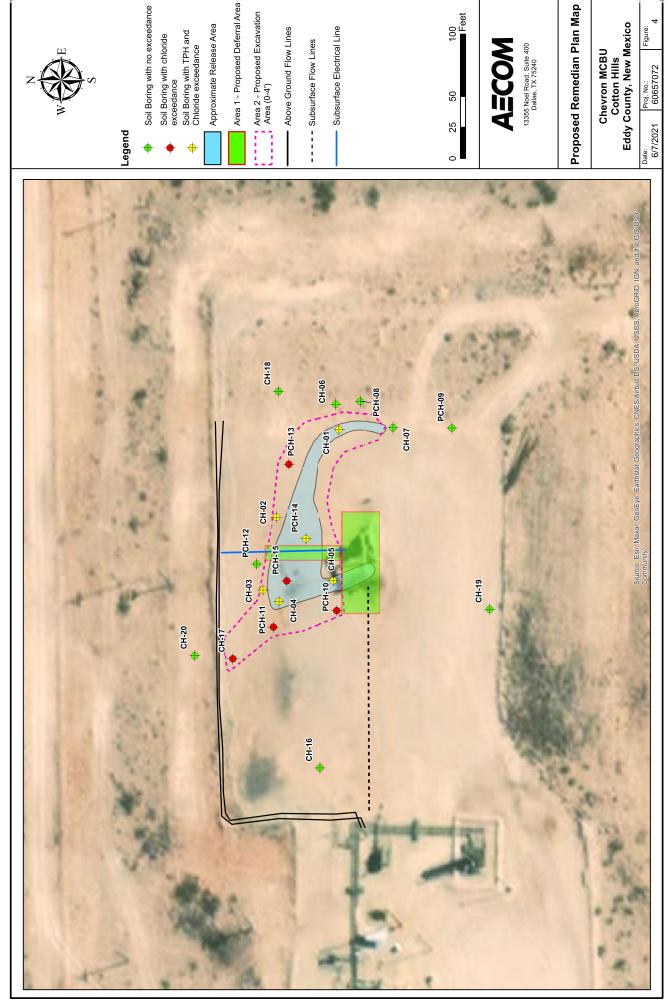
## **Figures**

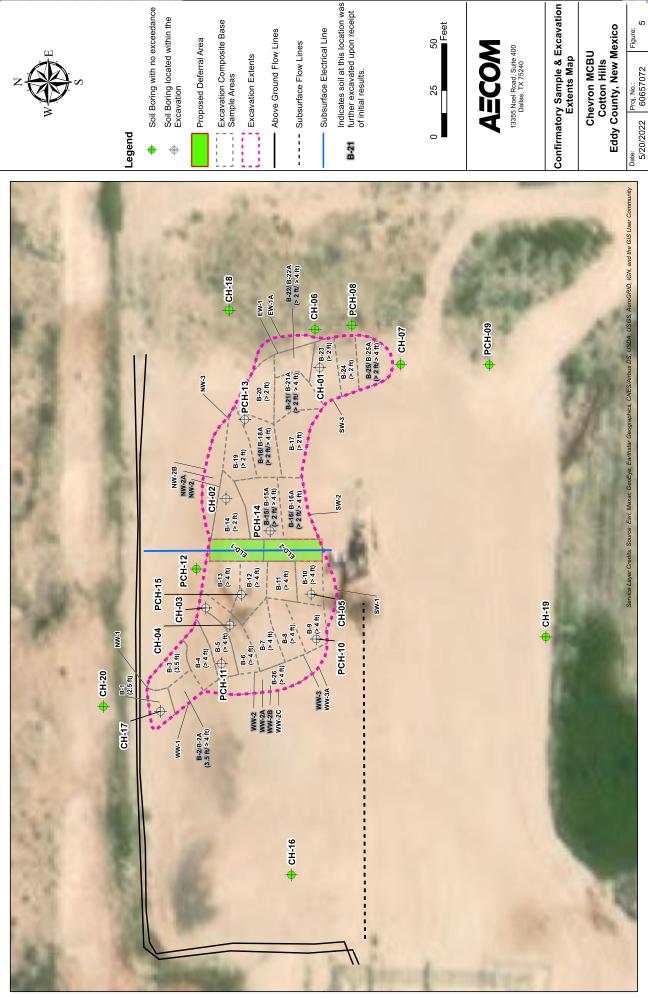












## Appendix A

## C-141 Form and Project Correspondence

### Wynne, Brad

From: Wynne, Brad

**Sent:** Monday, April 11, 2022 11:50 AM

**To:** Hamlet, Robert, EMNRD

**Cc:** Barnhill, Amy D.; Gilmore, Wally

Subject: RE: The Oil Conservation Division (OCD) has approved the Application ID: 37166 Cotton Hills -

Notification of Final Sampling

Hello Mr. Hamlet,

This is a curtesy notification that the remedial excavation activities were completed at the Cotton Hills pad this past Friday. Per BLM requirements for this location, the analytical data was also provided to the BLM contact and approval was received for backfilling.

We will now begin preparing the final closure report for submission to the OCD. Please let me know if you have any questions or need anything else in the meantime.

Thank you,

Brad Wynne, PMP

Project Manager IV, Remediation Practices M +1 214-971-1829 bradley.wynne@aecom.com

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From: Hamlet, Robert, EMNRD < Robert. Hamlet@state.nm.us>

Sent: Thursday, March 24, 2022 12:44 PM

To: Wynne, Brad <Bradley.Wynne@aecom.com>

**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Gilmore, Wally <Wallace.Gilmore@aecom.com>; Lovely, James <james.lovely@aecom.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>

**Subject:** [EXTERNAL] RE: RE: The Oil Conservation Division (OCD) has approved the Application ID: 37166 Cotton Hills - Notification of Final Sampling

Brad,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

**Robert Hamlet** • Environmental Specialist - Advanced Environmental Bureau

EMNRD - Oil Conservation Division 811 S. First Street | Artesia, NM 88210 575.909.0302 | robert.hamlet@state.nm.us http://www.emnrd.state.nm.us/OCD/



From: Wynne, Brad < <a href="mailto:Bradley.Wynne@aecom.com">Brad < <a href="mailto:Bradley.Wynne@aecom.com">Bradley.Wynne@aecom.com</a>>

Sent: Thursday, March 24, 2022 9:18 AM

To: Hamlet, Robert, EMNRD < Robert. Hamlet@state.nm.us>

Cc: Barnhill, Amy D. <a href="mailto:ABarnhill@chevron.com">ABarnhill@chevron.com</a>; Gilmore, Wally <wallace.Gilmore@aecom.com</a>; Lovely, James

<james.lovely@aecom.com>

Subject: [EXTERNAL] RE: The Oil Conservation Division (OCD) has approved the Application ID: 37166 Cotton Hills -

**Notification of Final Sampling** 

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Mr. Hamlet,

Further to the below email and per 19.15.29 D (1) (a), we are providing notification two business days prior to final confirmation sampling. We will likely commence sampling late Monday, March 28<sup>th</sup> or Tuesday March 29<sup>th</sup> and continue as the excavation and removal of impacted soil progresses.

Once confirmation sample results are received and confirmed below the Table 1 Closure Criteria Limits, backfilling of the excavation will commence. Photos of the completed excavation will be taken prior to backfilling.

Please let me know if you have any questions.

Thank you,

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
bradley.wynne@aecom.com

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From: Wynne, Brad

Sent: Tuesday, March 1, 2022 9:14 AM

To: Robert.Hamlet@state.nm.us

**Cc:** Barnhill, Amy D. <<u>ABarnhill@chevron.com</u>>; Gilmore, Wally <<u>Wallace.Gilmore@aecom.com</u>> **Subject:** RE: The Oil Conservation Division (OCD) has approved the Application ID: 37166 Cotton Hills

Good morning Mr. Hamlet,

Further to the below approval of the remedial work plan for the Cotton Hills location, on behalf of Chevron, we would like to provide a schedule update and advance notification of the planned remedial activities. The remedial excavation work is tentatively scheduled to commence during the week starting either **March 21**, **2022** and/or **March 28**, **2022** pending weather.

We will provide you further notification within 2 days of commencing work and confirmation sample collection.

Please let me know if you have any questions or concerns.

Thank you,

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
bradley.wynne@aecom.com

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From: Barnhill, Amy D. <a href="mailto:ABarnhill@chevron.com">ABarnhill@chevron.com</a> Sent: Wednesday, October 13, 2021 11:21 AM

To: Wynne, Brad <a href="mailto:Bradley.Wynne@aecom.com">Bradley.Wynne@aecom.com</a>>

Subject: [EXTERNAL] The Oil Conservation Division (OCD) has approved the Application ID: 37166 Cotton Hills

From: OCDOnline@state.nm.us < OCDOnline@state.nm.us >

Sent: Tuesday, October 5, 2021 3:41 PM

To: Barnhill, Amy D. < ABarnhill@chevron.com >

Subject: [\*\*EXTERNAL\*\*] The Oil Conservation Division (OCD) has approved the application, Application ID: 37166

To whom it may concern (c/o Amy Barnhill for CHEVRON U S A INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM1936556814, with the following conditions:

• The Workplan/Remediation Plan is approved with the following conditions: Borehole to 51' showing no groundwater allows for floor samples to be delineated/excavated to 10,000 mg/kg for chlorides, 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) for vertical delineation. Only sample points on pad that require a major facility deconstruction will be deferred. Remove contaminants safely around equipment/pipelines with a hydrovac. If you believe a certain area will require a deferral, please make sure that it has been fully delineated and specify the exact soil sample locations. The OCD needs to see that every measure has been taken to remediate the release before a deferral can be granted. After all possible contaminated soil has been removed, a formal deferral request will need to be uploaded to the OCD payment portal for review.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you, Robert Hamlet 575-748-1283 Robert.Hamlet@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505

### Wynne, Brad

From: Wynne, Brad

**Sent:** Friday, April 8, 2022 2:52 PM

**To:** Amos, James A

**Cc:** Barnhill, Amy D.; Gilmore, Wally; Lovely, James

Subject: RE: [EXTERNAL] Re: Re: RE: Cotton Hills Spill 05152019 - Notification of Backfilling

Attachments: J2166-1 UDS Level 2 Report Final Report.pdf; J2171-1 UDS Level 2 Report Final Report.pdf

**Importance:** High

Hello Mr. Amos – see the final wall sample results attached along with one more base sample. Based on these results, the impacted soil has been removed.

If needed, we can provide a copy of the final closure report upon completion, which will also be submitted the NMOCD.

Thank you and have a great weekend!

Brad Wynne, PMP

Project Manager IV, Remediation Practices M +1 214-971-1829 bradley.wynne@aecom.com

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From: Amos, James A <jamos@blm.gov> Sent: Friday, April 8, 2022 11:23 AM

To: Wynne, Brad <Bradley.Wynne@aecom.com>

Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Gilmore, Wally <Wallace.Gilmore@aecom.com>; Lovely, James

<james.lovely@aecom.com>

Subject: [EXTERNAL] Re: Re: RE: Cotton Hills Spill 05152019 - Notification of Backfilling

Brad,

I see nothing that would keep you from proceeding with the backfill. As for the two wall samples, please provide the results of the additional excavation results as soon as available. Thanks

From: Wynne, Brad < <a href="mailto:Bradley.Wynne@aecom.com">Brad < <a href="mailto:Bradley.Wynne@aecom.com">Bradley.Wynne@aecom.com</a>>

**Sent:** Thursday, April 7, 2022 3:46 AM **To:** Amos, James A < <u>jamos@blm.gov</u>>

Cc: Barnhill, Amy D. < ABarnhill@chevron.com >; Gilmore, Wally < Wallace.Gilmore@aecom.com >; Lovely, James

### <james.lovely@aecom.com>

Subject: RE: [EXTERNAL] Re: RE: Cotton Hills Spill 05152019 - Notification of Backfilling

Good morning Mr. Amos,

Attached are the analytical reports related to the additional confirmation samples. Based on these results, the base of the eastern half of the excavation is clear and we plan to initiate backfilling of this area if acceptable to you.

For the two the wall samples **WW-2B** and **NW-2A**, which are still slightly over for chloride at **1360** and **1280** respectively, we will dig a bit more out at those locations and collect another confirmation sample.

Thank you and let me know if you have any question or concerns.

Brad Wynne, PMP

Project Manager IV, Remediation Practices M +1 214-971-1829 bradley.wynne@aecom.com

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From: Wynne, Brad

Sent: Tuesday, April 5, 2022 6:44 AM
To: Amos, James A < jamos@blm.gov>

Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Gilmore, Wally <Wallace.Gilmore@aecom.com>; Lovely, James

<james.lovely@aecom.com>

Subject: RE: [EXTERNAL] Re: RE: Cotton Hills Spill 05152019 - Notification of Backfilling

Good morning Mr. Amos.

Attached are the additional results received yesterday for the **Eastern Half** of the excavation along with one resample of the west wall. Also attached are a few photos. Based on these results, we will be removing some additional soil today and resampling at the following sample locations (note – base samples [B-#] listed below were less than 4 ft deep):

NW-2 - 2,000 chloride

EW-1 – 1,070 chloride

B-15 - 1,260 chloride

B-16 – 1.140 chloride

B-18 - 728 chloride

B-21 - 148 TPH

B-22 - 696 chloride

B-25 - 723 chloride

WW-2A - 1020 chloride

I will send the additional confirmation sample results once received.

Thank you,

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
bradley.wynne@aecom.com

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From: Amos, James A < <u>jamos@blm.gov</u>>
Sent: Monday, April 4, 2022 1:52 PM

To: Wynne, Brad <Bradley.Wynne@aecom.com>

Cc: Barnhill, Amy D. < ABarnhill@chevron.com >; Gilmore, Wally < Wallace.Gilmore@aecom.com >; Lovely, James

<<u>james.lovely@aecom.com</u>>

Subject: [EXTERNAL] Re: RE: Cotton Hills Spill 05152019 - Notification of Backfilling

Brad, Consider This BLM's approval to commence backfilling the western portion of the excavation. If any questions, please get back to me. Thanks

From: Wynne, Brad <Bradley.Wynne@aecom.com>

**Sent:** Monday, April 4, 2022 4:54 AM **To:** Amos, James A < jamos@blm.gov>

Cc: Barnhill, Amy D. <ABarnhill@chevron.com>; Gilmore, Wally <Wallace.Gilmore@aecom.com>; Lovely, James

<james.lovely@aecom.com>

Subject: [EXTERNAL] RE: Cotton Hills Spill 05152019 - Notification of Backfilling

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning Mr. Amos,

As discussed, please find attached the analytical lab reports for the confirmation samples collected at the Cotton Hills site for the **western half of the excavation**. Soil was removed to meet the NM OCD Closure Criteria per the following:

- Soil from 0-4 ft depth 600 mg/kg for chloride, 100 mg/kg TPH, 50 mg/kg Total BTEX and 10 mg/kg for Benzene
- Soil >4 ft 10,000 mg/kg for chloride, 2,500 mg/kg for TPH, same as above for BTEX/Benzene
- Note: 'B' samples are Base samples collected just below 4 ft (depth of the excavation for most of western half)
- All other samples are wall samples collected between 0 to 4 ft (north wall (NW), west wall (WW), etc.).

For any results reported above the 0-4 ft closure criteria (i.e., WW-2 and WW-3), additional soil was removed and another confirmation sample collected and will be provided in the additional analytical due later today along with the eastern half samples.

Prior to initiating the soil removal, the following was confirmed/completed:

- Impacts were delineated both vertically and horizontally to 600 mg/kg for chloride, 100 mg/kg for TPH and 50/10 mg/kg for BTEX/Benzene
- Groundwater depth was confirmed by drilling to be at least >51 ft below ground surface (maximum depth drilled)
- No karst geology features or other unstable areas were identified near the site.

We are preparing to initiate backfilling on the western half ASAP since this is still an active pad, so please let me know at your earliest convenience if you have any questions or concerns.

Feel free to call me per by below cell number.

Thank you!

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
bradley.wynne@aecom.com

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From: Wynne, Brad

Sent: Thursday, March 31, 2022 6:49 PM

To: jamos@blm.gov

Cc: Barnhill, Amy D. < ABarnhill@chevron.com >; Gilmore, Wally < Wallace.Gilmore@aecom.com >

Subject: RE: Cotton Hills Spill 05152019 - Advance Notification of Backfilling

Hello Mr. Amos – further to the below, we anticipate beginning to backfill the excavation on Monday (April 4<sup>th</sup>), pending analytical results.

Thank you,

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
bradley.wynne@aecom.com

### **AECOM**

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From: Wynne, Brad

Sent: Friday, March 25, 2022 7:02 AM

To: jamos@blm.gov

Cc: Barnhill, Amy D. < ABarnhill@chevron.com >; Gilmore, Wally < Wallace.Gilmore@aecom.com >; JDXD@chevron.com

Subject: RE: Cotton Hills Spill 05152019 - Advance Notification of Backfilling

Hello Mr. Amos,

Per your below email to Chevron from the original date of this release, we are providing you notice that we will be excavating the impacted soil commencing early next week.

The area has been delineated (including to 600 mg/kg for chlorides) and a remediation plan was submitted and approved by the NM OCD. A site map of the planned excavation extents is attached. Also attached is the OCD's approval email of the remediation plan and approval to initiate the remedial excavation and confirmation sampling.

I would anticipate the backfilling will not occur until the week starting April 4<sup>th</sup>.

A copy of the remedial completion report can be provided upon completion, which will include your below information request.

Please let me know if you have any questions or need anything else at this time.

Thank you,

**Brad Wynne**, PMP
Project Manager IV, Remediation Practices M +1 214-971-1829
<a href="mailto:bradley.wynne@aecom.com">bradley.wynne@aecom.com</a>

### **AECOM**

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From: Amos, James < jamos@blm.gov > Sent: Wednesday, May 22, 2019 10:51 AM
To: DeLeon, Josepha < JDXD@chevron.com >

Cc: Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us>; Barringer, Andrew J < Andrew.Barringer@chevron.com>;

Barnhill, Amy D. <ABarnhill@chevron.com>; Faulkner, Rick <Rick.Faulkner@chevron.com>

Subject: [\*\*EXTERNAL\*\*] Re: [EXTERNAL] Cotton Hills Spill 05152019

Josepha,

Thanks for the information. I will be the point of contact for this spill event. The location is in what is considered Medium Cave/Karst. The spill impacted area will need to be delineated, horizontal and vertical to 600 mg/l chlorides, and the impacted material removed and disposed of at an approved facility. Once the impact has been removed, contact myself to verify prior to backfill. Provide copy of all analyticals, etc. If any questions, please get back to me. Thanks

On Wed, May 22, 2019 at 7:45 AM DeLeon, Josepha <JDXD@chevron.com> wrote:

Attached is C-141 for spill that occurred at Cotton Hills on May 15, 2019.

Tosie DeLeon, HES Specialist –
Compliance Support – Environmental
Chevron - MCBU
(Carlsbad, Hobbs, Eunice, Vacuum, Buckeye Gas Plant)
1616 W. Bender Blvd.
Hobbs, NM 88240
575-263-0424
432-425-1528 - cell
idxd@chevron.com

C

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

James A. Amos
Bureau of Land Management
Carlsbad Field Office
Supervisory Petroleum Engineering Tech
620 East Greene Street
Carlsbad, NM. 88220

Office: (575) 234-5909 Fax: (575) 234-5927 Cell: (575) 361-2648 E-mail: jamos@blm.gov District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

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

Incident ID	NAB1915130679
District RP	2RP-5462
Facility ID	
Application ID	pAB1915130417

### **Release Notification**

### **Responsible Party**

			1	<u> </u>		V	
Responsible Party: Chevron USA Inc.					OGRID: 4	4323	
Contact Name: Josepha Deleon					Contact Te	Gelephone: 575-263-0424	
Contact ema	Contact email: jdxd@chevron.com					‡ (assigned by OCD) NAB1915130679	
Contact mail 88240	ling address:	1616 W. Bender	Blvd., Hobbs, NN	M			
			Location	of Re	lease So	ource	
Latitude 32.0345573 L						nde -104.1587753	
			(NAD 83 in de	ecimal degr	ees to 5 decim	mal places)	
Site Name: 0	Cotton Hills	23 26 27 Federal (	Com #001H	5	Site Type:	: Gas Well	
Date Release	Discovered	: 05/15/2019		4	API# (if app	pplicable): 30-015-41535	
Unit Letter	Section	Township	Range		County		
В	23	26S	27E	Eddy	ly		
Surface Owne		Federal Ti	Nature and	d Volu		Release c justification for the volumes provided below)	
Crude Oil		Volume Released (bbls)			ns or specific	Volume Recovered (bbls)	
Produced Water		Volume Released (bbls): 14.29 barrels				Volume Recovered (bbls): 10 barrels	
		Is the concentration of dissolved chloride produced water >10,000 mg/l?			n the	☐ Yes ☐ No	
Condensate		Volume Released (bbls)				Volume Recovered (bbls)	
Natural Gas		Volume Released (Mcf)				Volume Recovered (Mcf)	
Other (describe)		Volume/Weight Released (provide units)				Volume/Weight Recovered (provide units)	
Cause of Release: Pumping unit packing failure. Spill to unlined well pad.							

Page 35 of 3 58

Incident ID	NAB1915130679
District RP	2RP-5462
Facility ID	
Application ID	nAB1915130417

	<u></u>						
Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the respon	nsible party consider this a major release?					
☐ Yes ⊠ No							
If YES, was immediate no	otice given to the OCD? By whom? To wh	nom? When and by what means (phone, email, etc)?					
Initial Response							
The responsible	party must undertake the following actions immediated	y unless they could create a safety hazard that would result in injury					
☐ The source of the release has been stopped.							
The impacted area ha	s been secured to protect human health and	the environment.					
Released materials ha	ave been contained via the use of berms or o	likes, absorbent pads, or other containment devices.					
All free liquids and re	ecoverable materials have been removed an	d managed appropriately.					
If all the actions described	d above have <u>not</u> been undertaken, explain	why:					
D 10 15 20 0 D (4) ND							
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.							
		best of my knowledge and understand that pursuant to OCD rules and					
		fications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have					
failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws							
and/or regulations.							
0 11							
Signature: July Len	$\mathcal{L}$	Date: May 22, 2019					
Signature.							
Printed Name: <u>Josepha l</u>	<u>DeLeon</u>	Title: Environmental Compliance Specialist					
email: <u>jdxd@chevron.cc</u>	<u>om</u>	Telephone: <u>432-425-1528</u>					
OCD Only							
	plia Pustamento	D-4 5/21/2010					
Received by: Ama	alia Bustamante	Date:5/31/2019					

ate of New Mexico Incident ID NAB191513

Incident ID	NAB1915130679
District RP	2RP-5462
Facility ID	
Application ID	pAB1915130417

### Site Assessment/Characterization

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

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

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

## <u>Characterization Report Checklist</u>: Each of the following items must be included in the report.

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

Field data

Data table of soil contaminant concentration data

Depth to water determination

Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release

Boring or excavation logs

Photographs including date and GIS information

Topographic/Aerial maps

Laboratory data including chain of custody

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

Received by OCD: 6/15/2022 10:01:39 AM Form C-141 State of New Mexico Page 5 Oil Conservation Division

	Page 37 of 358	3
Incident ID		
District RP		
Facility ID		
Application ID		

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release not public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a thr addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	oCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Amy Barnhill	Title: Water Specialist
Signature: Thile	Date: 7-9-2021
email: ABarnhill@chevron.com	Telephone: 432-687-7108
OCD Only	
Received by:	Date:

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

Incident ID	NAB1915130679	
District RP		
Facility ID		
Application ID		

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e included in the plan.			
<ul> <li>□ Detailed description of proposed remediation technique</li> <li>□ Scaled sitemap with GPS coordinates showing delineation points</li> <li>□ Estimated volume of material to be remediated</li> <li>□ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>□ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>				
Deferral Requests Only: Each of the following items must be co	nfirmed as part of any request for deferral of remediation.			
X Contamination must be in areas immediately under or around p deconstruction.	roduction equipment where remediation could cause a major facility			
X Extents of contamination must be fully delineated.				
Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.			
I hereby certify that the information given above is true and complerules and regulations all operators are required to report and/or file which may endanger public health or the environment. The acceptaliability should their operations have failed to adequately investigat surface water, human health or the environment. In addition, OCD responsibility for compliance with any other federal, state, or local	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of			
Printed Name: Amy Barnhill	Title:Lead Environmental Specialist - Water			
Signature: The	Date: _6-10-2022			
email: ABarnhill@chevron.com	Telephone: 432-687-7108			
OCD Only				
Received by:	Date:			
Approved	Approval			
Signature:	Date:			

Received by OCD: 6/15/2022 10:01:39 AM

Page 39 of 358

Form C-141 Page 7 State of New Mexico
Oil Conservation Division

	2 1180 07 07 0
Incident ID	NAB1915130679
District RP	
Facility ID	
Application ID	

#### Closure

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

Closure Report Attachment Checklist: Each of the follo	wing items must be included in the closure report.
A scaled site and sampling diagram as described in 19.	15.29.11 NMAC
Photographs of the remediated site prior to backfill or must be notified 2 days prior to liner inspection)	photos of the liner integrity if applicable (Note: appropriate OCD District office
X Laboratory analyses of final sampling (Note: appropria	te ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file may endanger public health or the environment. The accepts should their operations have failed to adequately investigate human health or the environment. In addition, OCD accepts compliance with any other federal, state, or local laws and/or restore, reclaim, and re-vegetate the impacted surface area to accordance with 19.15.29.13 NMAC including notification to	complete to the best of my knowledge and understand that pursuant to OCD rules are certain release notifications and perform corrective actions for releases which cance of a C-141 report by the OCD does not relieve the operator of liability and remediate contamination that pose a threat to groundwater, surface water, nnce of a C-141 report does not relieve the operator of responsibility for regulations. The responsible party acknowledges they must substantially the conditions that existed prior to the release or their final land use in the OCD when reclamation and re-vegetation are complete.
Printed Name: Amy Barnhill	Title: Lead Env. Specialist-Water
Signature: The	Date: 6-10-2022
email: ABarnhill@chevron.com	Telephone: 432-687-7108
OCD Only	
Received by:	Date:
	e party of liability should their operations have failed to adequately investigate and surface water, human health, or the environment nor does not relieve the responsible ws and/or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

# Appendix B

# **Laboratory Reports**



# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2149-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 3/30/2022 3:42:31 PM

John Builes, Project Manager (561)558-4549

john.builes@eurofinset.com

..... Links .....

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

\_\_\_\_

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11

Client: AECOM Laboratory Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

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L.	

6

#### **Definitions/Glossary**

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills

SDG: 60657072

#### **Qualifiers**

#### **GC VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **GC Semi VOA**

#### Qualifier **Qualifier Description**

S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

#### **HPLC/IC**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) Limit of Detection (DoD/DOE) LOD LOQ Limit of Quantitation (DoD/DOE) MCL

EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit  $\mathsf{ML}$ Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL** Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

**TEF** Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills

SDG: 60657072

Job ID: 890-2149-1

**Laboratory: Eurofins Carlsbad** 

Narrative

**Job Narrative** 890-2149-1

#### Receipt

The samples were received on 3/29/2022 1:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: B-1

Lab Sample ID: 890-2149-1 Date Collected: 03/29/22 10:20

Matrix: Solid Date Received: 03/29/22 13:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/30/22 08:30	03/30/22 13:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			03/30/22 08:30	03/30/22 13:43	1
1,4-Difluorobenzene (Surr)	108		70 - 130			03/30/22 08:30	03/30/22 13:43	1
Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX - -	<0.00400		0.00400	mg/Kg			03/30/22 15:42	1
Method: 8015 NM - Diesel Range		O) (GC) Qualifier	RL	Unit	D	Prepared	A maluma d	Dil Fac
Analyte Total TPH	<del></del>		49.8			Prepared	Analyzed 03/30/22 15:37	1
iolai iPh - -	<b>~49.0</b>	U	49.6	mg/Kg			03/30/22 15.37	ı
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 12:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 12:59	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 12:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			03/30/22 10:05	03/30/22 12:59	1
			70 - 130			03/30/22 10:05	03/30/22 12:59	1
o-Terphenyl -	110							
		Soluble						
o-Terphenyl	omatography -	Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: WW-1 Lab Sample ID: 890-2149-2 Date Collected: 03/29/22 10:22 **Matrix: Solid** 

Date Received: 03/29/22 13:00

Method: 8021B - Volatile Orga		· ·						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/30/22 08:30	03/30/22 14:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			03/30/22 08:30	03/30/22 14:04	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/30/22 08:30	03/30/22 14:04	1

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: WW-1 Lab Sample ID: 890-2149-2

Date Collected: 03/29/22 10:22 Matrix: Solid Date Received: 03/29/22 13:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/30/22 15:42	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/30/22 15:37	1
Method: 8015B NM - Diesel Rang	e Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		03/30/22 10:05	03/30/22 13:20	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		03/30/22 10:05	03/30/22 13:20	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/30/22 10:05	03/30/22 13:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116	-	70 - 130			03/30/22 10:05	03/30/22 13:20	1
o-Terphenyl	116		70 - 130			03/30/22 10:05	03/30/22 13:20	1

**Client Sample ID: NW-1** Lab Sample ID: 890-2149-3

5.00

RL

Unit

mg/Kg

D

Prepared

Date Collected: 03/29/22 10:24 **Matrix: Solid** Date Received: 03/29/22 13:00

Result Qualifier

285

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/30/22 08:30	03/30/22 14:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			03/30/22 08:30	03/30/22 14:24	1
	440		70 - 130			03/30/22 08:30	03/30/22 14:24	1
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BT  Analyte		Qualifier	70 - 730 RL	Unit	D			
			70 - 130			03/30/22 08.30	00/00/22 14.24	,
	TEX Calculation			Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/30/22 15:42	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX	Calculation Result <0.00404	U	RL		<u>D</u>		Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte	TEX Calculation Result <0.00404  age Organics (DR	U	RL		<u>D</u>		Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX Method: 8015 NM - Diesel Ran	TEX Calculation Result <0.00404  age Organics (DR	O) (GC) Qualifier	RL 0.00404	mg/Kg		Prepared	Analyzed 03/30/22 15:42	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX  Method: 8015 NM - Diesel Ran Analyte	rex Calculation Result	U O) (GC) Qualifier U	RL 0.00404	mg/Kg		Prepared	Analyzed 03/30/22 15:42 Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX  Method: 8015 NM - Diesel Ran Analyte Total TPH	TEX Calculation Result <0.00404  age Organics (DR) Result <50.0  ange Organics (D	U O) (GC) Qualifier U	RL 0.00404	mg/Kg		Prepared	Analyzed 03/30/22 15:42 Analyzed	Dil Fac
Method: Total BTEX - Total BT Analyte Total BTEX  Method: 8015 NM - Diesel Ran Analyte Total TPH  Method: 8015B NM - Diesel Ran	TEX Calculation Result <0.00404  age Organics (DR) Result <50.0  ange Organics (D	O) (GC) Qualifier U  RO) (GC) Qualifier	RL 0.00404 RL 50.0	mg/Kg  Unit  mg/Kg	<u>D</u>	Prepared Prepared	Analyzed 03/30/22 15:42  Analyzed 03/30/22 15:37	Dil Fac

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Analyte

Chloride

Dil Fac

Analyzed

03/30/22 15:25

Client: AECOM Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: NW-1 Lab Sample ID: 890-2149-3

Date Collected: 03/29/22 10:24
Date Received: 03/29/22 13:00
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 13:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			03/30/22 10:05	03/30/22 13:41	1
o-Terphenyl	119		70 - 130			03/30/22 10:05	03/30/22 13:41	1

Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.3		4 99	ma/Ka			03/30/22 15:33	1

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#### **Surrogate Summary**

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

ient Sample ID 1 W-1	<b>BFB1</b> (70-130) 105	<b>DFBZ1</b> (70-130) 108								
1										
	105	108								
١٨/ 1										
VV-1	107	109								
N-1	109	110								
b Control Sample	99	110								
b Control Sample Dup	101	111								
ethod Blank	103	104								
	b Control Sample b Control Sample Dup	b Control Sample 99 b Control Sample Dup 101 ethod Blank 103	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104	b Control Sample 99 110 b Control Sample Dup 101 111 ethod Blank 103 104

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
ıb Sample ID	Client Sample ID	(70-130)	(70-130)	
0-2149-1	B-1	109	110	
0-2149-2	WW-1	116	116	
00-2149-3	NW-1	121	119	
CS 880-22621/2-A	Lab Control Sample	99	90	
CSD 880-22621/3-A	Lab Control Sample Dup	107	96	
B 880-22621/1-A	Method Blank	144 S1+	155 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

#### QC Sample Results

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 880-22558/1-A

**Matrix: Solid** 

**Analysis Batch: 22602** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 22558

Spike LCS LCS Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09294 mg/Kg 93 70 - 130 Toluene 0.100 0.09299 mg/Kg 93 70 - 130 Ethylbenzene 0.100 0.09259 93 70 - 130 mg/Kg 0.200 0.1917 70 - 130 m-Xylene & p-Xylene mg/Kg 96 o-Xylene 0.100 0.09258 mg/Kg 93 70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-22558/2-A

**Matrix: Solid** 

**Analysis Batch: 22602** 

Prep Type: Total/NA

Prep Batch: 22558

Spike LCSD LCSD %Rec. RPD Added Result Qualifier Limit Analyte Unit %Rec Limits RPD Benzene 0.100 0.09333 mg/Kg 93 70 - 130 0 35 35 Toluene 0.100 0.09263 mg/Kg 93 70 - 130 0 94 70 - 130 Ethylbenzene 0.100 0.09429 mg/Kg 2 35 0.200 0.1962 m-Xylene & p-Xylene mg/Kg 98 70 - 130 2 35 0.100 0.09507 95 o-Xylene mg/Kg 70 - 130 3 35

LCSD LCSD

Surrogate	%Recovery Quali	fier Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1.4-Difluorobenzene (Surr)	111	70 - 130

Lab Sample ID: MB 880-22602/9 Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 22602** 

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Toluene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/30/22 10:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/30/22 10:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		03/30/22 10:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130		03/30/22 10:59	1

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-22621/1-A

Lab Sample ID: LCS 880-22621/2-A

Lab Sample ID: LCSD 880-22621/3-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 22606

**Analysis Batch: 22606** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 22621

	INIB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
	MD	MR						

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	03/30/22 10:05	03/30/22 10:35	1
o-Terphenyl	155	S1+	70 - 130	03/30/22 10:05	03/30/22 10:35	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 22621

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 807.8 81 70 - 130 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over 810.5 mg/Kg 81 70 - 130C10-C28)

LCS LCS

I	Surrogate	%Recovery	Qualifier	Limits
	1-Chlorooctane	99		70 - 130
	o-Terphenyl	90		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 22621

LCSD LCSD Spike %Rec. RPD Added **RPD** Limit Analyte Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 834.6 mg/Kg 83 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 874.6 mg/Kg 87 70 - 130 20 C10-C28)

**Matrix: Solid** 

**Analysis Batch: 22606** 

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22649/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 22650** 

	МВ	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/30/22 14:31	1

#### **QC Sample Results**

Client: AECOM Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-22649/2-A

Client Sample ID: Lab Control Sample
Matrix: Solid

Prep Type: Soluble

**Analysis Batch: 22650** 

 Analyte
 LCS LCS
 %Rec.

 Chloride
 250
 246.5
 mg/Kg
 99
 90 - 110

Lab Sample ID: LCSD 880-22649/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 22650

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit Chloride 250 247.0 mg/Kg 99 90 - 110 0 20

Lab Sample ID: 890-2149-1 MS

Matrix: Solid

Client Sample ID: B-1

Prep Type: Soluble

**Analysis Batch: 22650** 

MS MS %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 136 250 398.0 105 90 - 110 mg/Kg

Lab Sample ID: 890-2149-1 MSD

Matrix: Solid

**Analysis Batch: 22650** 

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Qualifier Unit %Rec Limits RPD Limit Result Chloride 136 250 394.3 103 90 - 110 20 mg/Kg

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Client Sample ID: B-1

**Prep Type: Soluble** 

#### **QC Association Summary**

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills SDG: 60657072

**GC VOA** 

Prep Batch: 22558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Total/NA	Solid	5035	
890-2149-2	WW-1	Total/NA	Solid	5035	
890-2149-3	NW-1	Total/NA	Solid	5035	
LCS 880-22558/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22558/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 22602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Total/NA	Solid	8021B	22558
890-2149-2	WW-1	Total/NA	Solid	8021B	22558
890-2149-3	NW-1	Total/NA	Solid	8021B	22558
MB 880-22602/9	Method Blank	Total/NA	Solid	8021B	
LCS 880-22558/1-A	Lab Control Sample	Total/NA	Solid	8021B	22558
LCSD 880-22558/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22558

**Analysis Batch: 22671** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Total/NA	Solid	Total BTEX	
890-2149-2	WW-1	Total/NA	Solid	Total BTEX	
890-2149-3	NW-1	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### **Analysis Batch: 22606**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Total/NA	Solid	8015B NM	22621
890-2149-2	WW-1	Total/NA	Solid	8015B NM	22621
890-2149-3	NW-1	Total/NA	Solid	8015B NM	22621
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015B NM	22621
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22621
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22621

#### Prep Batch: 22621

<b>Lab Sample ID</b> 890-2149-1	Client Sample ID B-1	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-2149-2	WW-1	Total/NA	Solid	8015NM Prep	
890-2149-3	NW-1	Total/NA	Solid	8015NM Prep	
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 22664

Lab Sample ID 890-2149-1	Client Sample ID B-1	Prep Type  Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-2149-2	WW-1	Total/NA	Solid	8015 NM	
890-2149-3	NW-1	Total/NA	Solid	8015 NM	

#### **HPLC/IC**

#### Leach Batch: 22649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Soluble	Solid	DI Leach	

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## **QC Association Summary**

Client: AECOM Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

#### **HPLC/IC (Continued)**

#### Leach Batch: 22649 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-2	WW-1	Soluble	Solid	DI Leach	
890-2149-3	NW-1	Soluble	Solid	DI Leach	
MB 880-22649/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22649/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22649/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2149-1 MS	B-1	Soluble	Solid	DI Leach	
890-2149-1 MSD	B-1	Soluble	Solid	DI Leach	

#### **Analysis Batch: 22650**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2149-1	B-1	Soluble	Solid	300.0	22649
890-2149-2	WW-1	Soluble	Solid	300.0	22649
890-2149-3	NW-1	Soluble	Solid	300.0	22649
MB 880-22649/1-A	Method Blank	Soluble	Solid	300.0	22649
LCS 880-22649/2-A	Lab Control Sample	Soluble	Solid	300.0	22649
LCSD 880-22649/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22649
890-2149-1 MS	B-1	Soluble	Solid	300.0	22649
890-2149-1 MSD	B-1	Soluble	Solid	300.0	22649

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Job ID: 890-2149-1

SDG: 60657072

Client Sample ID: B-1

Project/Site: Cotton Hills

Client: AECOM

Lab Sample ID: 890-2149-1

Matrix: Solid

Date Collected: 03/29/22 10:20 Date Received: 03/29/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	22558	03/30/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22602	03/30/22 13:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22671	03/30/22 15:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22664	03/30/22 15:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 12:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22649	03/30/22 12:00	CH	XEN MID
Soluble	Analysis	300.0		1			22650	03/30/22 14:58	SC	XEN MID

Client Sample ID: WW-1 Lab Sample ID: 890-2149-2 Matrix: Solid

Date Collected: 03/29/22 10:22 Date Received: 03/29/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	22558	03/30/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22602	03/30/22 14:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22671	03/30/22 15:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22664	03/30/22 15:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 13:20	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22649	03/30/22 12:00	СН	XEN MID
Soluble	Analysis	300.0		1			22650	03/30/22 15:25	SC	XEN MID

**Client Sample ID: NW-1** Lab Sample ID: 890-2149-3

Date Collected: 03/29/22 10:24 **Matrix: Solid** Date Received: 03/29/22 13:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	22558	03/30/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22602	03/30/22 14:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22671	03/30/22 15:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22664	03/30/22 15:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22649	03/30/22 12:00	CH	XEN MID
Soluble	Analysis	300.0		1			22650	03/30/22 15:33	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		Program	Identification Number	Expiration Date
		NELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of	•	but the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for whic
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
Total BTEX		Solid	Total BTEX	

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#### **Method Summary**

Client: AECOM Job ID: 890-2149-1
Project/Site: Cotton Hills SDG: 60657072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

 ${\sf MCAWW} = {\sf "Methods} \ {\sf For} \ {\sf Chemical} \ {\sf Analysis} \ {\sf Of} \ {\sf Water} \ {\sf And} \ {\sf Wastes"}, \ {\sf EPA-600/4-79-020}, \ {\sf March} \ 1983 \ {\sf And} \ {\sf Subsequent} \ {\sf Revisions}.$ 

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Carlsbad** 

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#### **Sample Summary**

Client: AECOM Job ID: 890-2149-1 Project/Site: Cotton Hills

SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2149-1	B-1	Solid	03/29/22 10:20	03/29/22 13:00
890-2149-2	WW-1	Solid	03/29/22 10:22	03/29/22 13:00
890-2149-3	NW-1	Solid	03/29/22 10:24	03/29/22 13:00

eurofins

Environment Testing Xenco

Chain of Custody

210) 509-3334 Work Order No: 6) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
4) 902-0300	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Due Date ASA D  TAT starts the day received by the lab, if received by 4:30pm  Wes No Wet Ice: Wes No rameter ID: MA 30
ANALYSIS REQUES
S.74 YOO Address:  City, State ZIP: Wally. Gilmon CAE Com. Company.
Bill to: (If different)  Company Name:  Address:  City, State ZIP: Wally, Gilmon CAE Com. Com  ANALYSIS REQUES  ANALYSIS REQU

# **Chain of Custody Record**

Deliverable Requested   II III IV Other (specify)  Primary Deliverable Rank. 2  Specia  Empty Kit Relinquished by  Date  Time	tard Identification Samp	Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compiliance upon out subcontract laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately if all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC attention immediately if all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LC attention immediately if all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LC.	B-1 (890-2149-1)  B-1 (890-2149-1)  WW-1 (890-2149-2)  WW-1 (890-2149-3)  B-1 (890-2149-1)  3/29/22  Mountain  NW-1 (890-2149-3)  Mountain  Solid  X  Mountain  X	Midland  Polythand  Midland  Polythand  Polythand  Project #:  Cotton Hills  Sample Identification - Client ID (Lab ID)  Sample Identification - Client ID (Lab ID)	Acc NE	Information (Sub Contract Lab)  Nampler  Builes, the Mail of Phone:  JAReceiving  Sampler  Lab PM  Builes, the Mail of Phone:  John builes	Chain of Custody
Received by	Sample Disposal ( A fee may be ass   Return To Client   Disposal   Return To Client   Disposal   Return To Client   Disposal   Return To Client   Disposal   Disposal   Return To Client   Disposal   Return To Client   Disposal   Return To Client   Disposal   Return To Client   Re	editation compliance upon out subco ack to the Eurofins Environment Tes date return the signed Chain of Cu	× × × × × × × × × × × × × × × × × × ×	8021B/5036FP_Calc (MOD) BTEX  300_ORGFM_28D/DI_LEACH Chloride  8015MOD_NM/8015NM_S_Prep (MOD) Full TPH  Total_BTEX_GCV/ Total BTEX Calculation  8015MOD_Calc/ Diesel Range Organics (DRO) (GC)	anote):  Analysis		a.
Date/Time Date/Time:	essed if samples posal By Lab Method of Shipmer	ontract laboratories This sample st sting South Central LLC laboratory o			Requested	Carrier Tracking No(s) State of Origin: New Mexico	
Company	are retained longer than 1 month)  Archive For Months	hipment is forwarded under chain-of-cust or other instructions will be provided. An et Eurofins Environment Testing South o		B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2SO3 G Anchlor S H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate 1 - Ice U Acetone V - MCAA K - EDTA W pH 4-5 L - EDA Z other (specify)  Total  Special Instructions/Note:	n Code	COC No: 890-691 1 Page: Page 1 of 1	eurofins   Environment Testing   America

Ver 06/08/2021

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2149-1 SDG Number: 60657072

Login Number: 2149 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2149-1 SDG Number: 60657072

Login Number: 2149 **List Source: Eurofins Midland** List Number: 2 List Creation: 03/30/22 11:54 AM

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2150-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 3/30/2022 3:42:31 PM

John Builes, Project Manager (561)558-4549

john.builes@eurofinset.com

..... Links ......

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

# **Table of Contents**

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#### **Definitions/Glossary**

Client: AECOM Job ID: 890-2150-1 Project/Site: Cotton Hills SDG: 60657072

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) Limit of Detection (DoD/DOE) LOD LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit  $\mathsf{ML}$ Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

**TEF** Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: AECOM Job ID: 890-2150-1 SDG: 60657072 Project/Site: Cotton Hills

Job ID: 890-2150-1

**Laboratory: Eurofins Carlsbad** 

Narrative

**Job Narrative** 890-2150-1

#### Receipt

The samples were received on 3/29/2022 1:39 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Carlsbad 3/30/2022

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: BFM-1** 

Date Collected: 03/28/22 15:00
Date Received: 03/29/22 13:39

Lab Sample ID: 890-2150-1

Matrix: Solid

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 13:03	
Toluene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 13:03	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 13:03	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		03/30/22 08:30	03/30/22 13:03	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/30/22 08:30	03/30/22 13:03	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/30/22 08:30	03/30/22 13:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			03/30/22 08:30	03/30/22 13:03	
1,4-Difluorobenzene (Surr)	100		70 - 130			03/30/22 08:30	03/30/22 13:03	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			03/30/22 15:42	1
: Method: 8015 NM - Diesel Range	•	, , ,			_			
	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
: Method: 8015 NM - Diesel Range	•	Qualifier	<b>RL</b> 49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 03/30/22 15:37	
Method: 8015 NM - Diesel Range Analyte	Result <49.9	Qualifier U			<u>D</u>	Prepared		
Method: 8015 NM - Diesel Range Analyte Total TPH	Result <49.9  ge Organics (Di	Qualifier U			<u>D</u>	Prepared Prepared		1
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <49.9  ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg		· ·	03/30/22 15:37	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics	Result <49.9  ge Organics (Dige Result )	Qualifier U  RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	03/30/22 15:37  Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (Di Result 49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 03/30/22 10:05	03/30/22 15:37  Analyzed  03/30/22 14:02	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 03/30/22 10:05 03/30/22 10:05	03/30/22 15:37  Analyzed  03/30/22 14:02  03/30/22 14:02	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 03/30/22 10:05 03/30/22 10:05 03/30/22 10:05	03/30/22 15:37  Analyzed 03/30/22 14:02 03/30/22 14:02	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 03/30/22 10:05 03/30/22 10:05 03/30/22 10:05 Prepared	03/30/22 15:37  Analyzed 03/30/22 14:02 03/30/22 14:02 03/30/22 14:02  Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 03/30/22 10:05 03/30/22 10:05 03/30/22 10:05  Prepared 03/30/22 10:05	03/30/22 15:37  Analyzed 03/30/22 14:02 03/30/22 14:02  Analyzed 03/30/22 14:02	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 03/30/22 10:05 03/30/22 10:05 03/30/22 10:05  Prepared 03/30/22 10:05	03/30/22 15:37  Analyzed 03/30/22 14:02 03/30/22 14:02  Analyzed 03/30/22 14:02	Dil Fac  Dil Fac  1  Dil Fac  1  Dil Fac  1  Dil Fac

Client Sample ID: BFM-2

Date Collected: 03/28/22 15:00

Lab Sample ID: 890-2150-2

Matrix: Solid

Date Received: 03/29/22 13:39

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/30/22 08:30	03/30/22 13:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			03/30/22 08:30	03/30/22 13:23	1
1,4-Difluorobenzene (Surr)	110		70 - 130			03/30/22 08:30	03/30/22 13:23	1

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: BFM-2 Lab Sample ID: 890-2150-2

Date Collected: 03/28/22 15:00 Matrix: Solid
Date Received: 03/29/22 13:39

Method: Total BTEX - Total BTEX								
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/30/22 15:42	1
- Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			03/30/22 15:37	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 14:23	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 14:23	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			03/30/22 10:05	03/30/22 14:23	1
o-Terphenyl	119		70 - 130			03/30/22 10:05	03/30/22 14:23	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	132	-	4.98	mg/Kg			03/30/22 15:51	

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#### **Surrogate Summary**

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

•				Percent Surrogate R
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2150-1	BFM-1	108	100	
890-2150-2	BFM-2	108	110	
LCS 880-22558/1-A	Lab Control Sample	99	110	
LCSD 880-22558/2-A	Lab Control Sample Dup	101	111	
MB 880-22602/9	Method Blank	103	104	
Surrogate Legend				
BFB = 4-Bromofluorobei	nzene (Surr)			
DFBZ = 1,4-Difluoroben:	zene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1001	OTPH1					
Lab Sample ID	Client Sample ID	(70-130)	(70-130)					
890-2150-1	BFM-1	117	117					
890-2150-2	BFM-2	118	119					
LCS 880-22621/2-A	Lab Control Sample	99	90					
LCSD 880-22621/3-A	Lab Control Sample Dup	107	96					
MB 880-22621/1-A	Method Blank	144 S1+	155 S1+					

**Surrogate Legend** 

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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#### **QC Sample Results**

Client: AECOM Job ID: 890-2150-1 SDG: 60657072 Project/Site: Cotton Hills

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 880-22558/1-A

**Matrix: Solid** 

Analysis Batch: 22602

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** Prep Batch: 22558

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09294		mg/Kg		93	70 - 130	
Toluene	0.100	0.09299		mg/Kg		93	70 - 130	
Ethylbenzene	0.100	0.09259		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.200	0.1917		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09258		mg/Kg		93	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1.4-Difluorobenzene (Surr)	110		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Lab Sample ID: LCSD 880-22558/2-A **Matrix: Solid** 

Prep Type: Total/NA Prep Batch: 22558

**Analysis Batch: 22602** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09333		mg/Kg		93	70 - 130	0	35
Toluene	0.100	0.09263		mg/Kg		93	70 - 130	0	35
Ethylbenzene	0.100	0.09429		mg/Kg		94	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130	2	35
o-Xylene	0.100	0.09507		mg/Kg		95	70 - 130	3	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: MB 880-22602/9 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 22602

	IVID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Toluene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/30/22 10:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/30/22 10:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/30/22 10:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130		03/30/22 10:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130		03/30/22 10:59	1

Client: AECOM Job ID: 890-2150-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-22621/1-A

Lab Sample ID: LCS 880-22621/2-A

**Matrix: Solid** 

**Analysis Batch: 22606** 

**Matrix: Solid** 

**Analysis Batch: 22606** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 22621

	INID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/30/22 10:05	03/30/22 10:35	1
	MB	MB						

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	03/30/22 10:05	03/30/22 10:35	1
o-Terphenyl	155	S1+	70 - 130	03/30/22 10:05	03/30/22 10:35	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 22621

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 807.8 81 70 - 130 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over 810.5 mg/Kg 81 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	99	70 - 130
o-Terphenyl	90	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Analysis Batch: 22606** 

**Matrix: Solid** 

Lab Sample ID: LCSD 880-22621/3-A

Prep Batch: 22621

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	834.6		mg/Kg		83	70 - 130	3	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	874.6		mg/Kg		87	70 - 130	8	20	
C10-C28)										

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22649/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 22650** 

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 03/30/22 14:31 mg/Kg

#### **QC Sample Results**

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-22649/2-A

Matrix: Solid

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analysis Batch: 22650

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	246.5		mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-22649/3-A

Client Sample ID: Lab Control Sample Dup
Matrix: Solid

Prep Type: Soluble

Analysis Batch: 22650

Spike LCSD LCSD %Rec. RPD Limit Analyte Added Result Qualifier Unit D %Rec Limits RPD Chloride 250 247.0 mg/Kg 99 90 - 110 0

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## **QC Association Summary**

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

**GC VOA** 

Prep Batch: 22558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	5035	
890-2150-2	BFM-2	Total/NA	Solid	5035	
LCS 880-22558/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22558/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 22602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	8021B	22558
890-2150-2	BFM-2	Total/NA	Solid	8021B	22558
MB 880-22602/9	Method Blank	Total/NA	Solid	8021B	
LCS 880-22558/1-A	Lab Control Sample	Total/NA	Solid	8021B	22558
LCSD 880-22558/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22558

**Analysis Batch: 22670** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	Total BTEX	
890-2150-2	BFM-2	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

Analysis Batch: 22606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	8015B NM	22621
890-2150-2	BFM-2	Total/NA	Solid	8015B NM	22621
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015B NM	22621
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22621
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22621

Prep Batch: 22621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	8015NM Prep	
890-2150-2	BFM-2	Total/NA	Solid	8015NM Prep	
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 22665** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Total/NA	Solid	8015 NM	
890-2150-2	BFM-2	Total/NA	Solid	8015 NM	

**HPLC/IC** 

Leach Batch: 22649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Soluble	Solid	DI Leach	
890-2150-2	BFM-2	Soluble	Solid	DI Leach	
MB 880-22649/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22649/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22649/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

Released to Imaging: 10/19/2022 10:58:17 AM

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## **QC Association Summary**

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

#### HPLC/IC

#### Analysis Batch: 22650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2150-1	BFM-1	Soluble	Solid	300.0	22649
890-2150-2	BFM-2	Soluble	Solid	300.0	22649
MB 880-22649/1-A	Method Blank	Soluble	Solid	300.0	22649
LCS 880-22649/2-A	Lab Control Sample	Soluble	Solid	300.0	22649
LCSD 880-22649/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22649

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#### **Lab Chronicle**

Client: AECOM Job ID: 890-2150-1 Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: BFM-1

Date Received: 03/29/22 13:39

Lab Sample ID: 890-2150-1 Date Collected: 03/28/22 15:00

Matrix: Solid

Prepared Batch Batch Dil Initial Final Batch Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 22558 03/30/22 08:30 Total/NA Prep 4.95 g 5 mL KL XEN MID Total/NA Analysis 8021B 1 5 mL 5 mL 22602 03/30/22 13:03 KL XEN MID Total/NA Analysis Total BTEX 22670 03/30/22 15:42 ΑJ XEN MID 1 8015 NM Total/NA Analysis 22665 03/30/22 15:37 ΑJ XEN MID Total/NA 8015NM Prep 10.03 g 22621 03/30/22 10:05 XEN MID Prep 10 mL AM Total/NA Analysis 8015B NM 22606 03/30/22 14:02 ΑJ XEN MID Soluble 5.05 g 50 mL 22649 03/30/22 12:00 СН XEN MID Leach DI Leach 03/30/22 15:42 Soluble Analysis 300.0 1 22650 SC XEN MID

Client Sample ID: BFM-2 Lab Sample ID: 890-2150-2

Date Collected: 03/28/22 15:00 **Matrix: Solid** 

Date Received: 03/29/22 13:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22558	03/30/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22602	03/30/22 13:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22670	03/30/22 15:42	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22665	03/30/22 15:37	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 14:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	22649	03/30/22 12:00	CH	XEN MID
Soluble	Analysis	300.0		1			22650	03/30/22 15:51	SC	XEN MID

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2150-1
Project/Site: Cotton Hills SDG: 60657072

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Р	rogram	Identification Number	Expiration Date
Texas	N	IELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of	• •	out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for whi
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
		Solid		

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#### **Method Summary**

Client: AECOM Job ID: 890-2150-1 Project/Site: Cotton Hills SDG: 60657072

Method **Method Description** Protocol Laboratory 8021B Volatile Organic Compounds (GC) SW846 XEN MID Total BTEX Calculation Total BTEX TAL SOP XEN MID 8015 NM Diesel Range Organics (DRO) (GC) SW846 **XEN MID** 8015B NM Diesel Range Organics (DRO) (GC) SW846 XEN MID 300.0 Anions, Ion Chromatography MCAWW **XEN MID** 5035 SW846 XEN MID Closed System Purge and Trap 8015NM Prep SW846 XEN MID

#### **Protocol References:**

DI Leach

ASTM = ASTM International

Microextraction

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Deionized Water Leaching Procedure** 

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Carlsbad** 

**XEN MID** 

ASTM

### **Sample Summary**

Client: AECOM

Job ID: 890-2150-1 Project/Site: Cotton Hills SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2150-1	BFM-1	Solid	03/28/22 15:00	03/29/22 13:39
890-2150-2	BFM-2	Solid	03/28/22 15:00	03/29/22 13:39

Circle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

8RCRA

service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any r

urofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge c lice: Signature of this document and relinquishment of samples constitutes a valid purchase

Relinquished by: (Signature)

8 Received

2:3933379 12 1300

Date/Time

Relinquished by: (Signature)

ed by: (Signature)

Dațe/Time

Revised Date: 08/25/2020 Rev. 2020 2

(Signature)

Project Manager:

AE WM

13355 Mbel Rd. SURLYO

Bred Wyon, Wally Gilmon

City, State ZIP: Address: ompany Name:

214-741-7777

Cotton

511th

60657072

Dalles, TX

75240

eurofins **Environment Testing** Xenco

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

10- Cooling In Process

www.xenco.com

2. Judge	Bill to: (if different)	Ē			ľ	,		W	Work Order Comments	
	Company Name:	12						Program: UST/PST	PRP Bro	UST/PST PRP Brownfields RRC Superfund
F Yeo	Address:							State of Project:		
	City, State ZIP:	5	wallace.	ase		L'M	Glimone A FLOM	Reporting: Level II   Level III   PST/UST   TRRP	evel III	PST/UST TRRP Level IV
Email:			· Wyone @	6		2013	AELOM, COM	Deliverables: EDD	ADa	ADaPT Other:
Turn	Turn Around						ANALYSIS REQUEST	EST		Preservative Codes
Routine	<b>⊠</b> Rush	Pres. Code					S			None: NO DI Water: H <sub>2</sub> O
Due Date:	Due Date: 48 krs TAT starts the day received by		00							Cool: Cool MeOH: Me
the lab, if rec	the lab, if received by 4:30pm	ters	A 3	M	218					H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na H <sub>3</sub> PO <sub>4</sub> : HP
er ID:	CO WM	arame	E	215	80		-			NaHSO 4: NABIS
e Reading:	(0.0)		des	8			890-2150 Chain of Custody	ain of Custody		Zn Acetate+NaOH: Zn
emperature:	Grab	** 04	No	H	TE:					NaOH+Ascorbic Acid: SAFC
1500	Comp	Cont	4 0	× -	* 5	_				
1500	1	-	×	×	ኦ	Ш				
						_				
RCRA 13PPM TCLP/SPLP	PLP 6010 : 8R	Al Sb CRA S	Al Sb As Ba CRA Sb As Ba	a Be B 3a Be C	3 Cd Ca Cd Cr C	CaCr	A 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo ITCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Vi K Se	SiO <sub>2</sub> Na Sr 631 / 245.1	Ag SiO, Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
/alid purchase orc	ler from client compar	y to Eurof	ins Xenco	, Its affilia	tes and su	bcontrac	alid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions are the control of th	rs and conditions		
assume any respond a charge of \$5	for each sample subm	or expens	ses incurre	nco, but r	not analyz	red. These	assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ond the control s previously negotiated.		

Total Containers: Sample Custody Seals: Cooler Custody Seals: Samples Received Intact: SAMPLE RECEIPT

Sample Identification

Matrix

Sampled

Date

Corrected Temperatur Temperature Reading: Correction Factor: Thermometer ID: Yes No

8FM-2

BFM-

3 2872

Sampler's Name: Project Location: Project Number:

Ames lovely

606 57 072

Temp Blank: (Yes) No

Yes No NA

Yes No N/A

1089 N Canal St

**Eurofins Carlsbad** 

Chain of Custody Record

seurofins | Environment Testing

Project Name: Cotton Hills State, Zip. TX, 79701 BFM-1 (890-2150-1) Empty Kit Relinquished by Deliverable Requested I II III IV, Other (specify) ossible Hazard Identification Vote: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC. BFM-2 (890-2150-2) elinquished by: Sample Identification - Client ID (Lab ID) Midland Carlsbad NM 88220 Phone. 575-988-3199 Fax: 575-988-3199 elinquished by: elinquished by 132-704-5440(Tel) 211 W Florida Ave nconfirmed urofins Environment Testing South Centr ipping/Receiving ient Information (Sub Contract Lab) Custody Seal No D Ō Project #: 88000565 Date/Time Primary Deliverable Rank. 2 Date/Time: PO# TAT Requested (days): Due Date Requested Sampler Phone Sample Date 3/28/22 3/28/22 Date. Mountain 15 00 Mountain Sample Time 1500 (C=comp, Sample Preservation Code: Type Company Company Company Matrix (w=water S=solid, O=waste/oil, Solid Solid Lab PM Builes, John john builes@eurofinset.com NELAP - Texas Time Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Patrim To Client Disposal Ru Lab Archive For Month Special Instructions/QC Requirements Perform MS/MSD (Yes or No) ations Required (See note) Cooler Temperature(s) °C and Other Remarks Received by: × × 8021B/5035FP\_Calc (MOD) BTEX Return To Client × × 300\_ORGFM\_28D/DI\_LEACH Chloride × × 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH × × Total BTEX GCV/ Total BTEX Calculation Analysis Requested × × 8015MOD\_Caic/ Diesel Range Organics (DRO) (GC) Disposal By Lab State of Origin: New Mexico Carrier Tracking No(s): Method of Shipment: Date/Time Date/Time Date/Time Archive For Total Number of container A HCL
Nacetate
C-Zn Acetate
D Nifric Acid
E-NaHSO4
F MoOH
G Amchlor
H Ascorbic Acid
I loe
J-DI Water
K EDTA
L-EDA COC No: 890-691 1 Page: Page 1 of 1 Preservation Codes 390-2150-1 Special Instructions/Note: M - Hexane
N None
O - AsNaO2
P NaZO4S
Q - NaZSO3
R NaZSO3
S H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W pH 4-5
Z - other (specify) Company Company

Ver: 06/08/2021

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2150-1 SDG Number: 60657072

Login Number: 2150 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

#### **Login Sample Receipt Checklist**

Client: AECOM

Job Number: 890-2150-1 SDG Number: 60657072

Login Number: 2150 **List Source: Eurofins Midland** List Number: 2 List Creation: 03/30/22 11:54 AM

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	True	

<6mm (1/4").



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2151-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 3/31/2022 7:04:54 PM

John Builes, Project Manager (561)558-4549

john.builes@eurofinset.com

..... Links .....

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Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

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## **Definitions/Glossary**

Client: AECOM Job ID: 890-2151-1 Project/Site: Cotton Hills SDG: 60657072

#### **Qualifiers**

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **GC Semi VOA**

Qualifier **Qualifier Description** 

S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **Glossary**

**Abbreviation** These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery

CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

**Dilution Factor** Dil Fac

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

Presumptive **PRES** QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

**TEF** Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: AECOM

Project/Site: Cotton Hills

Job ID: 890-2151-1 SDG: 60657072

Job ID: 890-2151-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2151-1

#### Receipt

The samples were received on 3/30/2022 1:01 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

#### **GC VOA**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: B-5 (890-2151-5), B-6 (890-2151-6), (LCS 880-22691/2-A), (LCSD 880-22691/3-A) and (MB 880-22691/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 890-2151-1

SDG: 60657072

Client Sample ID: B-2

Project/Site: Cotton Hills

Client: AECOM

Lab Sample ID: 890-2151-1

Date Collected: 03/29/22 14:55 Date Received: 03/30/22 13:01

**Matrix: Solid** 

Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	85.5		49.8	mg/Kg			03/31/22 15:52	1
- Method: 8015B NM - Diesel R	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/31/22 08:52	03/31/22 13:20	1
Diesel Range Organics (Over C10-C28)	85.5		49.8	mg/Kg		03/31/22 08:52	03/31/22 13:20	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/31/22 08:52	03/31/22 13:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			03/31/22 08:52	03/31/22 13:20	1
o-Terphenyl	104		70 - 130			03/31/22 08:52	03/31/22 13:20	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		24.8	mg/Kg			03/31/22 13:57	5

**Client Sample ID: B-3** Lab Sample ID: 890-2151-2

Date Collected: 03/29/22 15:00 **Matrix: Solid** 

Date Received: 03/30/22 13:01

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RLUnit Prepared Analyzed Total TPH <49.9 U 49.9 03/31/22 15:52 mg/Kg

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	Ū	49.9	mg/Kg		03/31/22 08:52	03/31/22 13:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/31/22 08:52	03/31/22 13:41	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/31/22 08:52	03/31/22 13:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			03/31/22 08:52	03/31/22 13:41	1
o-Terphenyl	101		70 - 130			03/31/22 08:52	03/31/22 13:41	1

Method: 300.0 - Anions, Ion Cl	hromatograp	hy - Soluk	ole					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	229		4.98	mg/Kg			03/31/22 14:23	1

Client Sample ID: B-4 Lab Sample ID: 890-2151-3 Date Collected: 03/29/22 15:05 **Matrix: Solid** 

Date Received: 03/30/22 13:01

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00201	U	0.00201	mg/Kg		03/31/22 11:00	03/31/22 13:31	1	
Toluene	<0.00201	U	0.00201	mg/Kg		03/31/22 11:00	03/31/22 13:31	1	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/31/22 11:00	03/31/22 13:31	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/31/22 11:00	03/31/22 13:31	1	
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/31/22 11:00	03/31/22 13:31	1	

Dil Fac

Job ID: 890-2151-1 SDG: 60657072

13:31

Client: AECOM Project/Site: Cotton Hills

Lab Sample ID: 890-2151-3

Date Collected: 03/29/22 15:05 Date Received: 03/30/22 13:01

Client Sample ID: B-4

Matrix: Solid

Method: 8021B - Volatile Orga	nic Compo	unds (GC)	(Continued)				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	_	03/31/22 11:00	03/31/22 13:3
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed

zed Dil Fac 4-Bromofluorobenzene (Surr) 106 70 - 130 03/31/22 11:00 03/31/22 13:31 1,4-Difluorobenzene (Surr) 108 70 - 130 03/31/22 11:00 03/31/22 13:31

**Method: Total BTEX - Total BTEX Calculation** Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total BTEX <0.00402 U 0.00402 03/31/22 14:54 mg/Kg

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier RL Unit D Prepared Analyzed Dil Fac <49.8 U mg/Kg Total TPH 49.8 03/31/22 15:52

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.8 U Gasoline Range Organics 49.8 03/31/22 08:52 03/31/22 14:02 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 49.8 mg/Kg 03/31/22 08:52 03/31/22 14:02 C10-C28) Oll Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg 03/31/22 08:52 03/31/22 14:02

%Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 103 70 - 130 03/31/22 08:52 03/31/22 14:02 117 70 - 130 03/31/22 08:52 03/31/22 14:02 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Chloride 5.00 03/31/22 14:32 275 mg/Kg

Client Sample ID: WW-2 Lab Sample ID: 890-2151-4 **Matrix: Solid** 

Date Collected: 03/30/22 09:30 Date Received: 03/30/22 13:01

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total TPH <49.9 U 03/31/22 15:52 49.9 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) **Analyte** Result Qualifier RL Unit D Prepared **Analyzed** Dil Fac <49.9 U Gasoline Range Organics 49.9 mg/Kg 03/31/22 08:52 03/31/22 14:23 (GRO)-C6-C10 <49.9 U 03/31/22 08:52 03/31/22 14:23 Diesel Range Organics (Over 49.9 mg/Kg

C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 03/31/22 08:52 03/31/22 14:23 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac

1-Chlorooctane 70 - 130 03/31/22 08:52 03/31/22 14:23 101 119 70 - 130 03/31/22 08:52 03/31/22 14:23 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography - Soluble **Analyte** Result Qualifier RL Unit D **Prepared** Analyzed Dil Fac Chloride 2050 24.9 mg/Kg 03/31/22 14:41

Job ID: 890-2151-1

Client: AECOM Project/Site: Cotton Hills

SDG: 60657072

**Client Sample ID: B-5** 

Lab Sample ID: 890-2151-5

Date Collected: 03/30/22 09:35 Date Received: 03/30/22 13:01

Campio	 000 2.0.0	
	<b>Matrix: Solid</b>	

Method: 8015 NM - Diesel Rai	nge Organic	s (DRO) (0	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			03/31/22 15:52	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/31/22 08:52	03/31/22 14:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/31/22 08:52	03/31/22 14:45	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/31/22 08:52	03/31/22 14:45	•
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			03/31/22 08:52	03/31/22 14:45	1
o-Terphenyl	137	S1+	70 - 130			03/31/22 08:52	03/31/22 14:45	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		24.8	mg/Kg			03/31/22 14:50	

Client Sample ID: B-6 Lab Sample ID: 890-2151-6

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Date Collected: 03/30/22 09:40 **Matrix: Solid** 

Date Received: 03/30/22 13:01

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/31/22 15:52	1
– Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/31/22 08:52	03/31/22 15:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/31/22 08:52	03/31/22 15:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/22 08:52	03/31/22 15:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			03/31/22 08:52	03/31/22 15:06	1
o-Terphenyl	136	S1+	70 - 130			03/31/22 08:52	03/31/22 15:06	1
– Method: 300.0 - Anions, Ion C	hromatogra	ıphy - Solı	ıble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1450		24.8	mg/Kg			03/31/22 15:16	5

DFBZ = 1,4-Difluorobenzene (Surr)

# **Surrogate Summary**

Client: AECOM Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Per	cent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2151-3	B-4	106	108	
LCS 880-22613/1-A	Lab Control Sample	102	112	
LCSD 880-22613/2-A	Lab Control Sample Dup	106	113	
MB 880-22613/5-A	Method Blank	104	103	
Surrogate Legend				
BFB = 4-Bromofluorob	enzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		1CO1	OTPH1					
Lab Sample ID	Client Sample ID	(70-130)	(70-130)					
890-2151-1	B-2	95	104					
890-2151-2	B-3	88	101					
890-2151-3	B-4	103	117					
890-2151-4	WW-2	101	119					
890-2151-5	B-5	113	137 S1+					
890-2151-6	B-6	111	136 S1+					

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent	t Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-22691/2-A	Lab Control Sample	110	133 S1+	
LCSD 880-22691/3-A	Lab Control Sample Dup	113	140 S1+	
MB 880-22691/1-A	Method Blank	112	138 S1+	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Client: AECOM Job ID: 890-2151-1 Project/Site: Cotton Hills SDG: 60657072

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22613/5-A

**Matrix: Solid** 

**Analysis Batch: 22684** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 22613

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/31/22 07:30	03/31/22 10:26	1

MB MB

Surrogate	%Recovery 0	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	03/31/22 07:30	03/31/22 10:26	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/31/22 07:30	03/31/22 10:26	1

Lab Sample ID: LCS 880-22613/1-A

**Matrix: Solid** 

**Analysis Batch: 22684** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 22613

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1005	-	mg/Kg		101	70 - 130	
Toluene	0.100	0.09948		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene	0.200	0.2087		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-22613/2-A

**Matrix: Solid** 

**Analysis Batch: 22684** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** 

Prep Batch: 22613

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09921		mg/Kg	_	99	70 - 130	1	35
Toluene	0.100	0.09749		mg/Kg		97	70 - 130	2	35
Ethylbenzene	0.100	0.1001		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2082		mg/Kg		104	70 - 130	0	35
o-Xylene	0.100	0.1013		mg/Kg		101	70 - 130	1	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

**Eurofins Carlsbad** 

Released to Imaging: 10/19/2022 10:58:17 AM

Client: AECOM Job ID: 890-2151-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-22691/1-A

Lab Sample ID: LCS 880-22691/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 22685** 

**Analysis Batch: 22685** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 22691

	MR	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	Ū	50.0	mg/Kg		03/31/22 08:52	03/31/22 10:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/31/22 08:52	03/31/22 10:33	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/22 08:52	03/31/22 10:33	1
	MB	MB						

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	03/31/22 08:52	03/31/22 10:33	1
o-Terphenyl	138	S1+	70 - 130	03/31/22 08:52	03/31/22 10:33	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 22691

Prep Batch: 22691

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	913.4		mg/Kg		91	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1090		mg/Kg		109	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	133	S1+	70 - 130

Client Sample ID: Lab Control Sample Dup

mg/Kg

Lab Sample ID: LCSD 880-22691/3-A **Matrix: Solid** 

**Analysis Batch: 22685** 

Diesel Range Organics (Over

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Gasoline Range Organics 1000 883.4 mg/Kg 88 70 - 130 20 (GRO)-C6-C10 1000 1101 110 70 - 130 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	140	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22722/1-A **Client Sample ID: Method Blank Matrix: Solid** 

**Prep Type: Soluble Analysis Batch: 22730** 

мв мв Analyte Result Qualifier Unit RL Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 03/31/22 13:02 mg/Kg

#### **QC Sample Results**

Client: AECOM Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-22722/2-A

Matrix: Solid

Analysis Batch: 22730

Client Sample ID: Lab Control Sample

Prep Type: Soluble

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits D Chloride 250 90 - 110 242.3 mg/Kg 97

Lab Sample ID: LCSD 880-22722/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 22730

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier D %Rec Limits RPD Limit Analyte Unit Chloride 250 90 - 110 241.6 mg/Kg 97 0

Lab Sample ID: 890-2151-1 MS

Matrix: Solid

Client Sample ID: B-2

Prep Type: Soluble

**Analysis Batch: 22730** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Limits Unit D %Rec Chloride 2100 1240 3212 90 90 - 110 mg/Kg

Lab Sample ID: 890-2151-1 MSD

**Matrix: Solid** 

**Analysis Batch: 22730** 

MSD MSD %Rec. **RPD** Sample Sample Spike **Analyte** Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 2100 1240 3223 mg/Kg 91 90 - 110 20

**Eurofins Carlsbad** 

Client Sample ID: B-2

**Prep Type: Soluble** 

# **QC Association Summary**

Job ID: 890-2151-1 Client: AECOM SDG: 60657072 Project/Site: Cotton Hills

#### **GC VOA**

#### Prep Batch: 22613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-3	B-4	Total/NA	Solid	5035	
MB 880-22613/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22613/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22613/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

#### **Analysis Batch: 22684**

<b>Lab Sample ID</b> 890-2151-3	Client Sample ID B-4	Prep Type Total/NA	Matrix Solid	Method 8021B	Prep Batch 22613
MB 880-22613/5-A	Method Blank	Total/NA	Solid	8021B	22613
LCS 880-22613/1-A	Lab Control Sample	Total/NA	Solid	8021B	22613
LCSD 880-22613/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22613

#### **Analysis Batch: 22739**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-3	B-4	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### **Analysis Batch: 22685**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-1	B-2	Total/NA	Solid	8015B NM	22691
890-2151-2	B-3	Total/NA	Solid	8015B NM	22691
890-2151-3	B-4	Total/NA	Solid	8015B NM	22691
890-2151-4	WW-2	Total/NA	Solid	8015B NM	22691
890-2151-5	B-5	Total/NA	Solid	8015B NM	22691
890-2151-6	B-6	Total/NA	Solid	8015B NM	22691
MB 880-22691/1-A	Method Blank	Total/NA	Solid	8015B NM	22691
LCS 880-22691/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22691
LCSD 880-22691/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22691

#### Prep Batch: 22691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-1	B-2	Total/NA	Solid	8015NM Prep	
890-2151-2	B-3	Total/NA	Solid	8015NM Prep	
890-2151-3	B-4	Total/NA	Solid	8015NM Prep	
890-2151-4	WW-2	Total/NA	Solid	8015NM Prep	
890-2151-5	B-5	Total/NA	Solid	8015NM Prep	
890-2151-6	B-6	Total/NA	Solid	8015NM Prep	
MB 880-22691/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22691/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22691/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 22745**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-1	B-2	Total/NA	Solid	8015 NM	
890-2151-2	B-3	Total/NA	Solid	8015 NM	
890-2151-3	B-4	Total/NA	Solid	8015 NM	
890-2151-4	WW-2	Total/NA	Solid	8015 NM	
890-2151-5	B-5	Total/NA	Solid	8015 NM	
890-2151-6	B-6	Total/NA	Solid	8015 NM	

# **QC Association Summary**

Client: AECOM Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

#### HPLC/IC

#### Leach Batch: 22722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-1	B-2	Soluble	Solid	DI Leach	
890-2151-2	B-3	Soluble	Solid	DI Leach	
890-2151-3	B-4	Soluble	Solid	DI Leach	
890-2151-4	WW-2	Soluble	Solid	DI Leach	
890-2151-5	B-5	Soluble	Solid	DI Leach	
890-2151-6	B-6	Soluble	Solid	DI Leach	
MB 880-22722/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22722/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22722/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2151-1 MS	B-2	Soluble	Solid	DI Leach	
890-2151-1 MSD	B-2	Soluble	Solid	DI Leach	

#### **Analysis Batch: 22730**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2151-1	B-2	Soluble	Solid	300.0	22722
890-2151-2	B-3	Soluble	Solid	300.0	22722
890-2151-3	B-4	Soluble	Solid	300.0	22722
890-2151-4	WW-2	Soluble	Solid	300.0	22722
890-2151-5	B-5	Soluble	Solid	300.0	22722
890-2151-6	B-6	Soluble	Solid	300.0	22722
MB 880-22722/1-A	Method Blank	Soluble	Solid	300.0	22722
LCS 880-22722/2-A	Lab Control Sample	Soluble	Solid	300.0	22722
LCSD 880-22722/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22722
890-2151-1 MS	B-2	Soluble	Solid	300.0	22722
890-2151-1 MSD	B-2	Soluble	Solid	300.0	22722

**Eurofins Carlsbad** 

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Job ID: 890-2151-1

SDG: 60657072

Client Sample ID: B-2

Project/Site: Cotton Hills

Client: AECOM

Lab Sample ID: 890-2151-1 **Matrix: Solid** 

Date Collected: 03/29/22 14:55 Date Received: 03/30/22 13:01

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22691	03/31/22 08:52	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22685	03/31/22 13:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22722	03/31/22 11:27	СН	XEN MID
Soluble	Analysis	300.0		5			22730	03/31/22 13:57	SC	XEN MID

Lab Sample ID: 890-2151-2 Client Sample ID: B-3 **Matrix: Solid** 

Date Collected: 03/29/22 15:00 Date Received: 03/30/22 13:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22691	03/31/22 08:52	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22685	03/31/22 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	22722	03/31/22 11:27	СН	XEN MID
Soluble	Analysis	300.0		1			22730	03/31/22 14:23	SC	XEN MID

Lab Sample ID: 890-2151-3 Client Sample ID: B-4

Date Collected: 03/29/22 15:05 Date Received: 03/30/22 13:01

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	22613	03/31/22 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22684	03/31/22 13:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22739	03/31/22 14:54	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	22691	03/31/22 08:52	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22685	03/31/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22722	03/31/22 11:27	СН	XEN MID
Soluble	Analysis	300.0		1			22730	03/31/22 14:32	SC	XEN MID

**Client Sample ID: WW-2** Lab Sample ID: 890-2151-4 Date Collected: 03/30/22 09:30 **Matrix: Solid** 

Date Received: 03/30/22 13:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	22691 22685	03/31/22 08:52 03/31/22 14:23		XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		5	5.03 g	50 mL	22722 22730	03/31/22 11:27 03/31/22 14:41	CH SC	XEN MID XEN MID

#### **Lab Chronicle**

Client: AECOM Job ID: 890-2151-1 SDG: 60657072 Project/Site: Cotton Hills

**Client Sample ID: B-5** 

Lab Sample ID: 890-2151-5 Date Collected: 03/30/22 09:35

Matrix: Solid

Date Received: 03/30/22 13:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22691	03/31/22 08:52	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22685	03/31/22 14:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22722	03/31/22 11:27	CH	XEN MID
Soluble	Analysis	300.0		5			22730	03/31/22 14:50	SC	XEN MID

**Client Sample ID: B-6** Lab Sample ID: 890-2151-6

Date Collected: 03/30/22 09:40 **Matrix: Solid** 

Date Received: 03/30/22 13:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22745	03/31/22 15:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22691	03/31/22 08:52	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22685	03/31/22 15:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	22722	03/31/22 11:27	CH	XEN MID
Soluble	Analysis	300.0		5			22730	03/31/22 15:16	SC	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		rogram ELAP	Identification Number	Expiration Date 06-30-22
The following analyte	s are included in this rep	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
the agency does not	offer certification.			
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
		Solid	Total BTEX	

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# **Method Summary**

Client: AECOM

Project/Site: Cotton Hills

Job ID: 890-2151-1

SDG: 60657072

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### **Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Sample Summary**

Client: AECOM Job ID: 890-2151-1
Project/Site: Cotton Hills SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2151-1	B-2	Solid	03/29/22 14:55	03/30/22 13:01
890-2151-2	B-3	Solid	03/29/22 15:00	03/30/22 13:01
890-2151-3	B-4	Solid	03/29/22 15:05	03/30/22 13:01
890-2151-4	WW-2	Solid	03/30/22 09:30	03/30/22 13:01
890-2151-5	B-5	Solid	03/30/22 09:35	03/30/22 13:01
890-2151-6	B-6	Solid	03/30/22 09:40	03/30/22 13:01

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**Environment Testing** 

# Chain of Custody

Cilain or Capton)	
ston, TX (281) 240-4200, Dallas, TX (214) 902-0300	
d, TX (432) 704-5440, San Antonio, TX (210) 509-3334	
so, TX (915) 585-3443, Lubbock, TX (806) 794-1296	
)	

DE-21 72/05 K		230hz 1245'	15 pp.00. 0	C AMA M	IV T	1-1-1
Date/Time	Relinquished by: (Signature) Received by: (Signature)	me		Received by: (Signature)	Signature)	Relinquished by: (Signature)
	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client it such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	fins Xenco, its affiliates and subcon ses incurred by the client if such lo urofins Xenco, but not analyzed. Ti	er from client company to Euronsibility for any losses or expensional for each sample submitted to	es constitutes a valid purchase orc les and shall not assume any respo to each project and a charge of \$5	nent and relinquishment of sample be liable only for the cost of sample charge of \$85.00 will be applied to	Notice: Signature of this docur of service. Eurofins Xenco will of Eurofins Xenco. A minimum
Hg: 1631 / 245.1 / 7470 / 7471	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 2	sb As Ba Be Cd Cr Co	PLP 6010 : 8RCRA		Circle Method(s) and Metal(s) to be analyzed	Circle Method(s) a
	Mn Mo Ni K Se	Al Sb As Ba Be B Cd Ca	M Texas 11 Al St	8RCRA 13PPM	200.8 / 6020:	Total 200.7 / 6010
		-				
		× ×	101	3/30/22 0940	5	9-6
		-	ر ا	3 30/2 0935	501	8-5
			101	3/36/22 0930	5	WW-2
		X X X	1	329/2 1505	50:1	8-4
		*	10-	3/29/22 1.500	50:1	B - W
		×	101	3/29/22 1455	5.1	8-2
Sample Comments		TP	Depth Grab/ # of Comp Cont	Date Time Sampled Sampled	cation Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	-	H	7.0	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	Chain of Castody		2,2	Temperature Reading:	Yes No N/A	Sample Custody Seals:
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ; NaSO <sub>3</sub>	890-2151 Chair of Custodia	id	16,2 Pa	Correction Factor:	Yes No (N/A)	Cooler Custody Seals:
NaHSO 4: NABIS		وح	To Mande'	Thermometer ID:	t: (Yes )No	Samples Received Intact:
H <sub>3</sub> PO <sub>4</sub> : HP			Yes) No	Yes No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na		N EP,	the lab, if received by 4:30pm		N	PO #:
HCL: HC HNO 3: HN			TAT starts the day received by			Sampler's Name:
Cool: Cool MeOH: Me		30	ASAP	N'M Due Date:	Carlsbad N	Project Location:
None: NO DI Water: H <sub>2</sub> O		0	Rush Code	Routine	60657072	Project Number:
Preservative Codes	ANALYSIS REQUEST		Turn Around	H:113 Turn	Cotton H	Project Name:
ADaPT Other:	Deliverables: EDD		Bradley. Wyone	77 Email:	11-77	Phone:
PST/UST TRRP LevelIV	Reporting: Level II Level III	Wollage Gilmore	e ZIP:	2	-	City, State ZIP:
l ]	State of Project:		Address:	Rd. Suite 400 Address.	13355 Noc1	Address:
Brownfields RRC Superfund	Program: UST/PST PRP Brownfields		Company Name:			Company Name:
Work Order Comments			Bill to: (if different)	Wally Gilmon Bill to: (if different)	Brad wyone,	Project Manager:
ocom Page 1 of 1	75) 988-3199  D 1 POCCS Www.xenco.com	Hobbs, NM (575) 392-7550, Carlybad, NM (575) 988-3199	Hobbs, NM (		- Adilico	
0.	210) 509-3334 Work Order No:	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Midland, TX (4	Environment lesting	Environ	
		Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Houston, TX	The same of the sa		eurotins

Revised Date: 08/25/2020 Rev. 2020.2

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2151-1 SDG Number: 60657072

Login Number: 2151 **List Source: Eurofins Carlsbad** 

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2151-1 SDG Number: 60657072

Login Number: 2151 **List Source: Eurofins Midland** List Number: 2 List Creation: 03/31/22 11:02 AM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

Page 21 of 21 3/31/2022

<6mm (1/4").



# **Environment Testing America**

# **ANALYTICAL REPORT**

**Eurofins Carlsbad** 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2154-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hills

For:

**AECOM** 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/1/2022 6:12:36 PM

John Builes, Project Manager (561)558-4549

john.builes@eurofinset.com

.....LINKS

**Review your project** results through

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Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AECOM Laboratory Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

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#### **Definitions/Glossary**

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

**Dilution Factor** Dil Fac

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEE Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count TNTC

#### **Case Narrative**

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

Job ID: 890-2154-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2154-1

#### Receipt

The samples were received on 3/31/2022 1:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

#### **GC VOA**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: B-10 (890-2154-6) and (MB 880-22769/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-22768/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 890-2154-1

Client: AECOM Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: B-7 Lab Sample ID: 890-2154-1

Date Collected: 03/30/22 16:00 Matrix: Solid Date Received: 03/31/22 13:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/01/22 07:45	04/01/22 11:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/01/22 07:45	04/01/22 11:40	1
1,4-Difluorobenzene (Surr)	109		70 - 130			04/01/22 07:45	04/01/22 11:40	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	П	0.00399	mg/Kg			04/01/22 14:51	
•	e Organics (DR	O) (GC)						·
Analyte	e Organics (DR	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	
Analyte	e Organics (DR	O) (GC) Qualifier			<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	e Organics (DR Result <50.0	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang	e Organics (DR Result <50.0	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	e Organics (DR Result <50.0	Qualifier U RO) (GC) Qualifier	RL	Unit mg/Kg		· · ·	Analyzed 04/01/22 17:10	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR Result <50.0 ge Organics (D	Qualifier U  RO) (GC) Qualifier U  U		Unit mg/Kg		Prepared	Analyzed 04/01/22 17:10 Analyzed	Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10	e Organics (DR Result <50.0 ge Organics (DI Result <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0	Unit mg/Kg  Unit mg/Kg		Prepared 04/01/22 08:39	Analyzed 04/01/22 17:10  Analyzed 04/01/22 12:48	Dil Fac  Dil Fac  1  Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR Result <50.0 ge Organics (Di Result <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0 50.0 50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:39 04/01/22 08:39	Analyzed 04/01/22 17:10  Analyzed 04/01/22 12:48 04/01/22 12:48	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	e Organics (DR Result <50.0  ge Organics (Di Result <50.0  <50.0  <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0  RL 50.0  50.0  50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:39 04/01/22 08:39	Analyzed  04/01/22 17:10  Analyzed  04/01/22 12:48  04/01/22 12:48	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	e Organics (DR Result <50.0 ge Organics (DI Result <50.0 <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0  RL 50.0  50.0  50.0  Limits	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:39 04/01/22 08:39 04/01/22 08:39 Prepared	Analyzed  04/01/22 17:10  Analyzed  04/01/22 12:48  04/01/22 12:48  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	e Organics (DR Result <50.0  ge Organics (DI Result <50.0  <50.0  <50.0  <80.0  80.0  80.0  107  110	O) (GC) Qualifier U  RO) (GC) Qualifier U  U  Qualifier	RL 50.0  RL 50.0  50.0  50.0  Limits 70 - 130	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:39 04/01/22 08:39 04/01/22 08:39  Prepared 04/01/22 08:39	Analyzed  04/01/22 17:10  Analyzed  04/01/22 12:48  04/01/22 12:48  Analyzed  04/01/22 12:48	Dil Fac  Dil Fac  1  Dil Fac  1  Dil Fac  1
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	e Organics (DR Result <50.0  ge Organics (D Result <50.0  <50.0  <50.0  <80.0  40.0	O) (GC) Qualifier U  RO) (GC) Qualifier U  U  Qualifier	RL 50.0  RL 50.0  50.0  50.0  Limits 70 - 130	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:39 04/01/22 08:39 04/01/22 08:39  Prepared 04/01/22 08:39	Analyzed  04/01/22 17:10  Analyzed  04/01/22 12:48  04/01/22 12:48  Analyzed  04/01/22 12:48	Dil Fac  1  Dil Fac  1  1  Dil Fac  1  Dil Fac  1  Dil Fac

Client Sample ID: B-8 Lab Sample ID: 890-2154-2 Date Collected: 03/30/22 16:05 **Matrix: Solid** 

Date Received: 03/31/22 13:02

Method: 8015 NM - Diesel Range (	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/01/22 17:10	1
– Method: 8015B NM - Diesel Range	Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:09	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:09	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			04/01/22 08:39	04/01/22 13:09	1

Job ID: 890-2154-1

SDG: 60657072

Client Sample ID: B-8

Project/Site: Cotton Hills

Client: AECOM

Date Collected: 03/30/22 16:05 Date Received: 03/31/22 13:02 Lab Sample ID: 890-2154-2

Matrix: Solid

Markland COAFD NAC D	I D	(DDO) (OO	\ (O =4! al\)
Method: 8015B NM - Di	iesei Range Organi	CS (DKU) (GC	) (Continuea)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	104		70 - 130	04/01/22 08:39	04/01/22 13:09	1

Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.3		4.98	mg/Kg			04/01/22 16:56	1

Client Sample ID: B-9 Lab Sample ID: 890-2154-3 Matrix: Solid

Date Collected: 03/30/22 16:10 Date Received: 03/31/22 13:02

Method: 8015 NM - Diesel Range O	rganics (DRC	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/01/22 17:10	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:31	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:31	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			04/01/22 08:39	04/01/22 13:31	1
o-Terphenvl	106		70 - 130			04/01/22 08:39	04/01/22 13:31	1

Method: 300.0 - Anions, Ion Chroma	itography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1160	4.97	mg/Kg			04/01/22 17:05	1

**Client Sample ID: WW-3** Lab Sample ID: 890-2154-4 Date Collected: 03/30/22 16:20 **Matrix: Solid** 

Date Received: 03/31/22 13:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		04/01/22 07:45	04/01/22 12:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			04/01/22 07:45	04/01/22 12:00	1
1,4-Difluorobenzene (Surr)	107		70 - 130			04/01/22 07:45	04/01/22 12:00	1
- Method: Total BTEX - Total B1	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			04/01/22 14:51	

# **Client Sample Results**

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: WW-3** 

Date Collected: 03/30/22 16:20 Date Received: 03/31/22 13:02 Lab Sample ID: 890-2154-4

Matrix: Solid

Method: 8015 NM - Diesel Range (	Organics (DRC	)) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/01/22 17:10	1
Г								

Method: 8015B NM - Diesel Rang	e Organics (Di	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		04/01/22 08:39	04/01/22 13:52	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/01/22 08:39	04/01/22 13:52	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/01/22 08:39	04/01/22 13:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			04/01/22 08:39	04/01/22 13:52	1

Method: 300.0 - Anions, Ion Chrom	atography - S	oluble						
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8480		99.0	mg/Kg			04/01/22 17:49	20

70 - 130

Lab Sample ID: 890-2154-5 **Client Sample ID: SW-1** 

Date Collected: 03/31/22 09:30

105

Date Received: 03/31/22 13:02

o-Terphenyl

ab	Campic	ID.	030-2134-3	
			Matrix: Solid	

04/01/22 13:52

04/01/22 08:39

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/01/22 07:45	04/01/22 12:21	
Toluene	< 0.00199	U	0.00199	mg/Kg		04/01/22 07:45	04/01/22 12:21	•
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		04/01/22 07:45	04/01/22 12:21	•
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/01/22 07:45	04/01/22 12:21	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		04/01/22 07:45	04/01/22 12:21	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/01/22 07:45	04/01/22 12:21	•
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			04/01/22 07:45	04/01/22 12:21	1
1,4-Difluorobenzene (Surr)	104		70 - 130			04/01/22 07:45	04/01/22 12:21	1
Total BTEX	< 0.00398	U	0.00398	mg/Kg			04/01/22 14:51	
<del>-</del> -			0.00398	mg/Kg			04/01/22 14:51	1
: Method: 8015 NM - Diesel Range	e Organics (DR		0.00398 <b>RL</b>	mg/kg Unit	D	Prepared	04/01/22 14:51  Analyzed	·
Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR	O) (GC) Qualifier			<u>D</u>	Prepared		Dil Fac
Method: 8015 NM - Diesel Range Analyte	e Organics (DR Result <49.9	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR Result <49.9 ge Organics (D	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Rango Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte	e Organics (DR Result <49.9 ge Organics (D	Qualifier U RO) (GC) Qualifier	<b>RL</b> 49.9	<mark>Unit</mark> mg/Kg			Analyzed 04/01/22 17:10	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Ran- Analyte Gasoline Range Organics	e Organics (DR Result <a href="#">&lt;49.9</a> <a href="#">ge Organics (D</a> Result	Qualifier U RO) (GC) Qualifier	RL 49.9	Unit mg/Kg		Prepared	Analyzed 04/01/22 17:10 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Rana Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR Result <a href="#">&lt;49.9</a> <a href="#">ge Organics (D</a> Result	Qualifier U  RO) (GC) Qualifier U	RL 49.9	Unit mg/Kg		Prepared	Analyzed 04/01/22 17:10 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Rana Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR Result 49.9 ge Organics (D Result  49.9	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 49.9  RL 49.9  49.9	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:43 04/01/22 08:43	Analyzed 04/01/22 17:10  Analyzed 04/01/22 12:48 04/01/22 12:48	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Rana Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR Result 49.9 ge Organics (D Result 49.9	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 49.9	Unit mg/Kg  Unit mg/Kg		Prepared 04/01/22 08:43	Analyzed 04/01/22 17:10  Analyzed 04/01/22 12:48	Dil Fac
Method: 8015 NM - Diesel Rango Analyte Total TPH Method: 8015B NM - Diesel Ran	e Organics (DR Result 49.9 ge Organics (D Result  49.9	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 49.9  RL 49.9  49.9	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 04/01/22 08:43 04/01/22 08:43	Analyzed 04/01/22 17:10  Analyzed 04/01/22 12:48 04/01/22 12:48	Dil Fac

Job ID: 890-2154-1

SDG: 60657072

**Client Sample ID: SW-1** 

Project/Site: Cotton Hills

Client: AECOM

Date Collected: 03/31/22 09:30 Date Received: 03/31/22 13:02 Lab Sample ID: 890-2154-5

Matrix: Solid

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	106	70 - 130	04/01/22 08:43	04/01/22 12:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	336	4.95	mg/Kg			04/01/22 17:22	1	

Client Sample ID: B-10 Lab Sample ID: 890-2154-6 Matrix: Solid

Date Collected: 03/31/22 10:00 Date Received: 03/31/22 13:02

		/								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
Toluene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/01/22 07:45	04/01/22 12:41	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
4.0 (0.1			70 100			0.4/0.4/0.0 07.45	0.1/0.1/0.0.10.11			

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/01/22 07.	45 04/01/22 12:41	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/01/22 07.	45 04/01/22 12:41	1

### **Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00396	U	0.00396	ma/Ka			04/01/22 14:51	1

Method: 8015 NM - Diesel	Range Organics (DRO) (GC)

Analyte	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH		<49.8	U	49.8	mg/Kg			04/01/22 17:10	1

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		04/01/22 08:43	04/01/22 13:09	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		04/01/22 08:43	04/01/22 13:09	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/01/22 08:43	04/01/22 13:09	1
0	0/ 5	0	1.114			D	A 1	D# E

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130	04/01/22 08.	43 04/01/22 13:09	1
o-Terphenyl	66	S1-	70 - 130	04/01/22 08.	43 04/01/22 13:09	1

1			
ı	Method: 300.0 - Anions	on Chroma	tography - Soluble
1	Michiga, Juulu - Alliulia	ion Cinoma	logiapily - Joiuble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	225	5.01	ma/Ka			04/01/22 17:58	1	

Job ID: 890-2154-1

Client: AECOM Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: B-11 Lab Sample ID: 890-2154-7

681

1440

Date Collected: 03/31/22 10:05 Matrix: Solid Date Received: 03/31/22 13:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
otal TPH	86.2		50.0	mg/Kg			04/01/22 17:10	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 13:31	1
GRO)-C6-C10								
Diesel Range Organics (Over	86.2		50.0	mg/Kg		04/01/22 08:43	04/01/22 13:31	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
-Chlorooctane	97		70 - 130			04/01/22 08:43	04/01/22 13:31	1
p-Terphenyl	97		70 - 130			04/01/22 08:43	04/01/22 13:31	1

Client Sample ID: B-12 Lab Sample ID: 890-2154-8

4.99

mg/Kg

mg/Kg

Date Collected: 03/31/22 10:10 **Matrix: Solid** Date Received: 03/31/22 13:02

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	52.9		50.0	mg/Kg			04/01/22 17:10	1
– Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 13:52	1
Diesel Range Organics (Over C10-C28)	52.9		50.0	mg/Kg		04/01/22 08:43	04/01/22 13:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 13:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			04/01/22 08:43	04/01/22 13:52	1
o-Terphenyl	115		70 - 130			04/01/22 08:43	04/01/22 13:52	1
— Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: B-13 Lab Sample ID: 890-2154-9 Date Collected: 03/31/22 10:15 **Matrix: Solid** 

5.02

Date Received: 03/31/22 13:02

Chloride

Method: 8021B - Volatile Org	ganic Compounds (	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/01/22 07:45	04/01/22 13:02	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/01/22 07:45	04/01/22 13:02	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/01/22 07:45	04/01/22 13:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/01/22 07:45	04/01/22 13:02	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/01/22 07:45	04/01/22 13:02	1

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04/01/22 18:07

04/01/22 18:15

# **Client Sample Results**

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: B-13

Lab Sample ID: 890-2154-9

Matrix: Solid

Date Collected: 03/31/22 10:15 Date Received: 03/31/22 13:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/01/22 07:45	04/01/22 13:02	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/01/22 07:45	04/01/22 13:02	1
1,4-Difluorobenzene (Surr)	109		70 - 130			04/01/22 07:45	04/01/22 13:02	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/01/22 14:51	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	115		49.8	mg/Kg			04/01/22 17:10	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics			<b>RL</b> 49.8	Mnit mg/Kg	<u>D</u>	Prepared 04/01/22 08:43	Analyzed 04/01/22 14:14	Dil Fac
Gasoline Range Organics (GRO)-C6-C10					<u>D</u>			
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8 115	U	49.8	mg/Kg	<u>D</u>	04/01/22 08:43 04/01/22 08:43	04/01/22 14:14	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	<u>D</u>	04/01/22 08:43	04/01/22 14:14	
Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)	<49.8 115	U	49.8	mg/Kg	<u>D</u>	04/01/22 08:43 04/01/22 08:43	04/01/22 14:14	1
Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate	<49.8 115 <49.8	U	49.8 49.8 49.8	mg/Kg	<u>D</u>	04/01/22 08:43 04/01/22 08:43 04/01/22 08:43	04/01/22 14:14 04/01/22 14:14 04/01/22 14:14	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<49.8  115  <49.8  %Recovery	U	49.8 49.8 49.8 <b>Limits</b>	mg/Kg	<u> </u>	04/01/22 08:43 04/01/22 08:43 04/01/22 08:43 <i>Prepared</i>	04/01/22 14:14 04/01/22 14:14 04/01/22 14:14 Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28)  Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<49.8  115  <49.8  **Recovery  110  111	U Qualifier	49.8 49.8 49.8  Limits 70 - 130	mg/Kg	<u>D</u>	04/01/22 08:43 04/01/22 08:43 04/01/22 08:43  Prepared 04/01/22 08:43	04/01/22 14:14 04/01/22 14:14 04/01/22 14:14 Analyzed 04/01/22 14:14	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl Method: 300.0 - Anions, Ion Chro	<49.8  115  <49.8  **Recovery* 110 111  comatography -	U Qualifier	49.8 49.8 49.8  Limits 70 - 130	mg/Kg	<u>D</u>	04/01/22 08:43 04/01/22 08:43 04/01/22 08:43  Prepared 04/01/22 08:43	04/01/22 14:14 04/01/22 14:14 04/01/22 14:14 Analyzed 04/01/22 14:14	Dil Fac

DFBZ = 1,4-Difluorobenzene (Surr)

# **Surrogate Summary**

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2154-1	B-7	110	109	
890-2154-4	WW-3	104	107	
890-2154-5	SW-1	115	104	
890-2154-6	B-10	109	103	
890-2154-9	B-13	108	109	
LCS 880-22727/1-A	Lab Control Sample	102	109	
LCSD 880-22727/2-A	Lab Control Sample Dup	103	109	
MB 880-22727/5-A	Method Blank	105	103	
Surrogate Legend				

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2154-1	B-7	107	110	
890-2154-2	B-8	102	104	
890-2154-3	B-9	103	106	
890-2154-4	WW-3	106	105	
890-2154-5	SW-1	103	106	
890-2154-6	B-10	63 S1-	66 S1-	
890-2154-7	B-11	97	97	
890-2154-8	B-12	112	115	
890-2154-9	B-13	110	111	
LCS 880-22768/2-A	Lab Control Sample	120	104	
LCS 880-22769/2-A	Lab Control Sample	100	88	
LCSD 880-22768/3-A	Lab Control Sample Dup	125	111	
LCSD 880-22769/3-A	Lab Control Sample Dup	110	97	
MB 880-22768/1-A	Method Blank	136 S1+	140 S1+	
MB 880-22769/1-A	Method Blank	133 S1+	139 S1+	

OTPH = o-Terphenyl

Client: AECOM Job ID: 890-2154-1 SDG: 60657072 Project/Site: Cotton Hills

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22727/5-A

**Matrix: Solid** 

**Analysis Batch: 22759** 

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Prep Batch: 22727

	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 10:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 10:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/01/22 07:45	04/01/22 10:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/01/22 07:45	04/01/22 10:58	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		04/01/22 07:45	04/01/22 10:58	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	P	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/0	01/22 07:45	04/01/22 10:58	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/0	01/22 07:45	04/01/22 10:58	1

Lab Sample ID: LCS 880-22727/1-A

**Matrix: Solid** 

**Analysis Batch: 22759** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 22727

	<b>Spike</b>	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09423		mg/Kg		94	70 - 130	
Toluene	0.100	0.09461		mg/Kg		95	70 - 130	
Ethylbenzene	0.100	0.09788		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.200	0.2019		mg/Kg		101	70 - 130	
o-Xylene	0.100	0.09912		mg/Kg		99	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-22727/2-A

Matrix: Solid

**Analysis Batch: 22759** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 22727

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09219		mg/Kg		92	70 - 130	2	35	
Toluene	0.100	0.09207		mg/Kg		92	70 - 130	3	35	
Ethylbenzene	0.100	0.09579		mg/Kg		96	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.1985		mg/Kg		99	70 - 130	2	35	
o-Xylene	0.100	0.09655		mg/Kg		97	70 - 130	3	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-22768/1-A

**Analysis Batch: 22762** 

**Matrix: Solid** 

Lab Sample ID: LCS 880-22768/2-A

**Matrix: Solid** 

**Analysis Batch: 22762** 

Prep Type: Total/NA мв мв

Prep Batch: 22768

Client Sample ID: Method Blank

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 10:19	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 10:19	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 08:39	04/01/22 10:19	1
	440	MD						
	Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Analyte Result Gasoline Range Organics <50.0 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 C10-C28) Oll Range Organics (Over C28-C36) <50.0	Gasoline Range Organics <50.0 U  (GRO)-C6-C10  Diesel Range Organics (Over <50.0 U  C10-C28)  Oll Range Organics (Over C28-C36) <50.0 U	Analyte         Result         Qualifier         RL           Gasoline Range Organics         <50.0         U         50.0           (GRO)-C6-C10         U         50.0           Diesel Range Organics (Over C10-C28)         <50.0         U         50.0           Oll Range Organics (Over C28-C36)         <50.0         U         50.0	Analyte         Result         Qualifier         RL         Unit           Gasoline Range Organics         <50.0         U         50.0         mg/Kg           (GRO)-C6-C10         Diesel Range Organics (Over         <50.0         U         50.0         mg/Kg           C10-C28)         Oll Range Organics (Over C28-C36)         <50.0         U         50.0         mg/Kg	Analyte         Result         Qualifier         RL         Unit         D           Gasoline Range Organics         <50.0         U         50.0         mg/Kg           (GRO)-C6-C10         Diesel Range Organics (Over         <50.0         U         50.0         mg/Kg           C10-C28)         Oll Range Organics (Over C28-C36)         <50.0         U         50.0         mg/Kg	Analyte         Result         Qualifier         RL         Unit         D         Prepared           Gasoline Range Organics         <50.0         U         50.0         mg/Kg         04/01/22 08:39           (GRO)-C6-C10         Diesel Range Organics (Over         <50.0         U         50.0         mg/Kg         04/01/22 08:39           C10-C28)         OII Range Organics (Over C28-C36)         <50.0         U         50.0         mg/Kg         04/01/22 08:39	Analyte         Result         Qualifier         RL         Unit         D         Prepared         Analyzed           Gasoline Range Organics         <50.0         U         50.0         mg/Kg         04/01/22 08:39         04/01/22 10:19           (GRO)-C6-C10         Diesel Range Organics (Over         <50.0         U         50.0         mg/Kg         04/01/22 08:39         04/01/22 10:19           C10-C28)         OII Range Organics (Over C28-C36)         <50.0         U         50.0         mg/Kg         04/01/22 08:39         04/01/22 10:19

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	04/01/22 08:39	04/01/22 10:19	1
o-Terphenyl	140	S1+	70 - 130	04/01/22 08:39	04/01/22 10:19	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 22768

Prep Type: Total/NA

Prep Batch: 22768

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits 938.7 Gasoline Range Organics 1000 mg/Kg 94 70 - 130 (GRO)-C6-C10 1000 1016 Diesel Range Organics (Over mg/Kg 102 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	120	70 - 130
o-Terphenyl	104	70 - 130

Lab Sample ID: LCSD 880-22768/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 22762** 

C10-C28)

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier **RPD** Limit Unit D %Rec Limits Gasoline Range Organics 1000 957.4 mg/Kg 96 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1007 mg/Kg 101 70 - 130 20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: MB 880-22769/1-A Client Sample ID: Method Blank **Matrix: Solid** 

Analysis Batch: 22764

Prep Type: Total/NA Prep Batch: 22769

IVID	IVID						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 10:19	1
<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 10:19	1
<50.0	U	50.0	mg/Kg		04/01/22 08:43	04/01/22 10:19	1
	<50.0 <50.0	Result   Qualifier	Result         Qualifier         RL           <50.0	Result         Qualifier         RL         Unit           <50.0	Result         Qualifier         RL         Unit         D           <50.0	Result         Qualifier         RL         Unit         D         Prepared           <50.0	Result         Qualifier         RL         Unit         D         Prepared         Analyzed           <50.0

Job ID: 890-2154-1

SDG: 60657072

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-22769/1-A

Lab Sample ID: LCSD 880-22769/3-A

Matrix: Solid

Client: AECOM

**Analysis Batch: 22764** 

Project/Site: Cotton Hills

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 22769

MB MB

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 133
 S1+
 70 - 130

 o-Terphenyl
 139
 S1+
 70 - 130

 Prepared
 Analyzed
 Dil Fac

 04/01/22 08:43
 04/01/22 10:19
 1

 04/01/22 08:43
 04/01/22 10:19
 1

Lab Sample ID: LCS 880-22769/2-A Client Sample ID: Lab Control Sample

**Matrix: Solid** 

Analysis Batch: 22764

Prep Type: Total/NA

Prep Batch: 22769

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1061		mg/Kg		106	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	863.3		mg/Kg		86	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 22769

Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 1102 mg/Kg 110 70 - 130 4 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 852.2 mg/Kg 85 70 - 130 20

C10-C28)

**Matrix: Solid** 

Analysis Batch: 22764

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	110	70 - 130
o-Terphenyl	97	70 - 130

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22778/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Soluble

**Analysis Batch: 22838** 

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/01/22 13:55	1

Lab Sample ID: LCS 880-22778/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 22838

 Analyte
 Added
 Result
 Qualifier
 Unit
 D
 %Rec
 Limits

 Chloride
 250
 245.2
 mg/Kg
 98
 90 - 110

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2

4

6

1

9

11

13

# **QC Sample Results**

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills

SDG: 60657072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-22778/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

LCCD LCCD

**Analysis Batch: 22838** 

	Shike	LCSD	LCOD				70KeC		KFD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	245.5		mg/Kg		98	90 - 110	0	20	

Snika

Lab Sample ID: 890-2154-1 MS Client Sample ID: B-7 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 22838** 

Spike Sample Sample MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 617 252 893.3 mg/Kg 110 90 - 110

Lab Sample ID: 890-2154-1 MSD Client Sample ID: B-7 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 22838** 

Spike MSD MSD %Rec RPD Sample Sample Result Qualifier Analyte Added Result Qualifier Unit Limits **RPD** Limit Chloride 617 252 861.4 90 - 110 mg/Kg

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

**GC VOA** 

Prep Batch: 22727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	5035	
890-2154-4	WW-3	Total/NA	Solid	5035	
890-2154-5	SW-1	Total/NA	Solid	5035	
890-2154-6	B-10	Total/NA	Solid	5035	
890-2154-9	B-13	Total/NA	Solid	5035	
MB 880-22727/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22727/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22727/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

**Analysis Batch: 22759** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	8021B	22727
890-2154-4	WW-3	Total/NA	Solid	8021B	22727
890-2154-5	SW-1	Total/NA	Solid	8021B	22727
890-2154-6	B-10	Total/NA	Solid	8021B	22727
890-2154-9	B-13	Total/NA	Solid	8021B	22727
MB 880-22727/5-A	Method Blank	Total/NA	Solid	8021B	22727
LCS 880-22727/1-A	Lab Control Sample	Total/NA	Solid	8021B	22727
LCSD 880-22727/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22727

Analysis Batch: 22823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	Total BTEX	
890-2154-4	WW-3	Total/NA	Solid	Total BTEX	
890-2154-5	SW-1	Total/NA	Solid	Total BTEX	
890-2154-6	B-10	Total/NA	Solid	Total BTEX	
890-2154-9	B-13	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 22762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	8015B NM	22768
890-2154-2	B-8	Total/NA	Solid	8015B NM	22768
890-2154-3	B-9	Total/NA	Solid	8015B NM	22768
890-2154-4	WW-3	Total/NA	Solid	8015B NM	22768
MB 880-22768/1-A	Method Blank	Total/NA	Solid	8015B NM	22768
LCS 880-22768/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22768
LCSD 880-22768/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22768

Analysis Batch: 22764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-5	SW-1	Total/NA	Solid	8015B NM	22769
890-2154-6	B-10	Total/NA	Solid	8015B NM	22769
890-2154-7	B-11	Total/NA	Solid	8015B NM	22769
890-2154-8	B-12	Total/NA	Solid	8015B NM	22769
890-2154-9	B-13	Total/NA	Solid	8015B NM	22769
MB 880-22769/1-A	Method Blank	Total/NA	Solid	8015B NM	22769
LCS 880-22769/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22769
LCSD 880-22769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22769

**Eurofins Carlsbad** 

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Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

# GC Semi VOA

# Prep Batch: 22768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	8015NM Prep	
890-2154-2	B-8	Total/NA	Solid	8015NM Prep	
890-2154-3	B-9	Total/NA	Solid	8015NM Prep	
890-2154-4	WW-3	Total/NA	Solid	8015NM Prep	
MB 880-22768/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22768/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22768/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

### Prep Batch: 22769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-5	SW-1	Total/NA	Solid	8015NM Prep	
890-2154-6	B-10	Total/NA	Solid	8015NM Prep	
890-2154-7	B-11	Total/NA	Solid	8015NM Prep	
890-2154-8	B-12	Total/NA	Solid	8015NM Prep	
890-2154-9	B-13	Total/NA	Solid	8015NM Prep	
MB 880-22769/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22769/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22769/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

# Analysis Batch: 22846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Total/NA	Solid	8015 NM	
890-2154-2	B-8	Total/NA	Solid	8015 NM	
890-2154-3	B-9	Total/NA	Solid	8015 NM	
890-2154-4	WW-3	Total/NA	Solid	8015 NM	
890-2154-5	SW-1	Total/NA	Solid	8015 NM	
890-2154-6	B-10	Total/NA	Solid	8015 NM	
890-2154-7	B-11	Total/NA	Solid	8015 NM	
890-2154-8	B-12	Total/NA	Solid	8015 NM	
890-2154-9	B-13	Total/NA	Solid	8015 NM	

# HPLC/IC

### Leach Batch: 22778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Soluble	Solid	DI Leach	
890-2154-2	B-8	Soluble	Solid	DI Leach	
890-2154-3	B-9	Soluble	Solid	DI Leach	
890-2154-4	WW-3	Soluble	Solid	DI Leach	
890-2154-5	SW-1	Soluble	Solid	DI Leach	
890-2154-6	B-10	Soluble	Solid	DI Leach	
890-2154-7	B-11	Soluble	Solid	DI Leach	
890-2154-8	B-12	Soluble	Solid	DI Leach	
890-2154-9	B-13	Soluble	Solid	DI Leach	
MB 880-22778/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22778/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22778/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2154-1 MS	B-7	Soluble	Solid	DI Leach	
890-2154-1 MSD	B-7	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

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Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

# HPLC/IC

Analysis Batch: 22838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2154-1	B-7	Soluble	Solid	300.0	22778
890-2154-2	B-8	Soluble	Solid	300.0	22778
890-2154-3	B-9	Soluble	Solid	300.0	22778
890-2154-4	WW-3	Soluble	Solid	300.0	22778
890-2154-5	SW-1	Soluble	Solid	300.0	22778
890-2154-6	B-10	Soluble	Solid	300.0	22778
890-2154-7	B-11	Soluble	Solid	300.0	22778
890-2154-8	B-12	Soluble	Solid	300.0	22778
890-2154-9	B-13	Soluble	Solid	300.0	22778
MB 880-22778/1-A	Method Blank	Soluble	Solid	300.0	22778
LCS 880-22778/2-A	Lab Control Sample	Soluble	Solid	300.0	22778
LCSD 880-22778/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22778
890-2154-1 MS	B-7	Soluble	Solid	300.0	22778
890-2154-1 MSD	B-7	Soluble	Solid	300.0	22778

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Client: AECOM Project/Site: Cotton Hills

Job ID: 890-2154-1

SDG: 60657072

Client Sample ID: B-7

Lab Sample ID: 890-2154-1

Matrix: Solid

Date Collected: 03/30/22 16:00 Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	22727	04/01/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/01/22 11:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22823	04/01/22 14:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	22768	04/01/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22762	04/01/22 12:48	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22778	04/01/22 09:48	CH	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 16:29	CH	XEN MID

Client Sample ID: B-8 Lab Sample ID: 890-2154-2

Date Collected: 03/30/22 16:05 Matrix: Solid

Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22768	04/01/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22762	04/01/22 13:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 16:56	CH	XEN MID

Lab Sample ID: 890-2154-3 Client Sample ID: B-9

Date Collected: 03/30/22 16:10 Date Received: 03/31/22 13:02

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22768	04/01/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22762	04/01/22 13:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 17:05	CH	XEN MID

**Client Sample ID: WW-3** Lab Sample ID: 890-2154-4

Date Collected: 03/30/22 16:20 Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	22727	04/01/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/01/22 12:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22823	04/01/22 14:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22768	04/01/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22762	04/01/22 13:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22778	04/01/22 09:48	CH	XEN MID
Soluble	Analysis	300.0		20			22838	04/01/22 17:49	CH	XEN MID

**Eurofins Carlsbad** 

**Matrix: Solid** 

Matrix: Solid

Client: AECOM

Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

Client Sample ID: SW-1 Lab Sample ID: 890-2154-5

Date Collected: 03/31/22 09:30 Matrix: Solid Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22727	04/01/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/01/22 12:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22823	04/01/22 14:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22769	04/01/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22764	04/01/22 12:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 17:22	CH	XEN MID

Client Sample ID: B-10 Lab Sample ID: 890-2154-6 Matrix: Solid

Date Collected: 03/31/22 10:00 Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	22727	04/01/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/01/22 12:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22823	04/01/22 14:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22769	04/01/22 08:43	DM	XEN MIC
Total/NA	Analysis	8015B NM		1			22764	04/01/22 13:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	22778	04/01/22 09:48	CH	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 17:58	CH	XEN MI

Client Sample ID: B-11 Lab Sample ID: 890-2154-7

Date Collected: 03/31/22 10:05 **Matrix: Solid** Date Received: 03/31/22 13:02

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22769	04/01/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22764	04/01/22 13:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 18:07	CH	XEN MID

Client Sample ID: B-12 Lab Sample ID: 890-2154-8

Date Collected: 03/31/22 10:10 **Matrix: Solid** Date Received: 03/31/22 13:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22769	04/01/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22764	04/01/22 13:52	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 18:15	CH	XEN MID

Date Received: 03/31/22 13:02

### **Lab Chronicle**

Client: AECOM Job ID: 890-2154-1 Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: B-13** Lab Sample ID: 890-2154-9 Date Collected: 03/31/22 10:15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	22727	04/01/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/01/22 13:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22823	04/01/22 14:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22846	04/01/22 17:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22769	04/01/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22764	04/01/22 14:14	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22778	04/01/22 09:48	СН	XEN MID
Soluble	Analysis	300.0		1			22838	04/01/22 18:24	CH	XEN MID

### **Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

# **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pre	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	LAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, but	t the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of		t the laboratory to not certain	ed by the governing authority. This list his	ay include analytes for
,		Matrix	Analyte	ay illicidde allaiytes for
the agency does not of	fer certification.	•		ay include analytes for

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# **Method Summary**

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

od Method Description Protocol Laboratory

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

B-11

B-12

B-13

890-2154-7

890-2154-8

890-2154-9

# **Sample Summary**

Solid

Solid

Solid

03/31/22 10:05

03/31/22 10:10

03/31/22 10:15

03/31/22 13:02

03/31/22 13:02

03/31/22 13:02

Client: AECOM Job ID: 890-2154-1
Project/Site: Cotton Hills SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2154-1	B-7	Solid	03/30/22 16:00	03/31/22 13:02
890-2154-2	B-8	Solid	03/30/22 16:05	03/31/22 13:02
890-2154-3	B-9	Solid	03/30/22 16:10	03/31/22 13:02
890-2154-4	WW-3	Solid	03/30/22 16:20	03/31/22 13:02
890-2154-5	SW-1	Solid	03/31/22 09:30	03/31/22 13:02
890-2154-6	B-10	Solid	03/31/22 10:00	03/31/22 13:02

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MeOH: Me HNO 3: HN NaOH: Na

Cool: Cool

HCL: HC

NaOH+Ascorbic Acid: SAPC

Zn Acetate+NaOH: Zn

890-2154 Chain of Custody

Na 2 S 2 O 3: Na SO 3

NaHSO 4: NABIS

H3PO 4: HP

H250 2: H2

EPA 300

TAT starts the day received by the lab, if received by 4:30pm

ASAP

Due Date:

5 CAL

Coc 15 book

Project Location:

ampler's Name

PO #:

James

W5198

Parameters

MOD

(Yes)

Wet Ice:

8 Yes

Femp Blank: No

(Yes)

amples Received Intact:

SAMPLE RECEIPT

EX

00.00

Corrected Temperature:

5.8

Correction Factor:

No ON

Yes

Yes No

sample Custody Seals: Cooler Custody Seals:

Fotal Containers:

81208

Sample Comments

ised Date: 08/25/2020 Rev. 2020.

Date/Time

303

22

3

31/22

TI Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

otal Containers:		Corr	ected Te	Corrected Temperature:	ò	9		3	71	010	
Sample Identification	Matrix		Date Sampled	Time	Depth	Grab/ Comp	# of Cont	19	47	<b>V</b> 12	
B-7	14		3 3072	009	-	U		1	XX		
200	7:3	3	3/30/22	5091	1	C	-		XX		
6-6	- in	3	22 32	33024 1610	1	7	_		XX	7	
WW-3	5.1	_	33022	1620	1	7	-	X	XX		
1-25	50;(		11/22	3/31/22 0930	1	J	1	×	×		
9-10	5011		141	3/31/21 1000	1	J	1	×	メメ		
2-11	56:1		13	3/31/2 1005	١	J	-		X		
8-12	Soil	1 33	124	56.1 3/3:172 1010	1	J	_		X		
8-13	50;	133	12	So: 1331 hr 1015	1	J	-	×	×	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
		-	,								
Total 200.7 / 6010 20	200.8 / 6020:		8R(	CRA 13PP	M Texa	s 11 A	I Sb	As Ba	Be B C	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr T	Na Sr
Circle Method(s) and Metal(s) to be analyzed	I(s) to be an	nalyzec	_	TCLP / SF	LP 6010	: 8RC	RA Sb	As Ba	Be Cd	TCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631/245.1/	245.1/
otice: Signature of this document and relinquishment a service. Eurofins Xenco will be lable only for the cost Furofins Xenco. A minimum charge of \$85.00 will be:	inquishment of sam y for the cost of sam 35.00 will be applied	mples cons mples and ed to each	stitutes a va shall not a: project and	lid purchase orde ssume any respor 1 a charge of \$5 fe	er from client Isibility for an or each samp	company ry losses or re submitt	to Eurofin expense	is Xenco, its s incurred I ofins Xenco	s affiliates ar by the client o, but not an	dice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its diffilates and subcontractors. It assigns standard terms and conditions service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control such assumes any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control such any order of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco.	
Relinquished by: (Signature)	(e)	Rece	eived by	Received by: (Signature)				Date/Time	me	Re <u>linquished</u> by; (Signature)	gnature)
						•					

Chain of Custody

Aidland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

**Environment Testing** 

eurofins 💸

Xenco

Work Order No:

Level IV Superfund DI Water: H<sub>2</sub>O Preservative Codes PST/UST TRRP RRC Other: UST/PST | PRP | Brownfields | None: NO Work Order Comments ADaPT www.xenco.com Reporting: Level II ☐ Level III ☐ EDD State of Project: Deliverables: ANALYSIS REQUEST City, State ZIP: WAI lave, Gilmor @ AFCOM. COM Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199 Email: Brodky, LOYANE & AECONG.COM Dages Pres. Code Company Name: Rush Address: **Turn Around** 200 Routine Colina S. K Wally I Cotton Hills Bred Wynne 60657072 3355 Nael 46-1112 AECOM Dallas Project Manager: roject Number Company Name City, State ZIP: roject Name: Address:

Page 25 of 27

# **Login Sample Receipt Checklist**

 Client: AECOM
 Job Number: 890-2154-1

 SDG Number: 60657072
 SDG Number: 60657072

Login Number: 2154 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

ge 120 0j 330

<6mm (1/4").

# **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2154-1 SDG Number: 60657072

Login Number: 2154 **List Source: Eurofins Midland** List Number: 2 List Creation: 04/01/22 11:03 AM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

<6mm (1/4").



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2164-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/13/2022 9:02:35 AM

John Builes, Project Manager (561)558-4549

John.Builes@et.eurofinsus.com

..... Links .....

Review your project results through

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www.eurofinsus.com/Env

Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

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# **Definitions/Glossary**

Client: AECOM Job ID: 890-2164-1
Project/Site: Cotton Hills SDG: 60657072

Qualifiers

GC VOA

 Qualifier
 Qualifier Description

 \*+
 LCS and/or LCSD is outside acceptance limits, high biased.

 S1+
 Surrogate recovery exceeds control limits, high biased.

 U
 Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Eisted under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Carlsbad** 

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### **Case Narrative**

Client: AECOM Job ID: 890-2164-1 SDG: 60657072 Project/Site: Cotton Hills

Job ID: 890-2164-1

**Laboratory: Eurofins Carlsbad** 

Narrative

**Job Narrative** 890-2164-1

### Receipt

The samples were received on 4/5/2022 12:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 890-2164-1

Client: AECOM Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: ELD-1** 

Date Collected: 04/05/22 09:00 Date Received: 04/05/22 12:57

Lab Sample ID: 890-2164-1

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199	mg/Kg		04/06/22 12:00	04/07/22 19:00	
Toluene	< 0.00199	U	0.00199	mg/Kg		04/06/22 12:00	04/07/22 19:00	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		04/06/22 12:00	04/07/22 19:00	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/06/22 12:00	04/07/22 19:00	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		04/06/22 12:00	04/07/22 19:00	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/06/22 12:00	04/07/22 19:00	•
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)			70 - 130			04/06/22 12:00	04/07/22 19:00	
1,4-Difluorobenzene (Surr)	85		70 - 130			04/06/22 12:00	04/07/22 19:00	
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/08/22 16:03	
Method: 8015 NM - Diesel Range			DI.	llmi4	Б	Dronorod	Analyzad	Dil Eo
Method: 8015 NM - Diesel Range Analyte Total TPH		Qualifier	RL 49.9	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared	Analyzed 04/06/22 15:36	
Analyte Total TPH	Result   <49.9	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH  . Method: 8015B NM - Diesel Ran	Result <49.9  ge Organics (D	Qualifier U RO) (GC)	49.9	mg/Kg		<u> </u>	04/06/22 15:36	,
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte	Result <49.9  ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg	<u>D</u>	Prepared	04/06/22 15:36  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <49.9  ge Organics (D	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg		<u> </u>	04/06/22 15:36	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9  ge Organics (Dige Result	Qualifier U  RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	04/06/22 15:36  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9  ge Organics (Di Result <49.9	Qualifier U  RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 04/06/22 08:34	04/06/22 15:36  Analyzed 04/06/22 14:18	Dil Fa
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/06/22 08:34 04/06/22 08:34	04/06/22 15:36  Analyzed 04/06/22 14:18 04/06/22 14:18	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/06/22 08:34 04/06/22 08:34	04/06/22 15:36  Analyzed 04/06/22 14:18 04/06/22 14:18	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  RO) (GC) Qualifier U  U	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/06/22 08:34 04/06/22 08:34 04/06/22 08:34 Prepared	04/06/22 15:36  Analyzed 04/06/22 14:18 04/06/22 14:18 04/06/22 14:18  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/06/22 08:34 04/06/22 08:34 04/06/22 08:34  Prepared 04/06/22 08:34	04/06/22 15:36  Analyzed 04/06/22 14:18  04/06/22 14:18  Analyzed 04/06/22 14:18	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result   <49.9	Qualifier U  RO) (GC) Qualifier U  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/06/22 08:34 04/06/22 08:34 04/06/22 08:34  Prepared 04/06/22 08:34	04/06/22 15:36  Analyzed 04/06/22 14:18  04/06/22 14:18  Analyzed 04/06/22 14:18	Dil Fac

**Client Sample ID: ELD-2** Lab Sample ID: 890-2164-2 Date Collected: 04/05/22 09:05 **Matrix: Solid** 

Date Received: 04/05/22 12:57

_ Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/06/22 12:00	04/07/22 19:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/06/22 12:00	04/07/22 19:26	1
1,4-Difluorobenzene (Surr)	87		70 - 130			04/06/22 12:00	04/07/22 19:26	1

Job ID: 890-2164-1

Client: AECOM Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: ELD-2** 

Date Collected: 04/05/22 09:05 Date Received: 04/05/22 12:57 Lab Sample ID: 890-2164-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			04/08/22 16:03	1
- Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.2		49.8	mg/Kg			04/06/22 15:36	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		04/06/22 08:34	04/06/22 14:39	1
(GRO)-C6-C10								
Diesel Range Organics (Over	51.2		49.8	mg/Kg		04/06/22 08:34	04/06/22 14:39	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/06/22 08:34	04/06/22 14:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			04/06/22 08:34	04/06/22 14:39	1
o-Terphenyl	105		70 - 130			04/06/22 08:34	04/06/22 14:39	1
- Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	699		25.0	mg/Kg			04/12/22 19:17	5

**Client Sample ID: ELD-DUP** Lab Sample ID: 890-2164-3 **Matrix: Solid** 

Date Collected: 04/05/22 00:00

Date Received: 04/05/22 12:57

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U *+	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
Toluene	< 0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
o-Xylene	< 0.00200	U	0.00200	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/06/22 12:00	04/07/22 19:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130			04/06/22 12:00	04/07/22 19:53	1
1 2101110110010001120110 (0011)								
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX	89  Calculation		70 - 130			04/06/22 12:00	04/07/22 19:53	1
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX	Calculation	Qualifier	70 - 130 <b>RL</b>	Unit	D	04/06/22 12:00 Prepared	04/07/22 19:53  Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte  Total BTEX	Calculation Result <0.00401	U		<mark>Unit</mark> mg/Kg	<u>D</u>			Dil Fac
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte  Total BTEX	Calculation Result <0.00401  Organics (DR	U (GC)	RL	mg/Kg	<u>D</u>		Analyzed	1
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte  Total BTEX  Method: 8015 NM - Diesel Range Analyte	Calculation Result <0.00401  Organics (DRO Result	U O) (GC) Qualifier	RL 		<u>D</u>		Analyzed 04/08/22 16:03 Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte	Calculation Result <0.00401  Organics (DR	U O) (GC) Qualifier	RL 0.00401	mg/Kg		Prepared	Analyzed 04/08/22 16:03	1
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte  Total BTEX  Method: 8015 NM - Diesel Range Analyte	Calculation Result <0.00401  Organics (DR) Result <49.9	U O) (GC) Qualifier U	RL 	mg/Kg		Prepared	Analyzed 04/08/22 16:03 Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte Total BTEX  Method: 8015 NM - Diesel Range Analyte Total TPH	Calculation Result <0.00401  Organics (DR) Result <49.9  de Organics (D	U O) (GC) Qualifier U	RL 	mg/Kg		Prepared	Analyzed 04/08/22 16:03 Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)  Method: Total BTEX - Total BTEX Analyte  Total BTEX  Method: 8015 NM - Diesel Range Analyte  Total TPH  Method: 8015B NM - Diesel Range	Calculation Result <0.00401  Organics (DR) Result <49.9  de Organics (D	O) (GC) Qualifier U  RO) (GC) Qualifier	RL 0.00401  RL 49.9	mg/Kg  Unit  mg/Kg	<u>D</u>	Prepared Prepared	Analyzed 04/08/22 16:03  Analyzed 04/06/22 15:36	Dil Fac

# **Client Sample Results**

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: ELD-DUP** 

Date Received: 04/05/22 12:57

Lab Sample ID: 890-2164-3 Date Collected: 04/05/22 00:00

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/06/22 08:34	04/06/22 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			04/06/22 08:34	04/06/22 15:00	1
o-Terphenyl	100		70 - 130			04/06/22 08:34	04/06/22 15:00	1

Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	838		25.0	mg/Kg			04/12/22 19:26	5

# **Surrogate Summary**

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2164-1	ELD-1	122	85	
890-2164-2	ELD-2	117	87	
890-2164-3	ELD-DUP	131 S1+	89	
LCS 880-23080/1-A	Lab Control Sample	114	92	
LCSD 880-23080/2-A	Lab Control Sample Dup	133 S1+	86	
MB 880-23080/5-B	Method Blank	84	83	
Surrogate Legend				

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2164-1	ELD-1	107	124
890-2164-2	ELD-2	95	105
890-2164-3	ELD-DUP	91	100
Surrogate Legend			
1CO = 1-Chlorooctane			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

OTPH = o-Terphenyl

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-23047/2-A	Lab Control Sample	99	113	
LCSD 880-23047/3-A	Lab Control Sample Dup	101	117	
MB 880-23047/1-A	Method Blank	91	104	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Client: AECOM Job ID: 890-2164-1 SDG: 60657072 Project/Site: Cotton Hills

# Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-23080/5-B

**Matrix: Solid** 

Analysis Batch: 23108

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Prep Batch: 23080

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		04/06/22 17:00	04/07/22 12:02	
Toluene	<0.00200	U	0.00200	mg/Kg		04/06/22 17:00	04/07/22 12:02	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/06/22 17:00	04/07/22 12:02	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/06/22 17:00	04/07/22 12:02	
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/06/22 17:00	04/07/22 12:02	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/06/22 17:00	04/07/22 12:02	

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MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	0	4/06/22 17:00	04/07/22 12:02	1
1,4-Difluorobenzene (Surr)	83		70 - 130	0	4/06/22 17:00	04/07/22 12:02	1

Lab Sample ID: LCS 880-23080/1-A

**Matrix: Solid** 

**Analysis Batch: 23108** 

Client Sample ID: Lab Control Sample

**Prep Type: Total/NA** 

Prep Batch: 23080

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1290		mg/Kg		129	70 - 130	
Toluene	0.100	0.1147		mg/Kg		115	70 - 130	
Ethylbenzene	0.100	0.1041		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2101		mg/Kg		105	70 - 130	
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	114		70 - 130		
1,4-Difluorobenzene (Surr)	92		70 - 130		

Lab Sample ID: LCSD 880-23080/2-A

**Matrix: Solid** 

**Analysis Batch: 23108** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 23080

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1316	*+	mg/Kg		132	70 - 130	2	35	
Toluene	0.100	0.1261		mg/Kg		126	70 - 130	9	35	
Ethylbenzene	0.100	0.1227		mg/Kg		123	70 - 130	16	35	
m-Xylene & p-Xylene	0.200	0.2489		mg/Kg		124	70 - 130	17	35	
o-Xylene	0.100	0.1265		mg/Kg		126	70 - 130	18	35	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130		
1.4-Difluorobenzene (Surr)	86		70 - 130		

**Eurofins Carlsbad** 

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-23047/1-A

Lab Sample ID: LCS 880-23047/2-A

Lab Sample ID: LCSD 880-23047/3-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 23065

Analysis Batch: 23065

**Matrix: Solid** 

**Analysis Batch: 23065** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23047

		IVID	INID						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1
	(GRO)-C6-C10								
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1
	C10-C28)								
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1
ı		MR	MR						

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	04/06/22 08:34	04/06/22 12:10	1
o-Terphenyl	104		70 - 130	04/06/22 08:34	04/06/22 12:10	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 23047

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 840.7 84 70 - 130 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over 984.7 mg/Kg 98 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	99	70 - 130
o-Terphenyl	113	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23047

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	848.0		mg/Kg		85	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	994.2		mg/Kg		99	70 - 130	1	20

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	117	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23171/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 23400

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed Chloride <5.00 U 5.00 04/12/22 15:44 mg/Kg

**Eurofins Carlsbad** 

Dil Fac

# **QC Sample Results**

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-23171/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 23400** 

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride		250	251.7		mg/Kg		101	90 - 110	 

Lab Sample ID: LCSD 880-23171/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 23400** 

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	251.9		mg/Kg		101	90 - 110	0	20

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

# **GC VOA**

# Prep Batch: 23080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Total/NA	Solid	5035	
890-2164-2	ELD-2	Total/NA	Solid	5035	
890-2164-3	ELD-DUP	Total/NA	Solid	5035	
MB 880-23080/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-23080/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-23080/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

### **Analysis Batch: 23108**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Total/NA	Solid	8021B	23080
890-2164-2	ELD-2	Total/NA	Solid	8021B	23080
890-2164-3	ELD-DUP	Total/NA	Solid	8021B	23080
MB 880-23080/5-B	Method Blank	Total/NA	Solid	8021B	23080
LCS 880-23080/1-A	Lab Control Sample	Total/NA	Solid	8021B	23080
LCSD 880-23080/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	23080

### **Analysis Batch: 23251**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Total/NA	Solid	Total BTEX	
890-2164-2	ELD-2	Total/NA	Solid	Total BTEX	
890-2164-3	ELD-DUP	Total/NA	Solid	Total BTEX	

### **GC Semi VOA**

### Prep Batch: 23047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Total/NA	Solid	8015NM Prep	
890-2164-2	ELD-2	Total/NA	Solid	8015NM Prep	
890-2164-3	ELD-DUP	Total/NA	Solid	8015NM Prep	
MB 880-23047/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23047/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 23065**

Lab Sample ID 890-2164-1	Client Sample ID ELD-1	Prep Type Total/NA	Matrix Solid	Method 8015B NM	<b>Prep Batch</b> 23047
890-2164-2	ELD-2	Total/NA	Solid	8015B NM	23047
890-2164-3	ELD-DUP	Total/NA	Solid	8015B NM	23047
MB 880-23047/1-A	Method Blank	Total/NA	Solid	8015B NM	23047
LCS 880-23047/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23047
LCSD 880-23047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23047

# **Analysis Batch: 23082**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Total/NA	Solid	8015 NM	
890-2164-2	ELD-2	Total/NA	Solid	8015 NM	
890-2164-3	ELD-DUP	Total/NA	Solid	8015 NM	

Client: AECOM Job ID: 890-2164-1
Project/Site: Cotton Hills SDG: 60657072

# HPLC/IC

# Leach Batch: 23171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Soluble	Solid	DI Leach	
890-2164-2	ELD-2	Soluble	Solid	DI Leach	
890-2164-3	ELD-DUP	Soluble	Solid	DI Leach	
MB 880-23171/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23171/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23171/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

# **Analysis Batch: 23400**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2164-1	ELD-1	Soluble	Solid	300.0	23171
890-2164-2	ELD-2	Soluble	Solid	300.0	23171
890-2164-3	ELD-DUP	Soluble	Solid	300.0	23171
MB 880-23171/1-A	Method Blank	Soluble	Solid	300.0	23171
LCS 880-23171/2-A	Lab Control Sample	Soluble	Solid	300.0	23171
LCSD 880-23171/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23171

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Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

**Client Sample ID: ELD-1** Lab Sample ID: 890-2164-1

Date Collected: 04/05/22 09:00 **Matrix: Solid** Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	23080	04/06/22 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23108	04/07/22 19:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23251	04/08/22 16:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23082	04/06/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23047	04/06/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23065	04/06/22 14:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23171	04/07/22 13:32	SC	XEN MID
Soluble	Analysis	300.0		20			23400	04/12/22 17:57	CH	XEN MID

**Client Sample ID: ELD-2** Lab Sample ID: 890-2164-2 Date Collected: 04/05/22 09:05 **Matrix: Solid** 

Date Received: 04/05/22 12:57

Batch Dil Initial Final Batch Batch Prepared **Prep Type** Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 23080 Total/NA 5.00 g 5 mL 04/06/22 12:00 MR XEN MID 8021B Total/NA Analysis 5 mL 5 mL 23108 04/07/22 19:26 MR XEN MID Total/NA Analysis Total BTEX 23251 04/08/22 16:03 XEN MID 1 A.J Total/NA Analysis 8015 NM 23082 04/06/22 15:36 XEN MID Total/NA 8015NM Prep 23047 04/06/22 08:34 XEN MID Prep 10.04 g 10 mL DM Total/NA Analysis 8015B NM 23065 04/06/22 14:39 ΑJ XEN MID 5 g SC Soluble DI Leach 50 mL 23171 04/07/22 13:32 XEN MID Leach Soluble Analysis 300.0 5 23400 04/12/22 19:17 СН XEN MID

**Client Sample ID: ELD-DUP** Lab Sample ID: 890-2164-3 Date Collected: 04/05/22 00:00 **Matrix: Solid** 

Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	23080	04/06/22 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	23108	04/07/22 19:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			23251	04/08/22 16:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23082	04/06/22 15:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23047	04/06/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23065	04/06/22 15:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23171	04/07/22 13:32	SC	XEN MID
Soluble	Analysis	300.0		5			23400	04/12/22 19:26	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2164-1
Project/Site: Cotton Hills SDG: 60657072

### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, by	ıt the laboratory is not cortifi	ed by the governing authority. This list ma	u include englistes for u
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include arialytes for w
,	• •	Matrix	Analyte	ay include analytes for w
the agency does not of	fer certification.	•		ay include analytes for w

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#### **Method Summary**

Client: AECOM Job ID: 890-2164-1 Project/Site: Cotton Hills SDG: 60657072

Laboratory Method **Method Description** Protocol Volatile Organic Compounds (GC) XEN MID

00216	volatile Organic Compounds (GC)	30040	VEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

ELD-DUP

890-2164-3

#### Sample Summary

Solid

Client: AECOM Job ID: 890-2164-1
Project/Site: Cotton Hills SDG: 60657072

04/05/22 00:00

04/05/22 12:57

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received

 890-2164-1
 ELD-1
 Solid
 04/05/22 09:00
 04/05/22 12:57

 890-2164-2
 ELD-2
 Solid
 04/05/22 09:05
 04/05/22 12:57

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**Eurofins Carlsbad** 

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# Chain of Custody Record

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Environment Testing

ELD-DUP (890-2164-3) ELD-2 (890-2164-2) ELD-1 (890-2164-1) Sample Identification - Client ID (Lab ID) State Zip TX 79701 Possible Hazard Identification Vote Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin fisted above for analysis/lesis/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC. Carlsbad NM 88220 Phone 575-988-3199 Fax 575-988-3199 Deliverable Requested 1 II III IV Other (specify) mpty Kit Relinquished by Cotton Hills roject Name 32-704-5440(Tel) /lidland 211 W Florida Ave urofins Environment Testing South Centr nquished byient Information ipping/Receiving ATA (Sub Contract Lab) Custody Seal No Primary Deliverable Rank PO# TAT Requested (days) Due Date Requested 4/11/2022 Phone: ¥0 \* Sampler Date/Time 38000565 4/5/22 4/5/22 4/5/22 Mountain 09 05 Mountain Mountain Sample 00 00 N G=grab) (C=comp, Preservation Code: Type Company Company Company Matrix Solid Solid Solid Lab PM E-Mail John Builes@et.eurofinsus com Builes John ıme NELAP - Texas Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Special Instructions/QC Requirements litations Required (See note Cooler Temperature(s) °C and Other Remarks Received by: × × × 8021B/6036FP Calc (MOD) BTEX × × × 300\_ORGFM\_28D/DI\_LEACH Chloride 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH × × × × × × Total BTEX GCV/ Total BTEX Calculation ∆nalysis × × × 8015MOD\_Calc/ Diesel Range Organics (DRO) (GC) Requested Disposal By Lab State of Origin Carrier Tracking No(s) New Mexico Method of Shipment Date/Time Date/Time Archive For Total Number of containers J DI Water K EDTA L EDA A HCL
B NAOH
C ZIA Acetate
C Nitric Acid
E NAHSO4
F MeOH
G Amehlor
H Ascorbic Acid COC No: 890-699 1 Preservation Codes Page 1 of 1 890-2164-1 Special Instructions/Note: U Acetone
V MCAA
W pH 4-5
Z other (spe W Hexane
V None
V None
D AsNaO2
Na2O4S
D Na2SO3
R Na2S2O3
R Na2S2O3
S H2SO4
TSP Dodecafhydrate Ver: 06/08/2021 Company Company other (specify) Months

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2164-1 SDG Number: 60657072

Login Number: 2164 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2164-1 SDG Number: 60657072

Login Number: 2164 **List Source: Eurofins Midland** List Creation: 04/06/22 10:38 AM

Creator: Teel, Brianna

List Number: 2

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



## **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2165-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: Cotton Hill

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/6/2022 9:37:33 PM

John Builes, Project Manager (561)558-4549

John.Builes@et.eurofinsus.com

..... Links .....

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 890-2165-1
Project/Site: Cotton Hill SDG: 60657072

#### **Table of Contents**

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#### **Definitions/Glossary**

Client: AECOM Job ID: 890-2165-1
Project/Site: Cotton Hill SDG: 60657072

**Qualifiers** 

GC Semi VOA
Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier Qualifier Description

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery

CFL Contains Free Liquid

CFU Colony Forming Unit

CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present
POI Practical Quantitat

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Carlsbad** 

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#### **Case Narrative**

Client: AECOM Job ID: 890-2165-1 Project/Site: Cotton Hill SDG: 60657072

Job ID: 890-2165-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2165-1

#### Receipt

The samples were received on 4/5/2022 12:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was  $5.2^{\circ}\text{C}$ 

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Client Sample Results**

Client: AECOM Job ID: 890-2165-1 SDG: 60657072

Project/Site: Cotton Hill

Client Sample ID: WW-2B Lab Sample ID: 890-2165-1 Date Collected: 04/05/22 09:25 Matrix: Solid Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1360		25.0	mg/Kg			04/06/22 20:45	5

Client Sample ID: EW-1A Lab Sample ID: 890-2165-2 Date Collected: 04/05/22 09:45 **Matrix: Solid** 

Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chrom	atography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	566		4.95	mg/Kg			04/06/22 20:54	1

Client Sample ID: NW-2A Lab Sample ID: 890-2165-3 Date Collected: 04/05/22 09:50 Matrix: Solid

Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chrom	ethod: 300.0 - Anions, Ion Chromatography - Soluble							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1280	4.97	mg/Kg			04/06/22 21:03	1	

Client Sample ID: B-15A Lab Sample ID: 890-2165-4

Date Collected: 04/05/22 10:00 **Matrix: Solid** 

Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chrom	Method: 300.0 - Anions, Ion Chromatography - Soluble							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	427	5.04	mg/Kg			04/06/22 21:12	1	

Client Sample ID: B-16A Lab Sample ID: 890-2165-5

Date Collected: 04/05/22 10:05

Date Received: 04/05/22 12:57 Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier Analyte RLUnit D Prepared Analyzed Dil Fac Chloride 253 4.99 mg/Kg 04/06/22 21:20

Client Sample ID: B-18A Lab Sample ID: 890-2165-6 Date Collected: 04/05/22 10:10 Matrix: Solid

Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chroma	lethod: 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier RL Unit D Prepared Analyzed Dil Fac							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9		5.05	mg/Kg			04/06/22 21:29	1

Client Sample ID: B-21A Lab Sample ID: 890-2165-7 Matrix: Solid

Date Collected: 04/05/22 10:30 Date Received: 04/05/22 12:57

Method: 8015 NM - Diesel Range C	Organics (DRC	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/06/22 15:36	

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Matrix: Solid

Client: AECOM Project/Site: Cotton Hill

Job ID: 890-2165-1

SDG: 60657072

Client Sample ID: B-21A

Lab Sample ID: 890-2165-7 Matrix: Solid

Date Collected: 04/05/22 10:30 Date Received: 04/05/22 12:57

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		04/06/22 08:34	04/06/22 13:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/06/22 08:34	04/06/22 13:14	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/06/22 08:34	04/06/22 13:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			04/06/22 08:34	04/06/22 13:14	1
o-Terphenyl	104		70 - 130			04/06/22 08:34	04/06/22 13:14	1

Client Sample ID: B-22A Lab Sample ID: 890-2165-8 Date Collected: 04/05/22 10:35

Date Received: 04/05/22 12:57

**Matrix: Solid** 

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Chloride 201 4.99 mg/Kg 04/06/22 21:38

Client Sample ID: B-25A Lab Sample ID: 890-2165-9

Date Collected: 04/05/22 10:40

**Matrix: Solid** 

Date Received: 04/05/22 12:57

Method: 300.0 - Anions, Ion Chrom	natography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202	5.00	mg/Kg			04/06/22 21:47	1

#### **Surrogate Summary**

Client: AECOM Job ID: 890-2165-1
Project/Site: Cotton Hill SDG: 60657072

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			rcent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2165-7	B-21A	91	104	
890-2165-7 MS	B-21A	87	94	
890-2165-7 MSD	B-21A	88	95	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Lim
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-23047/2-A	Lab Control Sample	99	113	
LCSD 880-23047/3-A	Lab Control Sample Dup	101	117	
MB 880-23047/1-A	Method Blank	91	104	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

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Job ID: 890-2165-1

SDG: 60657072

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-23047/1-A

Lab Sample ID: LCS 880-23047/2-A

Lab Sample ID: LCSD 880-23047/3-A

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 23065** 

Project/Site: Cotton Hill

Client: AECOM

**Analysis Batch: 23065** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23047

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/06/22 08:34	04/06/22 12:10	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	04/06/22 08:34	04/06/22 12:10	1
o-Terphenyl	104		70 - 130	04/06/22 08:34	04/06/22 12:10	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 23047

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 840.7 mg/Kg 84 70 - 130 (GRO)-C6-C10 1000 Diesel Range Organics (Over 984.7 mg/Kg 98 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	99	70 - 130
o-Terphenyl	113	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 23065

Prep Batch: 23047

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	848.0		mg/Kg		85	70 - 130	1	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	994.2		mg/Kg		99	70 - 130	1	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery Qualifi	ier Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	117	70 - 130

Lab Sample ID: 890-2165-7 MS Client Sample ID: B-21A

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 23065** 

MS MS Sample Sample Spike %Rec

	Campic	Campic	Opino	1110					701100	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.8	U	998	939.5		mg/Kg		92	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.8	U	998	860.8		mg/Kg		84	70 - 130	
C10-C28)										

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Prep Batch: 23047

Client: AECOM

Project/Site: Cotton Hill

Job ID: 890-2165-1

SDG: 60657072

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2165-7 MS Client Sample ID: B-21A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 23065 Prep Batch: 23047

MS MS %Recovery Surrogate Qualifier Limits 1-Chlorooctane 87 70 - 130 o-Terphenyl 94 70 - 130

Lab Sample ID: 890-2165-7 MSD Client Sample ID: B-21A

**Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 23065** Prep Batch: 23047

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit <49.8 Gasoline Range Organics Ū 998 964.9 95 70 - 1303 20 mg/Kg (GRO)-C6-C10 <49.8 U 998 875.4 mg/Kg 86 70 - 130 2 20 Diesel Range Organics (Over C10-C28)

MSD MSD %Recovery Surrogate Qualifier Limits 88 70 - 130 1-Chlorooctane 95 70 - 130 o-Terphenyl

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23078/1-A Client Sample ID: Method Blank **Matrix: Solid** 

**Prep Type: Soluble** 

**Analysis Batch: 23079** 

Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Chloride 5.00 <5.00 U mg/Kg 04/06/22 12:21

Lab Sample ID: LCS 880-23078/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 23079** 

Released to Imaging: 10/19/2022 10:58:17 AM

Spike LCS LCS %Rec Analyte habbA Result Qualifier Unit D %Rec Limits Chloride 250 252.6 mg/Kg 101 90 - 110

Lab Sample ID: LCSD 880-23078/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 23079** 

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Spike LCSD LCSD %Rec RPD Added Analyte Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 253.1 mg/Kg 101 90 - 110 20

#### **QC Association Summary**

Client: AECOM Job ID: 890-2165-1
Project/Site: Cotton Hill SDG: 60657072

#### **GC Semi VOA**

#### Prep Batch: 23047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2165-7	B-21A	Total/NA	Solid	8015NM Prep	
MB 880-23047/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23047/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2165-7 MS	B-21A	Total/NA	Solid	8015NM Prep	
890-2165-7 MSD	B-21A	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 23065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2165-7	B-21A	Total/NA	Solid	8015B NM	23047
MB 880-23047/1-A	Method Blank	Total/NA	Solid	8015B NM	23047
LCS 880-23047/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23047
LCSD 880-23047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23047
890-2165-7 MS	B-21A	Total/NA	Solid	8015B NM	23047
890-2165-7 MSD	B-21A	Total/NA	Solid	8015B NM	23047

#### **Analysis Batch: 23081**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2165-7	B-21A	Total/NA	Solid	8015 NM	

#### **HPLC/IC**

#### Leach Batch: 23078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2165-1	WW-2B	Soluble	Solid	DI Leach	
890-2165-2	EW-1A	Soluble	Solid	DI Leach	
890-2165-3	NW-2A	Soluble	Solid	DI Leach	
890-2165-4	B-15A	Soluble	Solid	DI Leach	
890-2165-5	B-16A	Soluble	Solid	DI Leach	
890-2165-6	B-18A	Soluble	Solid	DI Leach	
890-2165-8	B-22A	Soluble	Solid	DI Leach	
890-2165-9	B-25A	Soluble	Solid	DI Leach	
MB 880-23078/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23078/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23078/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

#### **Analysis Batch: 23079**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2165-1	WW-2B	Soluble	Solid	300.0	23078
890-2165-2	EW-1A	Soluble	Solid	300.0	23078
890-2165-3	NW-2A	Soluble	Solid	300.0	23078
890-2165-4	B-15A	Soluble	Solid	300.0	23078
890-2165-5	B-16A	Soluble	Solid	300.0	23078
890-2165-6	B-18A	Soluble	Solid	300.0	23078
890-2165-8	B-22A	Soluble	Solid	300.0	23078
890-2165-9	B-25A	Soluble	Solid	300.0	23078
MB 880-23078/1-A	Method Blank	Soluble	Solid	300.0	23078
LCS 880-23078/2-A	Lab Control Sample	Soluble	Solid	300.0	23078
LCSD 880-23078/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23078

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Job ID: 890-2165-1

SDG: 60657072

Client Sample ID: WW-2B

Client: AECOM

Project/Site: Cotton Hill

Date Collected: 04/05/22 09:25 Date Received: 04/05/22 12:57

Lab Sample ID: 890-2165-1

**Matrix: Solid** 

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		5			23079	04/06/22 20:45	SC	XEN MID

Client Sample ID: EW-1A Lab Sample ID: 890-2165-2 Matrix: Solid

Date Collected: 04/05/22 09:45 Date Received: 04/05/22 12:57

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run Factor Amount Amount Number or Analyzed Analyst Lab Soluble Leach DI Leach 5.05 g 50 mL 23078 04/06/22 13:02 SC XEN MID XEN MID Soluble 300.0 04/06/22 20:54 SC Analysis 23079 1

Client Sample ID: NW-2A Lab Sample ID: 890-2165-3

Date Collected: 04/05/22 09:50

Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		1			23079	04/06/22 21:03	SC	XEN MID

Client Sample ID: B-15A Lab Sample ID: 890-2165-4 Date Collected: 04/05/22 10:00 Matrix: Solid

Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		1			23079	04/06/22 21:12	SC	XEN MID

Client Sample ID: B-16A Lab Sample ID: 890-2165-5 Date Collected: 04/05/22 10:05 Matrix: Solid

Date Received: 04/05/22 12:57

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		1			23079	04/06/22 21:20	SC	XEN MID

Client Sample ID: B-18A Lab Sample ID: 890-2165-6 **Matrix: Solid** 

Date Collected: 04/05/22 10:10 Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		1			23079	04/06/22 21:29	SC	XEN MID

Job ID: 890-2165-1

SDG: 60657072

Client Sample ID: B-21A

Date Received: 04/05/22 12:57

Client: AECOM

Project/Site: Cotton Hill

Date Collected: 04/05/22 10:30

Lab Sample ID: 890-2165-7

Matrix: Solid

**Matrix: Solid** 

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 8015 NM 23081 04/06/22 15:36 XEN MID Analysis AJ Total/NA Prep 8015NM Prep 10.05 g 10 mL 23047 04/06/22 08:34 DM XEN MID Total/NA Analysis 8015B NM 23065 04/06/22 13:14 ΑJ XEN MID 1

Client Sample ID: B-22A Lab Sample ID: 890-2165-8

Date Collected: 04/05/22 10:35

Date Received: 04/05/22 12:57

Prep Type
Soluble
Soluble

Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Leach	DI Leach			5.01 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Analysis	300.0		1			23079	04/06/22 21:38	SC	XEN MID

Client Sample ID: B-25A

Date Collected: 04/05/22 10:40

Lab Sample ID: 890-2165-9

Matrix: Solid

Date Collected: 04/05/22 10:40 Date Received: 04/05/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	23078	04/06/22 13:02	SC	XEN MID
Soluble	Analysis	300.0		1			23079	04/06/22 21:47	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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#### **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2165-1
Project/Site: Cotton Hill SDG: 60657072

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date	
Texas		ELAP	T104704400-21-22	06-30-22	
The following analytes are included in this report, but					
The following analytes	are included in this report, bu	t the laboratory is not certif	fied by the governing authority. This list ma	ay include analytes for	
The following analytes the agency does not of		t the laboratory is not certif	fied by the governing authority. This list ma	ay include analytes for	
0 ,		t the laboratory is not certif Matrix	ied by the governing authority. This list ma	ay include analytes for t	

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#### **Method Summary**

Client: AECOM Job ID: 890-2165-1 Project/Site: Cotton Hill

SDG: 60657072

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Sample Summary**

Client: AECOM Job ID: 890-2165-1 Project/

7 120011	000 IB: 000 2100 1
t/Site: Cotton Hill	SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2165-1	WW-2B	Solid	04/05/22 09:25	04/05/22 12:57
890-2165-2	EW-1A	Solid	04/05/22 09:45	04/05/22 12:57
890-2165-3	NW-2A	Solid	04/05/22 09:50	04/05/22 12:57
890-2165-4	B-15A	Solid	04/05/22 10:00	04/05/22 12:57
890-2165-5	B-16A	Solid	04/05/22 10:05	04/05/22 12:57
890-2165-6	B-18A	Solid	04/05/22 10:10	04/05/22 12:57
890-2165-7	B-21A	Solid	04/05/22 10:30	04/05/22 12:57
890-2165-8	B-22A	Solid	04/05/22 10:35	04/05/22 12:57
890-2165-9	B-25A	Solid	04/05/22 10:40	04/05/22 12:57

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Xenco

**Environment Testing** 

Project Manager:

Brad wynne AECOM

Wally Gilmor Bill to: (if different)

Company Name:

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

		rocess.	334
Program:			
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	Work Order Comments	www.xenco.com Page	Work Order No:_
Brown	er Con	.com	0: 
ıfields 🗌	ments	Page_	
RRC 🗆		-	
Superfund [		of _	

Sold	Relinquished by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	nd Me	Total 200.7 / 6010 200.8	8-25A	B-11A	B-21A	B-18A	B-16A	B-15A	NW-ZA	EW-IA	WW-28	Sample Identification	Total Containers:	Sample Custody Seals: Yes	Cooler Custody Seals: Yes No	Samples Received Intact: Yes	SAMPLE RECEIPT Tem	6	( )	Project Location: (or) 5 bad	Project Number: 60657072	Project Name: Collon	Phone: 214-971-	City, State ZIP: Dallas	Address: 13355
(100)	, Receiv	hment of samples constitute to samples and she cost of samples and she will be applied to each provided to e	to be analyzed	200.8 / 6020:	50:14/5	212	5071 4/8	5:14/5	5,14/5/22	14/5	1/s	56:1 4/5	501 4 S	Matrix Date Sampled	Correc	Yes No W/A Tempe	3	Yes No Thermo	Temp Blank: Yes	7072	2	MN. be	7072	शांस ।	71-1829	1	Noel Rd
Com	Received by: (Signature)	ites a valid purchase orde all not assume any respor yject and a charge of \$5 fo	TCLP / SF	BRCRA 13PPM	22 1040	22 1035	22 1030	15/22 1010	2001 1	12 1000		22 094S	22 0925	e Time ed Sampled	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	No Wet Ice:	the lab, if rece	TAT starts the	Due Date:	Routine	Turn	Email:	3240	かいたかの
		r from client company t isibility for any losses or or each sample submitt	6010 : 8R	Texas 11	1	0	1	1	1	) (	1 0	- 0	10	Depth Grab/	5.2	5.5	2.0.	HOCME	Yes No	the lab, if received by 4:30pm	TAT starts the day received by	ASAP	<b>X</b> Rush	Turn Around	Bradlex	City, State ZIP:	400Address:
dis 11/5/h	Date/Time	o Eurofins Xenco, its affiliates and expenses incurred by the client it ed to Eurofins Xenco, but not ana	Sb As Ba Be	Al Sh As Ba Be B Cd	- ×		<b>×</b>	- *	~ *	<b>−</b> ×	- ×	- ×	- ×	Ch TPI	101		de	2	El 5/	PA	30	00	Pres.		0	Wallace Gila	
2	Relinquished by: (Signature)	I subcontractors. It assigns standard terms: f such losses are due to circumstances beyon lyzed. These terms will be enforced unless p	r Co Cu Pb Mn Mo Ni	Ca Cr Co Cu Fe Pb N											_	COO-E 100 Chai	890.2165.05				-			ANALYSIS REQUEST	AEGM. COM	. Gilmore @ AEcon . com	
1/(01-)	Received by:	erms and conditions beyond the control less previously negotiated.	Hg: 1631	a Mn Mo Ni K Se Aa SiO,												nain of Custody								ST	Deliverables: EDD	Reporting: Level II Level II	State of Project:
4/8/22 12:5	(Signature) Date/Time		/7470 /	Na Sr Tl Sn U V Zn										Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	NaHSO 4: NABIS	H <sub>3</sub> PO <sub>4</sub> : HP	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na	HCL: HC HNO 3: HN	Cool: Cool MeOH: Me	None: NO DI Water: H <sub>2</sub> O	Preservative Codes	ADaPT Other:	Reporting: Level II   Level III   PST/UST   TRRP   Level IV	

Received by OCD: 6/15/	/2022 10:01:39 AM		Page 166 of 358
		Page 17 of 20	4/6/2022
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Page 17 of 20

1089 N Canal St **Eurofins Carlsbad** 

Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199

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Environment Testing America

**Chain of Custody Record** 

Client Information (Sub Contract Lab)	-			Builes	Builes John						Ç	9	ď	10(0)			8 9	890-699 1		
	Phone			E-Mail John	E-Mail John Builes@et.eurofinsus.com	7) At A	rofins	3	3		Sta	State of Origin	rigin				<u> </u>	Page: Page 1 of 1		
Company Eurofins Environment Testing South Centr	A THE REAL PROPERTY OF THE PRO	White the second			Accreditations Required (See note):	- Tex	equired	(See n	ote):		-	A Company of the Comp	Willessynaktok	-			<sub>공</sub> 등	Job #: 890-2165-1		
	Due Date Requested 4/6/2022	**************************************			THE STATE OF THE S			≥	Analys	sis Ro	Requested	stec	_	***************************************	•	Ì	-	Cod		THE PERSON NAMED IN COLUMN NAM
City Midland	TAT Requested (days)	·s)·	Transministration of the property of the prope				ic)	_			$\dashv$	$\neg$					C & A	HCL NaOH Zn Acetate	0 Z S	Hexane None AsNaO2
State Zip TX, 79701				S200012500011													m 0	Nitric Acid NaHSO4	O TO	Na2O4S Na2SO3
Phone 432-704-5440(Tel)	PO#				)												± o ⊤	Amchlor Assorbic Acid	+ の ズ オエ Z	Nazszo3 H2SO4
	WO#				(6)/00/2003													Ice DI Water	< C :	Acetone MCAA
Project Name: Cotton Hill	Project #: 88000565																	EDTA EDA		pH 4-5 other (specify)
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	- Demonstration	***************************************			Soleenii Gilli															
		Sample	Sample Type (C=comp.	Matrix (w=water S=solld,	id Filtered form MS/	_ORGFM_:	6MOD_NM 										al Numbe			
Sample Identification - Citetit to (Lab to)	Sample Date		Preservation Code:	5					72			7					7	Special In	struc	pecial Instructions/Note.
VWV-2B (890-2165-1)	4/5/22	09 25 Mountain		Solid		×														
EW-1A (890-2165-2)	4/5/22	09 45 Mountain		Solid		×														
NW-1A (890-2165-3)	4/5/22	09 50 Mountain		Solid		×														
B-15A (890-2165-4)	4/5/22	10 00 Mountain		Solid		×														
B-16A (890-2165-5)	4/5/22	10 05 Mountain		Solid		×														
B-18A (890-2165-6)	4/5/22	10 10 Mountain		Solid		×										#885530000				
B-21A (890-2165-7)	4/5/22	10 30 Mountain		Solid			×										-3			
B-22A (890-2165-8)	4/5/22	10 35 Mountain		Solid		×														
B-25A (890-2165-9)	4/5/22	10 40 Mountain		Solid		×											-			
Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.	Testing South Centra ve for analysis/tests/n ral LLC attention imn	I LLC places the matrix being an mediately If all	ne ownership of alyzed the sam requested acci	method, analy ples must be a editations are	rte & acc shipped k current to	reditati back to b date	on com the Eur return t	oliance ofins Er he signi	upon ou wironm ed Chai	It subco ent Tes n of Cu	ontract ting So stody a	labora uth Ce	tories intral l	This s LC lat	ample orator plicano	shipm y or other to E	ent is her ins	forwarded under ch structions will be pro s Environment Test	nain-of ovided ling So	-custody If the Any changes to uth Central LLC
Possible Hazard Identification Unconfirmed		enante de la constante de la c	AND PROPERTY OF THE PARTY OF TH	***************************************	San	1ple L Rei	Sample Disposal ( A fee	al (A		ay be	ass.	assessed if san Disposal By Lab	Hif sa	mple	s are	□ reta	ined	may be assessed if samples are retained longer than 1 month)	nom ,	nth) Months
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Custody Seals Intact Custody Seal No	THE PROPERTY OF THE PROPERTY O	CONTRACTOR		AND CONTRACTOR OF THE PERSONS AND CO		Cooler	Cooler Temperature(s) °C and Other Remarks	ature(s	) °C an	Other	Rema	KS.	***************************************						f	The state of the s

Ver 06/08/2021

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2165-1 SDG Number: 60657072

Login Number: 2165 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2165-1

SDG Number: 60657072

Login Number: 2165 **List Source: Eurofins Midland** List Number: 2 List Creation: 04/06/22 10:38 AM

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	True	

<6mm (1/4").

## **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2166-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: cotton hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/7/2022 4:18:04 PM

John Builes, Project Manager (561)558-4549

John.Builes@et.eurofinsus.com

..... LINKS .....

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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM

Project/Site: cotton hills

Laboratory Job ID: 890-2166-1 SDG: 60657072

**Table of Contents** 

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#### **Definitions/Glossary**

Client: AECOM Job ID: 890-2166-1 Project/Site: cotton hills SDG: 60657072

**Qualifiers** 

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

Percent Recovery %R CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

Job ID: 890-2166-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2166-1

#### Receipt

The samples were received on 4/5/2022 12:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was  $5.2^{\circ}$ C

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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#### **Client Sample Results**

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

Client Sample ID: B-26 Lab Sample ID: 890-2166-1

Date Collected: 04/05/22 09:15

Date Received: 04/05/22 12:20

Matrix: Solid

Method: 300.0 - Anions, Ion Chrom	atography - S	oluble						
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	504		25.0	mg/Kg			04/07/22 14:42	5

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#### **QC Sample Results**

Client: AECOM Job ID: 890-2166-1 Project/Site: cotton hills

SDG: 60657072

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23093/1-A

**Matrix: Solid** 

**Analysis Batch: 23123** 

MB MB

RL Result Qualifier Unit Dil Fac Analyte D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 04/07/22 10:51

Lab Sample ID: LCS 880-23093/2-A

**Matrix: Solid** 

**Analysis Batch: 23123** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 240.2 mg/Kg 96 90 - 110

Lab Sample ID: LCSD 880-23093/3-A

**Matrix: Solid** 

**Analysis Batch: 23123** 

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit Limits **RPD** Limit Chloride 250 240.7 90 - 110 20 mg/Kg

#### **QC Association Summary**

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

#### HPLC/IC

#### Leach Batch: 23093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2166-1	B-26	Soluble	Solid	DI Leach	
MB 880-23093/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23093/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23093/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

#### **Analysis Batch: 23123**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2166-1	B-26	Soluble	Solid	300.0	23093
MB 880-23093/1-A	Method Blank	Soluble	Solid	300.0	23093
LCS 880-23093/2-A	Lab Control Sample	Soluble	Solid	300.0	23093
LCSD 880-23093/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23093

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#### Lab Chronicle

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

Client Sample ID: B-26 Lab Sample ID: 890-2166-1

Matrix: Solid

Date Collected: 04/05/22 09:15 Date Received: 04/05/22 12:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	23093	04/07/22 09:50	SC	XEN MID
Soluble	Analysis	300.0		5			23123	04/07/22 14:42	CH	XEN MID

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Carlsbad** 

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#### **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

**Laboratory: Eurofins Midland** 

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>	
Texas	NELAP	T104704400-21-22	06-30-22	

, 550

#### **Method Summary**

Client: AECOM Job ID: 890-2166-1 Project/Site: cotton hills

SDG: 60657072

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### Sample Summary

Client: AECOM Job ID: 890-2166-1
Project/Site: cotton hills SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2166-1	B-26	Solid	04/05/22 09:15	04/05/22 12:20

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	Muffer	Relinquished by: (Signature)	tice: Signature of this document and relinquishment of samph service. Eurofins Xenco will be liable only for the cost of samph Eurofins Xenco. A minimum charge of \$85.00 will be applied to	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed			WW-3B 5011	B-26 Ser1	Sample Identification Matrix	Total Containers:	sample Custody Seals: Yes No N/A	Cooler Custody Seals: Yes No IN/A	1	606	James Lou	_	ber 60657	roject Name: Cotton Hills	171-17		13355 Noc	ompany Name: AFCOM	roject Manager: Brad Wyne, wally Gilmor			eurotins
	The Can off	Received by (Signature)	es constitutes a valid purchase order from client company to Euro les and shall not assume any responsibility for any losses or exper to each project and a charge of \$5 for each sample submitted to	8RCR,			4/s/20930 - C 1	1 7 - 5160 22(5/1)	Date Time Depth Grab/ # of Comp Cont	Corrected Temperature: 5.2	ling:		Thomason ID: Wet ice: Yes No	the lab, if received by 4:30pm		Due Date:	Rout	S Turn Around	Email:	City, State ZIP:	Rd. Suit 400 Address: wal	Company Name:	Wally Gilmer Bill to: (if different)	Hobbs, NIM	Environment Testing Midland, TX (  Xenco EL Paso, TX (	
0) 4	s 22  200 <sup>2</sup>	Date/Time Relinquished by: (Signature)	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control functions. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously nego	4 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo NiTCLP/SPLP6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U			×	*	Chi		890-2166 Chain of Custody	s I	ZP/	43		>		ANALYSIS REQUEST	Deliverables:	3	wallace . Gilmor @ AELOM . COM State of	Program:		Hobbs, NM(\$75) 39278550, Carlsbad, NM (575) 988-3199 Cocess	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Revised Date 08/25/2020 Rev 2020	81 215th - CHA)-W	Received by: (Signature) Date/Time	conditions he control lously negotiated.	Ni K Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Zn U Hg: 1631 / 245.1 / 7470 / 7471			Hold	4014	Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ; NaSO <sub>3</sub>	H <sub>3</sub> PO <sub>4</sub> : HP	H <sub>2</sub> S0 4: H <sub>2</sub> NaOH: Na		Cool: Cool MeOH: Me	None: NO DI Water: H <sub>2</sub> O	Preservative Codes	ables: EDD ADaPT Other:	Reporting: Level II		n: UST/PST PRP Brownfields RRC Superfund	Work Order Comments	www.xenco.com Pageof	Work Order No:	

### **Login Sample Receipt Checklist**

 Client: AECOM
 Job Number: 890-2166-1

 SDG Number: 60657072

List Source: Eurofins Carlsbad

List Number: 1

Login Number: 2166

Creator: Olivas, Nathaniel

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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#### **Login Sample Receipt Checklist**

 Client: AECOM
 Job Number: 890-2166-1

 SDG Number: 60657072

Login Number: 2166
List Source: Eurofins Midland
List Number: 2
List Creation: 04/07/22 04:50 PM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

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<6mm (1/4").

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

Laboratory Job ID: 890-2171-1

Laboratory Sample Delivery Group: 60657072

Client Project/Site: COTTON HILLS

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/8/2022 1:17:31 PM

John Builes, Project Manager (561)558-4549

John.Builes@et.eurofinsus.com

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Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 890-2171-1
Project/Site: COTTON HILLS SDG: 60657072

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# **Definitions/Glossary**

Client: AECOM Job ID: 890-2171-1 Project/Site: COTTON HILLS

SDG: 60657072

#### **Qualifiers**

#### **HPLC/IC**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

Minimum Level (Dioxin)

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present

Presumptive

**Quality Control** 

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Detected at the reporting limit (or MDL or EDL if shown)

#### Glossary

ML

MPN

MQL

NC

ND NEG

POS

PQL

QC

RLRPD

TEF

TEQ

**TNTC** 

RER

**PRES** 

Giossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

**Eurofins Carlsbad** 

#### **Case Narrative**

Client: AECOM Job ID: 890-2171-1 Project/Site: COTTON HILLS

SDG: 60657072

Job ID: 890-2171-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2171-1

#### Comments

No additional comments.

The samples were received on 4/7/2022 12:57 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4° C.

#### **General Chemistry**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# **Client Sample Results**

Client: AECOM

Job ID: 890-2171-1

Project/Site: COTTON HILLS

SDG: 60657072

Project/Site: COTTON HILLS
SDG: 60657072

Client Sample ID: WW-2C

Date Collected: 04/07/22 08:30

Date Received: 04/07/22 12:57

Lab Sample ID: 890-2171-1

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble												
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Chloride	104		4.95	mg/Kg			04/08/22 13:16	1				

Client Sample ID: NW-2B

Date Collected: 04/07/22 08:55

Lab Sample ID: 890-2171-2

Matrix: Solid

Date Received: 04/07/22 12:57

Method: 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	37.4		4.97	mg/Kg			04/08/22 12:55	1			

**Eurofins Carlsbad** 

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#### **QC Sample Results**

Client: AECOM Job ID: 890-2171-1 Project/Site: COTTON HILLS SDG: 60657072

RL

5.00

Spike

Added

250

Unit

LCS LCS

LCSD LCSD

Result Qualifier

248.3

245.3

Result Qualifier

mg/Kg

Unit

mg/Kg

mg/Kg

D

D

%Rec

99

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23191/1-A

**Matrix: Solid** 

**Analysis Batch: 23215** 

MB MB

Result Qualifier Analyte

Chloride <5.00 U Lab Sample ID: LCS 880-23191/2-A

**Matrix: Solid Analysis Batch: 23215** 

Analyte Chloride

Lab Sample ID: LCSD 880-23191/3-A

**Analysis Batch: 23215** 

**Matrix: Solid** 

Spike Analyte Added Chloride 250

Client Sample ID: Method Blank

**Prep Type: Soluble** 

Dil Fac Prepared Analyzed

04/08/22 11:51

**Client Sample ID: Lab Control Sample** 

%Rec

Limits

90 - 110

90 - 110

**Prep Type: Soluble** 

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

%Rec RPD Unit Limits **RPD** Limit

# **QC Association Summary**

Client: AECOM Job ID: 890-2171-1 Project/Site: COTTON HILLS SDG: 60657072

HPLC/IC

Leach Batch: 23191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2171-1	WW-2C	Soluble	Solid	DI Leach	
890-2171-2	NW-2B	Soluble	Solid	DI Leach	
MB 880-23191/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23191/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23191/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 23215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2171-1	WW-2C	Soluble	Solid	300.0	23191
890-2171-2	NW-2B	Soluble	Solid	300.0	23191
MB 880-23191/1-A	Method Blank	Soluble	Solid	300.0	23191
LCS 880-23191/2-A	Lab Control Sample	Soluble	Solid	300.0	23191
LCSD 880-23191/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23191

**Eurofins Carlsbad** 

#### **Lab Chronicle**

Client: AECOM Job ID: 890-2171-1
Project/Site: COTTON HILLS SDG: 60657072

Client Sample ID: WW-2C Lab Sample ID: 890-2171-1

Date Collected: 04/07/22 08:30

Date Received: 04/07/22 12:57

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	23191	04/07/22 18:12	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	23215	04/08/22 13:16	SC	XEN MID

Client Sample ID: NW-2B Lab Sample ID: 890-2171-2

Date Collected: 04/07/22 08:55 Matrix: Solid

Date Received: 04/07/22 12:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	23191	04/07/22 18:12	SC	XEN MID
Soluble	Analysis	300.0		1	0 mL	1.0 mL	23215	04/08/22 12:55	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Carlsbad** 

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# **Accreditation/Certification Summary**

Client: AECOM Job ID: 890-2171-1 Project/Site: COTTON HILLS SDG: 60657072

**Laboratory: Eurofins Midland** 

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

**Eurofins Carlsbad** 

# **Method Summary**

Client: AECOM

Project/Site: COTTON HILLS

Job ID: 890-2171-1

SDG: 60657072

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: AECOM

Project/Site: COTTON HILLS

Job ID: 890-2171-1

SDG: 60657072

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2171-1	WW-2C	Solid	04/07/22 08:30	04/07/22 12:57
890-2171-2	NW-2B	Solid	04/07/22 08:55	04/07/22 12:57

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# Chain of Custody

Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

12) Laft/h	Miller	2	4/7/22 1220	7.22			hofe
e) Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	: (Signature) (220	Received by: (Signature)	y: (Signature)	Relinquished by: (Signature)
	orna control  previously negotiated.	Rotice: Signature of this document and reinquishment of simples constitutes a value purchase order from cirent company to curonis Aerico, its aniliates and succurriactions, it easyla source of the forest of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco, A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously nego	rexpenses incurred by the client if s ed to Eurofins Xenco, but not analy	sume any responsibility for any losses of a charge of \$5 for each sample submit	nt of samples constitutes a vail ost of samples and shall not as be applied to each project and	xument and relinquishme will be liable only for the conum charge of \$85.00 will l	Notice: Signature of this do of service. Eurofins Xenco of Eurofins Xenco. A minim
TI Sn U V Zn /7470 /7471	Ni K Se Ag SiO <sub>2</sub> Na Sr Hg: 1631/245.1/	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mr Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se A	: 8RCRA Sb As Ba Be Cd C	TCLP / SPLP 6010 : 8RCRA	020: 8RCRA be analyzed To	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 Circle Method(s) ar
			×	0855 - 6	20/4/2/20	8	NW-2
			×	0830 - 0	21/1/2		WW-26
Sample Comments			# of Cont	Time Depth Grab/	Matrix Sampled	ntification	Sample Identification
NaOH+Ascorbic Acid: SAPC		-	los	nperature: 1.4	Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	dy	890-2171 Chain of Custody	d	Reading: 1-6	N/A Temperature Reading:	Is: Yes No (N/A	Sample Custody Seals:
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>				tor: -6.7	N/A Correction Factor:	Yes No	Cooler Custody Seals:
NaHSO 4: NABIS				10: T-Mn-a	No Thermometer ID:		Samples Received Intact:
H <sub>3</sub> PO <sub>4</sub> : HP			P.	Wet ice: (Mes)No	ank: Xas No		SAMPLE RECEIPT
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na			<u>A</u> :	the lab, if received by 4:30pm	2	65.5	PO #:
HCL: HC HNO 3: HN			30	ne da	V/SV	James	Sampler's Name:
Cool: Cool MeOH: Me				Due Date: ASAP	NS	Carlshad	Project Location:
None: NO DI Water: H <sub>2</sub> O			Pres.	Routine Rush	072	606,57072	Project Number:
Preservative Codes		ANALYSIS REQUEST		Turn Around	श्रीस	Cetten	Project Name:
PT Other:	Deliverables: EDD ADaPT	AFICM. COM	1. WYARE @	Email: Bradley	1-9777	174-741	Phone:
PST/UST TRRP Level IV	Reporting: Level III Level III PST/UST	@ AFLOM LEM	Whilese Cilmon	City, State ZIP:		Dallas, T	City, State ZIP:
	State of Project:	St		4	1 Rd S	13355 Noe	Address:
Brownfields RRC Superfund	Program: UST/PST PRP Brov	Pı		Company Name:			Company Name:
omments	Work Order Comments			y 61 mc Bill to: (if different)	well	Brad Wynne	Project Manager:
Pageof	www.xenco.com	NM (575) 988-3199	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Ноф			
		TX (806) 794-1296	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	EL Pass	Xenco	Xe	
	WOLK OLDER ING.	0, 1 \ (410) 309-3334	Mildiand, 1 x (432) / 04-3440, 3811 Antonio, 1 x (210) 309-3334				

#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2171-1 SDG Number: 60657072

Login Number: 2171 List Source: Eurofins Carlsbad

List Number: 1

Creator: Olivas, Nathaniel

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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#### **Login Sample Receipt Checklist**

Client: AECOM Job Number: 890-2171-1 SDG Number: 60657072

Login Number: 2171 List Source: Eurofins Midland
List Number: 2 List Creation: 04/08/22 10:34 AM

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

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<6mm (1/4").

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-13195-1

Laboratory Sample Delivery Group: Carlsbad NM

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/4/2022 12:17:42 PM

John Builes, Project Manager (561)558-4549

john.builes@eurofinset.com

..... Links ......

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM Laboratory Job ID: 880-13195-1 Project/Site: Cotton Hills

SDG: Carlsbad NM

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#### **Definitions/Glossary**

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present **PQL** Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Job ID: 880-13195-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-13195-1

#### Receipt

The samples were received on 4/1/2022 2:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.3°C

#### **GC VOA**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: NW-2 (880-13195-1), SW-3 (880-13195-5), B-19 (880-13195-11), B-25 (880-13195-17) and (MB 880-22842/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-22825 and analytical batch 880-22863 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## **Client Sample Results**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: NW-2

Date Collected: 04/01/22 08:00

Lab Sample ID: 880-13195-1

Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			04/04/22 12:15	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 11:46	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 11:46	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 11:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			04/01/22 16:07	04/03/22 11:46	1
o-Terphenyl	141	S1+	70 - 130			04/01/22 16:07	04/03/22 11:46	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2000		24.8	mg/Kg			04/01/22 21:48	5

Client Sample ID: NW-3 Lab Sample ID: 880-13195-2

Date Collected: 04/01/22 08:05 Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
m-Xylene & p-Xylene	< 0.00397	U	0.00397	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		04/01/22 17:00	04/02/22 20:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/01/22 17:00	04/02/22 20:10	1
1,4-Difluorobenzene (Surr)	109		70 - 130			04/01/22 17:00	04/02/22 20:10	1
Method: Total BTEX - Total BTEX Analyte Total BTEX		<b>Qualifier</b> U	RL 0.00397	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/04/22 12:30	Dil Fac
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 12:50	1
	<b>\49.9</b>							
(GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 12:50	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)			49.9 49.9	mg/Kg mg/Kg		04/01/22 16:07 04/01/22 16:07	04/03/22 12:50 04/03/22 12:50	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9	U						1 1 <i>Dil Fac</i>

**Eurofins Midland** 

04/03/22 12:50

04/01/22 16:07

70 - 130

98

1-Chlorooctane

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: NW-3 Lab Sample ID: 880-13195-2

Date Collected: 04/01/22 08:05 Matrix: Solid Date Received: 04/01/22 14:33

Mothod: 001ED	NM - Diesel Range	Organiae (DDO)	(CC) (Continued)
Method, ourse	INIVI - DIESEI Ralige	Organics (DRO)	(GC) (Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	127	70 - 130	04/01/22 16:07	04/03/22 12:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	379		25.0	mg/Kg			04/01/22 22:14	5

**Client Sample ID: EW-1** Lab Sample ID: 880-13195-3

Date Collected: 04/01/22 08:15 **Matrix: Solid** 

Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range O	organics (DRO) (GC)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 U	49.8	mg/Kg			04/04/22 12:15	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 13:11	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 13:11	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/01/22 16:07	04/03/22 13:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1.011			70 100			0.4/0.4/0.0 4.0.07	0.4/0.0/0.0.40.44	

Junoguto	witebovery qu	umio Emito	, repared	rinaryzou	2
1-Chlorooctane	92	70 - 130	04/01/22 16:07	04/03/22 13:11	1
o-Terphenyl	112	70 - 130	04/01/22 16:07	04/03/22 13:11	1
Method: 300.0 - Anions, Ion Chron	natography - Sol	luble			

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 25.0 Chloride 1070 mg/Kg 04/01/22 22:23

Client Sample ID: SW-2 Lab Sample ID: 880-13195-4 Date Collected: 04/01/22 08:25 Matrix: Solid

Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg		<u>.</u>	04/04/22 12:15	1
_								
Method: 8015B NM - Diesel Rang	ge Organics (DI	RO) (GC)						
Method: 8015B NM - Diesel Rang Analyte	• • •	RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
•	• • •	Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared 04/01/22 16:07	Analyzed 04/03/22 13:33	Dil Fac

1-Chlorooctane	104		70 - 130	•	04/01/22 16:07	04/03/22 13:33		
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	04/01/22 16:07	04/03/22 13:33	1	
C10-C28)								

o-Terphenyl	117	70 - 130			04/01/22 16:07	04/03/22 13:33	1
Method: 300.0 - Anions, Ion Chromatogra	aphy - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

24.9

mg/Kg

294

**Eurofins Midland** 

04/01/22 22:32

Released to Imaging: 10/19/2022 10:58:17 AM

Chloride

# **Client Sample Results**

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

**Client Sample ID: SW-3** Lab Sample ID: 880-13195-5

Date Collected: 04/01/22 08:30 Matrix: Solid Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/01/22 17:00	04/02/22 20:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/01/22 17:00	04/02/22 20:31	1
1,4-Difluorobenzene (Surr)	106		70 - 130			04/01/22 17:00	04/02/22 20:31	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			04/04/22 12:30	1
- Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
- Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	•	Qualifier	<b>RL</b> 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/04/22 12:15	Dil Fac
Analyte	Result   <50.0	Qualifier U			<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH  Method: 8015B NM - Diesel Rang	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg		<u> </u>	04/04/22 12:15	1
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0  ge Organics (D	Qualifier U  RO) (GC) Qualifier U	50.0	mg/Kg		Prepared	04/04/22 12:15  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0  Ge Organics (Dige Result <50.0)	Qualifier U  RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg  Unit  mg/Kg		Prepared 04/01/22 16:07	04/04/22 12:15  Analyzed 04/03/22 13:54	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/01/22 16:07 04/01/22 16:07	04/04/22 12:15  Analyzed 04/03/22 13:54 04/03/22 13:54	1 Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/01/22 16:07 04/01/22 16:07	04/04/22 12:15  Analyzed 04/03/22 13:54 04/03/22 13:54	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier U  RO) (GC) Qualifier U  U	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/01/22 16:07 04/01/22 16:07 04/01/22 16:07 Prepared	04/04/22 12:15  Analyzed 04/03/22 13:54 04/03/22 13:54 04/03/22 13:54  Analyzed	Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U  RO) (GC) Qualifier U  U  Qualifier S1+	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/01/22 16:07 04/01/22 16:07 04/01/22 16:07  Prepared 04/01/22 16:07	04/04/22 12:15  Analyzed 04/03/22 13:54  04/03/22 13:54  Analyzed 04/03/22 13:54	Dil Fac  Dil Fac  1  Dil Fac  1  1  Dil Fac
Analyte Total TPH  Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  RO) (GC) Qualifier U  U  Qualifier S1+	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 04/01/22 16:07 04/01/22 16:07 04/01/22 16:07  Prepared 04/01/22 16:07	04/04/22 12:15  Analyzed 04/03/22 13:54  04/03/22 13:54  Analyzed 04/03/22 13:54	1 Dil Fac 1 1 1 Dil Fac 1 1

Client Sample ID: B-14 Lab Sample ID: 880-13195-6 Date Collected: 04/01/22 08:40 **Matrix: Solid** 

Date Received: 04/01/22 14:33

Surrogate

1-Chlorooctane

Method: 8015 NM - Diesel Range C	rganics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
– Method: 8015B NM - Diesel Range	Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 14:16	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 14:16	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 14:16	1

**Eurofins Midland** 

Analyzed

04/03/22 14:16

Prepared

04/01/22 16:07

Limits

70 - 130

%Recovery Qualifier

100

Dil Fac

SDG: Carlsbad NM

Client Sample ID: B-14

Project/Site: Cotton Hills

Client: AECOM

Lab Sample ID: 880-13195-6

Matrix: Solid

Date Collected: 04/01/22 08:40 Date Received: 04/01/22 14:33

Method: 8015B NM - Diesel Range	Organics (DRO) (GC)	(Continued)
---------------------------------	---------------------	-------------

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	115	70 - 130	04/01/22 16:07	04/03/22 14:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	614		24.9	mg/Kg			04/01/22 23:08	5

**Client Sample ID: B-15** Lab Sample ID: 880-13195-7 **Matrix: Solid** 

Date Collected: 04/01/22 08:45 Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range	Organics (DRO) (GC)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			04/04/22 12:15	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 14:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 14:39	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 14:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130			04/01/22 16:07	04/03/22 14:39	1
o-Terphenyl	84		70 - 130			04/01/22 16:07	04/03/22 14:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1260	25.0	mg/Kg			04/01/22 23:16	5

Client Sample ID: B-16 Lab Sample ID: 880-13195-8 Date Collected: 04/01/22 08:50 **Matrix: Solid** 

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
Toluene	<0.00202	U	0.00202	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		04/01/22 17:00	04/02/22 20:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			04/01/22 17:00	04/02/22 20:51	1
1,4-Difluorobenzene (Surr)	107		70 - 130			04/01/22 17:00	04/02/22 20:51	1
- Method: Total BTEX - Total B1	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			04/04/22 12:30	

**Eurofins Midland** 

SDG: Carlsbad NM

**Client Sample ID: B-16** 

Project/Site: Cotton Hills

Client: AECOM

Analyte

Chloride

Lab Sample ID: 880-13195-8 Date Collected: 04/01/22 08:50

Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			04/04/22 12:15	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 15:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 15:01	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			04/01/22 16:07	04/03/22 15:01	1
o-Terphenyl	101		70 - 130			04/01/22 16:07	04/03/22 15:01	1

Client Sample ID: B-17 Lab Sample ID: 880-13195-9

24.8

Unit

mg/Kg

Prepared

Date Collected: 04/01/22 09:00

Result Qualifier

1140

**Matrix: Solid** 

Analyzed

04/01/22 23:25

Dil Fac

Date Received: 04/01/22 14:33 Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
– Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 15:24	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 15:24	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:07	04/03/22 15:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130			04/01/22 16:07	04/03/22 15:24	

o-Terphenyl	82		70 - 130			04/01/22 16:07	04/03/22 15:24	1
Method: 300.0 - Anions, Ion Chrom	atography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	419		4.95	mg/Kg			04/01/22 23:34	1

Client Sample ID: B-18 Lab Sample ID: 880-13195-10 Date Collected: 04/01/22 09:05 Matrix: Solid

Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range (	Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Total TPH	<50.0 U	50.0	mg/Kg			04/04/22 12:15	1			

Client: AECOM Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: B-18

Lab Sample ID: 880-13195-10 Date Collected: 04/01/22 09:05 Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/01/22 16:08	04/03/22 15:46	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/01/22 16:08	04/03/22 15:46	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 16:08	04/03/22 15:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			04/01/22 16:08	04/03/22 15:46	1
o-Terphenyl	117		70 - 130			04/01/22 16:08	04/03/22 15:46	1

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac 25.2 04/01/22 23:43 Chloride **728** mg/Kg

Client Sample ID: B-19 Lab Sample ID: 880-13195-11 Date Collected: 04/01/22 09:10 **Matrix: Solid** 

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
Toluene	< 0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/01/22 17:00	04/02/22 21:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			04/01/22 17:00	04/02/22 21:12	
1,4-Difluorobenzene (Surr)	108		70 - 130			04/01/22 17:00	04/02/22 21:12	1
· Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			04/04/22 12:30	1
Mathadi 0045 NM Diagal Danga	Ormaniaa (DD	0) (00)						
Method: 8015 NM - Diesel Range Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<del>&lt;49.9</del>		49.9	<del>                                 </del>	=	Fiepaieu	04/04/22 12:15	1
-	140.0	O	43.0	mg/Ng			04/04/22 12.13	
Method: 8015B NM - Diesel Rang	ae Organics (D	RO) (GC)						
moniour cores in siecor itali					D	Dunmanad		
		Qualifier	RL	Unit		Prepared	Analyzed	Dil Fac
Analyte Gasoline Range Organics		Qualifier	RL 49.9	<mark>Unit</mark> mg/Kg	— <u>-</u>	04/01/22 16:08	04/03/22 16:32	
Analyte	Result	Qualifier			— <u> </u>			
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U						1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result  <49.9	Qualifier U	49.9	mg/Kg	<u> </u>	04/01/22 16:08 04/01/22 16:08	04/03/22 16:32 04/03/22 16:32	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<b>Result</b> <49.9	Qualifier U	49.9	mg/Kg		04/01/22 16:08	04/03/22 16:32	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.9   <49.9   <49.9	Qualifier U U U	49.9	mg/Kg		04/01/22 16:08 04/01/22 16:08	04/03/22 16:32 04/03/22 16:32	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <49.9   <49.9   <49.9	Qualifier U U U	49.9 49.9 49.9	mg/Kg	=	04/01/22 16:08 04/01/22 16:08 04/01/22 16:08	04/03/22 16:32 04/03/22 16:32 04/03/22 16:32	Dil Fac  1  1  1  Dil Fac

# **Client Sample Results**

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: B-19 Lab Sample ID: 880-13195-11 Date Collected: 04/01/22 09:10

Matrix: Solid

Date Received: 04/01/22 14:33

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	392	F1	25.2	mg/Kg			04/01/22 23:52	5

Client Sample ID: B-20 Lab Sample ID: 880-13195-12 Date Collected: 04/01/22 09:20 Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 16:54	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 16:54	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 16:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			04/01/22 16:08	04/03/22 16:54	1
o-Terphenyl	107		70 - 130			04/01/22 16:08	04/03/22 16:54	1

Method: 300.0 - Anions, Ion Chrom	atography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		4.97	mg/Kg			04/02/22 00:18	1

Client Sample ID: B-21 Lab Sample ID: 880-13195-13

Date Collected: 04/01/22 09:25

Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	148		49.9	mg/Kg			04/04/22 12:15	1
– Method: 8015B NM - Diesel Ranç	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/04/22 06:59	1
Diesel Range Organics (Over	148		49.9	mg/Kg		04/01/22 16:08	04/04/22 06:59	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/04/22 06:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			04/01/22 16:08	04/04/22 06:59	1
o-Terphenyl	115		70 - 130			04/01/22 16:08	04/04/22 06:59	1
– Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	208		4.95	mg/Kg			04/02/22 00:27	1

**Eurofins Midland** 

**Matrix: Solid** 

## **Client Sample Results**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: B-22 Lab Sample ID: 880-13195-14

Date Collected: 04/01/22 09:30 Matrix: Solid
Date Received: 04/01/22 14:33

<0.00200							
~0.00∠00	U	0.00200	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
<0.00200	U	0.00200	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
<0.00200	U	0.00200	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
<0.00400	U	0.00400	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
<0.00200	U	0.00200	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
<0.00400	U	0.00400	mg/Kg		04/01/22 17:00	04/02/22 21:32	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
109		70 - 130			04/01/22 17:00	04/02/22 21:32	
108		70 - 130			04/01/22 17:00	04/02/22 21:32	1
Calculation							
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00400	U	0.00400	mg/Kg			04/04/22 12:30	1
Organics (DB)	o) (GC)						
•	, ,	RL	Unit	D	Prepared	Analyzed	Dil Fac
<49.8	U	49.8	mg/Kg			04/04/22 12:15	1
e Organics (D	RO) (GC)						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 17:39	1
<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 17:39	1
<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 17:39	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
95		70 - 130			04/01/22 16:08	04/03/22 17:39	
110		70 - 130			04/01/22 16:08	04/03/22 17:39	1
matography -	Soluble						
matograpily -							
	<pre>&lt;0.00200 &lt;0.00400 &lt;0.00400 &lt;0.00400  %Recovery 109 108  Calculation     Result &lt;0.00400  Organics (DR Result &lt;49.8  &lt;49.8  &lt;49.8  %Recovery  95 110</pre>	Calculation   Result   Qualifier	Calculation   Result   Qualifier   RL   Calculation   Result   Qualifier   Qualifier   Alexa   Calculation   Result   Qualifier   Alexa   Calculation   Result   Qualifier   RL   Calculation   Alexa   Calculation   Alexa	Calculation   Result   Qualifier   RL   Unit   Mg/Kg	Calculation   Result   Qualifier   RL   Unit   D   mg/Kg	Calculation	Calculation   Result   Qualifier   RL   Unit   D   Prepared   Analyzed   O4/04/22 12:30

Client Sample ID: B-23

Date Collected: 04/01/22 09:40

Lab Sample ID: 880-13195-15

Matrix: Solid

Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
– Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:02	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:02	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			04/01/22 16:08	04/03/22 18:02	

Job ID: 880-13195-1 SDG: Carlsbad NM

Client: AECOM

Project/Site: Cotton Hills

Client Sample ID: B-23

Date Collected: 04/01/22 09:40

Date Received: 04/01/22 14:33

Lab Sample ID: 880-13195-15

Matrix: Solid

Method: 8015B NM - Dies	el Range Organic	cs (DRO) (GC) (	Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92	70 - 130	04/01/22 16:08	04/03/22 18:02	1

Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	596		25.0	mg/Kg			04/02/22 01:03	5

Client Sample ID: B-24 Lab Sample ID: 880-13195-16 Matrix: Solid

Date Collected: 04/01/22 09:45 Date Received: 04/01/22 14:33

Method: 8015 NM - Diesel Range O	Organics (DRO) (GC)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 U	49.8	mg/Kg			04/04/22 12:15	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 18:24	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 18:24	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/01/22 16:08	04/03/22 18:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			04/01/22 16:08	04/03/22 18:24	1
o-Terphenyl	89		70 - 130			04/01/22 16:08	04/03/22 18:24	1

Method: 300.0 - Anions, Ion Chroma	atography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	582	24.8	mg/Kg			04/02/22 01:11	5

Client Sample ID: B-25 Lab Sample ID: 880-13195-17

Date Collected: 04/01/22 09:50 Date Received: 04/01/22 14:33

Method: 8021B - Volatile Orga	nic Compounds (	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/01/22 17:00	04/02/22 21:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			04/01/22 17:00	04/02/22 21:53	1
1,4-Difluorobenzene (Surr)	107		70 - 130			04/01/22 17:00	04/02/22 21:53	1
Method: Total BTEX - Total BT	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	П	0.00398	mg/Kg			04/04/22 12:30	1

**Eurofins Midland** 

**Matrix: Solid** 

Client: AECOM Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: B-25 Lab Sample ID: 880-13195-17 Date Collected: 04/01/22 09:50 Matrix: Solid

Date Received: 04/01/22 14:33

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			04/04/22 12:15	1
- Method: 8015B NM - Diesel Rang	e Organics (DI	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:47	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:47	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/01/22 16:08	04/03/22 18:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130			04/01/22 16:08	04/03/22 18:47	1
o-Terphenyl	74		70 - 130			04/01/22 16:08	04/03/22 18:47	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	723		25.1	mg/Kg			04/02/22 01:20	5

Client Sample ID: B-2A Lab Sample ID: 880-13195-18

Date Collected: 04/01/22 10:10 **Matrix: Solid** 

Date Received: 04/01/22 14:33

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed Chloride 370 4.98 04/02/22 01:29 mg/Kg

Client Sample ID: WW-2A Lab Sample ID: 880-13195-19

Date Collected: 04/01/22 10:05 Date Received: 04/01/22 14:33

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier Dil Fac RL Unit D Prepared Analyzed 04/02/22 01:38 Chloride 1020 4.99 mg/Kg

**Eurofins Midland** 

**Matrix: Solid** 

# **Surrogate Summary**

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-13195-2	NW-3	111	109	
880-13195-2 MS	NW-3	109	112	
880-13195-2 MSD	NW-3	110	111	
880-13195-5	SW-3	108	106	
880-13195-8	B-16	105	107	
880-13195-11	B-19	107	108	
880-13195-14	B-22	109	108	
880-13195-17	B-25	107	107	
LCS 880-22806/1-A	Lab Control Sample	102	109	
LCSD 880-22806/2-A	Lab Control Sample Dup	105	112	
MB 880-22623/5-A	Method Blank	102	102	
	Method Blank	102	102	

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-13195-1	NW-2	110	141 S1+	
80-13195-1 MS	NW-2	84	92	
80-13195-1 MSD	NW-2	82	86	
0-13195-2	NW-3	98	127	
0-13195-3	EW-1	92	112	
30-13195-4	SW-2	104	117	
30-13195-5	SW-3	111	132 S1+	
0-13195-6	B-14	100	115	
30-13195-7	B-15	74	84	
0-13195-8	B-16	88	101	
0-13195-9	B-17	74	82	
0-13195-10	B-18	100	117	
0-13195-11	B-19	69 S1-	78	
0-13195-12	B-20	93	107	
30-13195-13	B-21	94	115	
80-13195-14	B-22	95	110	
80-13195-15	B-23	81	92	
80-13195-16	B-24	76	89	
80-13195-17	B-25	68 S1-	74	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# **Surrogate Summary**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

-				Percent Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-22842/2-A	Lab Control Sample	102	120	
LCSD 880-22842/3-A	Lab Control Sample Dup	96	112	
MB 880-22842/1-A	Method Blank	106	139 S1+	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

#### **QC Sample Results**

Client: AECOM Job ID: 880-13195-1 SDG: Carlsbad NM Project/Site: Cotton Hills

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22623/5-A

**Matrix: Solid** 

**Analysis Batch: 22759** 

Client Sample ID: Method Blank

Prep Batch: 22623

**Prep Type: Total/NA** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/30/22 10:08	04/02/22 08:51	1
	***	***						

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	03/30/22 10:08	04/02/22 08:51	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/30/22 10:08	04/02/22 08:51	1

Lab Sample ID: MB 880-22759/105

**Matrix: Solid** 

**Analysis Batch: 22759** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			04/02/22 19:49	1
Toluene	<0.00200	U	0.00200	mg/Kg			04/02/22 19:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			04/02/22 19:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			04/02/22 19:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			04/02/22 19:49	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg			04/02/22 19:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130		04/02/22 19:49	1
1,4-Difluorobenzene (Surr)	102		70 - 130		04/02/22 19:49	1

Lab Sample ID: LCS 880-22806/1-A

**Matrix: Solid** 

**Analysis Batch: 22759** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 22806

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09065		mg/Kg		91	70 - 130	
Toluene	0.100	0.09070		mg/Kg		91	70 - 130	
Ethylbenzene	0.100	0.09298		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.200	0.1927		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09564		mg/Kg		96	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	109	70 - 130

Lab Sample ID: LCSD 880-22806/2-A

**Matrix: Solid** 

**Analysis Batch: 22759** 

Client Sample ID: Lab	Control Sample Dup
	David Tomas Takaliki A

**Prep Type: Total/NA** 

Prep Batch: 22806

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1007		mg/Kg		101	70 - 130	10	35

#### **QC Sample Results**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-22806/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 22759** Prep Batch: 22806 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.1006 70 - 130 35 mg/Kg 101 10 Ethylbenzene 0.100 0.1034 mg/Kg 103 70 - 130 11 35 m-Xylene & p-Xylene 0.200 0.2152 108 70 - 130 11 35 mg/Kg o-Xylene 0.100 0.1065 mg/Kg 107 70 - 130 11 35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 105
 70 - 130

 1,4-Difluorobenzene (Surr)
 112
 70 - 130

Lab Sample ID: 880-13195-2 MS

Matrix: Solid

Client Sample ID: NW-3

Prep Type: Total/NA

Analysis Batch: 22759 Prep Batch: 22806

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U	0.0996	0.07946		mg/Kg		80	70 - 130	
Toluene	<0.00198	U	0.0996	0.07895		mg/Kg		79	70 - 130	
Ethylbenzene	<0.00198	U	0.0996	0.08047		mg/Kg		81	70 - 130	
m-Xylene & p-Xylene	<0.00397	U	0.199	0.1671		mg/Kg		84	70 - 130	
o-Xylene	<0.00198	U	0.0996	0.08283		mg/Kg		83	70 - 130	
o Aylerie	10.00100	J	0.0000	0.00200		mg/rtg		00	70 - 100	

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 109
 70 - 130

 1,4-Difluorobenzene (Surr)
 112
 70 - 130

Lab Sample ID: 880-13195-2 MSD

Matrix: Solid

Client Sample ID: NW-3

Prep Type: Total/NA

Analysis Batch: 22759 Prep Batch: 22806

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U	0.0990	0.08838		mg/Kg		89	70 - 130	11	35
Toluene	<0.00198	U	0.0990	0.08830		mg/Kg		89	70 - 130	11	35
Ethylbenzene	<0.00198	U	0.0990	0.09005		mg/Kg		91	70 - 130	11	35
m-Xylene & p-Xylene	<0.00397	U	0.198	0.1871		mg/Kg		95	70 - 130	11	35
o-Xylene	<0.00198	U	0.0990	0.09284		mg/Kg		94	70 - 130	11	35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 110
 70 - 130

 1,4-Difluorobenzene (Surr)
 111
 70 - 130

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-22842/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 22881

MB MB

Prep Batch: 22842

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Gasoline Range Organics
 <50.0</td>
 U
 50.0
 mg/Kg
 04/01/22 16:07
 04/03/22 10:42
 1

(GRO)-C6-C10

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-22842/1-A

Matrix: Solid
Analysis Batch: 22881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 22842

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 10:42	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/01/22 16:07	04/03/22 10:42	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			04/01/22 16:07	04/03/22 10:42	1
o-Terphenyl	139	S1+	70 - 130			04/01/22 16:07	04/03/22 10:42	1

Lab Sample ID: LCS 880-22842/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 22881** Prep Batch: 22842 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 915.9 mg/Kg 92 70 - 130 (GRO)-C6-C10 1000 1041 104 Diesel Range Organics (Over mg/Kg 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 102 o-Terphenyl 120 70 - 130

Lab Sample ID: LCSD 880-22842/3-A

Matrix: Solid

Analysis Batch: 22881

Spike

LCSD LCSD

Added

Result Qualifier

Unit

D %Rec Limits RPD Limit

Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics		1000	849.9		mg/Kg		85	70 - 130	7	20
(GRO)-C6-C10										
Diesel Range Organics (Over		1000	947.6		mg/Kg		95	70 - 130	9	20
C10-C28)										
	1000 1000									

	LCSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-13195-1 MS

Matrix: Solid

Client Sample ID: NW-2
Prep Type: Total/NA

Analysis Batch: 22881 Prep Batch: 22842

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.8	U	998	853.1		mg/Kg		85	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.8	U	998	790.7		mg/Kg		77	70 - 130	
C10-C28)										
	***	•••								

C10-C28)		
	MS MS	
Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	84	70 - 130
o-Terphenyl	92	70 - 130

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

<49.8 U

Lab Sample ID: 880-13195-1 MSD Client Sample ID: NW-2 Matrix: Solid Prep Type: Total/NA

**Analysis Batch: 22881** 

Diesel Range Organics (Over

Prep Batch: 22842 Sample Sample Spike MSD MSD RPD Result Qualifier Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics <49.8 U 998 869.9 mg/Kg 87 70 - 130 2 20 (GRO)-C6-C10 72 998 739.5 mg/Kg 70 - 130

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 82 o-Terphenyl 86 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22825/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 22863** 

мв мв

Result Qualifier RL Unit Analyte D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 04/01/22 21:21

Lab Sample ID: LCS 880-22825/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 22863** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 257.1 mg/Kg 103 90 - 110

Lab Sample ID: LCSD 880-22825/3-A

**Matrix: Solid** 

**Analysis Batch: 22863** 

Spike LCSD LCSD %Rec RPD Analyte Added Qualifier Unit %Rec RPD Result Limits Limit Chloride 250 257.5 103 90 - 110 0 mg/Kg

Lab Sample ID: 880-13195-1 MS

**Matrix: Solid** 

**Analysis Batch: 22863** 

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier %Rec Limits Unit Chloride 1240 104 90 - 110 2000 3287 mg/Kg

Lab Sample ID: 880-13195-1 MSD

**Matrix: Solid** 

**Analysis Batch: 22863** 

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D 1240 Chloride 2000 3257 102 90 - 110 20 mg/Kg

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Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

Client Sample ID: NW-2

Client Sample ID: NW-2

**Prep Type: Soluble** 

**Prep Type: Soluble** 

# **QC Sample Results**

Client: AECOM Job ID: 880-13195-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-13195-11 MS Client Sample ID: B-19 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 22863** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	392	F1	1260	2090	F1	mg/Kg		135	90 - 110	

Lab Sample ID: 880-13195-11 MSD Client Sample ID: B-19 **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 22863

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	392	F1	1260	1802	F1	mg/Kg		112	90 - 110	15	20

Client: AECOM Project/Site: Cotton Hills Job ID: 880-13195-1 SDG: Carlsbad NM

**GC VOA** 

Prep Batch: 22623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-22623/5-A	Method Blank	Total/NA	Solid	5035	

### **Analysis Batch: 22759**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-2	NW-3	Total/NA	Solid	8021B	22806
880-13195-5	SW-3	Total/NA	Solid	8021B	22806
880-13195-8	B-16	Total/NA	Solid	8021B	22806
880-13195-11	B-19	Total/NA	Solid	8021B	22806
880-13195-14	B-22	Total/NA	Solid	8021B	22806
880-13195-17	B-25	Total/NA	Solid	8021B	22806
MB 880-22623/5-A	Method Blank	Total/NA	Solid	8021B	22623
MB 880-22759/105	Method Blank	Total/NA	Solid	8021B	
LCS 880-22806/1-A	Lab Control Sample	Total/NA	Solid	8021B	22806
LCSD 880-22806/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22806
880-13195-2 MS	NW-3	Total/NA	Solid	8021B	22806
880-13195-2 MSD	NW-3	Total/NA	Solid	8021B	22806

# Prep Batch: 22806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-2	NW-3	Total/NA	Solid	5035	
880-13195-5	SW-3	Total/NA	Solid	5035	
880-13195-8	B-16	Total/NA	Solid	5035	
880-13195-11	B-19	Total/NA	Solid	5035	
880-13195-14	B-22	Total/NA	Solid	5035	
880-13195-17	B-25	Total/NA	Solid	5035	
LCS 880-22806/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22806/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13195-2 MS	NW-3	Total/NA	Solid	5035	
880-13195-2 MSD	NW-3	Total/NA	Solid	5035	

# Analysis Batch: 22947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-2	NW-3	Total/NA	Solid	Total BTEX	
880-13195-5	SW-3	Total/NA	Solid	Total BTEX	
880-13195-8	B-16	Total/NA	Solid	Total BTEX	
880-13195-11	B-19	Total/NA	Solid	Total BTEX	
880-13195-14	B-22	Total/NA	Solid	Total BTEX	
880-13195-17	B-25	Total/NA	Solid	Total BTEX	

# GC Semi VOA

# Prep Batch: 22842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-1	NW-2	Total/NA	Solid	8015NM Prep	
880-13195-2	NW-3	Total/NA	Solid	8015NM Prep	
880-13195-3	EW-1	Total/NA	Solid	8015NM Prep	
880-13195-4	SW-2	Total/NA	Solid	8015NM Prep	
880-13195-5	SW-3	Total/NA	Solid	8015NM Prep	
880-13195-6	B-14	Total/NA	Solid	8015NM Prep	
880-13195-7	B-15	Total/NA	Solid	8015NM Prep	
880-13195-8	B-16	Total/NA	Solid	8015NM Prep	

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

# GC Semi VOA (Continued)

# Prep Batch: 22842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-9	B-17	Total/NA	Solid	8015NM Prep	
880-13195-10	B-18	Total/NA	Solid	8015NM Prep	
880-13195-11	B-19	Total/NA	Solid	8015NM Prep	
880-13195-12	B-20	Total/NA	Solid	8015NM Prep	
880-13195-13	B-21	Total/NA	Solid	8015NM Prep	
880-13195-14	B-22	Total/NA	Solid	8015NM Prep	
880-13195-15	B-23	Total/NA	Solid	8015NM Prep	
880-13195-16	B-24	Total/NA	Solid	8015NM Prep	
880-13195-17	B-25	Total/NA	Solid	8015NM Prep	
MB 880-22842/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22842/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22842/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13195-1 MS	NW-2	Total/NA	Solid	8015NM Prep	
880-13195-1 MSD	NW-2	Total/NA	Solid	8015NM Prep	

# **Analysis Batch: 22881**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-1	NW-2	Total/NA	Solid	8015B NM	22842
880-13195-2	NW-3	Total/NA	Solid	8015B NM	22842
880-13195-3	EW-1	Total/NA	Solid	8015B NM	22842
880-13195-4	SW-2	Total/NA	Solid	8015B NM	22842
880-13195-5	SW-3	Total/NA	Solid	8015B NM	22842
880-13195-6	B-14	Total/NA	Solid	8015B NM	22842
880-13195-7	B-15	Total/NA	Solid	8015B NM	22842
880-13195-8	B-16	Total/NA	Solid	8015B NM	22842
880-13195-9	B-17	Total/NA	Solid	8015B NM	22842
880-13195-10	B-18	Total/NA	Solid	8015B NM	22842
880-13195-11	B-19	Total/NA	Solid	8015B NM	22842
880-13195-12	B-20	Total/NA	Solid	8015B NM	22842
880-13195-13	B-21	Total/NA	Solid	8015B NM	22842
880-13195-14	B-22	Total/NA	Solid	8015B NM	22842
880-13195-15	B-23	Total/NA	Solid	8015B NM	22842
880-13195-16	B-24	Total/NA	Solid	8015B NM	22842
880-13195-17	B-25	Total/NA	Solid	8015B NM	22842
MB 880-22842/1-A	Method Blank	Total/NA	Solid	8015B NM	22842
LCS 880-22842/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22842
LCSD 880-22842/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22842
880-13195-1 MS	NW-2	Total/NA	Solid	8015B NM	22842
880-13195-1 MSD	NW-2	Total/NA	Solid	8015B NM	22842

# Analysis Batch: 22937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
880-13195-1	NW-2	Total/NA	Solid	8015 NM	_
880-13195-2	NW-3	Total/NA	Solid	8015 NM	
880-13195-3	EW-1	Total/NA	Solid	8015 NM	
880-13195-4	SW-2	Total/NA	Solid	8015 NM	
880-13195-5	SW-3	Total/NA	Solid	8015 NM	
880-13195-6	B-14	Total/NA	Solid	8015 NM	
880-13195-7	B-15	Total/NA	Solid	8015 NM	
880-13195-8	B-16	Total/NA	Solid	8015 NM	
880-13195-9	B-17	Total/NA	Solid	8015 NM	

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Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

# GC Semi VOA (Continued)

# Analysis Batch: 22937 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-10	B-18	Total/NA	Solid	8015 NM	
880-13195-11	B-19	Total/NA	Solid	8015 NM	
880-13195-12	B-20	Total/NA	Solid	8015 NM	
880-13195-13	B-21	Total/NA	Solid	8015 NM	
880-13195-14	B-22	Total/NA	Solid	8015 NM	
880-13195-15	B-23	Total/NA	Solid	8015 NM	
880-13195-16	B-24	Total/NA	Solid	8015 NM	
880-13195-17	B-25	Total/NA	Solid	8015 NM	

# HPLC/IC

### Leach Batch: 22825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-1	NW-2	Soluble	Solid	DI Leach	
880-13195-2	NW-3	Soluble	Solid	DI Leach	
880-13195-3	EW-1	Soluble	Solid	DI Leach	
880-13195-4	SW-2	Soluble	Solid	DI Leach	
880-13195-5	SW-3	Soluble	Solid	DI Leach	
880-13195-6	B-14	Soluble	Solid	DI Leach	
880-13195-7	B-15	Soluble	Solid	DI Leach	
880-13195-8	B-16	Soluble	Solid	DI Leach	
880-13195-9	B-17	Soluble	Solid	DI Leach	
880-13195-10	B-18	Soluble	Solid	DI Leach	
880-13195-11	B-19	Soluble	Solid	DI Leach	
880-13195-12	B-20	Soluble	Solid	DI Leach	
880-13195-13	B-21	Soluble	Solid	DI Leach	
880-13195-14	B-22	Soluble	Solid	DI Leach	
880-13195-15	B-23	Soluble	Solid	DI Leach	
880-13195-16	B-24	Soluble	Solid	DI Leach	
880-13195-17	B-25	Soluble	Solid	DI Leach	
880-13195-18	B-2A	Soluble	Solid	DI Leach	
880-13195-19	WW-2A	Soluble	Solid	DI Leach	
MB 880-22825/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22825/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22825/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13195-1 MS	NW-2	Soluble	Solid	DI Leach	
880-13195-1 MSD	NW-2	Soluble	Solid	DI Leach	
880-13195-11 MS	B-19	Soluble	Solid	DI Leach	
880-13195-11 MSD	B-19	Soluble	Solid	DI Leach	

### Analysis Batch: 22863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-1	NW-2	Soluble	Solid	300.0	22825
880-13195-2	NW-3	Soluble	Solid	300.0	22825
880-13195-3	EW-1	Soluble	Solid	300.0	22825
880-13195-4	SW-2	Soluble	Solid	300.0	22825
880-13195-5	SW-3	Soluble	Solid	300.0	22825
880-13195-6	B-14	Soluble	Solid	300.0	22825
880-13195-7	B-15	Soluble	Solid	300.0	22825
880-13195-8	B-16	Soluble	Solid	300.0	22825
880-13195-9	B-17	Soluble	Solid	300.0	22825

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Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

# **HPLC/IC (Continued)**

# **Analysis Batch: 22863 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13195-10	B-18	Soluble	Solid	300.0	22825
880-13195-11	B-19	Soluble	Solid	300.0	22825
880-13195-12	B-20	Soluble	Solid	300.0	22825
880-13195-13	B-21	Soluble	Solid	300.0	22825
880-13195-14	B-22	Soluble	Solid	300.0	22825
880-13195-15	B-23	Soluble	Solid	300.0	22825
880-13195-16	B-24	Soluble	Solid	300.0	22825
880-13195-17	B-25	Soluble	Solid	300.0	22825
880-13195-18	B-2A	Soluble	Solid	300.0	22825
880-13195-19	WW-2A	Soluble	Solid	300.0	22825
MB 880-22825/1-A	Method Blank	Soluble	Solid	300.0	22825
LCS 880-22825/2-A	Lab Control Sample	Soluble	Solid	300.0	22825
LCSD 880-22825/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22825
880-13195-1 MS	NW-2	Soluble	Solid	300.0	22825
880-13195-1 MSD	NW-2	Soluble	Solid	300.0	22825
880-13195-11 MS	B-19	Soluble	Solid	300.0	22825
880-13195-11 MSD	B-19	Soluble	Solid	300.0	22825

Client: AECOM

Project/Site: Cotton Hills

Job ID: 880-13195-1

SDG: Carlsbad NM

Client Sample ID: NW-2

Date Collected: 04/01/22 08:00 Date Received: 04/01/22 14:33

Lab Sample ID: 880-13195-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 11:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 21:48	CH	XEN MID

Client Sample ID: NW-3 Lab Sample ID: 880-13195-2

Date Collected: 04/01/22 08:05 Date Received: 04/01/22 14:33

**Matrix: Solid** 

Batch Batch Dil Initial Final Batch Prepared Method Amount Number **Prep Type** Type Run Factor Amount or Analyzed Analyst Lab Total/NA Prep 5035 5.04 g 5 mL 22806 04/01/22 17:00 KL XEN MID Total/NA Analysis 8021B 5 mL 5 mL 22759 04/02/22 20:10 KL XEN MID 1 Total BTEX Total/NA Analysis 1 22947 04/04/22 12:30 ΑJ XEN MID Total/NA 8015 NM 22937 04/04/22 12:15 XEN MID Analysis 1 AJ Total/NA Prep 8015NM Prep 10.03 g 10 mL 22842 04/01/22 16:07 DM XEN MID Total/NA 8015B NM 22881 04/03/22 12:50 XEN MID Analysis AJSoluble Leach DI Leach 5 g 50 mL 22825 04/01/22 14:59 CH XEN MID Soluble Analysis 300.0 5 22863 04/01/22 22:14 СН XEN MID

Client Sample ID: EW-1 Lab Sample ID: 880-13195-3

Date Collected: 04/01/22 08:15 Date Received: 04/01/22 14:33

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 13:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22825	04/01/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 22:23	СН	XEN MID

Client Sample ID: SW-2 Lab Sample ID: 880-13195-4

Date Collected: 04/01/22 08:25 Date Received: 04/01/22 14:33

Matrix: Solid

	Batch		Γ	Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 13:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 22:32	CH	XEN MID

Client: AECOM

Project/Site: Cotton Hills

Job ID: 880-13195-1 SDG: Carlsbad NM

Lab Sample ID: 880-13195-5

**Client Sample ID: SW-3** Date Collected: 04/01/22 08:30

Matrix: Solid

Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	22806	04/01/22 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/02/22 20:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22947	04/04/22 12:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 13:54	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		1			22863	04/01/22 22:41	CH	XEN MID

Lab Sample ID: 880-13195-6 Client Sample ID: B-14 Date Collected: 04/01/22 08:40

Date Received: 04/01/22 14:33

**Matrix: Solid** 

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 22937 Analysis 8015 NM 04/04/22 12:15 AJ XEN MID Total/NA Prep 8015NM Prep 10.02 g 10 mL 22842 04/01/22 16:07 DM XEN MID Total/NA Analysis 8015B NM 22881 04/03/22 14:16 XEN MID AJ1 Soluble Leach DI Leach 5.02 g 50 mL 22825 04/01/22 14:59 CH XEN MID XEN MID Soluble Analysis 300.0 5 22863 04/01/22 23:08 СН

Client Sample ID: B-15 Lab Sample ID: 880-13195-7

Date Collected: 04/01/22 08:45 Date Received: 04/01/22 14:33

**Matrix: Solid** 

Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 14:39	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22825	04/01/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 23:16	CH	XEN MID

Client Sample ID: B-16 Lab Sample ID: 880-13195-8

Date Collected: 04/01/22 08:50 Da

ate Received	: 04/01/22 14:3	3									
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			4.96 a	5 mL	22806	04/01/22 17:00	KL	XEN MID	-

Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	22806	04/01/22 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/02/22 20:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22947	04/04/22 12:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 15:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22825	04/01/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 23:25	CH	XEN MID

Client: AECOM

Project/Site: Cotton Hills

Job ID: 880-13195-1

SDG: Carlsbad NM

Lab Sample ID: 880-13195-9

Matrix: Solid

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

Client Sample ID: B-17 Date Collected: 04/01/22 09:00

Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	22842	04/01/22 16:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 15:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		1			22863	04/01/22 23:34	CH	XEN MID

Client Sample ID: B-18 Lab Sample ID: 880-13195-10

Date Collected: 04/01/22 09:05 Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 15:46	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 23:43	СН	XEN MID

**Client Sample ID: B-19** Lab Sample ID: 880-13195-11

Date Collected: 04/01/22 09:10

Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	22806	04/01/22 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/02/22 21:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22947	04/04/22 12:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 16:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/01/22 23:52	CH	XEN MID

Client Sample ID: B-20 Lab Sample ID: 880-13195-12

Date Collected: 04/01/22 09:20 Date Received: 04/01/22 14:33

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22825	04/01/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			22863	04/02/22 00:18	CH	XEN MID

SDG: Carlsbad NM

**Matrix: Solid** 

**Matrix: Solid** 

Matrix: Solid

Client: AECOM

Job ID: 880-13195-1 Project/Site: Cotton Hills

Client Sample ID: B-21 Lab Sample ID: 880-13195-13

Date Collected: 04/01/22 09:25 **Matrix: Solid** Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/04/22 06:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		1			22863	04/02/22 00:27	CH	XEN MID

Client Sample ID: B-22 Lab Sample ID: 880-13195-14

Date Collected: 04/01/22 09:30 Date Received: 04/01/22 14:33

Batch Batch Dil Initial Final Batch Prepared Method Amount Number **Prep Type** Type Run Factor Amount or Analyzed Analyst Lab Total/NA Prep 5035 5.00 g 5 mL 22806 04/01/22 17:00 KL XEN MID Total/NA Analysis 8021B 5 mL 5 mL 22759 04/02/22 21:32 KL XEN MID 1 Total/NA Total BTEX Analysis 1 22947 04/04/22 12:30 ΑJ XEN MID Total/NA 8015 NM 22937 04/04/22 12:15 XEN MID Analysis AJ 1 Total/NA Prep 8015NM Prep 10.04 g 10 mL 22842 04/01/22 16:08 DM XEN MID Total/NA 8015B NM 22881 04/03/22 17:39 XEN MID Analysis AJ1 Soluble Leach DI Leach 5.02 g 50 mL 22825 04/01/22 14:59 CH XEN MID Soluble Analysis 300.0 5 22863 04/02/22 00:54 СН XEN MID

Client Sample ID: B-23 Lab Sample ID: 880-13195-15

Date Collected: 04/01/22 09:40 Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 18:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/02/22 01:03	CH	XEN MID

Client Sample ID: B-24 Lab Sample ID: 880-13195-16

Date Collected: 04/01/22 09:45 Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 18:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/02/22 01:11	СН	XEN MID

Job ID: 880-13195-1

SDG: Carlsbad NM

Client: AECOM

Project/Site: Cotton Hills

Client Sample ID: B-25 Lab Sample ID: 880-13195-17 Matrix: Solid

Date Collected: 04/01/22 09:50 Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	22806	04/01/22 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22759	04/02/22 21:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22947	04/04/22 12:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22937	04/04/22 12:15	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22842	04/01/22 16:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1			22881	04/03/22 18:47	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	22825	04/01/22 14:59	СН	XEN MID
Soluble	Analysis	300.0		5			22863	04/02/22 01:20	CH	XEN MID

Client Sample ID: B-2A Lab Sample ID: 880-13195-18

Date Collected: 04/01/22 10:10 Date Received: 04/01/22 14:33

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab DI Leach 22825 СН Soluble Leach 5.02 g 50 mL 04/01/22 14:59 XEN MID Soluble Analysis 300.0 22863 04/02/22 01:29 СН XEN MID

Client Sample ID: WW-2A Lab Sample ID: 880-13195-19

Date Collected: 04/01/22 10:05

Date Received: 04/01/22 14:33

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	22825	04/01/22 14:59	CH	XEN MID
Soluble	Analysis	300.0		1			22863	04/02/22 01:38	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Matrix: Solid** 

**Matrix: Solid** 

# **Accreditation/Certification Summary**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

# **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pre	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, but	t the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of		it the laboratory to het certifi	od by the governing duthonty. This list his	ay include analytes for
0 ,		Matrix	Analyte	ay include analytes for
the agency does not of	fer certification.	•	, , ,	

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# **Method Summary**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
3015NM Prep	Microextraction	SW846	XEN MID
OI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

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# **Sample Summary**

Client: AECOM Job ID: 880-13195-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-13195-1	NW-2	Solid	04/01/22 08:00	04/01/22 14:33
880-13195-2	NW-3	Solid	04/01/22 08:05	04/01/22 14:33
880-13195-3	EW-1	Solid	04/01/22 08:15	04/01/22 14:33
880-13195-4	SW-2	Solid	04/01/22 08:25	04/01/22 14:33
880-13195-5	SW-3	Solid	04/01/22 08:30	04/01/22 14:33
880-13195-6	B-14	Solid	04/01/22 08:40	04/01/22 14:33
880-13195-7	B-15	Solid	04/01/22 08:45	04/01/22 14:33
880-13195-8	B-16	Solid	04/01/22 08:50	04/01/22 14:33
880-13195-9	B-17	Solid	04/01/22 09:00	04/01/22 14:33
880-13195-10	B-18	Solid	04/01/22 09:05	04/01/22 14:33
880-13195-11	B-19	Solid	04/01/22 09:10	04/01/22 14:33
380-13195-12	B-20	Solid	04/01/22 09:20	04/01/22 14:33
880-13195-13	B-21	Solid	04/01/22 09:25	04/01/22 14:33
880-13195-14	B-22	Solid	04/01/22 09:30	04/01/22 14:33
880-13195-15	B-23	Solid	04/01/22 09:40	04/01/22 14:33
880-13195-16	B-24	Solid	04/01/22 09:45	04/01/22 14:33
880-13195-17	B-25	Solid	04/01/22 09:50	04/01/22 14:33
880-13195-18	B-2A	Solid	04/01/22 10:10	04/01/22 14:33
880-13195-19	WW-2A	Solid	04/01/22 10:05	04/01/22 14:33

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Project Name

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Turn Around Rush

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ADaPT

None NO

DI Water H<sub>2</sub>O

Preservative Codes

ANALYSIS REQUEST

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City State ZIP

Company Name Project Manager

לה ל		Clidill of Custody	
Ū	Environment Testing	Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	work Order No: 13195
	Xenco	EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296	
		Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199	
			www.xenco.com Page of 2
Kod	Blad wynne, wally Gilmarbull to (if different)	Bull to (if different)	Work Order Comments
ATTOM	3	Company Name	Program: UST/PST PRP Rrownfields BDC Supplement
13355	13355 Noel Rd Svide Upo Address	Address	State of Project:
<u> </u>	Dalles TX 75240	City, State ZIP Wallace GIMOSE @AFCOM (A) Reporting Level II	Reporting Level III Level III PST/UST TRRP Level IV
214	214-971-1829 Email	Email Brodley Work & AECON, COM	1

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	tions ktrol negotiated.	bcontractors. It assigns standard terms and condi- ch losses are due to circumstances beyond the cor d. These terms will be enforced unless previously.	Xenco, its affiliates and su incurred by the client if su fins Xenco, but not analyza	lient company to Eurofins for any losses or expenses sample submitted to Euro	Notice: Signature of this document and relinquishment of samples constitutes a wild purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Notice: Signature of this docume of service. Eurofins Xenco will be of Eurofins Xenco. A minimum ct
7471	U Hg 1631/2451/7470/747	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	As Ba Be Cd Cr	010 8RCRA Sb	Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010	Circle Method(s) and
V 7n	Mn Mo Ni K Se Ag SiO, Na Sr Tl Sn U V 7n	Ca Cr Co Cu Fe Pb Mg Mn M		exas 11 Al Sb A	200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B	Total 200.7 / 6010
			XX	C 1	5.:14/1/22 090S -	8-18
			メメ	0	5:1 4/1/22 0900 -	8-17
			アメメ	C	56:14/1/22 0850	B-16
			X X	C 1	50:14/1/22 0845 -	8-15
	880-13195 Chain of Custody	880-13	* *	01	50:14/1/2 0840	B-14
			メイメ	C	4/1/22	2012
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			×××	C	3,1 4/1/22 0805 -	24-3
			* *	0 1	651 4/1/22 0800 -	2-MX
Sample Comments	San		Chi BTI	th Grab/ # of Cont	ation Matrix Sampled Sampled Depth	Sample Identification
NaOH+Ascorbic Acid SAPC	NaOH+As		(1) (1) (1) (1) (1)	Fig	Corrected Temperature:	Total Containers.
Zn Acetate+NaOH Zn	Zn Acetat		de		Yes No (N/A) Temperature Reading	Sample Custody Seals.
NaSO 3	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO 3		<u>8</u> 8	Pa	Yes No (N/A) Correction Factor	Cooler Custody Seals:
NABIS	NaHSO 4 NABIS		0 F D2	iram	(Ves) No Thermometer ID	Samples Received Intact:
	H-20. HP		15 於 16	No	Temp Blank. Ye No Wet Ice: Yes	SAMPLE RECEIPT
NaOH Na	H,50, H,		M +3		7072	PO #
	(00): (00)		\ '\C\	eived by	TAT starts the da	Sampler's Name
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Revised Date: 08/25/2020 Rev. 2020.2

City State ZIP

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Reporting Level II Level III

PST/UST TRRP Level IV

Company Name

# Chain of Custody

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ddress,	Company Name	ll to: (if different)		Hobbs NM (575) 392-7550 Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas TX (214) 902-0300	
	Program: UST/PST PRP Brownfields RRC Superfund	Work Order Comments	www.xenco.com Page L of Z	•		Work Order No: 1010	2	

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Date/Time	Received by: (Signature)	Relinquished by (Signature)	Date/Time	)	Received by (Signature)	) // Received	Relinquished by: (Signature)	Relinc
	negotiated.	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ses incurred by the client if su urofins Xenco, but not analyz	oility for any losses or expeneach sample submitted to E	not assume any responsi	for the cost of samples and shall r 5.00 will be applied to each projec	urofins Xenco will be liable only enco. A minimum charge of \$8	of service. Eu of Eurofins Xe
		Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	īns Xenco, its affiliates and su	om client company to Euro	a valid purchase order t	quishment of samples constitutes	ature of this document and relin	Notice: Signa
7471	Hg 1631/2451,	o Cu Pb Mn Mo Ni Se	b As Ba Be Cd Cr	P 6010 8RCRA S	TCLP / SPLP 6010		nd Me	Circle M
V 75	No Cr T	Cr Co CII Fe Ph Ma	As Ba Be B Cd Ca	8RCRA 13PPM Texas 11 Al Sb As Ba Be B	8RCRA 13PPN	200.8 / 6020:	Total 2007/6010 20	Total
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Sample Comments	Sam		TPI CWIO BT	Depth Grab/ # of Comp Cont	Time Sampled	Matrix Date Sampled	Sample Identification	λ.
NaOH+Ascorbic Acid SAPC	NaOH+Asi		t orio Ex	ري د ب	Corrected Temperature:	Corrected	tainers:	Total Containers:
Zn Acetate+NaOH Zn	Zn Acetat		8 32 246	2	Temperature Reading	No (MA)	Sample Custody Seals. Yes	Sample Cu
NaSO	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO 3		2 l	Pa	n Factor	No (SA)	Cooler Custody Seals: Yes	Cooler Cu
NABIS	NaHSO 4 NABIS		51 El	Tame	eter ID·	Yes No Thermometer ID:	Samples Received Intact.	Samples R
	H <sub>3</sub> PO, HP		11. A	No eters	Wet Ice-	enne Blank. Yes No	SAMPLE RECEIPT T	SAMPLE
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Revised Date: 08/25/2020 Rev 2020.2

4/4/2022

# **Login Sample Receipt Checklist**

Client: AECOM Job Number: 880-13195-1 SDG Number: Carlsbad NM

List Source: Eurofins Midland

Login Number: 13195 List Number: 1

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

200 oj 000

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-13200-1

Laboratory Sample Delivery Group: Carlsbad NM

Client Project/Site: Cotton Hills

For:

AECOM 19219 Katy Freeway Suite 100 Houston, Texas 77094

Attn: Mr. Wallace Gilmore

Authorized for release by: 4/6/2022 9:02:27 AM

John Builes, Project Manager (561)558-4549

John.Builes@et.eurofinsus.com

..... Links ......

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 10/19/2022 10:58:17 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: AECOM
Laboratory Job ID: 880-13200-1
Project/Site: Cotton Hills
SDG: Carlsbad NM

# **Table of Contents**

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# **Definitions/Glossary**

Client: AECOM Job ID: 880-13200-1 SDG: Carlsbad NM Project/Site: Cotton Hills

# **Qualifiers**

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present

Presumptive

**Quality Control** 

Method Quantitation Limit

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Detected at the reporting limit (or MDL or EDL if shown)

# Glossary

MPN

MQL

NC

ND NEG

POS

PQL

QC

RLRPD

TEF

TEQ

**TNTC** 

RER

**PRES** 

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

# **Case Narrative**

Client: AECOM Job ID: 880-13200-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Job ID: 880-13200-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-13200-1

#### Receipt

The samples were received on 4/1/2022 2:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.3°C

### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Chloride

# **Client Sample Results**

Client: AECOM Job ID: 880-13200-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: WW-3A Lab Sample ID: 880-13200-2

Date Collected: 04/01/22 10:00 Matrix: Solid Date Received: 04/01/22 14:33

Method: 300.0 - Anions, Ion Chromatography - Soluble RL Unit Dil Fac Result Qualifier D Prepared Analyzed

49.9

mg/Kg

525

10

04/05/22 19:45

# QC Sample Results

Client: AECOM Job ID: 880-13200-1 Project/Site: Cotton Hills SDG: Carlsbad NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23018/1-A

**Matrix: Solid** 

**Analysis Batch: 23036** 

Analyte

Chloride

Client Sample ID: Method Blank **Prep Type: Soluble** 

мв мв Dil Fac Result Qualifier RL Unit D Prepared Analyzed <5.00 U 5.00 mg/Kg 04/05/22 17:15

Lab Sample ID: LCS 880-23018/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 23036** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 256.7 mg/Kg 103 90 - 110

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-23018/3-A **Matrix: Solid Prep Type: Soluble** Analysis Batch: 23036

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit

Chloride 250 254.7 102 90 - 110 20 mg/Kg Lab Sample ID: 880-13200-2 MS Client Sample ID: WW-3A

**Matrix: Solid** 

Analysis Batch: 23036

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Qualifier Unit %Rec Limits Result Chloride 525 2500 3039 101 90 - 110 mg/Kg

Client Sample ID: WW-3A Lab Sample ID: 880-13200-2 MSD **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 23036** 

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 2500 Chloride 525 3042 mg/Kg 101 90 - 110 20

**Eurofins Midland** 

**Prep Type: Soluble** 

Client: AECOM Job ID: 880-13200-1
Project/Site: Cotton Hills SDG: Carlsbad NM

# HPLC/IC

# Leach Batch: 23018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13200-2	WW-3A	Soluble	Solid	DI Leach	
MB 880-23018/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23018/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23018/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13200-2 MS	WW-3A	Soluble	Solid	DI Leach	
880-13200-2 MSD	WW-3A	Soluble	Solid	DI Leach	

# Analysis Batch: 23036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13200-2	WW-3A	Soluble	Solid	300.0	23018
MB 880-23018/1-A	Method Blank	Soluble	Solid	300.0	23018
LCS 880-23018/2-A	Lab Control Sample	Soluble	Solid	300.0	23018
LCSD 880-23018/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23018
880-13200-2 MS	WW-3A	Soluble	Solid	300.0	23018
880-13200-2 MSD	WW-3A	Soluble	Solid	300.0	23018

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# Lab Chronicle

Client: AECOM Job ID: 880-13200-1
Project/Site: Cotton Hills SDG: Carlsbad NM

Client Sample ID: WW-3A Lab Sample ID: 880-13200-2

Date Collected: 04/01/22 10:00 Matrix: Solid
Date Received: 04/01/22 14:33

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	23018	04/05/22 10:49	СН	XEN MID
Soluble	Analysis	300.0		10			23036	04/05/22 19:45	SC	XEN MID

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

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# **Accreditation/Certification Summary**

Client: AECOM Job ID: 880-13200-1 Project/Site: Cotton Hills SDG: Carlsbad NM

**Laboratory: Eurofins Midland** 

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

# **Method Summary**

Client: AECOM Job ID: 880-13200-1 Project/Site: Cotton Hills

SDG: Carlsbad NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# Sample Summary

Client: AECOM Job ID: 880-13200-1
Project/Site: Cotton Hills SDG: Carlsbad NM

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received

 880-13200-2
 WW-3A
 Solid
 04/01/22 10:00
 04/01/22 14:33

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# Xenco Thuionnest Testing

Company Name: roject Manager

AECON

that wyne, wally gime

Bill to (if different) Company Name

3355 Noc Rd 576

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392 7550 Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dalias TX (214) 902-0300

Work Order No:
0. 7.
228

UST/PST PRP Brownfields RRC

Superfund

Work Order Comments

www.xenco.com

State of Project: Program:

	July Other Control of	Relinquished by: (Signature) Received by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negon	Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 8RCRA Sb As Ba			WW-3A 501 411/22 1000 - C	Hed-1 501 3/31/22 1630 -	Depth Grab/	Total Containers Corrected Temperature: 4-3	NA	Yes No (N/A)   Correction Factor	Samples Received Intact: Yes No Thermometer ID	60657077 une lab, il received by 4.30pm	Sampler's Name Jones Lovel TAT starts the day received by	Project Location (CA) & Due Date	Project Number: 60657672 Routine Rush Pres.	Project Name: Cotten HUS Turn Around	Phone 214-971-1829 Email Badley.	S, TX 75240 City, State ZIP
6	4/1/22 1433 2	Date/Time Relinquished by: (Signature)	Eurofins Xenco, its affiliates and subcontractors. It assigns standard ter openses incurred by the client if such losses are due to circumstances b to Eurofins Xenco, but not analyzed. These terms will be enforced unit	8RCRA Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U			*	_ X	Cont TP	OF Ex	<u> </u>	.0 .5	IS,	n H	30	0		ANALYSIS REQUEST	WY no @ AFROM COM	Walker Gilmon @ Attom con
		ture) Received by (Signature)	rns and conditions eyond the control ss previously negotiated.	g Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Z Se Ag Tl U Hg 1631/2451/7470/7471	880-13200 Chain of Custody		Holas	Plot	22	NaOH+	Zn Acei	7. S. e. N	H <sub>3</sub> PO <sub>4</sub> HP	H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub>	HCLHC	Cool Cool	None	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Deliverables EDD ADaPT	Reporting Level II Level III
		Date/Time		U V Zn /7471		4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	٥.,	٥	Sample Comments	NaOH+Ascorbic Acid SAPC	Zn Acetate+NaOH Zn	Na <sub>3</sub> S <sub>3</sub> O <sub>3</sub> NaSO <sub>3</sub>	HP NABIC		,		NO DI Water: H <sub>2</sub> O	Preservative Codes	Other:	PST/UST TRRP Level IV

Revised Date: 08/25/2020 Rev 2020.2

4/6/2022

# **Login Sample Receipt Checklist**

Client: AECOM Job Number: 880-13200-1 SDG Number: Carlsbad NM

**List Source: Eurofins Midland** 

Login Number: 13200 List Number: 1

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# Appendix C

# **Soil Disposal Documentation**

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

0000	OILI ILLL	VVIOIL	. 141/ (141	1

Company	Man Contact Information
	44200

		C1 .
Name	SNATT	Stevens

Departors Name Address  Sale Lowes  Crity, State, Zip Phone No.  STS - RBA - SG / RBA -	R360		(PLEAS	E PRINT) *REQU	JIRED INFORMATION*	hone No.
Operations Name Address  Sab Lowes DC  City, State, Zip  Carl S. Back A M	Operator No.		GENE	Permit/PPC No.	The state of the same	Alleria de la Managera de la constanta
City, State, Zip Phone No.    SeeNPT ESP Wests Service Identification and Amount (place volume next to waste type in barrels or cubic yards)   Oil Board Musts   Oil Board Cuttings			<u>d</u>	Name & No. County	Federal com +	+ 001 14
DIE Based Muds Oil Based Cutting Waste Based Cutting Produced Formation Solids Based Produced Formation Solids Based Produced Waster (Non-Injectable) Completion Fluid/Flore Back (Non-Injectable) Completion Fluid/Flore Back (Non-Injectable) Completion Fluid/Flore Back (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Waster Based Cutting Produced Waster (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Waster Besed Cutting Produced Waster (Non-Injectable) Stathering Line Water/Waster (Non-Injectable) Stathering Line Water	orty, otato, zip			Rig Name & No.	mailing an account of all the con-	Carly I man to the carl
ON Based Mads  Waste Based Mads  Produced Formation Solid  Tank Bottoms  EAP Contaminated Soil  Same Plant Waste  Waste Based Mads  Waste Based Mads  Waste Based Mads  Produced Formation Solid  Tank Bottoms  EAP Contaminated Soil  Same Plant Waste  Waste Based Mads  Waste Based Mad	THORIOTTO.					
Committed   Comm	Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	NON-IN Washou Comple Produce Gatheri	JECTABLE WATERS at Water (Non-Injectable) tion Fluid/Flow Back (Non-Inje ad Water (Non-Injectable) ng Line Water/Waste (Non-Inj	ctable)	OTHER EXEMPT WASTES (b)	ype and generation process of the waste)
NON-Exempt Other    Please select from Non-Exempt Waste List on back	Gas Plant Waste	Truck W	ashout (exempt waste)	dental - noncest		Part We depart of
Non-Exempt Other    Please select from Non-Exempt Waste flust on back	WASTE GENERATION PROCESS:	☐ DRILLING	The state of the s			IG LINES
UNANTITY  B-BARRELS  2 O'Y-YARDS  E-EACH  I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.  RCRA EXEMPT:  Oli field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)  Oli field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)  MSDS Information  RCRA HAZARDOUS AGENTS SIGNATURE  TRANSPORTER  TRANSPORTER  Driver's Name Phone No.  WHP No.  THICK TIME STAMP  IN: SPENATURE  DRIVER'S SIGNATURE  TRUCK TIME STAMP  IN: SPENATURE  DRIVER'S SIGNATURE  DRIVER'S SIGNATURE  DRIVER'S SIGNATURE  RECEIVING AREA  Name/No.  Phone No.  432-448-4239  NORM READINGS TAKEN? (Circle One) YES NO  If YES, was reading > 50 micro roentgents? (Circle One) YES NO	All non	-exempt E&P waste must b	NON-EXEMPT E&P Waste/S e analysed and be below thres	ervice Identification and Ar shold limits for toxicity (TC	mount LP), Ignitability, Corrosivity adn Reac	tivity.
Transporter's Name Phone No.  WHP 73.37  Hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.  Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)  Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations 40 CFR 261.21-261.224, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate times as provided items	Non-Exempt Other			*please se	lect from Non-Exempt Waste Lis	t on back
BCRA EXEMPT:   Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)   Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations 40 CFR, Part 261, 24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)   MSDS Information   RCRA Hazardous Waste Analysis   Other (Provide Description Below)	QUANTITY	B-BAI	RRELS	and the collection washed	20 Y-YARDS	E-EACH
Transporter's Name Address  Phone No.  Phone No.  WHP 73.7  Introduction of the properties of the properties of the phone	RCRA NON-EXEMPT:	per load basis only) Oil field waste which is no 40 CFR 261.21-261.24, or li waste as non-hazardous is	n-hazardous that does not exc isted hazardous waste as defir attached. (Check the appropri	eed the minimum standard ned by 40 CFR, part 261, su ate items as provided)	ls for waste hazardous by characteri bpart D, as amended. The following	stics established in RCRA regulations documentation demonstrating the
TRANSPORTER  Transporter's Name Address  Address  Phone No.  Phone No.  I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.  SHIPMENT DATE  DRIVER'S SIGNATURE  TRUCK TIME STAMP  IN:  1 S PMOUT:  Site Name/ Permit No.  Address  Red Bluff Facility / STF-065 Permit No.  Address  NORM READINGS TAKEN? (Circle One)  NORM READINGS TAKEN? (Circle One)  VES  NO  Truck.No.  WHP No.  UHP PO.  Truck.No.  WHP No.  DELIVERY DATE  Name/No.  Name/No.  Phone No.  432-448-4239  NO  NORM READINGS TAKEN? (Circle One)  YES  NO  NO  If YES, was reading > 50 micro roentgents? (Circle One)  YES  NO		chalf of T	Cherron 0		Jan Signature	2 11 2002 H2 v
Phone No.  WHP No.  WHE NO.  W	Transporter's Name MATA Address	THUCKINS	TRANS		Alkonso no	THE STORE IN AUTOTRALIA
I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.    SHIPMENT DATE   DRIVER'S SIGNATURE	Phone No. WHP 7	37			00	₩ 7331
TRUCK TIME STAMP IN: 9: 59 AMOUT:  Site Name/ Permit No. Address  Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX 79770  NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgents? (Circle One) YES NO	THORIC NO.		at the Generator's site listed	above and delivered witho	ut incident to the disposal facility lis	7
Name/No.	SHIPMENT DATE	DRIVER'S SIGN	IATURE		7	VER'S SIGNATURE
Permit No. Address	0 00	MP	DISPOSA	LFACILITY	Mining Colors and	NG AREA
			Soul dues	Phone No.	432-448-4239	Uniceful 21 n = 1 Converse Apol of Sound dissillary 2022
	NORM READINGS	TAKEN? (Circle One) (	YES NO		> 50 micro roentgents? (Circle O	ne) YES (NO)

DENIED

	Feet	Inches
st Guage		A. A. C. 1988 - C. A. SER THE P. C. S.
nd Guage	Ble Parkers	The second second
eceived		website distribution

**BS&W Received** BS&W (%) Free Water Total Received

I hereby certify that the above load material has been (circle one):

NAME (PRINT)

0 3- 30-22

If denied, why?

Generator - to be completed by the generator of the waste in transit

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion – Waste generated on the original completion (for re-completions see Production)

**Production** — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.) **Commercial Facilities** — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit – Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

**Transporter name** – Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. – List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# Exempt E&P Waste

#### Oil Based Mud

- · Oil Based Drilling fluids
- · Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- · Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

#### Water Based Cuttings

- Water Based Drill cuttings
- · Offshore Water Based cuttings

#### Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### E&P Contaminated Soil

· On-Lease oil spill

#### Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

### Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

#### Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

· Unused fracturing fluids or acids

Lange no

- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste.
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

Released to Imaging: 10/19/2022 10:58:17 AM

CHEVRON									
MCBU									
	Carlsbad, NM								
NO #C	CAR- 4938 NON-HAZARD	OUS WASTE N	MANIFEST	1. PAG	E OF	2. TRAIL	ER NO.		
		ADDRESS			5. P	ICK-UP DATI	3		
G	CHEVRON CARLSBAD 5301 LOMAS DR. PHONE NO. CITY STATE ZIP 6.								
E	575-887-5676		AD, NM 882			- momit	10 YDIM	11.	
	7. NAME OR DESCRIPTION OF WASTE SHIPP			8. CONT	AINERS Type	9. TOTAL QUANTITY		Yards	
N	a 5011 Excavated during APT. 300154153500	Spill Remed	194,01					20	
	b.								
E	C.								
R	d.								
^`	12. COMMENTS OR SPECIAL INSTRUCTIONS		1-			13. WASTE I		10.	
A		e ucre				M	4		
	14. IN CASE OF	F EMERGENCY (	OR SPILL, CO	ONTAC	<u>T</u>	24-HOUR	EMERGE	NCY NO.	
T	CHEVRON CARLSBAD						-887-50		
o	15. GENERATOR'S CERTIFICATION: 1	lereby declare that the	contents of this c	onsignme	ent are full	y and accurate	ely describe	ed above.	
	•4								
R	printed typed NAME James Low behalf of Travis Steve	ely on	SIGNATURE	P			313	DATE 30/22	
T	16. TRANSPORTER (1)	<u> </u>	17.	TR	ANSPO	RTER (2)	9/		
R	NAME		NAME						
A N									
S P	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:						
0	EMERGENCY PHONE:	'accoint of material	10 TRANS			nowledgment	of receipt	of material	
R T									
E R	<b>,</b>								
S		DATE	SIGNATURE			PHONE			
D F	R360 Environmental Solution	ADDRESS:				PHONE	•		
I A	5053 US Hwy 285 Orla, TX 79770		las cos a mu						
S C P I	PERMIT NO.		20. COMMEN	15					
O L S I	21. DISPOSAL FACILITY'S CERTIFICA	TION: I Hereby cert	ify that the above	e describe	d wastes v	were delivered	to this faci	ility, that the	
A T	facility is authorized and permitted to receive such		,						
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE			NE ():0() PA1	
	mSteph		121		05	30.3	<u>/                                    </u>	0.00 /1/	

Disposal Site: Please complete Disposal Facility section at bottom of form and mail copy of completed form to Chevron Carlsbad 5301 Lomas Dr., Carlsbad, NM 88220

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 & 4

Released to Imaging: 10/19/2022 10:58046MM

I hereby certify that the above load material has been (circle one):

Blue-TRANSPORTER

DENIED

Yellow - GENERATOR

If denied, why?

Version 1

SIGNATURE

CHEVRON MCBU									
	Carlsbad, NM								
NO #0	CAR- 5008 NON-HAZARI	OUS WASTE N	MANIFEST	1. PAG	E_LOF	1 2. TRAIL	ER NO.		
_	3. COMPANY NAME	4. ADDRESS	OMAS DR	•	5. P	ICK-UP DATE			
G	CHEVRON CARLSBAD 5301 LOMAS DR.  PHONE NO. STATE ZIP 6.  CITY STATE ZIP 6.								
E	7. NAME OR DESCRIPTION OF WASTE SHIP	PED:		8. CONT	AINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yand 5	
N	a Sorl Excaveted during APT 300154153500	spill Renedi	×1-100		-77			20	
_	b								
E	c.				<u></u>				
R	d.								
	12. COMMENTS OR SPECIAL INSTRUCTION		T. 160 -			13. WASTE PROFILE NO.			
A		code UCR			· ~		707		
	14. IN CASE O	F EMERGENCY C	OR SPILL, CO	NTAC	<u> </u>	24-HOUR	EMERGE	NCY NO.	
T	CHEVRON CARLSBAD						-887-56		
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this co	onsignme	nt are ful	ly and accurate	ly describe	d above.	
R	PRINTED TYPED NAME Jones La behalf of Travis S	Drey on	SIGNATURE	2-1	0	-	4/	DATE 4/22	
T R A N	16. TRANSPORTER (1) NAME		17. NAME	TR	ANSPO	RTER (2)			
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:						
P	EMERGENCY PHONE:	1	EMERGENCY				-6	-C	
R T	18. TRANSPORTER (1): Acknowledgment o	19. TRANSPORTER (2): Acknowledgment of receipt of material							
E R S	PRINTED/TYPED NAME SIGNATURE	PRINTED/TYPED NAME							
D F I A S C P I	R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE:			
	PERMIT NO.  STF-065		20. COMMENT	`S					
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc	ATION: I Hereby cert h wastes.	ify that the above	describe	d wastes	were delivered	to this faci	lity, that the	
LY	AUTHORIZED SIGNATURE		CELL NO.	274	DATE	4-22	TIM	E 1.15 1	
	Joly Hards	<u></u>	1.10.1	027	1 (-				

Disposal Site: Please complete Disposal Facility section at bottom of form and mail copy of completed form to Chevron Carlsbad 5301 Lomas Dr., Carlsbad, NM 88220

GENERATOR: COPY 1

TRANSPORTER: COPY 2

**DISPOSAL SITE: COPY 3 & 4** 

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Company Man Contac	253 of 358 ot Information
Name Travis	Severs
Phone No	

SOLUTIONS		E STATE OF THE STA	001/10	DOD SUBLECT FREE	Phone No.
Operator No.			GENE	Permit/PPC No.	No. 247831
Operators Name Address	Chevron Co 5301 Lon	arls load	ottic Walderin	Lease/Well Name & No. County	Coffen Hills 23 26 27 Fedral Com # 001 H
City, State, Zip		IM 882	220	API No. Rig Name & No.	30015415350001
Phone No.	575-887		(19) and an in Part to	AFE/PO No.	UCRE 10200
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttin Produced Formatior Tank Bottoms E&P Contaminated Gas Plant Waste	s angs and solids and solids	NON-IN- Washou Complet Produce Gatherin INTERN	JECTABLE WATERS  It Water (Non-Injectable)  Ition Fluid/Flow Back (Non-Inject  Id Water (Non-Injectable)  Iting Water/Waste (Non-Injectable)  AL USE ONLY  Ashout (exempt waste)	table)	waste type in barrels or cubic yards)  OTHER EXEMPT WASTES (type and generation process of the waste)  OBSCARLSBAD
WASTE GENERAT	TION PROCESS:	DRILLING	COMPLETION	☑ PRODUC	CTION GATHERING LINES
	All non-exemp	t E&P waste must be	NON-EXEMPT E&P Waste/Se e analysed and be below threst	rvice Identification and A hold limits for toxicity (TC	Amount CLP), Ignitability, Corrosivity adn Reactivity.
Non-Exempt Other			-17	*please se	elect from Non-Exempt Waste List on back
QUANTITY		B-BAR	RRELS	and the feet he are	20 Y-YARDS E-EACH
A Mark a page	40 CFR waste a MSDS  MSDS  (PRINT) AUTHORIZED AGENTS SIG	261.21-261.24, or lies non-hazardous is Information  F of Translure  A STATE CARREST SERVICE C	sted hazardous waste as define attached. (Check the appropria RCRA H	ed by 40 CFR, part 261, ste items as provided) azardous Waste Analysis  PORTER  Driver's Name Phone No. Truck No. WHP No. bove and delivered with	Javiv Solven 575 - 441 ey 97  Tout incident to the disposal facility listed below.  Taviv Rower
SHIPMENT D	RUCK TIME STAMP	DHIVER 2 SIGN	DISPOSAL	FACILITY	RECEIVING AREA
IN: 11:5.			reals the amount on guiler	decisis rimini di mi	Name/No.
Site Name/ Permit No. Address	Red Bluff Facility / 5053 US Hwy 285, I	Orla, TX 79770	YES NO THE PARTY OF THE PARTY O	Phone No.  If YES, was reading NORM (mR/hr)	432-448-4239 g > 50 micro roentgents? (Circle One) YES NO
			TANK BO	TTOMS	CONTRACTOR IN LABORATOR AND
1st Guage 2nd Guage Received	Feet	Inci	nes		BS&W Received BS&W (%)  Free Water  Total Received
I hereby certify that t	the above load material has b	een (circle one):	DATE DATE	PEUR	If denied, why?

	CHEVRON							
	MCI	<u>BU</u>						
	Carlsbad, NM							
NO #C	NO #CAR- 4927 NON-HAZARDOUS WASTE MANIFEST 1. PAGE 1 OF 2. TRAILER NO.							
G	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. PI	CK-UP DATE	3		
G	PHONE NO. CITY S	TATE		ZIP 6.				
E	575-887-5676 CARLSBA  7. NAME OR DESCRIPTION OF WASTE SHIPPED:	AD, NM 8822 8		AINERS		10. UNIT		
N	a soil excave ted during spin Comediation - APC 300154(53,5000)		No.	Туре	QUANTITY	WT/Vol.	Yends 20	
E	b. c.							
R	d.							
A	12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost Code			>	13. WASTE P	ROFILE N		
T	14. IN CASE OF EMERGENCY OF CHEVRON CARLSBAD	R SPILL, CO	NTAC	<u>T</u>	24-HOUR 575	EMERGE -887-56		
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this cor	nsignme	nt are fully	and accurate	ly describe	d above.	
R	printed typed name Janes Lovey on behalf of Travis Starters (chevron)	SIGNATURE	1	la p		3/2	DATE 9/22	
T	16. TRANSPORTER (1)	17.	TR	ANSPOR	RTER (2)			
R A	NAME MATA	NAME						
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF EN	MERGE	NCY CON	TACT:			
P	EMERGENCY PHONE:	EMERGENCY I	PHONE	:				
R T	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSPO	ORTE	₹ (2): Ackr	nowledgment	of receipt o	of material	
E	PRINTED/TYPED NAME JONIAL ROWOV  SIGNATURE JONIAL 3-29-22	PRINTED/TYPI	ED NAI	ME				
R S	SIGNATURE Saviar Romandate 3-29-221	SIGNATURE _				DATE		
D F I A	ADDRESS:  R360 Environmental Solutions				PHONE:			
S C P I O L	5053 US Hwy 285 PERMIT NO. Orla, TX 79770	20. COMMENTS	S					
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certification is authorized and permitted to receive such wastes.	fy that the above of	lescribe	d wastes w	ere delivered	to this faci	lity, that the	
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE	n m	TIM	ام	
	Trysteph	$\cup \mathcal{U}_{\mathcal{L}}$		<u>ح</u>	31,30		:53 H	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

	Page	255 0	f 358
	ıy Man Contac	ct inforn	nation
Name 1	Travis	Ste	rens

			(PLEAS	SE PRINT) *REQU	JIRED INFORMATION*	Phone No
Operator No.			GENE	Permit/PPC No.	NO.	247832
Operators Name	Chevron	Carls bad		Lease/Well Name & No.	Coffon Hills	23 26 27
Address	5301 L	omas Dr.	Le transfer and	County	teberal Com	#001#
	( 101 )		8220	API No.	30015415350	000
City, State, Zip Phone No.	575 - 88	37-5676		Rig Name & No. AFE/PO No.	UCRE 10200	Linear and Property
	EXEM	IPT E&P Waste/Servi	ce Identification and Amoun		waste type in barrels or cubic y	ards)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cutting Produced Formation Tank Bottoms E&P Contaminated S	gs I Solids	Wash Comp Produ Gathe	INJECTABLE WATERS nout Water (Non-Injectable) eletion Fluid/Flow Back (Non-Injectable) ering Line Water/Waste (Non-In RNAL USE ONLY	The state of the s	CHOUPON M	
Gas Plant Waste	3011	Truck	Washout (exempt waste)	SE SINGLE SERVICE TO	_ (DB) CA	2LS BAD
WASTE GENERAT	TON PROCESS:	DRILLING	COMPLETION	✓ PRODUC	TION GATHEF	IING LINES
	All non-	exempt E&P waste mus	NON-EXEMPT E&P Waste/S t be analysed and be below thre		mount CP), Ignitability, Corrosivity adn Re	activity.
Non-Exempt Other					elect from <b>Non-Exempt Waste L</b>	
QUANTITY		B-B	BARRELS	en a ach and and awin.	20 Y-YARDS	E-EACH
Transporter's Name Address Phone No.	(PRINT) AUTHORIZED AGI	MA 10 5 363/3/	(Cherron) TRANS	Hazardous Waste Analysis  PORTER  Driver's Name Phone No. Truck No. WHP No.	Jonah ku	grifty makes bit modelli, e policina i successione della compania
I hereby certify that t	the above named mate			above and delivered with	out incident to the disposal facility	listed below.
IN: 11 SS	RUCK TIME STAN	DRIVER'S S	DISPOSA  On Institute of the control	L FACILITY	SOUND TO SEE STATE OF THE SECOND SECO	VING AREA
Site Name/ Permit No.	Red Bluff Fac 5053 US Hwy	ility / STF-065 285, Orla, TX 7977	70	Phone No.	432-448-4239	S OF EAST OF THE PROPERTY OF THE PARTY OF TH
Address			and the second second second	pe male in probable ( = D)		Sing the minimal trains
	NORM READINGS 1		WES NO		> 50 micro roentgents? (Circle	One) YES NO
		FAKEN? (Circle One)	TANKB	If YES, was reading	> 50 micro roentgents? (Circle	One) YES NO
Address  1st Guage 2nd Guage	NORM READINGS T	FAKEN? (Circle One)	TANK B	If YES, was reading NORM (mR/hr)	> 50 micro roentgents? (Circle BS&W Received Free Water	One) YES NO

	CHEVRON							
	MCBU							
	Carlsbad, NM							
NO #C	CAR- 4928 NON-HAZARDOUS WA	STE M	ANIFEST	1. PAC	E_LOF	2. TRAIL	ER NO.	
	3. COMPANY NAME 4. ADDRESS		MAAC DD		5. P	ICK-UP DATI	E	
G	CHEVRON CARLSBAD PHONE NO. CITY		MAS DR. ATE	;	ZIP 6.			
E		ARLSBA	D, NM 882		u D EDG	O TOTAL	10. UNIT	11
_ [	7. NAME OR DESCRIPTION OF WASTE SHIPPED:			No.	AINERS Type	9. TOTAL QUANTITY		Jews
N	a Soil excavand during Spill remediation - APT 30015415	53.00	01					20
	b.							
E	c.							
R	d.							
	12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE I		10.
A	cost code:						IA	
	14. IN CASE OF EMERGE	ENCY O	R SPILL, CO	ONTAC	<u>T</u>	24-HOUR	EMERGE	NCY NO.
T	CHEVRON CARLSBAD						-887-56	
o	15. GENERATOR'S CERTIFICATION: Hereby declared	e that the co	ontents of this c	onsignme	nt are full	y and accurate	ly describe	d above.
R	PRINTED TYPED NAME James Lovely on	٠, ١	SIGNATURE	L			3	DATE   29/22
T	behalf of Travis Stevens (Che 16. TRANSPORTER(1)	(non)	17.	TR	ANSPO	RTER (2)		10.1
R	NAME	ļ	NAME					
A N	M MATA /KUCKING	İ						
S P	IN CASE OF EMERGENCY CONTACT:			OF EMERGENCY CONTACT:				
0	EMERGENCY PHONE:  18. TRANSPORTER (1): Acknowledgment of receipt of man		EMERGENCY  19. TRANSP			nowledgment	of receipt of	of material
R T	1000 1 1		PRINTED/TY					
E R	PRINTED/TYPED NAME	7. 1						
S	SIGNATURE DICK TEM DATE 3/	24/4	SIGNATURE			PHONE	DATE	
D F	ADDRESS:					PHONE	•	
I A	R360 Environmental Solutions 5053 US Hwy 285		20. 601.0 (5).	TO				
S C P I	PERMIT NO. Orla, TX 79770	ŀ	20. COMMEN	15				
O L S I	21. DISPOSAL FACILITY'S CERTIFICATION: 1 He	ereby certif	v that the above	describe	d wastes v	vere delivered	to this faci	lity, that the
A T	facility is authorized and permitted to receive such wastes.	<u>-</u>						
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE	_	TIM	
	msterk -		וטו		(L)	29,22	<u>'    </u>	1.56AL

GENERATOR: COPY 1

TRANSPORTER: COPY 2

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Company	Man Contact Information
-	51.

Compan	y Ivian Cont	act information
Name _	Trants	Stevens

SOLUTIONS			dinancia sumo e interesti pi		Phone No.
		GE	NERATOR	NO	247834
Operator No.		- 154	Permit/PPC No. Lease/Well	cotten Hill	
	herron Carls	Dr.	Name & No. County	Federal con	# 001 H
		88220	API No.	300154153	50001
City, State, Zip Phone No.	75 - 887-5676		<ul><li>Rig Name &amp; No.</li><li>AFE/PO No.</li></ul>	UCRE 10	200
Oil Deced Made	EXEMPT E&P Was	te/Service Identification and Am	nount (place volume next to w		ic yards) TES (type and generation process of the waste)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solid Tank Bottoms E&P Contaminated Soil Gas Plant Waste	s Zo yards	Washout Water (Non-Injectable Completion Fluid/Flow Back (No Produced Water (Non-Injectable Gathering Line Water/Waste (N INTERNAL USE ONLY Truck Washout (exempt waste)	n-Injectable)	(DB)	CAPLS BAD
WASTE GENERATION I	PROCESS: DRILL		N PRODUCT	ION GAT	HERING LINES
	NI (500)		ste/Service Identification and Am		Describity
Non-Exempt Other	All non-exempt tar w	aste must be analysed and be below	CONTRACTOR DESCRIPTION OF THE PARTY OF THE P	ect from Non-Exempt Was	
QUANTITY		B-BARRELS	with a state of the same of the	20 Y-YA	RDS E-EACH
I hereby certify that the ab	nove listed material(s), is (are) n	ot hazardous waste as defined by 40 cording to applicable regulation.	O CFR Part 261 or any applicable s	state law. That each waste ha	s been properly described, classified and
RCRA NON-EXEMP	per load basis  Oil field waste 40 CFR 261.21- waste as non-h  MSDS Informa	only) which is non-hazardous that does no 261.24, or listed hazardous waste a nazardous is attached. (Check the aption	ot exceed the minimum standards s defined by 40 CFR, part 261, sub	s for waste hazardous by char opart D, as amended. The foll	mpt waste (R360 Accepts certifications on a acteristics established in RCRA regulations, owing documentation demonstrating the Other (Provide Description Below)
Transporter's		TRA	NSPORTER		nguises benefitate surville i
Name Address	MANAN	2	Driver's Name Phone No. Truck No.	Jenou O-(	vicen
Phone No I hereby certify that the ab	ove named material(s) was/we	re picked up at the Generator's site	<ul> <li>WHP No.</li> <li>listed above and delivered without</li> </ul>	ut incident to the disposal fac	ility listed below.
SHIPMENT DATE		DRIVER'S SIGNATURE	DELIVERY DATE	- Pri	DRIVER'S SIGNATURE
IN: 401 po	(TIME STAMP  OUT:	DISPO	SAL FACILITY	REC Name/No	EIVING AREA
Address 50	ed Bluff Facility / STF- 053 US Hwy 285, Orla,	TX 79770	stand be broadelitately as a	432-448-4239	eltotric sui se promin.
NORI	M READINGS TAKEN? (Circ	le One) YES NO	If YES, was reading : NORM (mR/hr)	> 50 micro roentgents? (Ci	rcle One) YES (NO)
	Feet	Inches	BOTTOMS	entre.	v tenerika (oftala). Pera anjerika i peningunakan finan bahasanggan k
1st Guage 2nd Guage Received		agains to con-	the minimum of the B	S&W Received Free Water Total Received	BS&W (%)
	nove load material has been (cir	cle one): ACCEPTED 3-29 33	DENIED PCU	denied, why?	enconsecretario del Sociali.

	CHEVRON							
	MCBU							
	Carlsbad, NM							
NO #C	NO #CAR- 4932 NON-HAZARDOUS WASTE MANIFEST 1. PAGE OF 2. TRAILER NO.							
	3. COMPANY NAME 4. ADDRESS	01446.0		5.	PICK-UP DAT	E		
G	CHIEF TO THE CONTRACT OF THE C	OMAS D STATE	K.	ZIP 6.				
_	575-887-5676 CARLSB		88220					
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:	-	8. COI No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yards	
N	a Soil Excavated during spill Rome APT 30015415350001	diation					20	
	b.							
E	c.							
R	d.							
K	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE	PROFILE N	NO.	
A	Cost code UCR	E 10	200		N	A	_	
, A	14. IN CASE OF EMERGENCY O	OR SPILL	, CONTA	CT				
T	CHEVRON CARLSBAD					EMERGE -887-50	4	
	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of t	his consign	nent are fu	illy and accurate	ely describe	ed above.	
0	· ·							
·R	PRINTED TYPED NAME Jones Lavely on behalf of Travis Stevens (Chevron)	SIGNATI	NE /	1		~	DATE	
		1		0			29/22	
T R	16. TRANSPORTER (1) NAME A	NAME	<i>ν</i> τ	RANSPO	ORTER (2)			
A	M MA TA							
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE	OF EMERO	ENCY CO	ONTACT:			
. <b>P</b>	EMERGENCY PHONE:	EMERGENCY PHONE:						
OR	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRA	NSPORT	E <b>R</b> (2): A	cknowledgment	of receipt	of material	
T E	PRINTED/TYPED NAME	PRINTED	/TYPED N	AME				
R S	SIGNATURE JOSCH DATE 3/29/21	1	JRE			DATE		
D F	ADDRESS: R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770				PHONE	<b>:</b> :		
S C P I	PERMIT NO.	20. COMIN	MENTS			-		
O L S I	21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby cert	l tify that the a	bove descri	bed wastes	were delivered	to this fac	ility, that the	
A T L Y	facility is authorized and permitted to receive such wastes.	<b>,</b>				TIN		
~ •	AUTHORIZED SIGNATURE	CELL NO	•	DAT		1 .	1:01 Dr	
1	mitook	101		10	129.20	7 7	.01 11	

GENERATOR: COPY 1

TRANSPORTER: COPY 2



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

0	Page 259 of 358
T INCOL	ontacymiomiation
Name \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	11> Siedeli
Phono No	

SJEUTIONS	OE1	NERATOR	NO.	Phone No
Overetes No	GEN		NU.	247835
Operator No.		Permit/PPC No. Lease/Well	Cotton Hills	23 26 27
171 FOR 1 REMOVED AND 12 (12 %)	arls bad	Name & No.	Federal Con	9 # 001 H
Address 5301 Lone	s br.	. County . API No.	3001541535	10001
City, State, Zip Phone No.  Corls had N 575 - 887 -	1M 88220 5676	Rig Name & No. AFE/PO No.	UCRE 1020	rosa on X and nyl
EXEMPT E&P	Waste/Service Identification and Amo	ount (place volume next to v		MANUSCRIPTOR CONTROL OF THE PROPERTY OF THE PR
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	MON-INJECTABLE WATERS  Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Produced Water (Non-Injectable) Gathering Line Water/Waste (Nor	in great in a continue.	OTHER EXEMPT WASTES  OB) CAR	(type and generation process of the waste)  LLS BAD
E&P Contaminated Soil 20 Year Gas Plant Waste	Truck Washout (exempt waste)			
	DRILLING COMPLETION	PRODUCT	TION GATHER	IING LINES
		te/Service Identification and Ar		
	&P waste must be analysed and be below t	threshold limits for toxicity (TCI	LP), Ignitability, Corrosivity adn Rea	
Non-Exempt Other		*please sei	lect from Non-Exempt Waste Li	ist on back
QUANTITY	B-BARRELS	ng att att hall gable att	20 Y-YARDS	E-EACH
40 CFR 26 waste as MSDS Inf  MSDS Inf  PRINT) AUTHORIZED AGENTS SIGNA  Transporter's	vaste which is non-hazardous that does not \$1.21-261.24, or listed hazardous waste as a non-hazardous is attached. (Check the approximation RC	defined by 40 CFR, part 261, surpriate items as provided) RA Hazardous Waste Analysis  SPORTER  Driver's Name Phone No. Truck No. WHP No.	Compart D, as amended. The following of the signature of the signature of the disposal facility	ng documentation demonstrating the r (Provide Description Below)
TRUCK TIME STAMP IN: 132 Quout:	DISPOS	AL FACILITY	RECEIV Name/No.	ING AREA
Site Name/ Permit No. Address  Red Bluff Facility / S 5053 US Hwy 285, Ou  NORM READINGS TAKEN?	rla, TX 79770	orace One plant start that gains	432-448-4239  > 50 micro roentgents? (Circle	One) YES NO
ion and source transfer that is a second	TANK	BUTTOMS	24 12 15 15 15 15 15 15 15 15 15 15 15 15 15	ton and the management
Feet	Inches	DOLLONIS	see Canada end St.	g Paul Inter Brossof in A
1st Guage 2nd Guage Received	appears as a state of the state	THE REPORT OF THE PARTY OF THE	SS&W Received Free Water Total Received	BS&W (%)
I hereby certify that the above load material has bee	en (circle one): 3 ACCEPTED DATE	DENIED PECUL	f denied, why?	SIGNATURE

	CHEVRON							
	MCBU							
	Carlsbad, NM							
NO #	CAR- 4929 NON-HAZARI	OOUS WASTE N	<b>1ANIFEST</b>	1. PAG	E <b>↓</b> OF	2. TRAIL	ER NO.	
	3. COMPANY NAME	4. ADDRESS	OMAS DR.		5. P	ICK-UP DATE	3	
G	CHEVRON CARLSBAD PHONE NO.		TATE	Z	(IP 6.			
E	575-887-5676		AD, NM 882	220 8. CONT	ADIERS	9. TOTAL	10. UNIT	111
_	7. NAME OR DESCRIPTION OF WASTE SHIP			No.	Туре	QUANTITY		Yards
N	a. Soil Excavoled during APT 3001541535000		diation					20
10	b.							
E	с.							
R	d.		·			TO THE COTT I	POET E	10
	12. COMMENTS OR SPECIAL INSTRUCTION	_		<b></b>	_	13. WASTE I	VIA	, i.o.
A	14. IN CASE O	COST COSE  OF EMERGENCY CO				<u> </u>	1/4	
Т		J. Livillia	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				EMERGE -887-5	ENCY NO.
1	CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignme	nt are ful			
0	IJ. GENERATOR S CERTIFICATION	110100y 20011110				•		
_	PRINTED TYPED NAME Jares L	ovely on	SIGNATURE		/			DATE
R	printed typed name Janes Labella of Travis Steve	٧٤	1	of	<u> </u>		3	28/22
T R	16. TRANSPORTER (1) NAME		17. C	C TR	ANSPO	RTER (2)		
A	NAME		M	, N	ato	1 +		
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF	OF EMERGENCY CONTACT:				
P O	EMERGENCY PHONE:		EMERGENCY					
R T	18. TRANSPORTER (1): Acknowledgment	of receipt of material	19. TRANSI	SPORTER (2): Acknowledgment of receipt of material				
E	PRINTED/TYPED NAME		PRINTED/TY	PED NAI	ме <u>«Т. А</u>	<u>amon</u>	Kaw	1406
R S	SIGNATURE	DATE	SIGNATURE	Lan	ME RAMON RAWLYEZ Wen Rawliez DATP3/29-20			5/27-ac
		ADDRESS:				PHONE	S:	'
	5053 US H	4 285	T.,					
S (	PERMIT NO. Oria, TX 7	9770	20. COMMEN	112				
0	L 21. DISPOSAL FACILITY'S CERTIFIC	CATION: I Hereby cer	tify that the abov	e describe	d wastes	were delivered	to this fac	ility, that the
ŀ	$oldsymbol{\Gamma}$ facility is authorized and permitted to receive su	ch wastes.	<del></del>					ME
	AUTHORIZED SIGNATURE		CELL NO.		DATE 2	29.2		r: 33 _ ~
	nopp		1 P/		<u> </u>	-1		מקנניו

GENERATOR: COPY 1

TRANSPORTER: COPY 2

Company Man Contact	61 of 358 Information
Name Traus S	tever c

R360	2 10:01:39 AM TEXAS NON-HAZARDO (PL		MANIFEST  UIRED INFORMATION*	Company Man Contact Informat  Name Trau S Steven  Phone No.
Operator No. Operators Name Address  S301		Permit/PPC No. Lease/Well Name & No. County	Cotton Hills Federal Com H	247836 23 26 27 001 H
	4, NM 88220 387-5676 EMPT E&P Waste/Service Identification and Am	API No. Rig Name & No. AFE/PO No.	300 154 153 5 UCRE 10 20	00
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non Produced Water (Non-Injectable) Gathering Line Water/Waste (Non INTERNAL USE ONLY Truck Washout (exempt waste)	n-Injectable)	OTHER EXEMPT WASTE	ES (type and generation process of the waste
WASTE GENERATION PROCESS:	☐ DRILLING ☐ COMPLETION	N PRODUC	CTION GATH	ERING LINES
All n	NON-EXEMPT E&P Wa on-exempt E&P waste must be analysed and be below	Company of the Compan	Amount CLP), Ignitability, Corrosivity adn F elect from <b>Non-Exempt Waste</b>	
QUANTITY	B-BARRELS		20 Y-YARI	DS E-EACH
	aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as	tion and production operation a of exceed the minimum standar of defined by 40 CFR, part 261, s	e state law. That each waste has and are not mixed with non-exem rds for waste hazardous by charac	been properly described, classified and properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulations).
ackaged, and is in proper condition for RCRA EXEMPT:  RCRA NON-EXEMPT:	aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the approximate in the second state of the second	tion and production operation a of exceed the minimum standar of defined by 40 CFR, part 261, s	e state law. That each waste has and are not mixed with non-exem rds for waste hazardous by charac subpart D, as amended. The follow	been properly described, classified and properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulation demonstrating the her (Provide Description Below)
ackaged, and is in proper condition for RCRA EXEMPT:  RCRA NON-EXEMPT:	oterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the application)  MSDS Information	tion and production operation a of exceed the minimum standar of defined by 40 CFR, part 261, s propriate items as provided) CRA Hazardous Waste Analysi	e state law. That each waste has and are not mixed with non-exem rds for waste hazardous by charactubpart D, as amended. The follows:	been properly described, classified and properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulation demonstrating the her (Provide Description Below)
RCRA EXEMPT:  RCRA NON-EXEMPT:  RCRA NON-EXEMPT:  RCRA NON-EXEMPT:  PRINT) AUTHORIZED  Transporter's Name Address  Phone No.  hereby certify that the above named n	aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the application RSDS Information	tion and production operation and texceed the minimum standars defined by 40 CFR, part 261, so propriate items as provided) CRA Hazardous Waste Analysi  3 29/22  NSPORTER  Driver's Name Phone No. Truck No. WHP No. isted above and delivered with	and are not mixed with non-exements for waste hazardous by characteubpart D, as amended. The following STORMATE	been properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulation documentation demonstrating the her (Provide Description Below)
RCRA EXEMPT:  RCRA NON-EXEMPT:  RCRA NON-EXEMPT:  (PRINT) AUTHORIZED  Transporter's Name Address  Phone No.	aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the application Research of Transportation Research of Transportatio	tion and production operation and texceed the minimum standars defined by 40 CFR, part 261, so cropriate items as provided) CRA Hazardous Waste Analysi  3 29/22  DATE  Driver's Name Phone No. Truck No. WHP No. isted above and delivered with	and are not mixed with non-exeminated for waste hazardous by characted subpart D, as amended. The following SIGNATE STATE STAT	been properly described, classified and properly described, classified and properly waste (R360 Accepts certifications of cteristics established in RCRA regulation demonstrating the wing documentation demonstrating the her (Provide Description Below)
RCRA EXEMPT:  RCRA NON-EXEMPT:   aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the application of the property of	tion and production operation as the exceed the minimum standars defined by 40 CFR, part 261, so propriate items as provided) CRA Hazardous Waste Analysi  3 29/22  NSPORTER  Driver's Name Phone No. Truck No. WHP No. isted above and delivered with 3 - 29 - 2  DELIVERY DATE  Phone No.  Phone No.	and are not mixed with non-exem rds for waste hazardous by character subpart D, as amended. The follows:    Other Company of the company of t	been properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulation of the regulation of the provide Description Below)  URE  Ty listed below.  DRIVER'S SIGNATURE  IVING AREA	
RCRA EXEMPT:  RCRA NON-EXEMPT:   aterial(s), is (are) not hazardous waste as defined by 40 transportation according to applicable regulation.  Oil field wastes generated from oil and gas explora per load basis only)  Oil field waste which is non-hazardous that does not 40 CFR 261.21-261.24, or listed hazardous waste as waste as non-hazardous is attached. (Check the applicable of the property of t	tion and production operation as the exceed the minimum standars defined by 40 CFR, part 261, so propriate items as provided) CRA Hazardous Waste Analysi  3 29/22  NSPORTER  Driver's Name Phone No. Truck No. WHP No. isted above and delivered with 3 - 29 - 2  DELIVERY DATE  Phone No.  Phone No.	and are not mixed with non-exeminated for waste hazardous by characted subpart D, as amended. The following Signature of S	been properly described, classified and pt waste (R360 Accepts certifications of cteristics established in RCRA regulation of the regulation of the provide Description Below)  URE  Ty listed below.  DRIVER'S SIGNATURE  IVING AREA	

CHEVRON								
	MCBU							
	Carlsbad, NM							
NO #0	CAR- 4933 NON-HAZARI	OUS WASTE N	<b>IANIFEST</b>	1. PAC	E <u>l</u> of	2. TRAIL	ER NO.	
	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS	OMAS DR.		5. P	ICK-UP DATI	8	
G	PHONE NO.	CITY S	TATE		ZIP 6.			
E	575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIP		AD, NM 882		TAINERS	9. TOTAL	10. UNIT	11. Yards
		spill Remedia	N-AA	No.	Туре	QUANTITY	WT/Vol.	Yards
N	APT 300154153500		57 O/I					20
E	b.							
_	d.							
R	12. COMMENTS OR SPECIAL INSTRUCTION	<u>s</u> .				13. WASTE I	PROFILE N	1O.
A		code uch	E 102	200			A۱	
A		F EMERGENCY O			T			_
T	CHEVRON CARLSBAD						EMERGE -887-56	
_	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignme	ent are full	y and accurate	ly describe	d above.
0	•.							
R	PRINTED TYPED NAME James La	rely on	SIGNATURE	1 1	Per	-		DATE 29/22
	behalf of Travis Stevens  16. TRANSPORTER (1)	s (chusen)	17.	TR	ANSPO	RTER (2)		127/62
T R	16. TRANSPORTER (1)  NAME  MATATA	er 2-1 2 1	17. TRANSPORTER (2) NAME					
A N	17 MAIAIM	UTIPLI						
S	IN CASE OF EMERGENCY CONTACT:			IN CASE OF EMERGENCY CONTACT:				
O R	EMERGENCY PHONE:  18. TRANSPORTER (1): Acknowledgment of	freceint of material	EMERGENCY  19. TRANSI			mowledgment	of receipt of	of material
T	PRINTED/TYPED NAME TAVI	_	PRINTED/TY					
E R S	SIGNATURE Javier Bovon		1				DATE	
3	SIGNATORE STORY	ADDRESS:				PHONE	:	
D F	07797 XT ,shO							
I A S C	PERMIT NO. Solutions Solutions ON LIMPA 265	E5.	20. COMMEN	TS				
P I O L								
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc	ATION: I Hereby certification wastes.	ify that the above	describe	ed wastes v	were delivered	to this faci	lity, that the
L Ŷ	AUTHORIZED SIGNATURE		CELL NO.		DATE	-	TIM	1E
	mstepl		<b>5</b>		<u> </u>	29,8	2 3	2.43 pm

Company Ma	an Contact Informa	į

Company	Man Cont	act inton	nation
N To		CL.	

ENVIRONMENTAL SOLUTIONS	(PLEASE	PRINT) *REQUIRED	O INFORMATION*	e No
Operator No.  Operators Name Chevron Conlab	GENER	Permit/PPC No. Lease/Well	NO. Hon Hills 23 Federal Com # 0	247837 26 27 201 H
Address S301 Lomes D	<u>C </u>	County	300154153500	201
City, State, Zip Phone No.  Con 15 bs.d., NM 8 575 - 887 - 567 6	8220	Rig Name & No.	JCRE 10200	
	Service Identification and Amount (	7112/10110.		
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil	NON-INJECTABLE WATERS Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Inject Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Inject INTERNAL USE ONLY Truck Washout (exempt waste)	able)	OTHER EXEMPT WASTES (type a	ad generation process of the waste) SBAD
WASTE GENERATION PROCESS: DRILLING	COMPLETION		☐ GATHERING L	INES
All non-evernot F&P waste	NON-EXEMPT E&P Waste/Ser must be analysed and be below thresh	vice Identification and Amount	nitability Corrosivity and Reactivity	
Non-Exempt Other	mast be analysed and se below thosh		om Non-Exempt Waste List on	
QUANTITY	B-BARRELS	o and a fill of the order	20 Y-YARDS	E-EACH
MSDS Information  James Lovey on behalf of  (PRINT) AUTHORIZED AGENTS SIGNATURE S	Travis 3/2 tevens (German) DAT	922_	SIGNATURE	ide Description Below)
Transporter's Name Address  Phone No.	TRANSP	PORTER  Driver's Name Phone No.  Truck No.  WHP No.	Jona Lh	A STATE OF THE STA
I hereby certify that the above named material(s) was/were p	the properties and addition of	bove and delivered without inci	Mande	1 budg
TRUCK TIME STAMP IN: Se count:	DISPOSAL	FACILITY	RECEIVING Name/No.	AREA
Site Name/ Permit No. Address  Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX		coder since	448-4239	A STATE OF THE STATE OF T
NORM READINGS TAKEN? (Circle O	ne) (ES NO	If YES, was reading > 50 r NORM (mR/hr)	micro roentgents? (Circle One)	YES (NO
Feet	TANK BO	TTOMS		
1st Guage 2nd Guage Received	Address State of the Con-	Page 1	/ Received ree Water I Received	BS&W (%)
hereby certify that the above load material has been (circle of	one): ASCEPTED E	DENIED If denie	ed, why?	poliphote that all the second

CHEVRON								
	MCBU							
	Carlsbad, NM							
NO #	CAR- 4931 NON-HAZARDOUS	S WASTE N	MANIFEST	1. PAG	E OF	1 2. TRAIL	ER NO.	
G	3. COMPANY NAME  CHEVRON CARLSBAD  4. ADD	DRESS 5301 L	OMAS DR.		5. PI	CK-UP DATE		
	PHONE NO. CITY 575-887-5676	S	TATE AD, NM 882		(IP) 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:	Criticado		8. CONTA	AINERS Type	9. TOTAL QUANTITY		II. Yards
N	a Soil Excavated during	SPill Re	mediation		Турс	QOANTITT	W 17 VOI.	20
-	b.							
E	c.							
R	d.  12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE P	ROFILE N	io.
A		Code	UCRE	1020	1		VA	
	14. IN CASE OF EM	ERGENCY O	R SPILL, CO	ONTAC	Γ .	24-HOUR	EMER CE	NCV NO
T	CHEVRON CARLSBAD						887-56	
o	15. GENERATOR'S CERTIFICATION: Hereby	declare that the	contents of this c	onsignmer	nt are fully	and accurated	y describe	d above.
R	PRINTED TYPED NAME Jones Lovely	100	SIGNATURE DATE				DATE	
	behalf of Trais Stevens							
T R	16. TRANSPORTER (1) NAME		17. NAME	TRA	ANSPOR	TER (2)		
A N	m nutu ha							
S P	IN CASE OF EMERGENCY CONTACT:  EMERGENCY PHONE:		IN CASE OF EMERGENCY CONTACT:  EMERGENCY PHONE:					
O R	18. TRANSPORTER (1): Acknowledgment of receip	t of material		19. TRANSPORTER (2): Acknowledgment of receipt of material				f material
T E	PRINTED/TYPED NAME	th	PRINTED/TYI	PED NAM	Œ			
R S	S SIGNATURE DATE 3/74 SIGNATURE				DATE			
D F	ADDI	RESS:				PHONE:		
I A	R360 Environmental Solutions 5053 US Hwy 285		20 COMMENT	re				
S C P I O L	PERMIT NO. Orla, TX 79770	·	20. COMMENTS					
SIAT	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such waste:		fy that the above	described	wastes w	ere delivered t	o this facil	ity, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE		TIM	
	misters		0		3-	29-2.	2//	· Sle pr

GENERATOR: COPY 1

TRANSPORTER: COPY 2

0	Page 265 of 358 Man Contact Information
Company	Man contact information

Company	Man	ontact	inform	ation
Name	avi	5 S.	tere	2

	TEXAS NON-HAZARDOUS OILFIELD V	VASTE MANIFEST
R360 ENVIRONMENTAL SOLUTIONS	(PLEASE PRINT)	*REQUIRED INFORMATION*

SOLUTIONS SOLUTIONS		, and the second	STREET STREET	MED IN OUNTAINON	Phone No.
		GI	ENERATOR	NO	247838
Operator No.	200		Permit/PPC No. Lease/Well	Cotton Hills	23 26 27
Operators Name		shad	Name & No.	Federal Com	# 0014
Address	5301 Lomes	Dr.	County API No.	30015411535	ml
City, State, Zip Phone No.	Carlsbad, NM 575 - 887-5676	88220	Rig Name & No.  AFE/PO No.	VCRE lozoc	many with 5 months nell
Oil Based Muds	EXEMPT E&P Wa	ste/Service Identification and Al NON-INJECTABLE WATERS	mount (place volume next to v	The same of the sa	c yards) ES (type and generation process of the waste)
Oil Based Cutting: Waste Based Mul Water Based Cutt Produced Formation Tank Bottoms E&P Contaminate:	ds tings ion Solids	Washout Water (Non-Injectable Completion Fluid/Flow Back (Non-Injectable Completion Fluid/Flow Back (Non-Injectable Cathering Line Water/Waste (Non-Injectable Cathering Line Water/Waste (Non-Injectable Cathering Line Water	on-Injectable)	See	to type and galleration process or the waster
Gas Plant Waste	20 yass	Truck Washout (exempt waste)	सामाध्यास्य । जन्मकानाः वर्षाः	_ (DB)	ARLSBAD
WASTE GENERA	ATION PROCESS: DRIL	LING COMPLETION	ON RODUC	TION GATH	ERING LINES
	All non-exempt F&P v	NON-EXEMPT E&P W waste must be analysed and be belo	aste/Service Identification and A	mount LP) Ignitability Corrosivity adn.	Reactivity.
Non-Exempt Othe				lect from Non-Exempt Waste	
QUANTITY		B-BARRELS	many anthony a figure	20 Y-YAR	DS E-EACH
	at the above listed material(s), is (are) n proper condition for transportation a		40 CFR Part 261 or any applicable	state law. That each waste has	been properly described, classified and
RCRA EXEN			ration and production operation a	nd are not mixed with non-exem	npt waste (R360 Accepts certifications on
RCRA NON-	per load basis		not aveged the minimum standars	de for wasta hazardous hy chara	cteristics established in RCRA regulations
III HUNA NUN-	40 CFR 261.21		as defined by 40 CFR, part 261, su		wing documentation demonstrating the
	MSDS Inform		RCRA Hazardous Waste Analysis	Or	ther (Provide Description Below)
T /-	h 1 10	^ <del>-</del>	2 20	10	A STATE OF THE STA
James 40	(PRINT) AUTHORIZED AGENTS SIGNATURE	Stevens (Charron)	3/29/22 DATE	SIGNAT	URE
Transporter's		TRA	NSPORTER		proposal Bowlin + 20
Name	M. Mata T	rucking	Driver's Name	Ramon	Ramirez
Address	WhP 733	7	Phone No. Truck No.	56	
Phone No.	Serior state accelles nortrare		WHP No.	7337	
I hereby certify that	at the above named material(s) was/w	ere picked up at the Generator's site	e listed above and delivered without the state of the sta	out incident to the disposal facil	ity listed below.
SHIPMENT	T DATE	DRIVER'S SIGNATURE	DELIVERY DATE	-c jame	DRIVER'S SIGNATURE
J	TRUCK TIME STAMP	DISPO	SAL FACILITY	RECE	EIVING AREA
IN: 5:/9	9 pm OUT:	Trig Portation		Name/No	D/ temperature
Site Name/ Permit No. Address	Red Bluff Facility / STF 5053 US Hwy 285, Orla,		Phone No.	432-448-4239	Control of Manager and Co
	NORM READINGS TAKEN? (Circ	cle One) YES (NO		> 50 micro roentgents? (Ciro	cle One) YES NO
	127 Carlotte 1996 27	TAN	K BOTTOMS	The state of the state of	control compilerations of
1st Guage	Feet	Inches	2 days of the property of	BS&W Received	BS&W (%)
2nd Guage	S. A. S. S. S.		of both in the last open worths worther to	Free Water	Contraction of the Contraction o
Received	And the second second second			Total Received	
I hereby certify that	at the above load material has been (c	ircle one): SACCEPTED	2 DENIED DO 1/2	f denied, why?	gon existado y la 1993 o la Levania La Cocacy, Bonda e
	NAME (PRINT)	DATE	TITLE		SIGNATURE
					value of the boards W.

		CHEV						
		MCI	<b>3U</b>					
		Carlsba	d, NM					
NO #	CAR- 4935 NON-HAZARI	DOUS WASTE	MANIFEST	l. PAG	E_LOF_	2. TRAIL	ER NO.	
_	3. COMPANY NAME	4. ADDRESS	OMAS DR		5. P	ICK-UP DAT	Е	
G	CHEVRON CARLSBAD PHONE NO.		OMAS DR.	Z	<sub>IP</sub> 6.			
E	575-887-5676		AD, NM 882				le Inum	6.
	7. NAME OR DESCRIPTION OF WASTE SHIP			8. CONT. No.	Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yands
N	a Soil Excavated during	Spill Pene	diatton		·			20
	b.							
E	c.							
R	d.							
1	12. COMMENTS OR SPECIAL INSTRUCTION					13. WASTE I		10.
A	Cost	code ucr	IE 102	00		N	<u> </u>	
	14. IN CASE (	OF EMERGENCY (	OR SPILL, C	ONTAC	<u>r</u>	24-HOUR	EMERGE	NCY NO.
T	CHEVRON CARLSBAD						-887-56	
•	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	consignmen	nt are full	y and accurate	ely describe	d above.
0	3.		<b></b>					
R	PRINTED TYPED NAME Jack Low		SIGNATURE	P	1_			DATE 29/22
<u> </u>	hehalf of Travis Stevens  16. TRANSPORTER (1)	(Chewor)	17.	TR	NSPO	RTER (2)	<u> </u>	27,00
T R	16. TRANSPORTER (1) NAME		NAME	110	E IDI O	KILIK (2)		
A N			$M_{i}$	Ma	ta	ナ		
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF			NTACT:		
P O	EMERGENCY PHONE:		EMERGENCY					
R T	18. TRANSPORTER (1): Acknowledgment	of receipt of material	19. TRANSI					
E R	PRINTED/TYPED NAME		PRINTED/TY	PED NAM	1E <u>///</u> 0	amon	Naw	<u>lire</u> z 3-29-2:
S	SIGNATURE	DATE	SIGNATURE	Kama	n Ka	mirez	DATE <	
	D260 Environmental &	ADDRESS:				PHONE	:	
D F I A	R360 Environmental Soli 5053 US Hwy 285	Dons						
S C P I	PERMIT NO.		20. COMMEN	TS				
O L								lie doshe
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive sur	CATION: I Hereby cert ch wastes.	tify that the above	e described	i wastes v	were delivered	to this faci	nty, mat me
LY			CELL NO.		DATE		TIM	
	milteph		D/		\$ <u>2</u>	290	<del>시</del> 5	5.20 pm

GENERATOR: COPY 1

TRANSPORTER: COPY 2

Free Water

I hereby certify that the above load material has been (circle one):

Received

ACCEPTED

DENIED

If denied, why?

Total Received

	CHEV MCI						
	Carlsba	d, NM					
NO #0	CAR- 4936 NON-HAZARDOUS WASTE N	MANIFEST	1. PAC	GE <u>l</u> of	1 2. TRAIL	ER NO.	
	3. COMPANY NAME 4. ADDRESS	01116 DD		5. P	ICK-UP DATE	Ξ	
G		OMAS DR.		ZIP 6.			
E	575-887-5676 CARLSB	AD, NM 882					Lag
2	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CON' No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yards
N	a Soil Excavated during Spill Reme APT 30015415350001	diation					20
	b.						
E	c.						
R	d.						
	12. COMMENTS OR SPECIAL INSTRUCTIONS:	0.5			13. WASTE F	The state of the s	NO.
A	Cost code vo	HE EA ES	The state of the s			NA	
	14. IN CASE OF EMERGENCY O	OR SPILL, CO	ONTAC	ET	24-HOUR	EMERGE	NCY NO.
T	CHEVRON CARLSBAD					-887-5	
0	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignm	ent are ful	ly and accurate	ly describe	ed above.
		I		_		-	DATE
R	PRINTED TYPED NAME Jores Lovely on behalf of Travis Stevens (chevron)	SIGNATURE	Let			3/	DATE 29/22
Т	16. TRANSPORTER (1)	17.	TR	ANSPO	RTER (2)	-/	
R A	NAME OF ALLEY TO TO LIFE YOUR	NAME					
N	M MATA TRUCKING						
S P	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF I			NTACT:		
O R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI			mowledgment	of receipt	of material
T E	PRINTED/TYPED NAME JAVIV POWON	PRINTED/TY					
R S	SIGNATURE Javier POlvopate3-29-72					DATE	
D F I A	R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770				PHONE:		, = '
S C P I	PERMIT NO.	20. COMMEN	TS				
O L S I A T	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Hereby cert facility is authorized and permitted to receive such wastes.	I ify that the above	describe	ed wastes v	were delivered	to this faci	lity, that the
LY	AUTHORIZED SIGNATURE  M. Step L	CELL NO.		DATE	-29-	22 <sup>TIM</sup>	.38

April 100	A ME ME	SA & A THEFA	in any arm

\*REQUIRED INFORMATION\*

		Page	269	of 35	
Company	Man	Contact	info	mation	

Company	TVIGIT OF	medet inionnati	UII
Namel	avis	Stevens	

Received by OCD: 6/15/2022 10:01:39 AM
TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

lamel Cavis	Stevens
Phone Mo	

		GENE	RATOR	NO.	247841
Operator No.			Permit/PPC No. Lease/Well	Cotton Hills 2	3 26 27
	euron Corls	bud	Name & No.		001 H
Address			County API No.	300154153500	01
City, State, Zip Phone No.  57	5-887-5676	8220	Rig Name & No.	UCBE 10280	A PARTY OF THE PAR
Phone No.	1.17.1		AFE/PO No.	vaste type in barrels or cubic yards	
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	20 Yeads	NON-INJECTABLE WATERS  Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injel) INTERNAL USE ONLY Truck Washout (exempt waste)	ctable)	OTHER EXEMPT WASTES (type	r and generation process of the waste)
WASTE GENERATION PRO	CESS: DRILLING	COMPLETION	₩ PRODUCT	TION GATHERING	LINES
	All non-exampt F&P wasta	NON-EXEMPT E&P Waste/Se		nount LP), Ignitability, Corrosivity adn Reactiv	atu .
Non-Exempt Other	Par Horr Cardings Lost Wishe	Phose the disdyscu and be below these	NAME OF TAXABLE PARTY.	lect from Non-Exempt Waste List of	
QUANTITY		B-BARRELS		2OY-YARDS	E-EACH
	listed material(s), is (are) not h		Part 261 or any applicable	state law. That each waste has been p	properly described, classified and
Transporter's Name Address  Phone No. I hereby certify that the above SHIPMENT DATE  TRUCK TI	per load basis only.  Oil field waste whi  40 CFR 261.21-261.  waste as non-haza.  MSDS Information  MSDS Information  AUTHORIZED AGENTS SIGNATURE	ch is non-hazardous that does not exc.  24, or listed hazardous waste as defin rous is attached. (Check the appropriation of RCRA)  Towns Stevens 3 Beauty Decreased in the control of the	peed the minimum standard led by 40 CFR, part 261, su ate items as provided) Hazardous Waste Analysis  PORTER  Driver's Name Phone No. Truck No. WHP No. above and delivered witho	SIGNATURE  And the disposal facility lists to the disposal facility list to the disposal facility lists to the disposal faci	cs established in RCRA regulations ocumentation demonstrating the ovide Description Below) and below.
Address 5053	Bluff Facility / STF-065 US Hwy 285, Orla, TX READINGS TAKEN? (Circle O	79770	NORM (mR/hr)	432-448-4239  > 59 micro roentgents? (Circle One 3S&W Received Free Water Total Received	BS&W (%)
I hereby certify that the above	load material has been (circle o	one): ACCEPTED ACCEPTED DATE	DENIED PERE	f denied, why?	IGNATURE

	CHEV	RON					
	MCI	$\mathbf{B}\mathbf{U}$					
	Carlsba	d, NM					
NO #	CAR- 4942 NON-HAZARDOUS WASTE N	MANIFEST	Г 1. РАС	GE_LOF_	L 2. TRAIL	ER NO.	
G	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMACDD	•	5. P	ICK-UP DATI	Ξ	
G	PHONE NO. CITY S	OMAS DR. STATE	19 25	ZIP 6.			
E		AD, NM 882		PA INITING	O TOTAL	lo iburi	11
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:	IS	No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	"Yards
N	a. Soll Excavated during SPIII Renea	liat/00					20
E	b.						
13	c.						
R	d.						
	12. COMMENTS OR SPECIAL INSTRUCTIONS:  COST Code 1	0200			13. WASTE F	ROFILE N	0.
A	14. IN CASE OF EMERGENCY O		ONTAC	T			
T	CHEVRON CARLSBAD					EMERGER-887-56	Charles and the same of the sa
	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignme	ent are full			
O	2						
R	PRINTED TYPED NAME Jones Lovely on	SIGNATURE	1	//	_	-1	DATE 0/22
	printed typed NAME Jones Lovely on behalf of Travis Stevens	/	py	7		3/3	0/22
T R	16. TRANSPORTER (1) NAME	17. NAME	TR	ANSPO	RTER (2)		
A N	M MATA	1. 22.20 Sept. 40.40 Per 1. 10.20 Sept. 10					
$\mathbf{s}$	IN CASE OF EMERGENCY CONTACT:	IN CASE OF I	EMERGE	NCY CON	NTACT:		
P O	EMERGENCY PHONE:	EMERGENCY	= 100 A 10 23 23 C 4				
R T	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI					- 1
E R	PRINTED/TYPED NAME AND	PRINTED/TY	PED NA	ME			
S	SIGNATURE DATES TO THE	SIGNATURE				DATE	
	ADDRESS: R360 Environmental Solutions				PHONE:		
D F I A	5053 US Hwy 285 Orla, TX 79770						
S C P I	PERMIT NO.	20. COMMEN	TS				
O L S I	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby cert	ify that the above	deccribe	d wastes u	ere delivered	to this facil	ity that the
A T	facility is authorized and permitted to receive such wastes.	ny mai me above	describe	u wastes w	ore delivered		
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE 2	20 2	TIM	
	instead			2	50°2	1 1	0:394

GENERATOR: COPY 1

TRANSPORTER: COPY 2

	Company Man Contact Information
N.1-#-	Name Travis Stevens

ENVIRONMENTAL SOLUTIONS	(PI	LEASE PRINT) *REQUIRE	D INFORMATION* Phone	No
Address 5301 Lon City, State, Zip Cod S bod, A	Carlsbad as Dr.	Name & No County API No Rig Name & No	otton Hills 23 Federal com # 0	247842 26 27 001 H
Phone No. 575 - 887		- ALL/TO NO.	ICRE 10200	No madages to
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	E&P Waste/Service Identification and Ar  NON-INJECTABLE WATERS  Washout Water (Non-Injectable Completion Fluid/Flow Back (No Produced Water (Non-Injectable Gathering Line Water/Waste (Non-Injectabl	on-Injectable)	OTHER EXEMPT WASTES (type and	
WASTE GENERATION PROCESS:	DRILLING COMPLETION		☐ GATHERING LII	NES
All non-exer	NON-EXEMPT E&P Want E&P waste must be analysed and be below		t pritability, Corrosivity adn Reactivity. From <b>Non-Exempt Waste List</b> on b	ack
QUANTITY	B-BARRELS	- Mexicol value in wife of	20 Y-YARDS	E-EACH
40 C was	ield waste which is non-hazardous that does no FR 261.21-261.24, or listed hazardous waste at the as non-hazardous is attached. (Check the application of the strength of the	as defined by 40 CFR, part 261, subpar	D, as amended. The following docur	
Transporter's Name Address  Phone No.  Thereby certify that the above named material SHIPMENT DATE  Thereby Cartify that the above named material Thereby Cartif	(s) was/were picked up at the Generator's site	Phone No. Truck No. WHP No.	cident to the disposal facility listed by  Roberto  DRIVER'S S	elow.
TRUCK TIME STAMP IN: 155 PWOUT:	DISPO	SAL FACILITY	RECEIVING A	AREA
Site Name/ Permit No. Address  Red Bluff Facilit 5053 US Hwy 28		Phone No	-448-4239	delsamentes
NORM READINGS TAK	EN? (Circle One) (YES) NO	If YES, was reading.≥50 NORM (mR/hr)	micro roentgents? (Circle One)	YES (NO)
1st Guage Feet 2nd Guage Received	Inches	Into Library III. policy may the	V Received Free Water al Received	BS&W (%)
I hereby certify that the above load material ha	s been (circle one): ACCEPTED	DENIED DEV &	ied, why?	State State of the

Generator - to be completed by the generator of the waste in transit

Company man contact information – Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. – Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. - Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number.

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion – Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

Commercial Facilities — Waste that is generated at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit — Waste which is spilled while in transit, NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from

the spill (typically trucking, post-production pipelines, or barges)

Transporter - To be completed by the waste hauler/transporter in the presence of the generator

**Transporter name** – Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. – List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- . Offshore Oil Based cuttings

#### Water Based Mud

- · Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

#### Water Based Cuttings

- · Water Based Drill cuttings
- · Offshore Water Based cuttings

## Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### E&P Contaminated Soil

· On-Lease oil spill

## Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

#### Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

#### Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

- · Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- · E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

		CHEV						
	44.	MCI	BU					
		Carlsba	d, NM					
NO #(	CAR- 4945 NON-HAZARI	OOUS WASTE	MANIFEST	1. PAC	GE_LOF	1 2. TRAII	ER NO.	
G	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS	OMAS DR.		5. P	ICK-UP DAT	Е	
	PHONE NO. 575-887-5676	CITY	STATE AD, NM 882		ZIP 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIP				TAINERS Type	9. TOTAL QUANTITY	10. UNIT	11.
N	a. Soll Excavered during Apt 300154153	9 Spill Re	mediation		Турс	QUANTITI	W 17 VOI.	Yards 20
E	b. с.		_					
_	d.							
R	12. COMMENTS OR SPECIAL INSTRUCTION	S:	<del></del>			13. WASTE	PROFILE N	1O.
A	Co.	st code 1	0200				NA	
	14. IN CASE C	F EMERGENCY (	OR SPILL, CO	ONTAC	T	24 110110	EMERGE	NCV NO
T	CHEVRON CARLSBAD						-887-56	
0	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignme	ent are full	y and accurate	ely describe	d above.
R	PRINTED TYPED NAME James L behalf of Travis Stem	ovely on	SIGNATURE	11	0		3/	DATE 30/22
Т	16. TRANSPORTER (1)		17.	TR	ANSPO	RTER (2)	1	
R A	NAME		NAME					
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	MERGE	NCY CO	NTACT:		
P	EMERGENCY PHONE:		EMERGENCY					
R	18. TRANSPORTER (1): Acknowledgment of	f receipt of material	19. TRANSP	ORTE	R (2): Ack	nowledgment	of receipt of	of material
T E	PRINTED/TYPED NAME M MATCH	Trucking	PRINTED/TY	PED NAI	ME <i>Ra</i>	berto	AM	ins
R S	SIGNATURE	DATE 3/3dl2	PRINTED/TY	Role	6271	<u>v</u>	DATE	130/27
D F I A	R360 Environmental Sciutieris 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE	:	
S C P I O L	PERMIT NO.		20. COMMENT	rs				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such		ify that the above	describe	d wastes w	vere delivered	to this facil	lity, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE 2	12012	MIT C	158 A
	1 31.00	lete Dieneenl				1 2010		

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Compa	my Man Co	mact Informatio
Name	Travis	Stevens

SOLUTIONS		St.		Phone No.
		GE	NERATOR	No. 247843
Operator No.  Operators Name Address	Chevron Carls	bad or	Permit/PPC No. Lease/Well Name & No. County	Cotton Hills 232627 Federal Com # ODI H
		38 220	API No.	300154 153 50001
City, State, Zip Phone No.	S75-887-56		Rig Name & No.  AFE/PO No.	UCRE 10200
	EXEMPT E&P Was		ount (place volume next to	waste type in barrels or cubic yards)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation S Tank Bottoms E&P Contaminated So Gas Plant Waste	olids	NON-INJECTABLE WATERS Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non Produced Water (Non-Injectable) Gathering Line Water/Waste (No INTERNAL USE ONLY Truck Washout (exempt waste)		OTHER EXEMPT WASTES (type and generation process of the waste)  (DB) CAPLS BAD
WASTE GENERATIO	IN PROCESS: DRILLI	NG COMPLETION	N 🔀 PRODUC	CTION GATHERING LINES
	All non-exempt E&P wa	NON-EXEMPT E&P Was	ste/Service Identification and a	Amount [CLP], Ignitability, Corresivity adn Reactivity.
Non-Exempt Other				select from Non-Exempt Waste List on back
QUANTITY		B-BARRELS	Money advisating two a	20 Y-YARDS E-EACH
Transporter's Name Address Phone No.	M. Mata Tru Whp 733	KKING	Driver's Name Phone No. Truck No. WHP No.	Ramon Ramirez 56
I hereby certify that the	above named material(s) was/we	e picked up at the Generator's site li	sted above and delivered with $3-30-$	hout incident to the disposal facility listed below. 22 Ramon Ram/re Z
SHIPMENT DATE		DRIVER'S SIGNATURE	DELIVERY DATE	DRIVER'S SIGNATURE
	CK TIME STAMP 12 ANT:	DISPOS	SAL FACILITY	RECEIVING AREA Name/No.
Site Name/ Permit No. Address	Red Bluff Facility / STF-0 5053 US Hwy 285, Orla, T ORM READINGS TAKEN? (Circle	X 79770	Phone No.  If YES, was reading NORM (mR/hr)	432-448-4239 ag > 50 micro roentgents? (Circle One) YES NO
1st Guage 2nd Guage Received	Feet	Inches	BOTTOMS	BS&W Received BS&W (%)  Free Water  Total Received
I hereby certify that the	above load material has been (circ	ele one): ARCEPTED DATE	DENIED PCL	If denied, why?  SIGNATURE

		CHEV						
		MCI	BU					
		Carlsba	d, NM					
NO #C	CAR- 4943 NON-HAZARI	DOUS WASTE	MANIFEST	Γ 1. PAG	е <u>l</u> ог_	1 2. TRAII	ER NO.	
G	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS 5301 I	OMAS DR.		5. P	ICK-UP DAT	Е	
	PHONE NO. 575-887-5676	CITY	STATE AD, NM 882		AP 6.			
Е	7. NAME OR DESCRIPTION OF WASTE SHIP		AD, INIVI 662	8, CONT		9. TOTAL	10. UNIT	11.
N	1. 50:1 Ex caveled during APT 3001541535	SPIII Pen	ediation	No.	Туре	QUANTITY	WT/Vol.	Yards 20
	b. APT 300 154 1535	000 1						
Е	C							
R	d.							
A	12. COMMENTS OR SPECIAL INSTRUCTION  COS+	200	13. WASTE PROFILE NO.			10.		
A	14. IN CASE OF EMERGENCY OR SPILL, CONTACT							
Т	CHEVRON CARLSBAD						EMERGE 5-887-50	Self-transfer of the self-tran
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.							ed above.
	manufacture Taxa I.	VENT S SIS	SIGNATURE	1	0			DATE.
R	printed typed NAME Jones Low behalf of Travis S	iterens	3/30/22					
T R	16. TRANSPORTER (1) NAME		17. TRANSPORTER (2) NAME					
A N	NAME		N	M, Mata T.				
S P	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:					
0	EMERGENCY PHONE:	· · · · · · · · · · · · · · · · · · ·	19. TRANSI			moviledement	of receipt	of material
R T	18. TRANSPORTER (1): Acknowledgment PRINTED/TYPED NAME		PRINTED/TV	PED NAM	ME R	amound	n Ra	mirez
E R S	SIGNATURE	DATE	SIGNATURE	Kan	on k	amtrez	Z DATE	<u>mi'r</u> ez 3-30,22
	R360 Environmental Solution	ADDRESS:				PHONE		
D F I A	5053 US Hwy 285 Oda, TX 79770	15						
S C P I	PERMIT NO.		20. COMMEN	ITS				
O L S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive su		tify that the abov	e describe	d wastes v	were delivered	to this fac	lity, that the
LY	AUTHORIZED SIGNATURE	on musicos	CELL NO.		DATE		TIM	1E 13.41 AM
	millept				1		1/0	ハイノカト

Company	Man Contac	276 of 358
Name T	ravis	Stevens

Received by OCD: 6/15/2022		AS NON-HAZARDOUS (PLEAS		MANIFEST  JIRED INFORMATION*	Company Man Confact Information Name Travy's Steven Phone No.
Operator No.		GENE	Permit/PPC No.	NO.	247844
Operators Name Cheuron	Carlsboad		Lease/Well Name & No.	Cotton Hills Federal Com	
Address 5301	romas Dr.		County API No.	3001541535	0001
City, State, Zip Phone No.  Corl 3 box 575 - 8	1, NM 88 187-5676	220	Rig Name & No. AFE/PO No.	UCRE 1020	O Law Marketta
EXI	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	DO DAY SULLA DA MANA BURGO DE PORTO DE PROPERCIONA DA PROPERCIONA DE PROPERCIONA		vaste type in barrels or cubic	
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washo Comple Produce Gatheri	ut Water (Non-Injectable) etion Fluid/Flow Back (Non-Injectable) ed Water (Non-Injectable) ing Line Water/Waste (Non-Injectable) VALUSE ONLY Vashout (exempt waste)	The state of the s	DB) CARL	S (type and generation process of the waste). SBAD
WASTE GENERATION PROCESS:	☐ DRILLING	COMPLETION	PRODUC	TION GATH	ERING LINES
All no Non-Exempt Other	n-exempt E&P waste must b	NON-EXEMPT E&P Waste/Si be analysed and be below thres	hold limits for toxicity (TC	mount 1.P), Ignitability, Corrosivity adn fi lect from <b>Non-Exempt Waste</b>	
QUANTITY	B-BA	RRELS		2 DY-YARI	DS E-EACH
		s attached. (Check the appropri			ving documentation demonstrating the ner (Provide Description Below)
Jones Lavely On (PAINT) AUTHORIZED,		The same of the sa	3 30 22 ATE PORTER	SIGNATU	the transition of the second
Transporter's Name Address	A TRUCKIN	М,	Driver's Name Phone No. Truck No.	8 te 80 1	Tello 1 5907
Phone No.  I hereby certify that the above named ma	terial(s) was/were picked u	grown's relability	WHP No. above and delivered without BEINERY DATE	out incident to the disposal facili	
TRUCK TIME STA	MP	DISPOSA	LFACILITY	RECE Name/No	IVING AREA D/
Address 5053 US Hw	cility / STF-065 y 285, Orla, TX 79770 CTAKEN? (Circle One)	YES NO		> 50 micro roentgents? (Circ	le One) YES NO
w.	Mary Total	TANK B	OTTOMS	1000	The Control of the State of the
1st Guage Feet 2nd Guage	In	ches		SS&W Received Free Water	BS&W (%)

		<b>IRON</b>								
	MCBU									
	Carlsbad, NM									
NO #0	CAR- 4941 NON-HAZARDOUS WASTE	MANIFES	T 1. PA	GE_L_OF	L 2. TRAIL	ER NO.				
	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301	LOMAS DR.		5. P	ICK-UP DAT	Е				
G	PHONE NO. CITY	STATE		ZIP 6.						
E	V 07-204 19-27-20-2	BAD, NM 88	10012010	TAINERS	9. TOTAL	10. UNIT	11			
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		No.	Type	QUANTITY		"Yards			
N	25011 Excavated during 5011 Remo	retroips					20			
T.	b.									
E	c.									
R	d.									
endados a	12. COMMENTS OR SPECIAL INSTRUCTIONS:	100 E	A2A	$\sim$	13. WASTE I		57.00.00			
A										
	14. IN CASE OF EMERGENCY OR SPILL, CONTACT  24-HOUR EMERGENCY NO.									
T	CHEVRON CARLSBAD				7.50	-887-56				
0	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.									
	PRINTED TYPED NAME JONES LOVELY ON	T aren arribr		0			DATE			
R	printed typed NAME James Lovely on behalf of Travis Stevens	SIGNATURE	SIGNATURE 3/30/22							
Т	16. TRANSPORTER (1)	17.	11 (1							
R A	NAME	NAME	NAME							
N		tencer score or appearing-score								
S P	IN CASE OF EMERGENCY CONTACT:	12.1 C	IN CASE OF EMERGENCY CONTACT:							
O R	EMERGENCY PHONE: MATA  18. TRANSPORTER (1): Acknowledgment of receipt of material	10 TDANS	Corp Unmorapia	500	cnowledgment	of receipt	of material			
T	PRINTED/TYPED NAME Estate 17010				ano in reagainem					
E R	SIGNATURE Estabon 7010 DATE 3-30.2					DATE				
S	ADDRESS:	SIGNATURE	-		PHONE					
D F	R360 Environmental Solutions 5053 US Hwy 285									
I A S C	Orla, TX 79770 PERMIT NO.	20. COMMEN	NTS							
P I O L	PERMIT NO.									
SI	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby of	ertify that the abo	ve describ	ed wastes	were delivered	to this faci	lity, that the			
A T L Y	facility is authorized and permitted to receive such wastes.  AUTHORIZED SIGNATURE	CELL NO.		DATE		TIN				
	melen	PI		3/	30/22	/ /0	o: Os A			

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company	Man	Page .	278	of	35
Company	Midi	Cumaci	minu	ma	HUII

_	_	
Name	rais	Stevens

SOLUTIONS SOLUTIONS			All and a second			Phone No
			GENI	ERATOR	N	vo. 247845
Operator No. Operators Name Address	Cheuron 5301 Lo	Carlsbad		Permit/PPC No. Lease/Well Name & No. County		m # 001 H
	Carls bad,	NM 88220		API No.	300154153	50001
City, State, Zip Phone No.	575-887		Carle Land	Rig Name & No. AFE/PO No.	UCRE 10	200
010 111	EXEMPT	THE RESIDENCE OF THE PERSON NAMED IN	CODE AND ADDRESS OF THE PARTY O	nt (place volume next to	waste type in barrels or c	CONTRACTOR OF THE PARTY OF THE
Oil Based Muds Oil Based Cutting: Waste Based Mul Water Based Cutt Produced Formation Tank Bottoms E&P Contaminate Gas Plant Waste	ds tings on Solids	Washout Washou	TABLE WATERS ater (Non-Injectable) Fluid/Flow Back (Non-Injectable) ater (Non-Injectable) ne Water/Waste (Non-Injectable) out (exempt waste)			ASTES (type and generation process of the waste)
WASTE GENERA	ATION PROCESS:	DRILLING	COMPLETION	☑ PRODUCE	TION GA	ATHERING LINES
	All pop-ove	NO most E&P waste must be an	N-EXEMPT E&P Waste/	Service Identification and A	mount CLP), Ignitability, Corrosivity a	do Beneficity
Non-Exempt Othe	The second secon	mpi exi waste imat de an	aryseu and be below the		elect from Non-Exempt Wa	NACONIA DE LA CONTRACTOR DEL CONTRACTOR DE LA CONTRACTOR
QUANTITY		B-BARREL	S	One of the second	201	YARDS E-EACH
hereby certify tha	t the above listed material(	s), is (are) not hazardous wa portation according to applic	aste as defined by 40 CFI	R Part 261 or any applicable		has been properly described, classified and
res Love	□MSI	S SIGNATURE Ches	Stevens 3	Hazardous Waste Analysis    30   22     DATE	Judge Silo	Other (Provide Description Below)
Address Phone No.	40665	NF7 882	40	Driver's Name Phone No. Truck No. WHP No.	\$75 441-04 109 1337	197
	Jan	(s) was/were picked up at to	he Generator's site lister		out incident to the disposal for	
IN: 167, 2	RUCK TIME STAMP DM OUT:		DISPOSA	L FACILITY	Name/No	CEIVING AREA
Site Name/ Permit No. Address	Red Bluff Facilit 5053 US Hwy 28	ty / STF-065 5, Orla, TX 79770		Phone No.	432-448-4239	that is 2000 a Processing
- B 1914	NORM READINGS TAK	(EN? (Circle One) YES	NO NO	If YES, was reading NORM (mR/hr)	> 50 micro roentgents? (0	Circle One) YES (NO)
st Guage 2nd Guage Received	Feet	Inches	TANK B	ROTTOMS	BS&W Received Free Water Total Received	BS&W (%)
hereby certify tha	t the above load material ha	as been (circle one):	ACCEPTED DATE	DENIED ROVE	If denied, why?	SIGNATURE

		CHEV						
		MCI	3U		-			
		Carlsba	d, NM					
NO #0	CAR- 4940 NON-HAZARI	OOUS WASTE	MANIFEST	1. PAC	ge_Lof_	L 2. TRAII	ER NO.	
G	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS 5301 L	OMAS DR.		5. P	ICK-UP DAT	Е	
G	PHONE NO. 575-887-5676	CITY 5	STATE AD, NM 882		ZIP 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIP		AD, 14141 002		TAINERS	9. TOTAL QUANTITY	10. UNIT	11 Fords
N	a Soil Excavated duri	ng spill Re	medication	HARMATSANA U	турс	QUANTITI	W 17 VOI.	20
_	b.				L			
E	c.							
R	d.  12. COMMENTS OR SPECIAL INSTRUCTION	· C.				13. WASTE I	PROFILE	NO.
Α		code vo	CREI	020	0		VΑ	
	14. IN CASE O	F EMERGENCY (	OR SPILL, CO	ONTAC	T	24 HOUR	EMERGE	NGVNO
T	CHEVRON CARLSBAD						EMERGE 5-887-50	STATE OF THE PARTY
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.							ed above.
R	PRINTED TYPED NAME James L behalf of Travis &	overy on stevens	SIGNATURE	1	7		3/3	O/2Z
T R	16. TRANSPORTER (1) NAME		17. TRANSPORTER (2) NAME					
A N	M MATA TRUCK	146						
S P	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:					
O R	EMERGENCY PHONE:  18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSI	ALL PLANTS OF THE PARTY OF THE	90	nowledgment	of receipt	of material
T E	PRINTED/TYPED NAME SOUTH R		PRINTED/TY					
R	SIGNATURE JANT PONÓN		SIGNATURE				DATE	
D F	R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE	:	
I A S C P I O L	PERMIT NO.		20. COMMEN	TS				
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive such		ify that the above	e describe	ed wastes v	vere delivered	to this faci	ility, that the
LY	AUTHORIZED SIGNATURE  M. Clash		CELL NO.		DATE 3/3	30/2.	AIT C	1E 5:22 A

GENERATOR: COPY 1

TRANSPORTER: COPY 2

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- 11			$\neg$	_		ш		

T) \*REQUIRED INFORMATION\*

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Company Ma	n Cont	act in	iorm	ation
	_	01		

		act information
Name 1	rents	Stevens

SOLUTIONS		The state of the s		n mbas spiene rependin	gan el chide mala	Phone No.	or proceedings to the last
			GEN	ERATOR	ST STATE OF STATE	NO. 24	17846
Operator No. Operators Name Address	Chevrol 530/ L	Carlsbac		Permit/PPC No. Lease/Well Name & No. County	Federal o	HIIS 23	26 27 H
City, State, Zip	Cer15 bad 575 - 8	NM 88	226	API No. Rig Name & No.		0200	salesti — s aministrati
Phone No.				AFE/PO No. unt (place volume next to v			
Oil Based Muds Oil Based Cuttings Waste Based Mud Water Based Cutti Produced Formatio Tank Bottoms E&P Contaminated Gas Plant Waste	s ngs n Solids	Washo Compl Produc Gather	NJECTABLE WATERS  Dut Water (Non-Injectable)  etion Fluid/Flow Back (Non-Injectable)  ring Line Water (Non-Injectable)  ring Line Water/Waste (Non-NAL USE ONLY  Washout (exempt waste)	njectable)	OTHER EXEMP	NAME OF TAXABLE PARTY OF TAXABLE PARTY.	BAO
WASTE GENERA	TION PROCESS:	DRILLING	☐ COMPLETION	PRODUC	TION	GATHERING LINES	
		-exempt E&P waste must	NON-EXEMPT E&P Waste be analysed and be below th	n/Service Identification and A preshold limits for toxicity (TC	mount LP), Ignitability, Corrosi	vity adn Reactivity.	
Non-Exempt Other	_			*please se	lect from <b>Non-Exemp</b>	t Waste List on back	nhaugent
QUANTITY		B-BA	ARRELS	Company design	21	Y-YARDS	E-EACH
Transporter's Name Address Phone No. I hereby certify that SHIPMENT	EXEMPT:	per load basis only) Oil field waste which is n 40 CFR 261.21-261.24, or waste as non-hazardous i MSDS Information  ALF OF TO SENTS SIGNATURE  erial(s) was/were picked to DRIVER'S SIG	on-hazardous that does not elisted hazardous waste as dis attached. (Check the appropriate of the second of the se	n and production operation at exceed the minimum standard efined by 40 CFR, part 261, suppriate items as provided) A Hazardous Waste Analysis DATE  SPORTER  Driver's Name Phone No. Truck No. WHP No. ed above and delivered without the product of t	ds for waste hazardous labpart D, as amended. T	by characteristics establishe following documents  Other (Provide De  SIGNATURE	ished in RCRA regulations, ation demonstrating the scription Below)
IN: 9:59	Dry OUT:		Mar sent on box h	ALTAULITI	Name/No	TIEGEIVING ATE	pl
Site Name/ Permit No. Address	5053 US Hwy	cility / STF-065 285, Orla, TX 7977 TAKEN? (Circle One)	VES NO	Phone No.  If YES, was reading NORM (mR/hr)	<b>432-448-4239</b> > 50 micro roentgent	ts? (Circle One) YE	SS (NO)
1st Guage 2nd Guage Received	Feet	ln	TANK	BOTTOMS	BS&W Received Free Water Total Received	BS8	W (%)
I hereby certify that	the above load materi	al has been (circle one):	ACCEPTED O	DENIED PLEY	If denied, why?	MS SIGNATURE	se putegra et di neggiame bruga 1.2 nonuna utenta e

Generator - to be completed by the generator of the waste in transit

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

**Phone No.** – Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. - Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number.

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

Commercial Facilities — Waste that is generated at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from

the spill (typically trucking, post-production pipelines, or barges)

**<u>Transporter</u>** – To be completed by the waste hauler/transporter in the presence of the generator

**Transporter name** – Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. - List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

#### Water Based Cuttings

- · Water Based Drill cuttings
- · Offshore Water Based cuttings

#### Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### E&P Contaminated Soil

· On-Lease oil spill

#### Wash Out Water

- · Rigwash
- Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

#### Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

## Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

Unused fracturing fluids or acids

- Linguis

- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt

  vector
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- Caustic or acid cleaners
- · Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- · E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

CHEVRON										
	MCBU									
Carlsbad, NM										
NO #0	CAR: 4939 NON-HAZARDOUS WASTE N	MANIFEST	1. PAC	E_LOF_	1 2. TRAIL	ER NO.				
G	3. COMPANY NAME 4. ADDRESS 5. PICK-UP DATE 5. PICK-UP DATE									
E	575-887-5676 CARLSBA	TATE AD, NM 882	220	ZIP 6.		l				
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:  a. Soil Excerted during 50:11 Rem	-1×+×	8. CONT	Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yand S			
N	a. Soil Excepted during Spill Rem APT 300154 +5350001 b.						20			
E	c.									
R	d.  12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE F	PROFILE 1	10.			
A	Cost code UCAT		00		^	JA				
T	14. IN CASE OF EMERGENCY O	OR SPILL, CO	ONTAC	<u>T</u>	24-HOUR	EMERGE				
o	CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignme	nt are full						
R	printed typed name Jones Lovely on behalf of Travis Stevens	SIGNATURE		Les		3/:	DATE 30/22			
T R A	16. TRANSPORTER (1) NAME	17. NAME	TR	ANSPO	RTER (2)	. <del></del>				
N S P	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF I			NTACT:					
O R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI	PORTE	R (2): Ack	nowledgment	of receipt	of material			
T E R	PRINTED/TYPED NAME MATER TYLCKING	PRINTED/TY	PED NAI	ME RA	erto A	MĀ	27_			
S	SIGNATURE DATE 3/30/27	SIGNATURE	Rob	esta		DATE	13/22			
D F I A	RADDRESS: Solutions Solutions Solutions Onla, TX 79770				PHONE					
S C P I O L	PERMIT NO.	20. COMMEN								
S I A T L Y	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> 1 Hereby certifacility is authorized and permitted to receive such wastes.		describe	d wastes v	vere delivered					
LX	AUTHORIZED SIGNATURE  MILOOL	CELL NO.		DATE	130123	→	15:08 A			

GENERATOR: COPY 1

TRANSPORTER: COPY 2

cccirca b	O.
03	
ENVIRONMENTAL SOLUTIONS	

(PLEASE PRINT) \*REQUIRED INFORMATION\*

		nge 283 of 358
Name	Trans	Steens

SOLUTIONS		MEDATOD		one No
	GI	ENERATOR	NO.	247848
Operator No.		Permit/PPC No. Lease/Well	Cotton Hills	23 26 27
Operators Name Chevron	Can's bad	Name & No.	Federal com #	001 H
Address 5.301 Lang	is Dr.	County	200/511/50 50	Market males unemails
City, State, Zip Carl Shad	NM 88220	API No Rig Name & No.	30015415356	Programma American Company
Phone No		AFE/PO No.	UCRE 102001	
	&P Waste/Service Identification and A	mount (place volume next to w		
Oil Based Muds Oil Based Cuttings	NON-INJECTABLE WATERS Washout Water (Non-Injectable	e)		pe and generation process of the w
Waste Based Muds Water Based Cuttings	Completion Fluid/Flow Back (N	on-Injectable)	= (DB) CAR	-SBAD
Produced Formation Solids	Produced Water (Non-Injectabl Gathering Line Water/Waste (N			
Fank Bottoms E&P Contaminated Soil	INTERNAL USE ONLY		Contract of Birth Waster	
Gas Plant Waste	Truck Washout (exempt waste)		Hall such the children can	Allegary Action 18
NASTE GENERATION PROCESS:	DRILLING COMPLETION	ON 💢 PRODUCTI	ION GATHERIN	G LINES
All	NON-EXEMPT E&P W	aste/Service Identification and Am	ount	
Non-Exempt Other	pt E&P waste must be analysed and be belo		r), Ignitability, Corresivity adn Heact act from <b>Non-Exempt Waste List</b>	
		picase serie		
DUANTITY	B-BARRELS	The Area contact Spins	20 Y-YARDS	E-EACH
nereby certify that the above listed material(s), ackaged, and is in proper condition for transpo		40 CFR Part 261 or any applicable s	tate law. That each waste has been	properly described, classified
RCRA NON-EXEMPT: Oil fie 40 CF waste	ad basis only) eld waste which is non-hazardous that does r R 261.21-261.24, or listed hazardous waste a e as non-hazardous is attached. (Check the a	as defined by 40 CFR, part 261, sub ppropriate items as provided)	part D, as amended. The following o	documentation demonstrating t
☐ MSDS	S Information	RCRA Hazardous Waste Analysis	U Other (P	rovide Description Below)
mes land sa belait	of Travis Stevens	3/30/22	11/2	lartera formação en
(PRINT) AUTHORIZED AGENTS S		DATE	SIGNATURE	
ananartar'a	TRA	NSPORTER		
ansporter's ame MAT	A TRUCKING	Driver's Name	Faury Rowa	h spatial s
ddress HObbs I	JM 88246	Phone No.	575 441-04-	97
Tradpost av promo 18.4 v sub 18.0 s to			109	
hone No. hereby certify that the above named material(s	was (word nicked up at the Congrator's site	— WHP No. —	at insident to the disposal facility list	ad halaw
lereby certify that the above hamed materials	x 1 4 20 0 00	3/30/23	Tay 14	Pavan
SHIPMENT DATE	DRIVER'S SIGNATURE	DELIVERY DATE	DRIVI	ER'S SIGNATURE
TRUCK TIME STAMP	DISPO	SAL FACILITY	RECEIVIN	IG AREA
IN: 12:22 Om OUT:	Heavy and the same of the same		Name/No	D) memoral of real
ite Name/	96[4]			The state of the s
ermit No. Red Bluff Facility		Phone No.	432-448-4239	Harrier St. Wallet
ddress <u>5053 US Hwy 285</u>	^	the war and the subpart of	and the state of t	a Place substant write,
NORM READINGS TAKE	N? (Circle One) (FES) NO		50 micro roentgents? (Circle On	e) YES (NO)
To lead into graph in this departuo he	al a la company de la comp	NORM (mR/hr)	The state of the s	enviro characteristi Video
482.00	TAN	K BOTTOMS	A PART OF THE PROPERTY OF THE PART OF THE	
st Guage Feet	Inches	RS	S&W Received	BS&W (%)
nd Guage		V 186 AUDI Y DE LE DAUDE A	Free Water	Dalles pally a secretary
eceived	Partally government	Ria la Rich is nomb duponzany	Total Received	Areaturation
hereby certify that the above load material has	been (circle one): ACCEPTED	DENIED If (	denied, why?	researche and bigographic telegraphic
Mito	3-20-20	REVR	ms	
NAME (PRINT)	DATE	TITLE		SIGNATURE

Generator - to be completed by the generator of the waste in transit

Company man contact information – Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Bailroad Commission permit number

Lease/Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County – Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number 🗦 💆 🛌

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

**Production** — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.) **Commercial Facilities** — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.) **In Transit** — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

**Transporter name** – Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. - List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

## **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

#### Water Based Cuttings

- Water Based Drill cuttings
- · Offshore Water Based cuttings

## Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### E&P Contaminated Soil

· On-Lease oil spill

## Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- Produced water
- Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

## Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

#### Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

- · Unused fracturing fluids or acids
- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste.
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- · Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

		CHEV. MCI						
		Carlsba	-					
NO #	CAR- 4946 NON-HAZARI	DOUS WASTE I	MANIFEST	1. PAC	GE _LOF	2. TRAIL	ER NO.	
	3. COMPANY NAME	4. ADDRESS	01445 DD		5. I	ICK-UP DATI	3	
G	CHEVRON CARLSBAD PHONE NO.		OMAS DR.		ZIP 6.			
E	575-887-5676		AD, NM 882					T
	7. NAME OR DESCRIPTION OF WASTE SHIP.			8. CON' No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yards
N	a 5011 Excavated diring APT 300 15415357	5 5p:11 Acn	redictor					20
	b.							
E	c.							
R	d.							
	12. COMMENTS OR SPECIAL INSTRUCTION	_				13. WASTE P	_	1O.
A		ost code				^	J A	
_	14. IN CASE O	F EMERGENCY C	OR SPILL, CO	ONTAC	T	24-HOUR	EMERGE	NCY NO.
T	CHEVRON CARLSBAD				<u></u>		-887-5 <del>6</del>	
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this co	onsignme	ent are ful	ly and accurate	ly describe	d above.
R	PRINTED TYPED NAME James Lo behalf of Travis Sto	evens	SIGNATURE	2	Lo		3	DATE 30 22
T	16. TRANSPORTER (1)		17.	TR	ANSPO	RTER (2)		
R A	NAME FX MATA TO	watura	NAME					
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	MERGE	NCV CO	NTA CT·		
P	EMERGENCY PHONE:		EMERGENCY					
O R	18. TRANSPORTER (1): Acknowledgment o	f receipt of material	19. TRANSP	ORTE	R (2): Ack	mowledgment of	of receipt o	of material
T E	PRINTED/TYPED NAME JAMY		PRINTED/TYP	ED NAI	ме	<del></del>		
R S	SIGNATURE Javid Powar	DATE 3-30-2-2	SIGNATURE _				DATE	
D F I A	R360 Environmental Solutions 5053 US Hwy 285	ADDRESS:				PHONE:		
S C P I O L	Orla, TX 79770 PERMIT NO.		20. COMMENT					·
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such		fy that the above	describe	d wastes v	vere delivered	o this facil	ity, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE		TIM	E
	mstepl		DI	Ĩ	3.	30,93	16	2.22 pm

I hereby certify that the above load material has been (circle one):

DENIED

If denied, why?

SIGNATURE

Generator - to be completed by the generator of the waste in transit

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

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**Production** — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.) **Commercial Facilities** — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

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# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- Oil Based Drill cuttings
- . Offshore Oil Based cuttings

#### Water Based Mud

- · Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

### Water Based Cuttings

- · Water Based Drill cuttings
- · Offshore Water Based cuttings

## Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### E&P Contaminated Soil

· On-Lease oil spill

## Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

## Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

## Gas Plant Waste

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- · Caustic or acid cleaners
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- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

CHEVRON									
MCBU									
Carlsbad, NM									
ио #	CAR- 4949 NON-HAZARI	OOUS WASTE N	MANIFEST	1. PAG	e_Lof_	L 2. TRAIL	ER NO.		
G	3. COMPANY NAME  CHEVRON CARLSBAD	4. ADDRESS 5301 I	OMAS DR.		5. P	ICK-UP DATI	3		
G	PHONE NO. 575-887-5676	CITY	TATE AD, NM 882	_	IP 6.				
E	7. NAME OR DESCRIPTION OF WASTE SHIP			8. CONT.	AINERS Type	9. TOTAL QUANTITY	10. UNIT	11. Yards	
N	a. So! Excavared during APT 30015415	SPIII Remed	hetton	NO.	Турс	QUANTITI	W I / VOI.	20	
_	b.	22200							
E	c.								
R	d.	rc.				13. WASTE F	PROFILE N	NO.	
A	12. COMMENTS OR SPECIAL INSTRUCTION	st Code	10200	)			VД		
	14. IN CASE O	F EMERGENCY (	OR SPILL, CO	ONTAC	Γ	24-HOUR	EMERGE	NCY NO.	
T	CHEVRON CARLSBAD				<del></del>	575	-887-56	576	
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignme	nt are full	y and accurate	ly describe	d above.	
R	printed typed name James Labelalf of Travis Ste	ely on vens	SIGNATURE	ef.	-		3/3	DATE 0/22	
T R	16. TRANSPORTER (1) NAME		17. NAME	TR	ANSPO	RTER (2)			
A N									
S P	IN CASE OF EMERGENCY CONTACT:			FEMERGENCY CONTACT:					
O R	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	EMERGENCY  19. TRANSF			mowledgment	of receipt of	of material	
T E	PRINTED/TYPED NAME							•	
R S	SIGNATURE	DATE	PRINTED/TY	Ran	non	Ranire	ZDATE Ž	30-22	
D F	07767 XT ,δħΟ	ADDRESS:	<u> </u>			PHONE			
I A S C	6063 US Hwy 285	) 	20. COMMEN	TS					
P I O L	PERMIT NO.	! :	ZU. SOMMEN						
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive such	•	ify that the above	e described	i wastes v	were delivered	to this faci	lity, that the	
LY	AUTHORIZED SIGNATURE	h.	CELL NO.		DATE 2	20/20	TIM	<u>ه</u> صاک : Σ	
	1 1 1 1 1 1				<del>! 9</del>			<del></del>	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

Company Man	Contact	Information
Ta	> C1	PAPAC

Comp	any Man Con	tact Information
Name	Trav.3	Stevens

	GENE	RATOR	NO.	247850
Operator No.		Permit/PPC No. Lease/Well	Cotton Hills 23 Federal Com # 00	26,27
Operators Name Chevron Corls B	ad	Name & No. County	Federal Com # 0	01=H
City State Zip Cools bad , NM &	8220	API No.	3001541535000	
City, State, Zip Phone No.  CCC   S bed   NM   6  575 - 887 - 567		Rig Name & No	UCRE 10200	MANUAL ENGINEERS
	ervice Identification and Amount ION-INJECTABLE WATERS	(place volume next to wa	ste type in barrels or cubic yards)  OTHER EXEMPT WASTES (type a	and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil	Vashout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Inje Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Inj NTERNAL USE ONLY Tuck Washout (exempt waste)	tion year of a long a large to the	(DB) CARLSE	CONTRACTOR OF THE PARTY OF THE
WASTE GENERATION PROCESS: DRILLING	COMPLETION	PRODUCTION PRODUCTION	ON GATHERING	LINES
All non-exempt E&P waste	NON-EXEMPT E&P Waste/S must be analysed and be below three		ount ), Ignitability, Corrosivity adn Reactivit	y.
Non-Exempt Other		*please sele	ct from Non-Exempt Waste List on	back
QUANTITY  I hereby certify that the above listed material(s), is (are) not have	B-BARRELS	pay 50 b. Jani 1504. si	20 Y-YARDS	E-EACH
per load basis only)  RCRA NON-EXEMPT:  Oil field waste whic 40 CFR 261.21-261.	erated from oil and gas exploration a th is non-hazardous that does not exc 24, or listed hazardous waste as defin dous is attached. (Check the appropri	eed the minimum standards ned by 40 CFR, part 261, subp	are not mixed with non-exempt waste for waste hazardous by characteristics part D, as amended. The following doc	s established in RCRA regulations,
ones lovery on behalf of -	Chevron 3/3	Bohr /	SIGNATURE	Chapter a life or an Califfra or 118
Transporter's Name  Address	TRANS	PORTER  Driver's Name Phone No. Truck No.	Alfonso Mura	2 Summing the state of the stat
Phone No.  I hereby certify that the above named material(s) was/were pi	cked up at the Generator's site listed	WHP No.	733 7 t incident to the disposal facility-listed	I below.
An amount of the following in the participation of	ER'S SIGNATURE	3-30-22 DELIVERY DATE	1	S SIGNATURE
TRUCK TIME STAMP IN: 11. So Am OUT:	DISPOSA	L FACILITY	RECEIVING Name/No	AREA DI
Site Name/ Permit No. Address  Red Bluff Facility / STF-065  5053 US Hwy 285, Orla, TX		Phone No.	132-448-4239	A configuration of the second
NORM READINGS TAKEN? (Circle O	ne) (YES NO	If YES, was reading > NORM (mR/hr)	50 micro roentgents? (Circle One)	YES (NO)
1st Guage Page Page Page Page Page Page Page P	Inches	Stanta Heaven Consult	S&W Received Free Water Total Received	BS&W (%)
I hereby certify that the above load material has been (circle of	ACCEPTED  3-30-22  DATE	DENIED IF	denied, why?	ANATURE

Generator - to be completed by the generator of the waste in transit

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number

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# **Waste Categories**

## **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- Oil Based Drill cuttings
- · Offshore Oil Based cuttings

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#### Produced Formation Sand and Solids

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- Workover wastes
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- Constituents removed from produced water before it is injected

### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
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- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### **E&P Contaminated Soil**

· On-Lease oil spill

#### Wash Out Water

- Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

### Produced Water

- Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

### Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
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		CHEV							
		<u>MCI</u>	<u>3U</u>				<u> </u>		
	Carlsbad, NM								
NO #0	CAR- 4944 NON-HAZARI	OOUS WASTE N	MANIFEST	[ ]1. PAC	GE_LOF_	2. TRAIL	ER NO.		
2	3. COMPANY NAME  CHEVRON CARLSBAD	4. ADDRESS	OMAS DR.		5. P	ICK-UP DATI	3		
G	PHONE NO.		TATE	:	ZIP 6.				
E	575-887-5676		AD, NM 882						
	7. NAME OR DESCRIPTION OF WASTE SHIP			8. CON No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yards	
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_	b.								
E	c.								
R	d.		<u></u>						
•	12. COMMENTS OR SPECIAL INSTRUCTION					13. WASTE P	_	1O.	
A	Cost	Code 102	00			N	A		
	14. IN CASE O	F EMERGENCY C	OR SPILL, C	ONTAC	T	24-HOUR	EMEDGE	NCV NO	
T	CHEVRON CARLSBAD						-887-56		
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignme	ent are full	y and accurate	ly describe	d above.	
U			·				·		
R	PRINTED TYPED NAME Jones Lo		SIGNATURE	2	Pn		.3/	DATE 30	
	behalf of Trovis Stev	rens			-0	D/III (4)		30/22	
T R	name 81 Forty 5 LLC True	ck # 02	17. NAME	TR	ANSPO	RTER (2)			
A N	P.O. 13012 7062- 40665 NM 88241								
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:						
P O	EMERGENCY PHONE:		EMERGENCY PHONE:						
R T	18. TRANSPORTER (1): Acknowledgment of	f receipt of material	19. TRANSI	PORTE	R (2): Ack	nowledgment	of receipt o	of material	
E	PRINTED/TYPED NAME Alfonso 10	1002	PRINTED/TY	PED NAI	ME				
R S	SIGNATURE	DATE 3-30-22	SIGNATURE				DATE		
		ADDRESS:	·			PHONE:			
D F I A	(360 Environmental Solutions 5053 US Hwy 285								
S C	Oria, TX 79770 PERMIT NO.		20. COMMEN	TS		I			
P I O L									
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such		fy that the above	describe	d wastes w	ere delivered	to this faci	lity, that the	
LY	AUTHORIZED SIGNATURE	11 Wastes.	CELL NO.		DATE		TIM	Œ	
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GENERATOR: COPY 1

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- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

		CHEV	RON							
		MCE	BU							
	Carlsbad, NM									
NO #C	CAR- 4948 NON-HAZARI	OOUS WASTE N	1ANIFEST	Γ 1. PAG	E_LOF_	L 2. TRAIL	ER NO.			
G	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS 5301 I	OMAS DR.		5. P	ICK-UP DATI	3			
6	PHONE NO.	CITY S	TATE		IP 6.					
E	575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIP	<del></del>	AD, NM 882	2.20 8. CONT.	AINERS	9. TOTAL	10. UNIT			
<u>.</u>			ediation	No.	Туре	QUANTITY	WT/Vol.	Tords		
N	APE 30015415	SOCOL	-0.14 14011					20		
E	С.									
	d.									
R	12. COMMENTS OR SPECIAL INSTRUCTION	IS:		<u>!                                      </u>		13. WASTE F	PROFILE N	10.		
A	los	t Code 19	0200			7	Α			
	14. IN CASE O	F EMERGENCY C	R SPILL, C	ONTAC'	Г	24 HOUR	EMERGE	NCV NO		
T	CHEVRON CARLSBAD						-887-56			
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this	consignme	nt are full	y and accurate	ly describe	ed above.		
								DATE		
R	printed typed NAME Jones L behalf of Travis	overy on	SIGNATURE	11				DATE 22		
Т	16. TRANSPORTER (1)	JIWEN'S	17.	TR	ANSPO	RTER (2)				
R A	NAME A A A A		NAME							
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF	EMERGE!	NCY CO	NTACT:				
P O	EMERGENCY PHONE:		EMERGENC'							
R	18. TRANSPORTER (1): Acknowledgment	of receipt of material	19. TRANS	PORTER	k (2): Ack	mowledgment	of receipt	of material		
T E	PRINTED/TYPED NAME	$n_{-}$	PRINTED/TY	PED NAM	Æ					
R S	SIGNATURE JOHN	DATE 3/30/22	SIGNATURE				DATE			
	U	ADDRESS:				PHONE	:			
D F I A	360 Environmental Solutions 5053 US Hwy 286									
S C P I	PERMIT NO. Orla, TX 79770		20. COMMEN	TS.						
O L S I	21. DISPOSAL FACILITY'S CERTIFIC	ATION: I Hereby cert	ify that the abov	e describe	d wastes	were delivered	to this faci	ility, that the		
A T L Y	facility is authorized and permitted to receive suc	ch wastes.	· · · · · · · · · · · · · · · · · · ·		<del></del>					
LI	AUTHORIZED SIGNATURE		CELL NO.		DATE	12112		1. J. S. 1		
	1 Millepa		<u>   </u>		14	SUJOK	لبلخ	10.24 H)		

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

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<b>R3</b>	60
ENVIRONMENTAL SOLUTIONS	

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Company		Pag	e ;	29:	0	f 35
Company	Man	CON	acı	Ini	JIII	ation

Mama	Tank	Stevens
ivains	LILLUIS	

ENVIRONMENTAL SOLUTIONS	1904		Phone No
	GENI	ERATOR	No. 247852
Operators Name Chevron Conls	bad	Permit/PPC No. Lease/Well Name & No.	Cotton HIVLS 23 26 27 Federal Com # 001 A
Address 5301 Lones	Dr.	County _ API No.	30015415350001
City, State, Zip Phone No.  Con15 b.d., NM 575-887-56	88220 76	Rig Name & No AFE/PO No	UCRE 10200
EXEMPT E&P Wast Oil Based Muds	e/Service Identification and Amour NON-INJECTABLE WATERS	nt (place volume next to wa	aste type in barrels or cubic yards)  OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Internal USE ONLY Truck Washout (exempt waste)		(08) CAPLSBAD
WASTE GENERATION PROCESS: DRILLIN	NG COMPLETION	PRODUCTIO	ON GATHERING LINES
All non runmer CPD	NON-EXEMPT E&P Waste	Service Identification and Amo	ount P), Ignitability, Corrosivity adn Reactivity
Non-Exempt Other	ge must be analysed dhu be deniw on		act from Non-Exempt Waste List on back
QUANTITY	B-BARRELS	Tol	Y-YARDS E-EACH
	t hazardous waste as defined by 40 CF	R Part 261 or any applicable str	tate law. That each waste has been properly described, classified and
MSDS Informati  MSDS Informati  MSDS Informati  MSDS Informati  PAINT, AUTHORIZED AGENTS SIGNATURE  Transporter's Name  M. MATA	of Truis 3 Stress (Chewan) TRANS	A Hazardous Waste Analysis  30 22  SPORTER  Driver's Name	Other (Provide Description Below)  SIGNATURE  Falchan Tello
Address		Phone No.	970,901 5901
Phone No.		Truck No. — WHP No. —	16.7
I hereby certify that the above named material(s) was/wer	e picked up at the Generator's site liste		t incident to the disposal facility listed below.  DRIVER'S SIGNATURE
TRUCK TIME STAMP IN:12.24 po OUT:	DISPOSA	AL FACILITY	RECEIVING AREA Name/No
Site Name/ Permit No. Address  Red Bluff Facility / STF-0 5053 US Hwy 285, Orla, T		Phone No. 4	432-448-4239
NORM READINGS TAKEN? (Circle	One) (YES) NO	If YES, was reading > NORM (mR/hr)	50 micro roentgents? (Circle One) YES NO
Feet	Inches	BOTTOMS	reconverted and the second
1st Guage 2nd Guage Received		Late 1 PLANNER OF ST	S&W Received BS&W (%) Free Water Total Received
I hereby certify that the above load material has been (circ	le one): ACCEPTED ACCEPTED DATE	DENIED ROVE	denied, why?  SIGNATURE

		CHEV	RON					
		MCI	BU					
		Carlsba	d, NM					
NO #0	CAR- 4947 NON-HAZARI	DOUS WASTE	MANIFEST	Γ 1. PAC	ge_Lof	2, TRAIL	ER NO.	
G	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS 5301 I	OMAS DR.		5. P	ICK-UP DATI	В	
J	PHONE NO. 575-887-5676	CITY	STATE AD, NM 882		ZIP 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIP		AD, NW 66.		TAINERS		10. UNIT WT/Vol.	
N	1.5011 Excavaled during APT 300 154 15350	Spill Remed	Noitail	No.	Туре	QUANTITY	W 17 Vol.	Yards 20
E	b.							
L	d.							
R	12. COMMENTS OR SPECIAL INSTRUCTION	S:				13. WASTE F	ROFILE N	NO.
A	L	ost code	10200	)		NA		
Т	14. IN CASE O	OF EMERGENCY (	OR SPILL, C	ONTAC	Т	24-HOUR	EMERGE	NCY NO.
1	CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this	onsignme	ent are full	DEGAS	-887-56	en e
O	4 8	Tretter, accuracy man me	contents of this c	oungilli.	an are run	y und decirate	,, 40001100	4 400 701
R	printed typed NAME Jores La behalf of Travis Steve		SIGNATURE	rf	1			DATE PO/ZZ
T R	16. TRANSPORTER (1) NAME		17. V V	TR	ANSPO	RTER (2)		
A N								
S P	IN CASE OF EMERGENCY CONTACT:  EMERGENCY PHONE: M. MA A-7	А	II IIIANIZS-COMMUNISTICA I	CASE OF EMERGENCY CONTACT:				
O R	EMERGENCY PHONE: M. MAT  18. TRANSPORTER (1): Acknowledgment o			MERGENCY PHONE:  9. TRANSPORTER (2): Acknowledgment of receipt of material				
T E	PRINTED/TYPED NAME Estbar	1 tel6	PRINTED/TY	PRINTED/TYPED NAME				
R S	SIGNATURE Estebantello	DATE 3-30.27	SIGNATURE				DATE	
D F I A	R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE:		
S C P I O L	PERMIT NO.		20. COMMEN	TS				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such		ify that the above	describe	d wastes w	ere delivered	to this facil	ity, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE	10.1.0	TIM	E
	Motoph		101		65/	30/2	) /-	1.24pr

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

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Company		Page	<i>297</i>	of	35
Company	Man	Contact	inioi	IIId	HOI

Name	Travis	Stevens	2
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ENVIRONMENTAL	源
SOLUTIONS	

(PLEASE PRINT)

Name	Travis	Stevens

SOLUTIONS	AND THE RESERVE AND ADDRESS OF THE PARTY OF	Filone No.
Operator No.	GENERATOR Permit/PPC No	No. 247853
Operators Name Chevron Carls	Lease/Well Name & No.	Federal Com # 001 #
	County API No.	30054153500D1
City, State, Zip Carlsbad, NM 88 Phone No. 575 - 887 - 5676	220 Rig Name & N AFE/PO No.	UCRE 10200
EXEMPT E&P Waste/Service	Identification and Amount (place volume nex	t to waste type in barrels or cubic yards)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Water Based Cuttings Producer	IECTABLE WATERS  t Water (Non-Injectable) on Fluid/Flow Back (Non-Injectable) if Water (Non-Injectable)	OTHER EXEMPT WASTES (type and generation process of the waste)  (OB) C Carls bord
Produced Formation Solids Tank Bottoms E&P Contaminated Soil  Gatherin	g Line Water/Waste (Non-Injectable) USE ONLY shout (exempt waste)	
WASTE GENERATION PROCESS: DRILLING		DUCTION GATHERING LINES
All non avainnt ERP was to must be	NON-EXEMPT E&P Waste/Service Identification a analysed and be below threshold limits for toxici	and Amount
Non-Exempt Other		se select from Non-Exempt Waste List on back
QUANTITY B-BARI	RELS	20 Y-YARDS E-EACH
I hereby certify that the above listed material(s), is (are) not hazardous	waste as defined by 40 CFR Part 261 or any applic	cable state law. That each waste has been properly described, classified and
packaged, and is in proper condition for transportation according to ap  RCRA EXEMPT:  Oil field wastes generated f per load basis only)		ion and are not mixed with non-exempt waste (R360 Accepts certifications on a
40 CFR 261.21-261.24, or lis	-hazardous that does not exceed the minimum sta ted hazardous waste as defined by 40 CFR, part 21 attached. (Check the appropriate items as provided RCRA Hazardous Waste An	
ones Lovely on behalf of T	Chevron BATE	SIGNATURE
Transporter's Name	TRANSPORTER Driver's Name	Jonahla
Address U/	Phone No. Truck No.	
Phone No.	WHP No.	
hereby certify that the above named material(s) was/were picked up	at the Generator's site listed above and delivered	without incident to the disposal facility listed below.
SHIPMENT DATE DRIVER'S SIGNA	TURE DELIVERY	
TRUCK TIME STAMP IN: 25 9 OUT:	DISPOSAL FACILITY	RECEIVING AREA Name/No.
Red Bluff Facility / STF-065           Address         5053 US Hwy 285, Orla, TX 79770	Phone No.	432-448-4239
In a second and a second and a second at the	VES NO If YES, was rea NORM (mR/hr)	ding ≥ 50 micro roentgents? (Circle One) YES NO
- Fig. 3-3)	TANK BOTTOMS	Care Martin Age to Relative to the Care of
1st Guage Feet Inch 2nd Guage Received	STATE OF THE STATE	BS&W Received BS&W (%) Free Water Total Received
hereby certify that the above load material has been (circle one):	3,300 DENIED RE	UK mQ
NAME (PRIMIT)	DATE TITLE	SIGNATURE

	CHEVRON MCBU							
	Carlsbad, NM							
NO #0	CAR- 4902 NON-HAZARI	OOUS WASTE N	MANIFEST	1. PA	GE_LOF_	1 2. TRAIL	ER NO.	
_	3. COMPANY NAME	4. ADDRESS	01116.00		5. P	ICK-UP DATE	3	
G	CHEVRON CARLSBAD PHONE NO.		OMAS DR.		ZIP 6.			
E	575-887-5676		AD, NM 882		5595			
-	7. NAME OR DESCRIPTION OF WASTE SHIP	PED:		8. CON No.	TAINERS   Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yards
N	a. 5011 excavaled during APT 30015415	350001 Ren	red ietier					20
г	b.							
Е	c.							
R	d.							8
inviti i	12. COMMENTS OR SPECIAL INSTRUCTION			-17-00		13. WASTE P		IO.
A	The state of the s	code U	SECR.			^	JA_	
	14. IN CASE O	F EMERGENCY O	OR SPILL, CO	ONTAC	СТ	24-HOUR	EMEDGE	NCV NO
Т	CHEVRON CARLSBAD						-887-56	
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignm	ent are full	y and accurate	ly describe	d above.
R	printed typed NAME Jones Low behalf of Travis Stev		SIGNATURE	f			-1	DATE 0/22
T	16. TRANSPORTER (1)		17.	TF	RANSPOI	RTER (2)		
R A	NAME M MALA		NAME					
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	MERGE	NCY CON	TACT:		
P	EMERGENCY PHONE:		EMERGENCY					
O R	18. TRANSPORTER (1): Acknowledgment o	f receipt of material	19. TRANSP	ORTE	R (2): Ack	nowledgment	of receipt o	of material
T E	PRINTED/TYPED NAME	nto	PRINTED/TYI	PED NA	ME			
R S	SIGNATURE Jorah Fa	DATE 3/302	SIGNATURE				DATE	
D F I A	₹360 Environmental Solution 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE:		
S C P I O L	PERMIT NO.		20. COMMENT	rs				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATE facility is authorized and permitted to receive such		fy that the above	describe	d wastes w	ere delivered t	to this facil	ity, that the
LY	AUTHORIZED SIGNATURE  M Step L		CELL NO.		DATE	120/20	$\mathcal{L}_{\mathcal{L}}^{TIM}$	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

\*REQUIRED INFORMATION\*

Company	A Ann	Page	299	of 35
Company	Maii	CUITALI	HIIIO	mation

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SOLUTIONS	

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Compa	111111111111111111111111111111111111111	table illimination
Name	Travis	Stevens

	OFNE	PATOR	No. 047050
Operator No.	GENE	-	No. 247853
Operators Name Chevron Car	1. 1. 1	Permit/PPC No. Lease/Well	cotton Hills 23 26 27
Operators Name  Address  530   Lomas Do	1s bad	Name & No. County	Federal Com # DOI H
	00000	API No.	30054153500D1
City, State, Zip Carlsbad, NM 575 - 887 - 56	88220	Rig Name & No. AFE/PO No.	UCRE 10200
	ervice Identification and Amount (		vaste type in barrels or cubic yards)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil	ON-INJECTABLE WATERS  (ashout Water (Non-Injectable) ompletion Fluid/Flow Back (Non-Injectable) oduced Water (Non-Injectable) athering Line Water/Waste (Non-Inje TERNAL USE ONLY	table)	OTHER EXEMPT WASTES (type and generation process of the waste)  OB) CCAY (S bod)
Gas Plant Waste Tru WASTE GENERATION PROCESS: DRILLING	uck Washout (exempt waste)  COMPLETION	PRODUCT	CATHEDING LINES
WASTE GENERATION PROCESS: DRILLING			
All non-exempt E&P waste m	NON-EXEMPT E&P Waste/Se nust be analysed and be below threst	rvice Identification and Ar nold limits for texicity (TCL	nount P), Ignitability, Corrosivity adn Reactivity.
Non-Exempt Other		*please sel	ect from Non-Exempt Waste List on back
QUANTITY	B-BARRELS		20 Y-YARDS E-EACH
Phone No.  Property that the above named material(s) was/were pick  SHIPMENT DATE  TRUCK TIME STAMP  Oil field wastes gener per load basis only)  Oil field waste which 40 CFR 261.21-261.24 waste as non-hazardo MSDS Information  MSDS Information  ORDER  TRUCK TIME STAMP  OUT:  Site Name/	g to applicable regulation.  rated from oil and gas exploration and is non-hazardous that does not exceed, or listed hazardous waste as define the appropria RCRA H.  Franks Steers  Chevren  DA  TRANSI	d production operation and ded the minimum standard and by 40 CFR, part 261, sulte items as provided) azardous Waste Analysis  30 22  PORTER  Driver's Name Phone No. Truck No. WHP No. bove and delivered without the production of the product of th	RECEIVING AREA Name/No.
Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX 79  NORM READINGS TAKEN? (Circle One  Ist Guage Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX 79  NORM READINGS TAKEN? (Circle One		If YES, was reading NORM (mR/hr)	S&W Received BS&W (%) Free Water Total Received
hereby certify that the above load material has been (circle one	3,30-31	DENIED PEUT	denied, why?

	CHEVRON MCBU							
	Carlsbad, NM							
NO #0	CAR- 4902 NON-HAZARI	OOUS WASTE N	MANIFEST	1. PA	GE_LOF_	1 2. TRAIL	ER NO.	
_	3. COMPANY NAME	4. ADDRESS	01116 00		5. P	ICK-UP DATE	3	
G	CHEVRON CARLSBAD PHONE NO.		OMAS DR.		ZIP 6.			
E	575-887-5676		AD, NM 882		5.50.5			
-	7. NAME OR DESCRIPTION OF WASTE SHIP	PED:		8. CON No.	TAINERS   Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yards
N	a. 5011 excavaled during APT 30015415	350001 Ren	red ietier					20
г	b.							
Е	c.							
R	d.							8
inviti i	12. COMMENTS OR SPECIAL INSTRUCTION			-17-00		13. WASTE P		IO.
A	The state of the s	code U	SECR.			^	JA_	
	14. IN CASE O	F EMERGENCY O	OR SPILL, CO	ONTAC	СТ	24-HOUR	EMEDGE	NCV NO
Т	CHEVRON CARLSBAD						-887-56	
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignm	ent are full	y and accurate	ly describe	d above.
R	printed typed NAME Jones Low behalf of Travis Stev		SIGNATURE	f			-1	DATE 0/22
T	16. TRANSPORTER (1)		17.	TF	RANSPOI	RTER (2)		
R A	NAME M MALA		NAME					
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	MERGE	NCY CON	TACT:		
P	EMERGENCY PHONE:		EMERGENCY					
O R	18. TRANSPORTER (1): Acknowledgment o	f receipt of material	19. TRANSP	ORTE	R (2): Ack	nowledgment	of receipt o	of material
T E	PRINTED/TYPED NAME	nto	PRINTED/TYI	PED NA	ME			
R S	SIGNATURE Jorah Fa	DATE 3/302	SIGNATURE				DATE	
D F I A	₹360 Environmental Solution 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE:		
S C P I O L	PERMIT NO.		20. COMMENT	rs				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATE facility is authorized and permitted to receive such		fy that the above	describe	d wastes w	ere delivered t	to this facil	ity, that the
LY	AUTHORIZED SIGNATURE  M Step L		CELL NO.		DATE	120/20	$\mathcal{L}_{\mathcal{L}}^{TIM}$	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

#### TEXA VIFEST

40	NON HAZABBOHO	OIL FIELD	MANADTE	
AS	NON-HAZARDOUS	UILFIELD	WASIE	MAN

Company Man	Page .	301	of 35
Company Man	Contact	inio	rmatio

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Compan	y ivian com	act information	
Name 1	Town's	Stevens	

City, State, Zip Phone No.  Carl S bod, NM 882  575 - 887 - 5676  EXEMPT E&P Waste/Service Idea  NON-INJEC Washout Wa	County API No.	NO. 247854  Cotton HILS 23 26 27  Federal Com # 001 H  30015415350001  UCRE 10200  Vaste type in barrels or cubic yards)
Operators Name Address  City, State, Zip Phone No.  Carls bad Carl	Lease/Well Name & No. County API No. Rig Name & No. AFE/PO No. ntification and Amount (place volume next to w	Federal com # 001 H  30015415350001  UCRE 10200
City, State, Zip Phone No.  Cec S bed, NM 882  575 - 887 - 5676  EXEMPT E&P Waste/Service Idea  NON-INJEC Washout Wa	County API No. Rig Name & No. AFE/PO No. ntification and Amount (place volume next to w	Federal com # 001 H 30015415350001 UCRE 10200
City, State, Zip Phone No.  CC15bed, NM 882  575 - 887 - 5676  EXEMPT E&P Waste/Service Idea  NON-INJEC Washout Wa	API No. Rig Name & No. AFE/PO No. ntification and Amount (place volume next to w	UCRE 10200
Phone No. 575 - 887 - 5676  EXEMPT E&P Waste/Service Idea  Dil Based Muds Dil Based Cuttings  Washout Wa	AFE/PO No. ntification and Amount (place volume next to w	
Dil Based Muds Oil Based Cuttings  EXEMPT E&P Waste/Service Idea  NON-INJECT Washout W	ntification and Amount (place volume next to w	
Oil Based Muds Oil Based Cuttings Washout Wa	CONTROL MANUAL SCIENCE CONTROL	Control of the Contro
Traditout Tre	The second of th	OTHER EXEMPT WASTES (type and generation process of the v
	ater (Non-Injectable) Fluid/Flow Back (Non-Injectable)	= (DB) Carlsbad
Produced Formation Solids Gathering Lin	ater (Non-Injectable) ne Water/Waste (Non-Injectable)	anilosheo'k
Tank Bottoms E&P Contaminated Soil  Tank Weshes	USE ONLY out (exempt waste)	The State of the S
Gas Plant Waste Truck Washo WASTE GENERATION PROCESS: DRILLING	COMPLETION PRODUCTI	TION GATHERING LINES
	N-EXEMPT E8P Waste/Service Identification and Am	
All non-exempt E&P waste must be an	alysed and be below threshold limits for toxicity (TCL)	P), Ignitability, Corresivity adn Reactivity.
Non-Exempt Other		lect from Non-Exempt Waste List on back
QUANTITY B-BARREL		20 Y-YARDS E-EACH
hereby certify that the above listed material(s), is (are) not hazardous wa ackaged, and is in proper condition for transportation according to applic		state law. That each waste has been properly described, classified
MSDS Information  MSDS Information  MSDS Information  MSDS Information	RCRA Hazardous Waste Analysis  Stores 3 30 22  evron	Other (Provide Description Below)
ransporter's	TRANSPORTER	Enteban Tello
lame MATA	Driver's Name	
address	Phone No Truck No	970 491 3903
hone No.	WHP No	
hereby certify that the above named material(s) was/were picked up at t	the Generator's site listed above and delivered withou	ut incident to the disposal facility.listed below.
SHIPMENT DATE DRIVER'S SIGNATUR	DELIVERY DATE	DRIVER'S SIGNATURE
IN: 231 ONOUT:	DISPOSAL FACILITY	Name/No. RECEIVING AREA
	and the same of th	432-448-4239
Permit No. Red Bluff Facility / STF-065	Phone No.	And the second s
ermit No. Red Bluff Facility / STF-065	A SA	> 50 micro roentgents? (Circle One) YESNO
ermit No. Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX 79770	NO If YES, was reading	≥ 50 micro roentgents? (Circle One) YESNO
Red Bluff Facility / STF-065  5053 US Hwy 285, Orla, TX 79770  NORM READINGS TAKEN? (Circle One)  Feet Inches	NO If YES, was reading NORM (mR/hr)  TANK BOTTOMS	control as from a principle of the control of the c
Address 5053 US Hwy 285, Orla, TX 79770  NORM READINGS TAKEN? (Circle One)  YES	NO If YES, was reading NORM (mR/hr)  TANK BOTTOMS  B:	SS&W Received BS&W (%) Free Water Total Received

CHEVRON MCBU							
	Carlsbad, NM						
NO #C	CAR- 4903 NON-HAZARDOUS WASTE M	IANIFEST	1. PAC	SE_LOF	1 2. TRAIL	ER NO.	
	3. COMPANY NAME 4. ADDRESS			5. P	ICK-UP DATI	В	
G		OMAS DR.		ZIP 6.			
	THORE NO.	AD, NM 882					
Е	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CON' No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11. Yord 5
N	a soil excavated during spill Rem	ediation					20
	b.						
E	c.						
R	d.						
K	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE I	PROFILE N	10.
A	Cost code U	CRT 10	200	>	^	JA	
	14. IN CASE OF EMERGENCY O	OR SPILL, C	ONTAC	ст	24 HOUR	EMERGE	NCV NO
T	CHEVRON CARLSBAD					-887-56	
0	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignm	ent are ful	ly and accurate	ely describe	ed above.
О							and the same of th
R	printed typed NAME Jones Lovely on behalf of Travis Stevens	SIGNATURE	As	fA		31	DATE 30/22
-		17.	7 7	RANSPO	RTER (2)		
T R	16. TRANSPORTER (1) NAME	NAME	•••	LII O	111211 (2)		
A N	**************************************						
S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF	EMERG	ENCY CO	NTACT:		
P	EMERGENCY PHONE: M. MATA	EMERGENC					
R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANS	PORTE	R (2): Ac	knowledgment	t of receipt	of material
T E	PRINTED/TYPED NAME S546 BUN TEMO	PRINTED/TY	PED NA	ME			
R	SIGNATURE Estbon 700 DATE 3-30-72	SIGNATURE				DATE	
D F	360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770				PHONE	i:	9
S C	PERMIT NO.	20. COMMEN	ITS				
P I O L						The second second	onlike ver Same
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby cert facility is authorized and permitted to receive such wastes.	tify that the abov	e describ	ed wastes	were delivered	i to this fac	ility, that the
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE	1	TIN	
	Instead	101		3	130/2	B	:39
					an offer	m and	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

	Page 303 o	f 358
Company	Man Contact Inform	ation

02	60
ENVIRONMENTAL	

(PLEASE PRINT)

Name Tr	Wis	Stevens
---------	-----	---------

SOLUTIONS SOLUTIONS	·				Phone No
		6	ENERATOR	NO.	247855
Operator No. Operators Name	Chevron Car	166.1	Permit/PPC No. Lease/Well Name & No.	Cotton Hills	23 26 27 # 001 U
Address	530 Lones	Dr.	County	Peace Com	T. UU. FI
City, State, Zip	Carls bad, NM	88220	API No Rig Name & No.	3001541535	000
Phone No.		76	AFE/PO No.	UCRE 1020	
Oil Based Muds	EXEMPT E&P Was	NON-INJECTABLE WATERS	Amount (place volume next to )	waste type in barrels or cubic ya OTHER EXEMPT WASTES	trds) type and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttin Produced Formation Tank Bottoms E&P Contaminated	gs	Washout Water (Non-Injectal Completion Fluid/Flow Back Produced Water (Non-Injectal Gathering Line Water/Waster INTERNAL USE ONLY	Non-Injectable) ble) (Non-Injectable)		Belly
Gas Plant Waste WASTE GENERAT	TON PROCESS:	Truck Washout (exempt washing COMPLE		TION GATHER	NG LINES
VVASTE GEIVERA	ION THOGESS: DIRECT		Waste/Service Identification and A		ING EINES
Non-Exempt Other	All non-exempt E&P w		low threshold limits for toxicity (TO	(LP), Ignitability, Corrosivity adn Rea elect from Non-Exempt Waste Li	
	_	D DARDELO	piease se		
QUANTITY	the above listed material(s), is (are) n	B-BARRELS	40 CFR Part 261 or any applicable	2 Y-YARDS	E-EACH
SHIPMENT D	per load basis  Oil field waste 40 CFR 261.21- waste as non- MSDS Informa  (PRINT) AUTHORIZED AGENTS SIGNATURE  the above named material(s) was/we  Faul w	re picked up at the Generator's s	s not exceed the minimum standare as defined by 40 CFR, part 261, stappropriate items as provided)  RCRA Hazardous Waste Analysis  3 30 22  DATE  ANSPORTER  Driver's Name Phone No. Truck No. WHP No. ite listed above and delivered with	ds for waste hazardous by character ubpart D, as amended. The following Other STANATURE  STANATURE  Out incident to the disposal facility D	AIVER'S SIGNATURE
IN 37	OUT:	DISP	USAL FAGILITY	Name/No	NOSAREA J
Site Name/ Permit No. Address	Red Bluff Facility / STF- 5053 US Hwy 285, Orla, NORM READINGS TAKEN? (Circ	TX 79770	Phone No.  If YES, was reading NORM (mR/hr)	432-448-4239 > 50 micro roentgents? (Circle	One) YES NO
		TAI	NK BOTTOMS	Section 1	
1st Guage 2nd Guage Received	Feet	Inches	House season	BS&W Received Free Water Total Received	BS&W (%)
Levely entity that	the shove load daterial has been (cir CAME (PRINT)	cle one): 3/30/0	DENIED LOC	If denied, why?	OLLON

	CHEV) MCI						
	Carlsba						
NO #	CAR- 4904 NON-HAZARDOUS WASTE N	MANIFEST	Γ 1. PAG	E LOF	2. TRAIL	ER NO.	
G	The state of the s	OMAS DR.		-	ICK-UP DAT	E,	
E		TATE AD, NM 882	220	ZIP 6.	9. TOTAL	I10. UNIT	lii.
N	18 S. Televicia de Travalla de California de	ediation	No.	Туре	QUANTITY	WT/Vol.	Yerds 20
E	b. c.						
R	d.				SIP IN CONTRACTOR		
A	12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost code UCRT 10200				13. WASTE I	PROFILE	NO.
Т	14. IN CASE OF EMERGENCY OF CHEVRON CARLSBAD	OR SPILL, C	ONTAC	Т		EMERGE	
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this o	consignme	nt are full			
R	PRINTED TYPED NAME James Lovely on behalf of Travis Stevens	SIGNATURE	1		_	3/3	DATE /22
T R A	16. TRANSPORTER (1) NAME  MATA TRANSPORTER (1)	17. NAME	TR	ANSPO	RTER (2)		
N S P	IN CASE OF EMERGENCY CONTACT:	IN CASE OF			NTACT:		
O R	EMERGENCY PHONE:  18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI	2000 (000 200 000		nowledgment	of receipt	of material
T E R	PRINTED/TYPED NAME Javiv ROVON	PRINTED/TY					
S	SIGNATURE SOUTH ROLL SIGNATURE 3/20/2022	SIGNATURE	-			DATE	
D F I A	ADDRESS:  R360 Environmental Solutions - Red Bluff				PHONE	ž	
S C P I O L	PERMIT NO. 5053 US Highway 285	20. COMMEN	TTS				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby certifal fility is authorized and permitted to receive such wastes.	ify that the above	e describe	d wastes v	vere delivered	to this faci	lity, that the
LAX	AUTHORIZED SIGNATURE	CELL NO.		DATE	30/	222	:37P
	Disposal Site: Please complete Disposal	Facility sec	tion at	botto	m of forn	n and	

GENERATOR: COPY 1

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

S	UILFIELU	MASI	E	MAIN	LF21

		Page	305	of 35
Company	Man	Contac	Linio	rmation

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Compar	ly Ividii	Come	act illioilligition	
Namo	CON	15	Stevens	

Phone No.

	GE	NERATOR	N	0. 247856
Operator No.		Permit/PPC No. Lease/Well	Cotton HIII	s 23 26 27
Operators Name Chevron Cor Address 5301 Lones	-Ls bord	Name & No. County	Federal con	# 001 H
	Dr.	API No.	30015415	350001
City, State, Zip Phone No.  Carls bad, NM 575 - 887 - 50		Rig Name & No. AFE/PO No.	UCRE 10.	200
	aste/Service Identification and An	nount (place volume next to v	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER. THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	CONTRACTOR OF THE PARTY OF THE
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	NON-INJECTABLE WATERS  Washout Water (Non-Injectable Completion Fluid/Flow Back (No Produced Water (Non-Injectable Gathering Line Water/Waste (N INTERNAL USE ONLY Truck Washout (exempt waste)	n-Injectable)		Carl Shad
WASTE GENERATION PROCESS: DRIL	LING COMPLETIO			HERING LINES
All non-exempt E&P.	NON-EXEMPT E&P We waste must be analysed and be below	ste/Service identification and A v threshold limits for toxicity (TC	mount LP), Ignitability, Corrosivity ad	n Reactivity.
Non-Exempt Other		*please se	lect from Non-Exempt Was	te List on back
QUANTITY	B-BARRELS		20 Y-YA	RDS E-EACH
waste as non  MSDS Inform  MSDS Inform  MSDS Inform  MSDS Inform  MSDS Inform	n-hazardous is attached. (Check the ap		Andry	owing documentation demonstrating the Other (Provide Description Below)
Transporter's Name  Address  M. Mata Trv  Address  Phone No.  I hereby certify that the above named material(s) was/w	37	Driver's Name Phone No. Truck No. WHP No. listed above and delivered witho	56	0 , _
TRUCK TIME STAMP IN: 30 50 0UT:	DISPO	SAL FACILITY	Name/No.	EIVING AREA
Red Bluff Facility / STF 5053 US Hwy 285, Orla  NORM READINGS TAKEN? (Cir	, TX 79770	Phone No.  If YES, was reading, NORM (mR/hr)	<b>432-448-4239</b> > 50 micro roentgents? (Ci	rcle One) YES NO
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	TANK	BOTTOMS		w rational laboration entities
1st Guage Feet 2nd Guage Received	Inches		SS&W Received Free Water Total Received	BS&W (%)
I hereby certify that the above load material has been (c	circle one): ACCEPTED	DENIED CUI	f denied, why?	Huer en

		CHEV								
		MCI	BU							
		Carlsba	d, NM							
NO #C	CAR- 4907 NON-HAZARI	DOUS WASTE	MANIFEST	Γ 1. PAG	GE_LOF	1 2. TRAIL	ER NO.			
	3. COMPANY NAME	4. ADDRESS	OMACDD		5. P	ICK-UP DAT	Е			
G	CHEVRON CARLSBAD PHONE NO.	CITY	OMAS DR. STATE		ZIP 6.					
E	575-887-5676		AD, NM 882		TAINERS	9. TOTAL	10. UNIT	11		
	7. NAME OR DESCRIPTION OF WASTE SHIP		15.15.0	No.	Type	QUANTITY		Yands		
N	a 50:1 excavated during APT 3001541535	6001 Kem	2011 8 TO 11					20		
Е	b.									
E	c.									
R	d.									
A	12. COMMENTS OR SPECIAL INSTRUCTION  Los	ts: + code u	CRT 10	200		13. WASTE I	PROFILE N	Ю.		
H0550	14. IN CASE O	OF EMERGENCY (	OR SPILL, C	ONTAC	т			Name of the last o		
T	CHEVRON CARLSBAD						-887-56			
о	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this o	consignm	ent are full	y and accurate	ely describe	d above.		
R	printed typed NAME James Lo behalf of Travis Steve	nely on	SIGNATURE	10	L		3	DATE,  30 22		
T	16. TRANSPORTER (1)		17.	TF	RANSPO	RTER (2)	- UIII			
R A	NAME		NAME M. Mata T.							
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:							
P O	EMERGENCY PHONE:		EMERGENCY PHONE:							
R	18. TRANSPORTER (1): Acknowledgment	of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material							
T E	PRINTED/TYPED NAME		PRINTEDITYPED NAME ROUN ON RAWIYEZ SIGNATURE RAMON RAWINEZDATE 3-30-							
R S	SIGNATURE	DATE	SIGNATURE	Rai	uon 1	Paulre	ZDATE (	3-30-Z		
D F I A	360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE	:			
S C P I O L	PERMIT NO.		20. COMMEN							
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive such	ATION: I Hereby cer	tify that the abov	e describ	ed wastes v	vere delivered	to this faci	lity, that the		
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE	130/	3	1E 25 Pm		
	O'SULDIN.		الال_			1-10				

(PLEASE PRINT)

Company	Man Confac	307 of 358
7		SI 6

	Compan	y Ivian com	act information	
*	Name _	Travis	Stevens	

ENVIRONMENTAL SOLUTIONS	Manager A	The state of the state of	Phone No
ON-	GENE	RATOR	No. 247857
Operator No.  Operators Name  Chevron Cov	1s bad	Permit/PPC No. Lease/Well Name & No.	Cotton HINS 23 26 27 Federal con # 901 H
Address 530 Lomes	Dr.	County API No.	30015415350001
City, State, Zip Phone No.  Carlsboal NN 575 - 887 - 3	1 88220	Rig Name & No. AFE/PO No.	UCRE 10280
EXEMPT E&P Wast Oil Based Muds	e/Service Identification and Amount NON-INJECTABLE WATERS	(place volume next to	waste type in barrels or cubic yards)  OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Inje Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injectable) INTERNAL USE ONLY Truck Washout (exempt waste)	WINCOX .	DB (CARLSBAD)
WASTE GENERATION PROCESS: DRILLIF	NG COMPLETION	☑ PRODUC	CTION GATHERING LINES
All non-exempt E&P wa Non-Exempt Other	NON-EXEMPT E&P Waste/S ste must be analysed and be below thre	shold limits for toxicity (TO	Amount CLP), Ignitability, Corrosivity adn Reactivity. select from Non-Exempt Waste List on back
QUANTITY	B-BARRELS	- Alexander dura	20 Y-YARDS E-EACH
per load basis of the	nly) which is non-hazardous that does not except the second secon	eed the minimum standar ned by 40 CFR, part 261, si	and are not mixed with non-exempt waste (R360 Accepts certifications on a parts for waste hazardous by characteristics established in RCRA regulations subpart D, as amended. The following documentation demonstrating the list
	e picked up at the Generator's site listed DRIVER'S SIGNATURE	Driver's Name Phone No. Truck No. WHP No. above and delivered with	Roberto
IN: 203 0 OUT:	DISPOSA	L FAUILII I	Name/No.
Site Name/ Permit No. Address  Red Bluff Facility / STF-0  5053 US Hwy 285, Orla, T  NORM READINGS TAKEN? (Circle	X 79770	Phone No.  If YES, was reading NORM (mR/hr)	432-448-4239  50 micro roentgents? (Circle One) YES NO
1st Guage Feet 2nd Guage Received	Inches	OTTOMS	BS&W Received BS&W (%) Free Water Total Received
I hereby certify that the above load material has been (circ	le one): 3 ACCEPTED DATE	DENIED POUR J	If denied, why?  SIGNATURE

CHEVRON									
MCBU									
Carlsbad, NM									
CAR- 4905 NON-HAZARI	OOUS WASTE M	IANIFEST	1. PAC	e_Lof	1 2. TRAII	LER NO.			
3. COMPANY NAME	4. ADDRESS 5301 LC	OMAS DR		5. P	PICK-UP DAT	Е			
PHONE NO.	CITY S'	TATE		ZIP 6.					
	DEPARTMENT AND A SECURE OF A S	AD, NIM 882	1000	TAINERS		10. UNIT	11.		
		e die Han	No.	Туре	QUANTITY	WT/Vol.	Yerds 20		
APL 300 154 1535	50001	edi 1 71071					20		
d.:									
12. COMMENTS OR SPECIAL INSTRUCTION	S:				13. WASTE	PROFILE N	NO.		
Cost	code ucri	I 102	200			NA			
14. IN CASE O	OF EMERGENCY O	R SPILL, C	ONTAC	СТ	24-HOU	R EMERGE	NCY NO.		
CHEVRON CARLSBAD									
15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this o	consignm	ent are ful	lly and accurat	tely describe	ed above.		
		CICNIATURE	1	,			DATE		
behalf of Tours Sto	even s	SIGNATURA	1	0		3	130/22		
16. TRANSPORTER (1)		17.	TI	RANSPO	ORTER (2)				
NAME		NAME							
IN CASE OF EMERGENCY CONTACT:		IN CASE OF	F EMERGENCY CONTACT:						
EMERGENCY PHONE:									
18. TRANSPORTER (1): Acknowledgment of	of receipt of material	To be a company of the second							
PRINTED/TYPED NAME MATG		PRINTED/TY	TPED NA	ME 🔏	OBCKHO)	A. M	1. 1.		
SIGNATURE		SIGNATURE	Ka	bex			3/30/22		
R360 Environmental Salution	ADDRESS:				PHON	E:			
5053 US Hwy 285		I20 COMMEN	JTS						
PERMIT NO.		Zo. COMMEN	,10						
21. DISPOSAL FACILITY'S CERTIFIC	ATION: 1 Hereby cert	ify that the abov	e describ	ed wastes	were delivere	d to this fac	ility, that the		
facility is authorized and permitted to receive such	ch wastes.	CELL NO.		0.4500.000	mi	TI	ME		
Milesh		DI	-	93/	3/2	2 6	);03 <sub>pm</sub>		
	3. COMPANY NAME CHEVRON CARLSBAD PHONE NO. 575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIP  a. 50/1 EXCOVATED API 300 ISY IS 3 b. c. d.  12. COMMENTS OR SPECIAL INSTRUCTION COS +  14. IN CASE OF CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION:  PRINTED TYPED NAME JONES 16. TRANSPORTER (1) NAME  IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE: 18. TRANSPORTER (1): Acknowledgment of PRINTED/TYPED NAME MAGING SIGNATURE  R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770 PERMIT NO.	CARISDAC  CARISDAC  CARISDAC  CARISDAC  CARISDAC  3. COMPANY NAME CHEVRON CARLSBAD PHONE NO. 575-887-5676  CARLSBA  7. NAME OR DESCRIPTION OF WASTE SHIPPED: a. Soil CACOVARIA SHIPPED: b. c. d.  12. COMMENTS OR SPECIAL INSTRUCTIONS: COST CORE UCR  14. IN CASE OF EMERGENCY OF CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION: Hereby declare that the company of the com	CARISBAD, NM  CAR- 4905 NON-HAZARDOUS WASTE MANIFEST  3. COMPANY NAME CHEVRON CARLSBAD PHONE NO. 575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIPPED:  a. SOIL EXCOVARISE SHIPPED:  5301 LOMAS DR. STATE  CARLSBAD, NM 882  5301 LOMAS DR. STATE  CARLSBAD, NM 882  ADDRESS:   CARISBAD, NM  CAR- 4905 NON-HAZARDOUS WASTE MANIFEST 1. PAGE  3. COMPANY NAME CHEVRON CARLSBAD PHONE NO. 575-887-5676 575-	CARLS BAD, NM  TAR- 4905 NON-HAZARDOUS WASTE MANIFEST  3. COMPANY NAME  CHEVRON CARLSBAD PHONE NO.  575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIPPED:  8. CONTAINERS No.  12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost Code UCR 10200  14. IN CASE OF EMERGENCY OR SPILL, CONTACT  CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are full to the contents of this contents of the contents of this contents of the con	CARISBAD, NM  CAR- 4905 NON-HAZARDOUS WASTE MANIFEST 1. PAGE LOF 2. TRAIN JOHN 1. PAGE LOF 2. PAGE LOF 2. TRAIN JOHN 1. PAGE LOF 2. PAGE LOF 2. TRAIN JOHN 1. PAGE LOF 2. PAGE	Carlsbad, NM  CAR- 4905 NON-HAZARDOUS WASTE MANIFEST I. PAGE LOE 2. TRAILER NO.  3. COMPANY NAME CHEVRON CARLSBAD PHONE STATE STATE STATE STATE STATE STATE CHEVRON CARLSBAD PHONE STATE CARLSBAD, NM 88220  7. NAME OR DESCRIPTION OF WASTE SHIPPED:  8. CONTAINERS 9. TOTAL 10. UNITY WIT/Asl.  8. CONTAINERS 9. TOTAL 10. UNITY WIT/Asl.  12. COMMENTS OR SPECIAL INSTRUCTIONS:  13. WASTE PROFILE 1. COMMENTS OR SPECIAL INSTRUCTIONS:  14. IN CASE OF EMERGENCY OR SPILL, CONTACT  CHEVRON CARLSBAD  15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described wastes were delivered to this factorized by the contents of the contents of this consignment of receipt of material PRINTED TYPED NAME STATE			

GENERATOR: COPY 1

TRANSPORTER: COPY 2

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Compa	ny Man Con	tact information
Name	Traws	Steven

SOLUTIONS		V.De.	pas calle and year	Phone No	
Operator No.		GENE	RATOR Permit/PPC No.	NO. 247858	}
Operators Name Chevro	on Carlsbo	sd	Lease/Well Name & No. County	Cotton Hills 23 26 27 Federal Com # 001 H	
		222	API No.	30015415350001	
ity, State, Zip Conts be hone No. 575-	887 - 5676	3220	Rig Name & No. AFE/PO No.	UCRE 10200	
			(place volume next to v	waste type in barrels or cubic yards)	
bil Based Muds bil Based Cuttings Vaste Based Muds Vater Based Cuttings Vader Gased Cuttings Vader Gased Cuttings Vader Based Cuttings Valer Based Muds  Zater Based Cuttings  Zater Based Muds   Wash Compl Produi Gathe	INJECTABLE WATERS rout Water (Non-Injectable) letion Fluid/Flow Back (Non-Injectable) ced Water (Non-Injectable) rring Line Water/Waste (Non-Injectable) RNAL USE ONLY Washout (exempt waste)		OTHER EXEMPT WASTES trype and generation process of  OB (CARUS BAO)	the was	
VASTE GENERATION PROCESS:	☐ DRILLING	COMPLETION	PRODUC	CTION GATHERING LINES	
	WILL ARE SHOWN	NON-EXEMPT E&P Waste/S	ervice Identification and A	Amount	
All no Non-Exempt Other	a-exempt E&P waste must	be analysed and be below three		CLP), Ignitability, Corrosivity and Reactivity. select from Non-Exempt Waste List on back	
DUANTITY	R.R.	ARRELS		20 Y-YARDS E-EACH	_
**************************************		POSSES AND POSSES	Part 261 or any applicable	e state law. That each waste has been properly described, classi	ified an
ansporter's ame MMATHORIZED didress	AGENTS SIGNATURE	TRANS	Driver's Name Phone No. Truck No. WHP No.	AIFONSO MVÃOZ  OZ  7337	
ereby certify that the above named ma		i n liw dictori	above and delivered with		
TRUCK TIME STA		DISPOSA	L FACILITY	RECEIVING AREA Name/No.	J
	cility / STF-065 y 285, Orla, TX 7977	70	Phone No.	432-448-4239	one n
	S TAKEN? (Circle One)	YES NO	If YES, was reading NORM (mR/hr)	g > 50 micro roentgents? (Circle One) YES NO	
Foot		TANK B	OTTOMS	The same of the sa	
st Guage Feet and Guage eccived		nches	ALBA CAPT A	BS&W Received BS&W (%) Free Water Total Received	
hereby certify that the above load mate	rial has been (circle one):	ACCEPTED 3	DENIED ROUR	If denied, why?  When SIGNATURE	/

		CHEV							
		MCF	BU						
		Carlsba	d, NM						
NO #0	CAR- 4906 NON-HAZARI	OOUS WASTE N	MANIFEST	Γ 1. PAG	E_LOF_	L 2. TRAIL	ER NO.		
	3. COMPANY NAME	4. ADDRESS	OMACDD		5. P	ICK-UP DAT	Е		
G	CHEVRON CARLSBAD PHONE NO. 575-887-5676	CITY S	OMAS DR. STATE AD, NM 883	2	ZIP 6.				
Е	7. NAME OR DESCRIPTION OF WASTE SHIP	PED:		8. CONT	AINERS Type	9. TOTAL QUANTITY	10. UNIT		
N	a Soil Excepted during API 300154153	SPS 11 Remed 50001	liation	140.	турс	QUANTITA	W I/ VOI.	Yards 20	
	b.								
Е	c.								
R	d.					13. WASTE I	DOEH E Y	10	
A	12. COMMENTS OR SPECIAL INSTRUCTION	s: :t code	UCRI	1020	ð		JA	NO.	
	14. IN CASE C	OF EMERGENCY C	OR SPILL, C	ONTAC	Т	24-HOUR	EMERGE	NCY NO	
T	CHEVRON CARLSBAD						-887-5		
o	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this	consignme	ent are full	y and accurate	ely describe	ed above.	
R	printed typed NAME Jones LO. behalf of Travis Ster		SIGNATURE	3-1			3	DATE 3 /30/22	
T R	16. TRANSPORTER (1)		17. NAME	TR	ANSPO	RTER (2)			
A N S P	NAME CHAPTY 5 LLC 1 P.O. BOX 7062 IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:							
O R	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material						
T E	PRINTED/TYPED NAME, Alfon SO	MULOZ	PRINTED/TY	PED NA	ME				
R	SIGNATURE	DATE 3-30-22	SIGNATURE				DATE		
D F I A	R360 Environmental Solutions 5053 US Hwy 285	ADDRESS:	,			PHONE	i.		
S C P I O L	PERMIT NO.		20. COMMEN						
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc	ATION: I Hereby cert	ify that the abov	e describe	d wastes v	were delivered	to this fac	ility, that the	
LY	AUTHORIZED SIGNATURE	THE THE STATE OF	CELL NO.		DATE	20 /2	AIT A	1E 2:07 Da	
	1 mstept				19	20/9	ON 1°	10 1 Pu	

# TEVAC NONLIA

TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

R360

(PLEASE PRINT)

Compa	ny Man Cont	tact Information
Name	Travis	Stevens

DH	one	Ma
	RHIE	IVII

	14	GENE	RATOR	NO.	247859
Operator No.			Permit/PPC No. Lease/Well	Cotton Hills	23 26 27
Operators Name Address	S301 Lames D	90	Name & No. County	Federal Com	# 001 H
	Carlshed NM	88220	API No.	360154153500	100
City, State, Zip Phone No.	575-887-567		Rig Name & No. AFE/PO No.	UCRE 1020	<b>x</b>
Oil Based Muds	the state of the s	Service Identification and Amoun NON-INJECTABLE WATERS	t (place volume next to wa	AND DESCRIPTION OF THE PROPERTY OF	The second secon
Oil Based Cuttings Waste Based Muds Water Based Cutting Produced Formation Tank Bottoms E&P Contaminated S Gas Plant Waste	Solids Soil 20 years	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Inje Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-In (NTERNAL USE ONLY Truck Washout (exempt waste)	jectable)	(OB) CAR	ype and generation process of the waste)  LS BAD
WASTE GENERATI	ION PROCESS: DRILLING		▼ PRODUCTI		NG LINES
	All non-exempt E&P waste	NON-EXEMPT E&P Waste/s must be analysed and be below three		), Ignitability, Corrosivity adn Read	
Non-Exempt Other			*please sele	ect from Non-Exempt Waste Lis	t on back
QUANTITY	he above listed material(s), is (are) not h	B-BARRELS	at a majorial	20 Y-YARDS	E-EACH
Transporter's Name Address	MSDS Information  MSDS Information  MSDS Information  MALA F of T  M, Mata True  Wh D 73 3	Chevron TRANS	Hazardous Waste Analysis  A 22 DATE  PORTER  Driver's Name Phone No. Truck No.	Jack Brynature	Provide Description Below)
Phone No.			WHP No.		
I hereby certify that the	he above named material(s) was/were p	icked up at the Generator's site listed	above and delivered withou 3,30-2 DELIVERY DATE	t incident to the disposal facility lis	sted below,
SHIPMENT DA	UCK TIME STAMP  Spa-gut:	DISPOSA	L FACILITY		VER'S SIGNATURE  NG AREA
Site Name/ Permit No. Address	Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX NORM READINGS TAKEN? (Circle O	79770	42.400.52	332-448-4239 50 micro roentgents? (Circle O	ne) YES NO
1st Guage 2nd Guage Received	Feet ne above load material has been (circle	Inches  ACSEPTED		S&W Received Free Water Total Received denied, why?	BS&W (%)
- ricreby certify that th	NAME (PRINT)	03-36-20 DATE	DENIED PCV	edition, with	SIGNATURE

CHEVRON MCBU										
*	Carlsbad, NM									
NO #(	NO #CAR- 4913 NON-HAZARDOUS WASTE MANIFEST 1. PAGE LOF L 2. TRAILER NO.									
	3. COMPANY NAME	4. ADDRESS	01115 DD		5. P	ICK-UP DAT	Е			
$\mathbf{G}_{t}$	CHEVRON CARLSBAD 5301 LOMAS DR CITY STATE ZIP 6.									
E	575-887-5676		AD, NM 882							
F22	7. NAME OR DESCRIPTION OF WASTE SHIP			8. CON No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yords		
N	2.501 Excaverted during APT 300154153	Spill Rem	ediation					20		
	b.	, , , , , , , , , , , , , , , , , , , ,								
E	C.									
R	d.				99					
A	12. COMMENTS OR SPECIAL INSTRUCTION	is: st code	10200			13. WASTE I	PROFILE	10.		
	14. IN CASE O	OF EMERGENCY	OR SPILL, CO	ONTAC	т			_		
T	CHEVRON CARLSBAD 24-HOUR EMERGENCY NO. 575-887-5676									
О	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignm	ent are full	y and accurate	ly describe	d above.		
R	printed typed NAME Jones La behalf of Travis Ster		SIGNATURE	2	L		3]	DATE 30/22		
T R	16. TRANSPORTER (1)		17. NAME	TF	ANSPO	RTER (2)		1.2		
Α	NAME		Traine.							
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	ASE OF EMERGENCY CONTACT:						
P	EMERGENCY PHONE:		EMERGENCY PHONE:							
R	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material							
T E	PRINTED/TYPED NAME		PRINTED/TYPED NAME Ramon Ramirez							
R S	SIGNATURE	DATE	PRINTED/TYPED NAME Ramon Raminez DATE 3-30-2							
D F	5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE				
S C P I O L	PERMIT NO.		20. COMMENT	rs						
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc		rify that the above	describe	ed wastes w	vere delivered	to this facil	ity, that the		
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE 3	30-A2	TIM	45		

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company N	Man Cont	act Info	rmation
Name To	wis	Ste	rens

Phone No.\_\_\_

	14	GENE	RATOR	NC	247859
Operator No. Operators Name	Chevron Carlsbo	d	Permit/PPC No. Lease/Well Name & No.	Cotton Hill Federal Co	s 23 26 27 om # 001 H
Address	5301 Lomes Dr		County	3601541535	
City, State, Zip		38220	API No. Rig Name & No.		MARKET MARKET
Phone No.	-575-887-5670	ervice Identification and Amoun	AFE/PO No.		200
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cutting Produced Formation Tank Bottoms E&P Contaminated S Gas Plant Waste WASTE GENERATI	gs Solids G Soil 20 ybols	ON-INJECTABLE WATERS //ashout Water (Non-Injectable) ompletion Fluid/Flow Back (Non-Injectable) roduced Water (Non-Injectable) athering Line Water/Waste (Non-Injectable) ITERNAL USE ONLY uck Washout (exempt waste)  COMPLETION	ectable)	OB) CA	FES (type and generation process of the waste)  HERING LINES
WASTE GENERAL	ON THOCESS.		Service (dentification and Am		ILTIINO EINES
Non-Exempt Other	All non-exempt E&P waste in	nust be analysed and be below three	eshold limits for toxicity (TCL)	), Ignitability, Corrosivity adn act from <b>Non-Exempt Wast</b>	
		D DADDELO	piease seie		AND THE RESERVE OF THE PARTY OF
QUANTITY	he above listed material(s), is (are) not ha	B-BARRELS	Part 261 or any applicable of	20 Y-YAF	
Transporter's	M, Mata Truc	Chevron TRANS	Driver's Name		Ramivez
Address Phone No.	whp 7337		Phone No Truck No WHP No	56	
	ne above named material(s) was/were pic	ked up at the Generator's site listed		t incident to the disposal facil	lity listed below.    Kamire Z   DRIVER'S SIGNATURE
IN: 4.4	UCK TIME STAMP  Spagut:		L FACILITY		EIVING AREA
Site Name/ Permit No. Address	Red Bluff Facility / STF-065 5053 US Hwy 285, Orla, TX 7		42.400.53	132-448-4239 50 micro roentgents? (Circ	cle One) YES NO
National Property of	RONG) HISTORY		NORM (mR/hr)		
1st Guage 2nd Guage Received	Feet  ne above load material has been (circle on	Inches  ACCEPTED	Harter to	S&W Received Free Water Total Received depied, why?	BS&W (%)
Control of the co	NAME (PRINT)	23-36-22 DATE	DENIED PCY	2 m	SIGNATURE

CHEVRON MCBU								
Carlsbad, NM								
NO #0	CAR- 4913 NON-HAZARI	DOUS WASTE	MANIFEST	1. PA	GE_LOF	1 2. TRAII	ER NO.	
-	3. COMPANY NAME 4. ADDRESS 5. PICK-UP DATE							
$\mathbf{G}_{_{/}}$	CHEVRON CARLSBAD 5301 LOMAS DR CITY STATE ZIP 6. 6.							
E	7. NAME OR DESCRIPTION OF WASTE SHIP			8. CON	TAINERS		10. UNIT	11.
N	a. Soil Excaverted during APT 300154153	Spill Rem	ediation	No.	Туре	QUANTITY	W1/Vol.	Yords 20
	b.	Ŧ.						
E	c.							
R	d.				100			
A	12. COMMENTS OR SPECIAL INSTRUCTION	rs: est code	10200			13. WASTE I	PROFILE N	Ю.
	14. IN CASE O	OF EMERGENCY	OR SPILL, CO	ONTAC	т			
T	CHEVRON CARLSBAD	1					-887-56	
0	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignm	ent are full	y and accurate	ly describe	d above.
R	printed typed NAME Jones Low behalf of Travis Ster		SIGNATURE	2	L		3]	DATE 30/22
T R	16. TRANSPORTER (1) NAME		17. NAME	TF	ANSPO	RTER (2)		150
A N	***							5
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF E	MERGE	NCY CO	NTACT:		
P	EMERGENCY PHONE:		EMERGENCY					
R T	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSP					
$\mathbf{E}$	PRINTED/TYPED NAME		PRINTED/TYI	PED NA	ME R	amor	7 Kai	WIYEZ
R S						-30-22		
D F	5053 US Hwy 285	ADDRESS:				PHONE		
S C P I O L	PERMIT NO.		20. COMMEN	rs				
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc		tify that the above	describe	d wastes w	vere delivered	to this facil	ity, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE DATE	30-A2	TIM L	45
	J. Siege		Teles properties	VX X	4			

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

R3	60
ENVIRONMENTAL SOLUTIONS	0

(PLEASE PRINT)

Company		Page	315	of 358
Company	Man	Contac	Tinto	rmation

Company	Ivian Con	tast mormation
Name 1	בייש	5 tevers

ENVIRONMENTAL SOLUTIONS		W. T.C.		OINED IIII ONINI/IIION	Phone No
and the second		GENE	RATOR	NO.	247860
200	on Carlsbad		Permit/PPC No. Lease/Well Name & No.	Cotton Hills Federal COM	23 26 27 # 001 H
Address 5301	Lomas Dr.		County API No.	300154153	56001
City, State, Zip Phone No.	NM 88220 887-5676		Rig Name & No. AFE/PO No.	UCRE 102	the law open set
		THE RESERVE THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	(place volume next to	waste type in barrels or cubic	HARDESCONE PRODUCTION OF THE PROPERTY OF THE P
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washout Completi Produced Gatherin	IECTABLE WATERS  Water (Non-Injectable) on Fluid/Flow Back (Non-Inje Water (Non-Injectable) g Line Water/Waste (Non-Inj LUSE ONLY ashout (exempt waste)		(DB)	S (type and generation process of the wasta)  CARUS B AD
WASTE GENERATION PROCESS:	DRILLING	COMPLETION	₽RODUC	TION GATHE	ERING LINES
Alle	on-exempt E&P waste must be	NON-EXEMPT E&P Waste/S analysed and be below three	ervice Identification and A shold limits for toxicity (TO	Amount CLP), Ignitability, Corresivity adn R	leactivity
Non-Exempt Other				elect from Non-Exempt Waste	
QUANTITY	B-BAR	RELS	the set of the set	20 Y-YARE	DS E-EACH
I hereby certify that the above listed managed, and is in proper condition for			Part 261 or any applicable	state law. That each waste has	been properly described, classified and
Transporter's Name Address  Phone No.  Thereby certify that the above named in SHIPMENT DATE  TRUCK TIME ST  IN: 439 0001	40 CFR 261.21-261.24, or lis waste as non-hazardous is a MSDS Information  Chalf of Trov AGENTS SIGNATURE  DRIVER'S SIGNA  AMP	sted hazardous waste as definant ached. (Check the appropria RCRA)  Sheves 3  TRANS  at the Generator's site listed	ned by 40 CFR, part 261, so ate items as provided) Hazardous Waste Analysis  PORTER  Driver's Name Phone No. Truck No. WHP No.	out incident to the disposal facility	Total William Inc.
Address 5053 US Hv	acility / STF-065 vy 285, Orla, TX 79770 S TAKEN? (Circle One)	YES NO	Phone No.  If YES, was reading NORM (mR/hr)	432-448-4239 > 50 micro roentgents? (Circl	le One) YES NO
1st Guage 2nd Guage Received I hereby certify that the above load ma	Inch	es Accepto		BS&W Received Free Water Total Received  If denied, why?	BS&W (%)
NAME (PRINT)		DATE .	TITLE		SIGNATURE

CHEVRON MCBU								
3	C	arlsba	(4 (-1) 200 (3-04-04-04-04)					
NO #	CAR- 4912 NON-HAZARDOUS	WASTE I	MANIFEST	1. PA	GE_LOF	. 1 2. TRAIL	ER NO.	
27700	3. COMPANY NAME 4. ADI				5, 1	PICK-UP DAT	E	
$\mathbf{G}_{_{_{\parallel}}}$	CHEVRON CARLSBAD PHONE NO. CITY		OMAS DR.		ZIP 6.			
E	575-887-5676		AD, NM 882		2.11			
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:			8. CON No.	TAINERS	9. TOTAL QUANTITY	10. UNIT	11. Pards
N	a. Soil excavated during spi	11 Rene	Nathon	110.	1910	QUAINTIT	W17 VOI.	20
	b.							
E	c.							
R	d.							
K	12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE I	ROFILE N	NO.
A	. Cost C	ode 1	0200	NA				
	14. IN CASE OF EM	ERGENCY O	OR SPILL, CO	ONTAC	CT			
Т	CHEVRON CARLSBAD	4				24-HOUR 575	EMERGE -887-56	
o	15. GENERATOR'S CERTIFICATION: Hereby	declare that the	contents of this c	onsignm	ent are ful			
U								
R	PRINTED TYPED NAME Joves Lovely		SIGNATURE	1 /	0_		26	DATE
	behalf of Travis Sterens		for	1	ANGRO	DEED (2)	J)3	0/22
T R	16. TRANSPORTER (1) NAME		NAME	11	CANSPO	RTER (2)		
A N	NAME NA NAATA	70 (4						
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF I	EMERGI	ENCY CO	NTACT:		
P	EMERGENCY PHONE:		EMERGENCY	PHONI	3:			
R T	18. TRANSPORTER (1): Acknowledgment of receipt	of material	19. TRANSP	ORTE	R (2): Acl	knowledgment	of receipt of	of material
E	PRINTED/TYPED NAME JOYAN TON		PRINTED/TY	PED NA	ME			
R S				URE DATE				
D.E.	R360 Environmental Solution ADDR 5053 US Hwy 285	ESS:				PHONE:		
D F I A	Orla, 17X 79770							
S C P I	PERMIT NO.		20. COMMEN	ΓS				
O L				The Department	×4.0×12.1	energy of the		line of the of
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION facility is authorized and permitted to receive such wastes		ity that the above	describe	ed wastes	were delivered	to this faci	nty, that the
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE	0 1	TIM	IE ( ) O
	n tep		PL		03	50 2	214	, 37

GENERATOR: COPY 1

TRANSPORTER: COPY 2

KAS NON-HAZARDOUS OILFIELD WASTE MANIFES
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(PLEASE PRINT)

Company Mar	Page 317 of 358 Contact Information

Company	Widir Com	lact information
Nama I	San	Stevens

39401010			Thore No
Operator No.	GENE	Permit/PPC No	No. 247861
	Island Dr.	Lease/Well Name & No. County	Cotton Hills 23 26 27 Federal Com # 001 H
	88220	API No.	300154 1535 0001
City, State, Zip Phone No.  Cerls bs.d., NM  573 - 887-5		Rig Name & No AFE/PO No	UCRE 10200
	/aste/Service Identification and Amoun	t (place volume next to was	
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil	NON-INJECTABLE WATERS  Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injectable) INTERNAL USE ONLY	MES TRANSPI	OTHER EXEMPT WASTES (type and generation process of the waste)  OBCARUS BAD
Gas Plant Waste  WASTE GENERATION PROCESS: DRI	Truck Washout (exempt waste)  LLING COMPLETION	₩ PRODUCTIO	N GATHERING LINES
		Service Identification and Amou	
All non-exempt E&P Non-Exempt Other	waste must be analysed and be below three	eshold limits for toxicity (TCLP),	
QUANTITY	B-BARRELS		2-O Y-YARDS E-EACH
		Part 261 or any annicable sta	te law. That each waste has been properly described, classified and
Waste as not MSDS Information MSDS Infor	n-hazardous is attached. (Check the appropriation RCRA  F Travis Stovens 3  (Chevron)  TRANS	Driver's Name Phone No. Truck No. WHP No.	Other (Provide Description Below)
I hereby certify that the above named material(s) was/	The second second	William and the second	
TRUCK TIME STAMP IN: 4:41 AM OUT:	DISPOSA	L FACILITY	RECEIVING AREA Name/No.
Site Name/ Permit No. Address  Red Bluff Facility / ST  5053 US Hwy 285, Orla	a, TX 79770		32-448-4239
NORM READINGS TAKEN? (Ci		NORM (mR/hr)	0 micro roentgents? (Circle One) YES NØ
1st Guage Feet 2nd Guage Received	Inches	Apple Called at 1	WW Received BS&W (%) Free Water otal Received
I hereby certify that the above load material has been (	(circle one): ACCEPTED 3/30-2	DENIED RCV &	enied, why?

	CHEVRON MCBU								
5.	Carlsbad, NM								
NO #0	NO #CAR- 4915 NON-HAZARDOUS WASTE MANIFEST 1. PAGE LOF 1 2. TRAILER NO.								
	3. COMPANY NAME	4. ADDRESS	OMACDD		5. P	ICK-UP DAT	Е		
G,	CHEVRON CARLSBAD PHONE NO. 575-887-5676	CITY S	OMAS DR. STATE AD, NM 882		ZIP 6.				
E	7. NAME OR DESCRIPTION OF WASTE SHIP	PED:		8. CON' No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT	11. <b>Y</b> . 1 c	
N	a Soil excavated during	Spill Reme	Notable	110.	13700	QUANTITI	W I/ Vol.	20	
	b.								
E	c.								
R	d.	3.55							
	12. COMMENTS OR SPECIAL INSTRUCTION		1020	2		13. WASTE I		Ю.	
A		ost Code			T	/\	<u>A</u>		
T	CHEVRON CARLSBAD	T EMERGENCI C	JK SI IEE, C	ONTAC			EMERGE		
0	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this c	onsignm	ent are full		CALPROTECT DESCRI	AND THE PARTY OF T	
U									
R	printed typed NAME Jacs Low behalf Of Travis St	erk on	SIGNATURE	2	5	_		DATE	
T	16. TRANSPORTER (1)		17.	TR	ANSPO	RTER (2)			
R A	NAME	*	NAME						
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF I	EMERGE	NCY CO	NTACT:			
P	EMERGENCY PHONE:		EMERGENCY	PHONE	3:				
R T	18. TRANSPORTER (1): Acknowledgment of	f receipt of material	19. TRANSI	PORTE	R (2): Ack	nowledgment	of receipt of	Fmaterial	
E	PRINTED/TYPED NAME TOUR	HARES	PRINTED/TY	PED NA	ME	wy	NIN	The	
R S	SIGNATURE OF THE	DATE 5-70-23	SIGNATURE	2	تبح	7	DATE 3	30.27	
		ADDRESS:				PHONE	:		
D F I A			No. 1 to Table 2 Marriage Constitution						
S C P I	PERMIT NO.		20. COMMEN	TS					
O L S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc	ATION: I Hereby certi	I ify that the above	e describe	ed wastes v	vere delivered	to this faci	lity, that the	
LY	AUTHORIZED SIGNATURE	n wastes.	CELL NO.		DATE		TIM	Œ	
	bysteph	·	01		03/	30/22	. 19	.9]	

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company	Man Contact Information	
	Toute Stevens	

Compani	Tridit Conte	inc mindimetron
Name	Travis	Stevens

Phone No.

	CENT	ERATOR	NO	047000
Operator No.	GEIVI	Permit/PPC No	NO.	247862
Operators Name Charles Cor	Isbed		etton HILLS 23	26 27
Address 5301 Longs	Dr.	County	- 1-11   55 5	
City, State, Zip Cocls bad, NN		API No. Rig Name & No.	00154   535000	and the state of t
Phone No. <u>575 - 887 5</u>		AFE/PO No.	ICRE 10200	1.0200325
Oil Based Muds	Vaste/Service Identification and Amoun NON-INJECTABLE WATERS	t (place volume next to waste	e type in barrels or cubic yards) OTHER EXEMPT WASTES (type a	
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-In	The second of th	022	SBAD
WASTE GENERATION PROCESS: DF	IILLING COMPLETION	PRODUCTION	☐ GATHERING L	INES
All pon-exempt F&	NON-EXEMPT E&P Waste/P waste must be analysed and be below three	Service Identification and Amoun		
Non-Exempt Other	Worker and the thinked the person this		rom Non-Exempt Waste List on	
QUANTITY	B-BARRELS		20 Y-YARDS	E-EACH
I hereby certify that the above listed material(s), is (an		R Part 261 or any applicable state	law. That each waste has been pro	perly described, classified and
per load ba  RCRA NON-EXEMPT: Oil field wa 40 CFR 261	stes generated from oil and gas exploration sis only) ste which is non-hazardous that does not ex .21-261.24, or listed hazardous waste as def on-hazardous is attached. (Check the approp	ceed the minimum standards for fined by 40 CFR, part 261, subpart	waste hazardous by characteristics D, as amended. The following doc	established in RCRA regulations,
ones lavely on length of		DATE DATE	A SIGNATURE	THE STORING MEAN
Transporter's Name Address  Phone No.  I hereby certify that the above named material(s) was	TRANS	Driver's Name & & C Phone No. Truck No. WHP No.	970 401590° 109 7331	helow //
SHIPMENT DATE	DRIVER'S SIGNATURE	DELIVERY DATE	Esklan DRIVER'S	SIGNATURE
IN: 4.34 pg OUT:	DISPOSA	L FACILITY	Name/NoRECEIVING	AREA
Site Name/ Permit No. Address  Red Bluff Facility / ST 5053 US Hwy 285, Orl		Phone No. 432	-448-4239	train Alburt Control of
NORM READINGS TAKEN? (C	Circle One) YES NO	If YES, was reading 50 NORM (mR/hr)	micro roentgents? (Circle One)	YES (ND
1st Guage Feet 2nd Guage Received	Inches	THE PROPERTY.	V Received Free Water al Received	BS&W (%)
I hereby certify that the above load material has been	(circle one): ACCEPTED D	DENIED OF If den	ied, why?	NATURE

	CHEVRON MCBU							
8		Carlsba	d, NM					
NO #0	CAR- 4911 NON-HAZARD	OUS WASTE I	MANIFEST	1. PA	ge_Lof	2. TRAIL	ER NO.	
	3. COMPANY NAME  CHEVRON CARLSBAD	4. ADDRESS	OMAS DR.		5. F	PICK-UP DATE	3	
$\mathbf{G}_{\downarrow}$	PHONE NO.	CITY S	STATE		ZIP 6.			
E	575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIPP		AD, NM 882		TAINERS	9. TOTAL	10. UNIT	11
	NEW COMMENT SERVICE CONSTRUCTION OF THE TAIL TO SERVICE COMMENT OF THE SERVICE COMMENTS.	E1757	1: 1: 6	No.	Туре	QUANTITY	WT/Vol.	Tords
N	a. 5071 Excavored during APT 300 154 153500	Spill Reme	edication					20
Е	b.							
~	d.							
R	Hades		e3		4	13. WASTE P	DOEH E N	10
	12. COMMENTS OR SPECIAL INSTRUCTIONS	it code	10200				A	Ю.
A		F EMERGENCY (	A 1914 1225 D 555		СТ	7.0	, ,	
Т	CHEVRON CARLSBAD					24-HOUR 575	EMERGE -887-56	
	15. GENERATOR'S CERTIFICATION: 1	Tereby declare that the	contents of this c	onsignm	ent are ful			
0	d .							
R	PRINTED TYPED NAME Jons LO	vely on	SIGNATURE	1	0		-1	DATE
	behalf of Travis Sta	even_S	1	pm	TV		5/3	22
T R	16. TRANSPORTER (1) NAME		17. NAME	ΨΙ	RANSPO	RTER (2)		
A N	8	* .	y.					
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF I	EMERG	ENCY CO	NTACT:		
P	EMERGENCY PHONE: M. MATA		EMERGENCY	- 204420000				
R T	18. TRANSPORTER (1): Acknowledgment of	receipt of material				knowledgment		
E R	PRINTED/TYPED NAME 25/cbon	RIIO	PRINTED/TY	PED NA	ME			
S	SIGNATURE Esteloga Tello	DATES-30. 72	SIGNATURE				DATE	
D F I A	360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE:		
S C P I	PERMIT NO.		20. COMMEN	TS				
O L S I	AL DIGRACULATION OF THE CONTROL OF T	TION. III	CONTRACTOR OF THE CONTRACTOR O		ad security	wara dali	to this feet	lity that the
A T	21. DISPOSAL FACILITY'S CERTIFICA facility is authorized and permitted to receive such		rry that the above	e describ	ed wastes	were delivered	to this fact	ary, mat me
LY	AUTHORIZED SIGNATURE		CELL NO.		DATE	2, 2	TIM	IE D- 2( (
	STITLE		121		(13.5)	306	14	,34

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

10	I uge 321 of 3.	
Company	Man Contact Information	nn
Company	Width Contact Informatic	,,,
-	mit Steren	-
The Experience of the Control of the		

Part of the same	Charles and Street	AND DESCRIPTION OF THE PARTY OF
Name	Travis	Stevens
1401110 _		

Phone No.

	GEN	VERATOR	NO.	247862
Operator No.	Sec. 1	Permit/PPC No	cotton Hills 2	3 26 27
Operators Name Chevron Ga Address 5301 Lones	nlsbed Dr.	Name & No. County	Federal com #	H 100 H
		API No.	300154   53500	ol
City, State, Zip Carls bad AV 575 - 887 - 3		Rig Name & No AFE/PO No	ICRE 10200	A R C A STATE OF THE STATE OF T
	Waste/Service Identification and Amo	unt (place volume next to wast		
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	NON-INJECTABLE WATERS  Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-INTERNAL USE ONLY Truck Washout (exempt waste)	To be a second	0 - 1	and generation process of the wastell
WASTE GENERATION PROCESS:	ORILLING COMPLETION			LINES
All non-exempt E	NON-EXEMPT E&P Wast &P waste must be analysed and be below t	e/Service Identification and Amour breshold limits for toxicity (TCLP), I	nt gairability, Corcosivity ado Reactiv	ity.
Non-Exempt Other		*please select	from Non-Exempt Waste List o	n back
QUANTITY	B-BARRELS		20 Y-YARDS	E-EACH
per load to 40 CFR 26 waste as MSDS Internal Control of the contro	vastes generated from oil and gas exploration basis only) vaste which is non-hazardous that does not 51.21-261.24, or listed hazardous waste as conon-hazardous is attached. (Check the approximation RCI	exceed the minimum standards for defined by 40 CFR, part 261, subpar opriate items as provided) RA Hazardous Waste Analysis  SPORTER  Driver's Name Phone No. Truck No. WHP No.	waste hazardous by characteristic to D, as amended. The following do	cs established in RCRA regulations, ocumentation demonstrating the ovide Description Below)
SHIPMENT DATE	DRIVER'S SIGNATURE	DELIVERY DATE	Esklen	TELL &
IN: 4.34 pm OUT:	DISPOS	AL FACILITY	Name/No	
Site Name/ Permit No. Address  Red Bluff Facility / S 5053 US Hwy 285, 0			2-448-4239	to make the second second
NORM READINGS TAKEN?	(Circle One) YES NO	If YES, was reading > 50 NORM (mR/hr)	) micro roentgents? (Circle One	e) YES CND
1st Guage 2nd Guage Received	Inches		W Received Free Water tal Received	BS&W (%)
I hereby certify that the above load material has bee	en (circle one):  ACSEPTED  DATE	DENIED OF If dea	nied, why?	IGNATURE

	CHEVRON							
	MCBU							
		Carlsba	d, NM					
NO #0	CAR- 4911 NON-HAZARI	OOUS WASTE	MANIFEST	Γ 1. PA	geof	1 2. TRAIL	ER NO.	
	3. COMPANY NAME CHEVRON CARLSBAD	4. ADDRESS	OMAS DR.		5. F	PICK-UP DAT	Е	
$\mathbf{G}_{j}$	PHONE NO. 575-887-5676	CITY	STATE AD, NM 882		ZIP 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIP	Total Control of the			TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yerds
N	a. 5071 Excaveted during APT 300 154 15350	Spill Reme	notion					20
E	b. c.							
ъ	d.				4			
R	12. COMMENTS OR SPECIAL INSTRUCTION	s: s+ code	Inzar	\		13. WASTE I	PROFILE	10.
A		OF EMERGENCY (			СТ			
Т	CHEVRON CARLSBAD	j				575	EMERGE -887-50	676
0	15. GENERATOR'S CERTIFICATION:	Hereby declare that the	contents of this o	onsignm	ent are ful	ly and accurate	ely describe	d above.
R	printed typed NAME Jons La behalf of Travis 5+	evens	SIGNATURE	2	fo		31	DATE 30/22
T R	16. TRANSPORTER (1) NAME		17. NAME	क्र	RANSPO	RTER (2)	•	
A	TVIIILE	*	,					
S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF			NTACT:		
0	EMERGENCY PHONE: M. MATA		EMERGENCY	- STURMANOUS CO				6
R T E	18. TRANSPORTER (1): Acknowledgment of PRINTED/TYPED NAME Skeloun		PRINTED/TY			knowledgment		
R	SIGNATURE Stelson Tello	DATES-30. 72	SIGNATURE				DATE	
D F I A	360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE	:	
S C P I O L	PERMIT NO.		20. COMMEN	TS				
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc		ify that the above	e describ	ed wastes	were delivered	to this faci	lity, that the
LY	AUTHORIZED SIGNATURE  MILED		CELL NO.		DATE S	30 2	) H	34

GENERATOR: COPY 1

TRANSPORTER: COPY 2



(PLEASE PRINT)

Company	Man	Page	323	of 35
Company	Maii	Comac	rimoi	mauur

	Control of the Paris		and the second second
Name	Travi	5 5	tevens
ALTERNATION AND ADDRESS OF THE PARTY OF THE			

	GENERATOR		NO. 247863
Operator No.	Permit/PF Lease/W	ell cotton l	HILS 23 26 27
Operators Name Chevron Conts  Address 530 Longs	Name & County	No. <u>Federal</u>	COM # 001H
City, State, Zip Carlsbod, NM 8	API No. Rig Name	300 154	153 5000 1
011, 01010, 219	AFE/PO N	· · · · · ·	10200
Oil Based Muds	e/Service Identification and Amount (place volum NON-INJECTABLE WATERS		or cubic yards) WASTES (type and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injectable) INTERNAL USE ONLY Truck Washout (exempt waste)	(DB)	CARLS BAD
WASTE GENERATION PROCESS: DRILLIN	IG COMPLETION	PRODUCTION	GATHERING LINES
All non-exempt E&P wa	NON-EXEMPT E&P Waste/Service Identific ste must be analysed and be below threshold limits for	ation and Amount toxicity (TCLP), Ignitability, Corrosivi	ty adn Reactivity.
Non-Exempt Other		please select from <b>Non-Exempt</b>	
QUANTITY	B-BARRELS	20	Y-YARDS E-EACH
per load basis or 40 CFR 261.21-2 waste as non-ha MSDS Information  Transporter's Name Address Hebbs Address  Phone No.  I hereby certify that the above named material(s) was/were SHIPMENT DATE  TRUCK TIME STAMP  IN: 4134 OUT:	perding to applicable regulation.  generated from oil and gas exploration and production (ly)  hich is non-hazardous that does not exceed the minimum (structure)  1.24, or listed hazardous waste as defined by 40 CFR, zardous is attached. (Check the appropriate items as pron RCRA Hazardous Waster (Check the appropriate items as pron RCRA Hazardous (Check	operation and are not mixed with not	y characteristics established in RCRA regulations on a set of control of the cont
Red Bluff Facility / STF-0  Soft Name / Permit No. Address Red Bluff Facility / STF-0  5053 US Hwy 285, Orla, T  NORM READINGS TAKEN? (Circle  Feet  1st Guage 2nd Guage Received	K 79770	as rea <del>ding</del> > 50 micro roentgents	S? (Circle One) YES NO
I hereby certify that the above load material has been (circ	e one): ACCEPTED DENIED 20	If denied, why?	SIGNATURE

CHEVRON MCBU								
Carlsbad, NM								
NO #CAR- 4910 NON-HAZARDOUS WASTE MANIFEST 1. PAGE 1 of 1 2. TRAILER NO.								
700	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 LOMAS DR			5. PICK-UP DATE				
$\mathbf{G}_{f}$	PHONE NO. CITY S	TATE	ZIP 6.					
E	575-887-5676 CARLSBAD, NM 882 7. NAME OR DESCRIPTION OF WASTE SHIPPED:			TAINERS		O. TOTAL 10. UNIT 11. QUANTITY WT/Vol. Yord S		
N	Soil Excavated during Spill Remediation APT 300 15415350001			.,,,,,	QOZINITI		20	
	b.							
Е	c.							
R	d.			123				
A	12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost Code 10200				13. WASTE PROFILE NO.			
11	14. IN CASE OF EMERGENCY OR SPILL, CONTACT							
Т	CHEVRON CARLSBAD  24-HOUR EMERGENCY NO. 575-887-5676  15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.							
0								
R	PRINTED TYPED NAME SCIVES LOVELY ON SIGNATURE						DATE 0 22	
T R A	16. TRANSPORTER (1)  NAME  MATA TRUCKING  NAME  TRANSPORTER (2)							
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:						
P	EMERGENCY PHONE:	EMERGENCY PHONE:						
R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material						
E	PRINTED/TYPED NAME Javel ROWON PRINTED/TYPED NAME							
R	SIGNATURE Javier POWON DATE 3/30/22	SIGNATURE DATE						
D F I A S C P I O L	ADDRESS: PHONE:  \$360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770							
	PERMIT NO.	20. COMMENTS						
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby certify that the above described wastes were delivered to this facility, that the							
LY	AUTHORIZED SIGNATURE	COLLARS DATE TIME						
	1 July	-/-	1		100	1		

GENERATOR: COPY 1

TRANSPORTER: COPY 2

# 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

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/ 10	
R360	

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company	Man	Page	325	of 35
Company	Maii	Comac	rimo	mauon

		The second second
Name	Travis	Stevens
AL PERSON NAMED IN		

	GEN	RATOR	NO	247863
Operator No.		Permit/PPC No. Lease/Well	cotton HIII	
Operators Name Chevron Conts Address 530 Longs 1	bed Dr.	Name & No. County	Federal Con	# 0014
	8220	API No. Rig Name & No.	300   54   153	and the same of th
There ite.	76	AFE/PO No.		200
Oil Based Muds	Service Identification and Amoun	t (place volume next to w	THE RESERVE OF THE PARTY OF THE	CAPATRONICA DE LA CONTRACTOR DE LA CONTR
Oil Based Midds Oil Based Cuttings Waste Based Midds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	NON-INJECTABLE WATERS Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injectable) INTERNAL USE ONLY Truck Washout (exempt waste)			PARLS BAO
WASTE GENERATION PROCESS: DRILLIN	G COMPLETION	PRODUCTI	ON GATE	HERING LINES
All not avenue 500 uses	NON-EXEMPT E&P Waste/ste must be analysed and be below three	Service Identification and Am	ount	Proportion.
Non-Exempt Other	ne most no analysed one de delow the		ect from Non-Exempt Wast	
QUANTITY	B-BARRELS	And in the last of the	20 Y-YAI	RDS E-EACH
hereby certify that the above listed material(s), is (are) not packaged, and is in proper condition for transportation according to the condition of the condit		Part 261 or any applicable s	tate law. That each waste ha	s been properly described, classified and
	generated from oil and gas exploration	and production operation and	are not mixed with non-exer	npt waste (R360 Accepts certifications on a
waste as non-haz	rardous is attached. (Check the approprian RCRA		·	owing documentation demonstrating the other (Provide Description Below)
Transporter's Name Address  MATAT HODES	RVC#1 NG #	Driver's Name Phone No. Truck No. WHP No.	Tour of Pa	9 Vàn
I hereby certify that the above named material(s) was/were	POWON	d above and delivered withou	t incident to the disposal faci Face	POWED
TRUCK TIME STAMP IN: 4:34 OUT:	DISPOSA	L FACILITY	REC Name/No	EIVING AREA
Site Name/ Permit No.  Address  Red Bluff Facility / STF-06  5053 US Hwy 285, Orla, TX		Phone No.	132-448-4239	
NORM READINGS TAKEN? (Circle	One) YES NO	If YES, was reading > NORM (mR/hr)	50 micro roentgents? (Cir	cle One) YES (NO
49.00	TANK B	OTTOMS		Dalling St. Rev.   12   10   10   10   10   10   10   10
1st Guage Feet 2nd Guage Received	Inches	A MANAGEMENT	S&W Received Free Water Total Received	BS&W (%)
I hereby certify that the above load material has been (circle	e one): ACCEPTED 3	DENIED PCUR!	denied, why?	SIGNATURE

	CHEVRON MCBU						
	Carlsba	ad, NM					
NO #0	CAR- 4910 NON-HAZARDOUS WASTE	MANIFES	Γ 1. PA	ge <u>l</u> of	2. TRAIL	ER NO.	
_	3. COMPANY NAME 4. ADDRESS	LOMAC DD	_	5. P	ICK-UP DATI	3.	
$\mathbf{G}_{f}$	PHONE NO. CITY	LOMAS DR. STATE BAD, NM 88	220	ZIP 6.			
Е	7. NAME OR DESCRIPTION OF WASTE SHIPPED:			TAINERS 1 Type	9. TOTAL QUANTITY	10. UNIT	11. Yords
N	a. Soil Excavated during Spill Remed APT 300 15415350001	nattoil	140.	1940	QUARTIT	W I7 VOI.	20
177	b.						
Е	°C.1						
R	d.			122		noru r	10
A	12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost code 10200  13. WASTE PROFILE NO.			NO.			
	14. IN CASE OF EMERGENCY	OR SPILL, C	ONTAG	CT	24 HOUR	EMERGE	NCV NO
Т	CHEVRON CARLSBAD					-887-5	
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	ne contents of this	consignm	ent are ful	ly and accurate	ly describe	ed above.
R	printed typed name James Lovely on behalf of Travis Stevens	SIGNATURE	1	1	_	3 þ	DATE 0 22
T	16. TRANSPORTER (1)	17.	TI	RANSPO	RTER (2)		
R A	M MATA TRUCKING	NAME					
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF	EMERG	ENCY CO	NTACT:		
P	EMERGENCY PHONE:	EMERGENC	Y PHON	E:			
R	18. TRANSPORTER (1): Acknowledgment of receipt of material				knowledgment		
E	PRINTED/TYPED NAME Javier Powon		PED NA				
R							
D F	3000 50 1111) 200						
S C P I O L	PERMIT NO.	20. COMMEN					
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby confacility is authorized and permitted to receive such wastes.	ertify that the above	e describ	ed wastes	were delivered		2000
LY	AUTHORIZED SIGNATURE  MARKET SIGNATURE	CELL NO.	-	DATE	130/2	J 4.	34

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 & 4

# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company M	Page 327 of 35 an Contact Information	8
· Ta	1- 54.m.c	

Compan	A LANGUE STORY	tack intomitation
100		-1
Mamo	MINE	Stevens
Indille *	COVIG	- 10,45

ENVIRONMENTAL SOLUTIONS		(I LEAG	Ermiti) fiede	Phone	No
		GENE	RATOR	NO.	247865
Operator No.  Operators Name Address  Check to 5301	n Carlsbac Lomas Dr.		Permit/PPC No. Lease/Well Name & No. County	Cotton Hills 2:	3 26 27 # COL H
City, State, Zip  Cacls bs  575 -	887-5676	.20	API No. Rig Name & No. AFE/PO No.	JOS 41535000	Mr. 3 mor un
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	NON-II Washo Comple Produc Gather	e Identification and Amount NJECTABLE WATERS  but Water (Non-Injectable) etion Fluid/Flow Back (Non-Inje ed Water (Non-Injectable) ing Line Water/Waste (Non-Inje NAL USE ONLY Washout (exempt waste)	ctable)	OTHER EXEMPT WASTES (type and CORPLS)	d generation process of the waste)
WASTE GENERATION PROCESS:	☐ DRILLING	COMPLETION	PRODUC	TION GATHERING LI	NES
All no Non-Exempt Other	n-exempt E&P waste must	NON-EXEMPT E&P Waste/S be analysed and be below three	shold limits for toxicity (TC	mount LP), Ignitability, Corrosivity adn Reactivity. Hect from <b>Non-Exempt Waste List</b> on b	ack
QUANTITY	B-BA	ARRELS	and and making	20 Y-YARDS	E-EACH
Transporter's Name Address Phone No.	Trucking	Stevens 3/2 Chevron TRANS	PORTER  Driver's Name Phone No. Truck No. WHP No. above and delivered without	SIGNATURE  ALFONSO MUNO  7337  Dutt incident to the disposal facility asked by	MOTO COLUMN TO COME
SHIPMENT DATE	DRIVER'S SIG		3-30-8 DELIVERY DATE	DRIVER'S S	Section to the second
TRUCK TIME STA		DISPOSA	L FACILITY	RECEIVING A	AREA
Address 5053 US Hw	cility / STF-065 y 285, Orla, TX 79770 G TAKEN? (Circle One)	VES NO	Phone No.  If YES, was reading NORM (mR/hr)	> 50 micro roentgents? (Circle One)	YES (NO)
1st Guage 2nd Guage Received I hereby certify that the above load mate		TANK B		BS&W Received Free Water Total Received  If denied, why?	BS&W (%)
TO STATE OF THE PRINT		3-30-22	Rede	ms	ATURE

CHEVRON MCBU							
	Carlsbad, NM						
NO #0	CAR- 4908 NON-HAZARDOUS WASTE	MANIFEST	Γ 1. PAG	GE OF	2. TRAILE	ER NO.	
G	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. P	ICK-UP DATE		
9	PHONE NO. CITY S	STATE		ZIP 6.			
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:	AD, NM 882	8. CON	TAINERS		0. UNIT	11.
N	a Soil excavoted during spill Remedie	atten	No.	Туре	QUANTITY	WT/Vol.	Yords 20
7.6522	b.						
E	c.						
R	d.						
A	12. COMMENTS OR SPECIAL INSTRUCTIONS:  COST Code	UCRT	1020	00	13. WASTE PF	***	iO.
-	14. IN CASE OF EMERGENCY C	OR SPILL, CO	ONTAC	Т	24-HOUR I	MERGE	NCY NO.
T	CHEVRON CARLSBAD				575-	887-56	76
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignm	ent are full	y and accurately	describe	d above.
R	printed typed name Jones Lavely on behalf of Travis Stevens	SIGNATURE	Jaj	Dy.	_		DATE 30 /22_
T R A	16. TRANSPORTER (1) NAME M. MOTOL THUCKING	17. NAME	TR	ANSPO	RTER (2)		1
N S P	IN CASE OF EMERGENCY CONTACT:	IN CASE OF I	EMERGE	NCY CON	NTACT:		
0	EMERGENCY PHONE:	EMERGENCY	2010/09/2010	5014			
R T E	18. TRANSPORTER (1): Acknowledgment of receipt of material  PRINTED/TYPED NAME AFONSO MUNOZ				nowledgment o		f material
R S	SIGNATURE DATE 3-30-22	SIGNATURE				DATE	*
D F I A	360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770				PHONE:		1
S C P I O L	PERMIT NO.	20. COMMEN	TS		÷		) i
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby certification is authorized and permitted to receive such wastes.	ify that the above	describe	d wastes w	ere delivered to	this facil	ity, that the
LY	AUTHORIZED SIGNATURE  Mileon	CELL NO.		DATE 3/	30/25	ζ TIM L	E 1:17

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSĂL SITE: COPY 3 & 4

R360  ENVIRONMENTAL SOLUTIONS	TEXAS NON-HAZARDOUS		MANIFEST UIRED INFORMATION	Name Towns Stevens Phone No
	GENE	RATOR		vo. 247866
Operator No.		Permit/PPC No. Lease/Well	Cotton HIL	
Operators Name Chevron Contact Saot Lomes	Dr.	Name & No. County	Federal Co	m # 001H
Corlsbad, NM	88220	API No. Rig Name & No.	30015415	350001
Phone No. <u>575 - 887 - 5</u>		AFE/PO No.	UCRE 102	
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	aste/Service Identification and Amount  NON-INJECTABLE WATERS  Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Inje Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Inj INTERNAL USE ONLY Truck Washout (exempt waste)	ctable)		ASTES (type and generation process of the waste)
WASTE GENERATION PROCESS: DRIL	LING COMPLETION	₩ PRODUC	CTION GA	ATHERING LINES
	NON-EXEMPT E&P Waste/S waste must be analysed and be below three	shold limits for toxicity (TO	CLP), Ignitability, Corrosivity a	
Non-Exempt Other		*please se	elect from <b>Non-Exempt W</b>	
QUANTITY hereby certify that the above listed material(s), is (are)	B-BARRELS	tier and subject and h	20 Y	
ones Lovey on beharf o	of Trainis Stevens (heurens	3 30/22	Jefail	SNATURE
ransporter's	TDANC	PORTER		swatere Macente 2
lame My MATICA		Driver's Name	Kiny V	TALLS TO BUILDING BEST
address Who 73	257	Phone No. Truck No.	#12	The second secon
hone No.  hereby certify that the above named materials was/w	vere picked up at the Generator's site listed	WHP No. above and delivered with	out incident to the disposal 1	acility listed below.
SHIPMENT DATE	ORIVER'S SIGNATURE	3-30- DELIVERY DATE	22	DRIVER'S SIGNATURE
IN: TRUCK TIME STAMP	DISPOSA mine unique ten mine	L FACILITY		ECEIVING AREA
rite Name/ ermit No. Red Bluff Facility / STF 5053 US Hwy 285, Orla,		Phone No.	432-448-4239	Ad Ad H
NORM READINGS TAKEN? (Cir	VA	If YES, was reading NORM (mR/hr)	g > 50 micro roentgents? (	Circle One) YES NO
and an	TANK B	OTTOMS	gyh medannin	environa in General III communication
st Guage Feet nd Guage	Inches	ere dal grazza tradica Jeseria de sertara	BS&W Received Free Water	BS&W (%)
eceived	Bright is walphood for all more	The first in the constitution of the first	Total Received	าราสาราสาราสาราสาราสาราสาราสาราสาราสารา
	THE RESERVE OF THE PARTY OF THE			

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

Commercial Facilities — Waste that is generated at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

**Transporter name** – Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. - List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# Exempt E&P Waste

#### Oil Based Mud

- Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

# Water Based Cuttings

- Water Based Drill cuttings
- · Offshore Water Based cuttings

# Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### **E&P Contaminated Soil**

· On-Lease oil spill

#### Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

# Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

# Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

Unused fracturing fluids or acids

7-1-1-20 M

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- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt

  waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

	CHEV: MCI						
	Carlsba	370 1.090000000 00.00					
NO #0	CAR- 4921 NON-HAZARDOUS WASTE N	MANIFEST	Γ 1. PAC	GE 1 OF	2. TRAIL	ER NO.	
_	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. P	ICK-UP DATI	Ξ	
G	PHONE NO. CITY S	STATE		ZIP 6.			
E	575-887-5676 CARLSB. 7. NAME OR DESCRIPTION OF WASTE SHIPPED:	AD, NM 882		TAINERS	9. TOTAL	10. UNIT	11
		( ) ( )	No.	Туре	QUANTITY		Tords
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T	CHEVRON CARLSBAD					-887-56	
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	consignme	ent are full	y and accurate	ely describe	ed above.
R	printed typed NAME James Lovely on behalf of Travis Stevens	SIGNATURE	ly	P		313	DATE 30/22
T R	16. TRANSPORTER (1) NAME	17. NAME	TR	ANSPO	RTER (2)		
A	NAME	NAME					
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF I	EMERGE	NCY CO	NTACT:		
P	EMERGENCY PHONE:	EMERGENCY	PHONE	D:			
R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI	PORTE	R (2): Ack	nowledgment	of receipt of	of material
E R	PRINTED/TYPED NAME	PRINTED/TY	PED NAI	ME			
S	SIGNATURE V. V. DATE 3-30-22	SIGNATURE				DATE	14
D F I A	ADDRESS: R360 Environ	mental Solution S Hwy 285	าร		PHONE:	8	
S C P I O L	PERMIT NO. Orla,	20. COMMEN	TS				
S I A T L Y	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Hereby certification is authorized and permitted to receive such wastes.	ify that the above	describe	d wastes w	vere delivered	to this faci	ity, that the
	AUTHORIZED SIGNATURE	CELL NO.		DATE 33	660	TIM Q-	34PW

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 & 4

	Company Man Contact Information
<b>!</b> *	Name Trans Stevens

Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil  NON-INJECTABLE WATER Washout Water (Non-Inje Completion Fluid/Flow Bat Produced Water (Non-Inje Gathering Line Water/Wa	ectable) ack (Non-Injectable) ectable)	waste)
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil  NON-INJECTABLE WATER Washout Water (Non-Inje Completion Fluid/Flow Bat Produced Water (Non-Inje Gathering Line Water/Wa	RS OTHER EXEMPT WASTES (type and generation process of the ectable) ack (Non-Injectable) ectable)	waste)
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NON-EXEMPT E&P waste must be analysed and be Non-Exempt Other	&P Waste/Service Identification and Amount e below threshold limits for toxicity (TCLP), Ignitability, Corrosivity adn Reactivity.  *please select from Non-Exempt Waste List on back	
QUANTITY B-BARRELS	20 Y-YARDS E-EACH	
per load basis only)  Oil field waste which is non-hazardous that of 40 CFR 261.21-261.24, or listed hazardous waste as non-hazardous is attached. (Check MSDS Information  MSDS Information  Area Lovey on be harf of Trans	RCRA Hazardous Waste Analysis Other (Provide Description Below)	ulations, g the
Transporter's Name  Address  Whp 7337  Phone No.  I hereby certify that the above named material(s) was/were picked up at the Generator's SHIPMENT DATE  DRIVER'S SIGNATURE	Driver's Name Phone No. Truck No. WHP No.  's site listed above and delivered without incident to the disposal facility listed below.  3-30-22 Pawon Ram/rez  DELIVERY DATE  DELIVERY SIGNATURE	extend
IN: QUI: DIS	RECEIVING AREA Name/No.	
Site Name/ Permit No. Address  Red Bluff Facility / STF-065  5053 US Hwy 285, Orla, TX 79770  NORM READINGS TAKEN? (Circle One)  YES NO	Phone No. 432-448-4239  If YES, was reading > 50 micro roentgents? (Circle One) YES NORM (mR/hr)	
Feet Inches  1st Guage 2nd Guage Received  I hereby certify that the above load material has been (circle one):  ACCEPTED	BS&W Received BS&W (%)  Free Water  Total Received  DENIED If denied, why?	

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/.Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name - 2.3.3

AFE/PO No. – Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion – Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

Commercial Facilities — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

**Transporter** – To be completed by the waste hauler/transporter in the presence of the generator

Transporter name - Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. - List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

# Oil Based Mud

- · Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- · Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

#### Water Based Cuttings

- Water Based Drill cuttings
- · Offshore Water Based cuttings

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#### E&P Contaminated Soil

· On-Lease oil spill

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- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

- · Unused fracturing fluids or acids
- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- · Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

CHEVRON								
MCBU								
Carlsbad, NM								
NO #0	CAR- 4920 NON-HAZARDOUS WASTE N	MANIFEST	1. PAG	E_LOF	2. TRAIL	ER NO.		
G	end productive contraction and approximation bear	OMAS DR.	2	5. P ZIP 6.	ICK-UP DATE			
E	575-887-5676 CARLSB. 7. NAME OR DESCRIPTION OF WASTE SHIPPED:	AD, NM 882	220 8. CONT No. 1	AINERS Type	9. TOTAL QUANTITY	10. UNIT	II. Yards	
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Т	14. IN CASE OF EMERGENCY OF CHEVRON CARLSBAD	OR SPILL, CO	ONTAC	Т	24-HOUR	EMERGE -887-56		
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this c	onsignme	nt are full	Vien 31 649		SELECTION OF SELEC	
R	PRINTED TYPED NAME Jones Lavely on behalf of travis Stevens	SIGNATURE	h	10		3/3	DATE	
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R T E R	18. TRANSPORTER (1): Acknowledgment of receipt of material PRINTED/TYPED NAME	19. TRANSPORTER (2): Acknowledgment of receipt of material PRINTED/TYPED NAME Ramon Ramirez SIGNATURE Ramon Ramirez DATE 3-30-22						
D F	SIGNATURE DATE  ADDRESSO Environt 5053 US Orla,	SIGNATURE mental Solution S Hwy 285 TX 79770	S	wn r	PHONE:			
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S I A T L Y	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby certification is authorized and permitted to receive such wastes.  AUTHORIZED SIGNATURE	CELL NO.	described	DATE	vere delivered to	TIM		

		ge 335 of 358 tact Information
Name 1	Pav.s	stevers

SOLUTIONS			the death wares and envisor Pho	one No
Operator No.  Operators Name  Chewo-		Permit/PPC No. Lease/Well Name & No.	NO.  Cotton Hills Federed com I	247869 23 26 27 ± 001 H
Address 530 Lo	mas Dr.	County API No.	3001541535	0001
City, State, Zip	NM 88220	Rig Name & No.	UCRE 10200	1 C 1 1 S C 14 KIT
The same state of the same sta	T E&P Waste/Service Identification and	AFE/PO No.		
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	Washout Water (Non-Inject Completion Fluid/Flow Back Produced Water (Non-Inject Gathering Line Water/Wast INTERNAL USE ONLY Truck Washout (exempt was	table) (Non-Injectable) table) te (Non-Injectable)		e and generation process of the waste
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QUANTITY	B-BARRELS	stanto tode signal sevely	20 Y-YARDS	E-EACH
Per RCRA NON-EXEMPT: Oil 40 wa	I field wastes generated from oil and gas extended basis only) I field waste which is non-hazardous that douc CFR 261.21-261.24, or listed hazardous was aste as non-hazardous is attached. (Check the SDS Information	es not exceed the minimum standard ste as defined by 40 CFR, part 261, st	ds for waste hazardous by characterist ubpart D, as amended. The following d	ics established in RCRA regulation
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RCRA NON-EXEMPT:  Oil  40  wa  MS  CPRINT) AUTHORIZED AGENT  Transporter's Name Address  Phone No. I hereby certify that the above named material  SHIPMENT DATE  TRUCK TIME STAMF IN:  Site Name/ Permit No. Address  Red Bluff Facili 5053 US Hwy 25	I field waste which is non-hazardous that do CFR 261.21-261.24, or listed hazardous was aste as non-hazardous is attached. (Check th SDS Information  Tracks State al(s) was/were picked up at the Generator's state DRIVER'S SIGNATURE  DRIVER'S SIGNATURE  DISP  ity / STF-065 85, Orla, TX 79770	es not exceed the minimum standard ste as defined by 40 CFR, part 261, ste appropriate items as provided)  RCRA Hazardous Waste Analysis  ANSPORTER  Driver's Name Phone No.  Truck No.  WHP No.  site listed above and delivered wither the standard of the s	ds for waste hazardous by characteristic abpart D, as amended. The following description of the property of the property of the disposal facility lister of the property of th	ed below.  R'S SIGNATURE  G AREA
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NAME (PRINT)

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

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Phone No. - Provide a phone number where the generator company can be reached

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Transporter name - Provide the company name that is transporting the waste

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# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

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# Non-Exempt E&P Waste

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www.epa.gov/osw/hazard/wastetypes/characteristic.htm

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-Jan 100

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- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

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\*REQUIRED INFORMATION\*

Compan		act informatio
Name 1	ran's	Steven

			GENERAT	OR		NO.	247870
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Produced Formation Solids Tank Bottoms		Gathering Line Water/Wa		Der Dr. 10 Say	de la largada e di		
E&P Contaminated Soil Gas Plant Waste	20 yerds	INTERNAL USE ONLY Truck Washout (exempt w	wastel		SHAME SHAME		
WASTE GENERATION PRO	CESS:   DRILLI		PLETION	PRODUC	TION	GATHERING	LINES
TWISTE GENERALITY IN CONTINUE	seec since		&P Waste/Service Ide			g dy arrichmen	
	All non-exempt E&P w	aste must be analysed and be		its for toxicity (TC	LP), Ignitability, Corros		
Non-Exempt Other			Control of the second	*please se	lect from <b>Non-Exen</b>	pt Waste List or	n back
QUANTITY		B-BARRELS			20	Y-YARDS	E-EACH
hereby certify that the above I packaged, and is in proper cond	listed material(s), is (are) n	ot hazardous waste as define	ed by 40 CFR Part 261	or any applicable	state law. That each	waste has been pr	operly described, classified and
RCRA EXEMPT:					ad are not missed soleto	non overnet weet	a /P260 Assents cartifications o
	Uli lielu wastes	s generateu from on anu gas i	exploration and produ	iction operation a	nu are not mixeu with	non-exempt wast	e (R360 Accepts certifications o
PRICIA EXEIVII I.	per load basis of	only)					
RCRA NON-EXEMPT:	per load basis of Oil field waste	which is non-hazardous that	does not exceed the r	minimum standard	ls for waste hazardou	s by characteristic	s established in RCRA regulation
	per load basis o Oil field waste 40 CFR 261.21-	which is non-hazardous that	does not exceed the r vaste as defined by 40	minimum standard D CFR, part 261, su	ds for waste hazardou: ubpart D, as amended.	s by characteristic The following doo	s established in RCRA regulatio cumentation demonstrating the
	per load basis o Oil field waste 40 CFR 261.21-	which is non-hazardous that 261.24, or listed hazardous w azardous is attached. (Check	does not exceed the r vaste as defined by 40 the appropriate items	minimum standard D CFR, part 261, su	ibpart D, as amended.	The following dod	s established in RCRA regulatio cumentation demonstrating the vide Description Below)
RCRA NON-EXEMPT:	per load basis of Oil field waste 40 CFR 261.21-waste as non-h	which is non-hazardous that 261.24, or listed hazardous w azardous is attached. (Check tion	does not exceed the r vaste as defined by 40 the appropriate item:	minimum standard ) CFR, part 261, su s as provided) us Waste Analysis	ibpart D, as amended.	The following dod	cumentation demonstrating the
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RCRA NON-EXEMPT:  James Lovey (PRINT) AI	per load basis of Oil field waste 40 CFR 261.21-waste as non-h MSDS Information	which is non-hazardous that 261.24, or listed hazardous was attached. (Check tion	does not exceed the revaste as defined by 40 the appropriate item.  RCRA Hazardou DATE	minimum standard D CFR, part 261, su s as provided) Is Waste Analysis	ubpart D, as amended.	The following dod	cumentation demonstrating the
RCRA NON-EXEMPT:  Javes Lovey (PRANT) All  Transporter's Name	per load basis of Oil field waste 40 CFR 261.21-waste as non-h MSDS Information	which is non-hazardous that 261.24, or listed hazardous was attached. (Check tion	does not exceed the reveste as defined by 40 the appropriate items RCRA Hazardou DATE  TRANSPOR  Driv Phot	minimum standard D CFR, part 261, su s as provided) Is Waste Analysis Waste Analysis TER er's Name ne No.	ibpart D, as amended.	The following dod	cumentation demonstrating the
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Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

**Production** — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.) **Commercial Facilities** — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.) **In Transit** — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> - To be completed by the waste hauler/transporter in the presence of the generator

Transporter name - Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. - List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- . Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- . Offshore Oil Based cuttings

#### Water Based Mud

- Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

# Water Based Cuttings

- · Water Based Drill cuttings
- Offshore Water Based cuttings

#### Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### **E&P Contaminated Soil**

· On-Lease oil spill

#### Wash Out Water

- Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

# Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

# Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

- Unused fracturing fluids or acids
- · Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

	CHEV	RON								
	MCBU									
Carlsbad, NM										
NO #	CAR- 4918 NON-HAZARDOUS WASTE	MANIFEST	Γ 1. PAG	GE_LOF	2. TRAIL	ER NO.				
_	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. P	ICK-UP DATI	Ε				
G	PHONE NO. CITY S	STATE		ZIP 6.						
E	575-887-5676 CARLSB 7. NAME OR DESCRIPTION OF WASTE SHIPPED:	AD, NM 88		TAINERS	9. TOTAL	10. UNIT	11			
		15.15	No.	Туре	QUANTITY	STATE OF THE PARTY	Tords			
N	a Soil Excavated during Spill Reme APT 30015415350001	digtien.					20			
E	b.									
	c.									
R	d.				12 1111 0000	DOEH E	10			
	12. COMMENTS OR SPECIAL INSTRUCTIONS:  Cost Code	10200			13. WASTE I	VA	NO.			
A	14. IN CASE OF EMERGENCY O	OR SPILL, C	ONTAC	т		V [	2.17			
Т	CHEVRON CARLSBAD	31133,0	011111		24-HOUR 575	EMERGE -887-5				
	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this	consignm	ent are ful	ly and accurate	ly describe	ed above.			
O										
R	printed typed NAME James Lovely on behalf of Travis Stevens	SIGNATURE	And	fr		3/3	DATE 0/22			
T	16. TRANSPORTER (1)	17.	TI	RANSPO	RTER (2)	ω.				
R A	M MATA TOUCHNE	NAME								
N S	IN CASE OF EMERGENCY CONTACT:	IN CASE OF	EMERGI	ENCY CO	NTACT:					
P	EMERGENCY PHONE:	EMERGENC	Y PHONI	E:						
R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANS	PORTE	R (2): Acl	knowledgment	of receipt	of material			
T E	PRINTED/TYPED NAME TOUT POLVED	PRINTED/TY	PED NA	ME						
R S	SIGNATURE SOUTH POLICIATES/30/207	SIGNATURE				DATE				
	ADDRESS:				PHONE	:				
D F I A	To the state of th	nvironmental Sc 153 US Hwy 28								
S C P I	TERMITINO.	120. COMMEN	ITS							
O I	,									
S I A T	facility is authorized and permitted to receive such wastes.	tify that the abov	e describe	ed wastes v	were delivered	to this faci	lity, that the			
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE	2	TIN	ME 2 ROLL			
	MVCWVW	1		3	302	) (	O. Jan			

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION

	Company Man Contact Informat	
*	Name Travis Steven	S

SOLUTIONS		per megana di mangrapi	Phone No
	GEN	ERATOR	No. 247871
Operator No.  Operators Name Address  S301 Longs	shod Dr.	Permit/PPC No. Lease/Well Name & No. County	Cotton HIIS 23 26,27 Federal Com # 001 H
City State Zip Corlsbad, NM	88220	API No.	30015415350001
	5676	Rig Name & No. AFE/PO No.	UCRE 10200
Oil Based Muds Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms E&P Contaminated Soil Gas Plant Waste	NON-INJECTABLE WATERS Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non- Produced Water (Non-Injectable) Gathering Line Water/Waste (Non INTERNAL USE ONLY Truck Washout (exempt waste)	njectable)	waste type in barrels or cubic yards)  OTHER EXEMPT WASTES (type and generation process of the waste)
WASTE GENERATION PROCESS: DRILLIN	G COMPLETION	▼ PRODUC	TION GATHERING LINES
All non-exempt E&P was	NON-EXEMPT E&P Wast te must be analysed and be below to		Amount CLP), Ignitability, Corrosivity adn Reactivity. Blect from <b>Non-Exempt Waste List</b> on back
QUANTITY	B-BARRELS	List with the second	2 Y-YARDS E-EACH
	The second state of the second	FR Part 261 or any applicable	e state law. That each waste has been properly described, classified and
AFRINT) AUTHORIZED AGENTS SIGNATURE	an's Stevens 3, Chevron	AA Hazardous Waste Analysis  DATE  SPORTER	Other (Provide Description Below)
Transporter's Name  Mugta Tro Address  Phone No.	cklig	Driver's Name Phone No. Truck No. WHP No.	Roberto A. Muroz
hereby certify that the above named material(s) was/were	picked up at the Generator's site list		out incident to the disposal facility listed below.  206 2010  DRIVER'S SIGNATURE
TRUCK TIME STAMP IN:OUT:	DISPOS	AL FACILITY	RECEIVING AREA Name/No.
Red Bluff Facility / STF-06  Address  Red Bluff Facility / STF-06  5053 US Hwy 285, Orla, TX  NORM READINGS TAKEN? (Circle	( 79770	Phone No.  If YES, was reading	432-448-4239   > 50 micro roentgents? (Circle One)   YES   NO
- The rest objects on to the point provision	TO THE	NORM (mR/hr)	30.00 (CP 93)
1st Guage Feet 2nd Guage Received	Inches	BUITUMS	BS&W Received BS&W (%) Free Water Total Received
I hereby certify that the above load material has been (circle	ACCEPTED DATE	DENIED	If denied, why?

Company man contact information - Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/ Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

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the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

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- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

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www.epa.gov/osw/hazard/wastetypes/characteristic.htm

· Unused fracturing fluids or acids

ON BEHALF DE

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- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt
  waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

Released to Imaging: 10/19/2022 10:58:17 AM

	CHEVRON MCBU								
	Carlsba	all W. deeds had							
NO #	CAR- 4917 NON-HAZARDOUS WASTE	MANIFEST	Γ 1. PAG	GE_LOF	1 2. TRAIL	ER NO.	An ar		
	3. COMPANY NAME 4. ADDRESS	OMACDD		5. P	ICK-UP DATI	Е			
G		OMAS DR. STATE		ZIP 6.					
E		AD, NM 882							
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CON No.	TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	Yard C		
N	a 50:1 Excavated during Spill Reme. APT 30015415350001	diation					20		
995	b.			5					
E	c.								
R	d.								
1	12. COMMENTS OR SPECIAL INSTRUCTIONS:	H2 170			13. WASTE I		10.		
A	Cost code 11	0200	=		2	A			
	14. IN CASE OF EMERGENCY	OR SPILL, C	ONTAC	CT	24 HOUR	EMERCE	NGVNO		
T	CHEVRON CARLSBAD					-887-56			
0	15. GENERATOR'S CERTIFICATION: Hereby declare that the	contents of this	consignm	ent are ful	ly and accurate	ely describe	d above.		
R	PRINTED TYPED NAME James Lovely on behalf of Travis Stevens	SIGNATURE	1	4		3/3	DATE		
Т	16. TRANSPORTER (1)	17.	TI	RANSPO	RTER (2)	10			
R	NAME	NAME							
N									
S P	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:				Y CONTACT:				
O R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSI			nowledgment	of receipt (	of material		
T	PRINTED/TYPED NAME M MUTG Trucking			2 %		5 - 024			
E R	1 /	PRINTED/TY SIGNATURE	PED NA	ME KO	00770	4.74	11-		
S	SIGNATURE DATE 350/22	SIGNATURE	Kol	BEVH	7.3	-	50/27		
D F	ADDRESS:	Environmental S 5053 US Hwy 2	85	:	PHONE	:			
S C P I O L	PERMIT NO.	20. COMMEN	TS		1 - 3 - 1				
S I A T	21. DISPOSAL FACILITY'S CERTIFICATION: 1 Hereby cert	tify that the above	e describe	ed wastes v	vere delivered	to this faci	lity, that the		
LY		CELL NO.		DATE	BALL .	TIM	IE .		
	Marian	DI		33	6608	U	21Ph		

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

		act informati
Nama	1 Carris	Steven

SOLUTIONS					Disposite Ph	none No
	STATE THE STATE OF	GENE	RATOR	11 270068	NO.	247872
Operator No.		Language Language	Permit/PPC No.	Call	HADE	22 26 2-
Operators Name Chevro	n Coalshad	The man would be the second	Lease/Well Name & No.	Cotton	Hills	23 26 27 # 001 H
Address 5301	Lomas Dr.	or a visit and the same	County	and State of the	con	er to the second
	1. NM 882	123	API No.	30015	4 153 6	100
City, State, Zip	1 NM 882	20	Rig Name & No. AFE/PO No.	UCRE	10200	A CAMPAGE AND A STATE OF THE ST
Hello Ito.		e Identification and Amoun			Application of the last of the	
Oil Based Muds	The second secon	NJECTABLE WATERS	t (place volume next to v	Gentral complete introduction of the con-	CHARLES AND ADDRESS OF THE PARTY OF THE PART	pe and generation process of the wast
Oil Based Cuttings	Washo	out Water (Non-Injectable)		- 10 Jan 19 19 19 19 19 19 19 19 19 19 19 19 19		
Waste Based Muds Water Based Cuttings		etion Fluid/Flow Back (Non-Inje ed Water (Non-Injectable)	ectable)	BODE AND STREET		
Produced Formation Solids Tank Bottoms		ring Line Water/Waste (Non-In	jectable)	Liter Files and Earl		
E&P Contaminated Soil 2	) VCCO S	NAL USE ONLY				
Gas Plant Waste		Nashout (exempt waste)	WHITE CALCULATION	PERSONAL PROPERTY.		
WASTE GENERATION PROCESS:	DRILLING	COMPLETION	PRODUCT		GATHERIN	IG LINES
All no	on-exempt F&P waste must	NON-EXEMPT E&P Waste/S be analysed and be below three			osivity adn Read	eivity.
Non-Exempt Other	ALL TOTAL TROOPS IN THE TOTAL TROOPS	The state of the s		lect from <b>Non-Exe</b>	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, where the Owner, where the Owner, where the Owner, which is the Owner, which i	
DUANTITY	R-RA	ARRELS		20	Y-YARDS	E-EACH
hereby certify that the above listed ma			Part 261 or any applicable			TATUE SAME SERVICE
packaged, and is in proper condition for			Trait 201 of any applicable	State law. Illat each	i waste nas been	property described, classified and
RCRA NON-EXEMPT:	40 CFR 261.21-261.24, or waste as non-hazardous i MSDS Information	listed hazardous waste as defined attached. (Check the appropriate RCRA	ined by 40 CFR, part 261, su	ibpart D, as amende	d. The following	stics established in RCRA regulation documentation demonstrating the Provide Description Below)
Fransporter's	ment Amount as	TRANS	PORTER	Mary Land		
lame / / noTo	a Trucking	CONTRACTOR CONTRACTOR	Driver's Name	Altons	o MUN	02
Address	No. Percent active		Phone No.		22	The second second second second
Phone No.	late Finality		Truck No	7	337	Landon Land Land
hereby certify that the above named m	aterial(s) was/were picked u	up at the Generator's site listed		out incident to the di	sposal facility tis	ted below.
TO A SECURE OF THE SECURE			3-30-8	12	A	Sire bin and finding agreeable
SHIPMENT DATE	DRIVER'S SIG	SNATURE	DELIVERY DATE			VER'S SIGNATURE
IN: TRUCK TIMESTA	AMP	DISPOSA	L FACILITY	Name/No	RECEIVIN	NG AREA
Site Name/ Permit No. Red Bluff Fa	acility / STF-065	The state of the state of	das produces y cultural o	432-448-4239	Culture wealth	timbyh ski
	vy 285, Orla, TX 79770	0 _	Phone No.	102 110 1203	nel del carrie de	To the little to the little to the little to
	S TAKEN? (Circle One)	YES A NO	If YES, was reading	> 50 micro roenta	ents? (Circle Or	ne) YES No
and the first out to the same		A state and a	NORM (mR/hr)		13.1010 01	
	10g 0/h 31-12-1-1-1-1	TANKR	OTTOMS		Salas Young	work is any orangenore in
Feet	In	ches	01101110		terrorian agency	Marine Electronical Action
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Ind Guage Received		- quantipores (total	Day to an parameter	Free Water Total Received		Caroling Chart
			Richard Comment of Falling	troppid		
hereby certify that the above load mate	erial has been (circle one):	2 2018 PM	DENIED OF	If denied, why?	MMM	HI
NAME (PRINT)		DATE	TITLE		1 00 thele	SIGNATURE
		196775				Committee of the commit

Company man contact information – Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad €ommission permit number

Lease/Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

Commercial Facilities — Waste that is *generated* at commercial facilities (i.e., Refineries, SWD Wells, Compressor stations, Transfer stations, etc.)

In Transit — Waste which is spilled while in transit; NOT to include well gathering lines or field gathering lines; to include contaminated material resulting from the spill (typically trucking, post-production pipelines, or barges)

<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

Transporter name - Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. – List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- · Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- · Offshore Oil Based cuttings

#### Water Based Mud

- Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

# Water Based Cuttings

- · Water Based Drill cuttings
- · Offshore Water Based cuttings

# Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

# E&P Contaminated Soil

· On-Lease oil spill

# Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

# Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

#### Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

. Unused fracturing fluids or acids

19 Maded no White

- . Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

CHEVRON							
	MCBU						
	Carlsba	d, NM					
NO #	CAR- 4916 NON-HAZARDOUS WASTE N	MANIFEST	1. PAG	GE_LOF	2. TRAIL	ER NO.	31
G	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. P	ICK-UP DATI	3	
J	PHONE NO. CITY STATE ZIP 6. CARLSBAD, NM 88220						
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:			TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	
N	a. Soil excaveted during spill Remen	diation					20
E	b. c.						
	d.						
R					13. WASTE I	ROFILE 1	NO.
A							
Т	T IN CASE OF EMERGENCY OR SPILL, CONTACT  24-HOUR EMERGENCY NO.						
	CHEVRON CARLSBAD 575-887-5676  15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.						
O	0						
R	printed typed NAME Jones Lovely on behalf of Travis Stevens	SIGNATURE	An	fo	_	3/3	DATE 30/22
T R	16. TRANSPORTER (1) NAME	17. NAME	TF	RANSPO	RTER (2)		
A N							
S P	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:					
O R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSF			nowledgment	of receipt of	of material
E PRINTED/TYPED NAME AIFONSO MUNOZ		PRINTED/TYPED NAME					
R S	SIGNATURE DATE 3-30-22	SIGNATURE				DATE	
D F I A	ADDRESS:	0 Environment 5053 US Hw Orla, TX 79	y 285	on :	PHONE:		
S C P I O L	PERMIT NO.	20. COMMEN					
S I A T	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Hereby certificatility is authorized and permitted to receive such wastes.	fy that the above	describe	d wastes w	ere delivered	to this faci	lity, that the
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE 3	3027	TIM	1E 238

# Received by OCD: 6/15/2022 10:01:39 AM TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

200	Steven

SOLUTIONS					Disposite Ph	none No
	STATE THE STATE OF	GENE	RATOR	11 270068	NO.	247872
Operator No.		Language Language	Permit/PPC No.	Call	HADE	22 26 2-
Operators Name Chevro	n Coalshad	The man would be the second	Lease/Well Name & No.	Cotton	Hills	23 26 27 # 001 H
Address 5301	Lomas Dr.	or a visit and the last of	County	and State of the	con	er to the second
	1. NM 882	123	API No.	30015	4 153 6	100
City, State, Zip	1 NM 882	20	Rig Name & No. AFE/PO No.	UCRE	10200	A CAMPAGE AND A STATE OF THE ST
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Oil Based Muds	The second secon	NJECTABLE WATERS	t (place volume next to v	Gentral complete introduction of the con-	CHARLES AND ADDRESS OF THE PARTY OF THE PART	pe and generation process of the wast
Oil Based Cuttings	Washo	out Water (Non-Injectable)		- 10 Jan 19 19 19 19 19 19 19 19 19 19 19 19 19		
Waste Based Muds Water Based Cuttings		etion Fluid/Flow Back (Non-Inje ed Water (Non-Injectable)	ectable)	BODE AND STREET		
Produced Formation Solids Tank Bottoms		ring Line Water/Waste (Non-In	jectable)	Liter Files and Earl		
E&P Contaminated Soil 2	) VCCO S	NAL USE ONLY				
Gas Plant Waste		Nashout (exempt waste)	WHITE CALCULATION	PERSONAL PROPERTY.		
WASTE GENERATION PROCESS:	DRILLING	COMPLETION	PRODUCT		GATHERIN	IG LINES
All no	on-exempt F&P waste must	NON-EXEMPT E&P Waste/S be analysed and be below three			osivity adn Read	eivity.
Non-Exempt Other	ALL TOTAL TROOPS IN THE TOTAL TROOPS	The state of the s		lect from <b>Non-Exe</b>	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, where the Owner, where the Owner, where the Owner, which is the Owner, which i	
DUANTITY	R-RA	ARRELS		20	Y-YARDS	E-EACH
hereby certify that the above listed ma			Part 261 or any applicable			TATUE SAME SERVICE
packaged, and is in proper condition for			Trait 201 of any applicable	State law. Illat each	i waste nas been	property described, classified and
RCRA NON-EXEMPT:	40 CFR 261.21-261.24, or waste as non-hazardous i MSDS Information	listed hazardous waste as defined attached. (Check the appropriate RCRA	ined by 40 CFR, part 261, su	ibpart D, as amende	d. The following	stics established in RCRA regulation documentation demonstrating the Provide Description Below)
Fransporter's	ment Amount as	TRANS	PORTER	Mary Land		
lame / / noTo	a Trucking	CONTRACTOR CONTRACTOR	Driver's Name	Altons	o MUN	02
Address	No. Percent active		Phone No.		22	The second second second
Phone No.	late Finality		Truck No	7	337	Landon Land Land
hereby certify that the above named m	aterial(s) was/were picked u	up at the Generator's site listed		out incident to the di	sposal facility tis	ted below.
TO A SECURE OF THE SECURE			3-30-8	12	A	Sire bin and finding agreeable
SHIPMENT DATE	DRIVER'S SIG	SNATURE	DELIVERY DATE			VER'S SIGNATURE
IN: TRUCK TIMESTA	AMP	DISPOSA	L FACILITY	Name/No	RECEIVIN	NG AREA
Site Name/ Permit No. Red Bluff Fa	acility / STF-065	The state of the state of	das produces y cultural o	432-448-4239	Culture wealth	timbyh ski
	vy 285, Orla, TX 79770	0 _	Phone No.	102 110 1203	nel del carrie de	To the little to the little to the little to
	S TAKEN? (Circle One)	YES A NO	If YES, was reading	> 50 micro roenta	ents? (Circle Or	ne) YES No
and the state of the constitution of the		A state and a	NORM (mR/hr)		13.1010 01	
	10g 0/h 31-12-1-1-1-1	TANKR	OTTOMS		Salas Young	work is any orangenore in
Feet	In	ches	01101110		terrorian agency	Marine Electronical Action
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Ind Guage Received		- quantipores (total	Day to a parameter	Free Water Total Received		Caroling Chart
			Richard Comment of Falling	troppid		
hereby certify that the above load mate	erial has been (circle one):	2 2018 PM	DENIED OF	If denied, why?	MMM	HI
NAME (PRINT)		DATE	TITLE		1 00 thele	SIGNATURE
		196775				Committee of the commit

Company man contact information — Provide the rig manager's name and number

Operator's Name - Provide the name of the company from which the waste originates

Address, City, State, Zip - Business address for the generator company

Phone No. - Provide a phone number where the generator company can be reached

Permit/RRC No. - Provide the Railroad Commission permit number

Lease/Well Name & No. - Provide the name of the lease/well name and number. If offshore, provide the OCS number

County - Provide the county at which the waste was generated in. If offshore, provide the Field name and Block number.

API No. - Provide the American Petroleum Institute number; may contain up to 14 digits

Rig Name & No. – Provide the name of the drilling contractor and the well number and well name

AFE/PO No. - Provide either the Authorization for Expenditure (AFE) number or the Purchase Order (PO) number

Origination of waste - Check the option that best describes where the waste originates from

Drilling - Waste generated while drilling the well

Initial Completion - Waste generated on the original completion (for re-completions see Production)

Production — Waste generated during the production life of the well (i.e., work overs, re-completions, hydraulic fracturing, gas plant treatment, etc.)

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<u>Transporter</u> – To be completed by the waste hauler/transporter in the presence of the generator

Transporter name - Provide the company name that is transporting the waste

Address - Business address for the transport company

Driver's Name - Provide the first and last name of the driver hauling the waste

Phone No. – List the phone number at which the transport company can be reached

WHP No. - List the Waste Hauler's Permit Number associated with the truck that is hauling the material

# **Waste Categories**

# **Exempt E&P Waste**

#### Oil Based Mud

- · Oil Based Drilling fluids
- · Off Shore Oil Based Drilling fluids

#### Oil Based Cuttings

- · Oil Based Drill cuttings
- Offshore Oil Based cuttings

#### Water Based Mud

- · Water Based Drilling fluids
- · Offshore Water Based Drilling fluids

# Water Based Cuttings

- · Water Based Drill cuttings
- · Offshore Water Based cuttings

# Produced Formation Sand and Solids

- Hydrogen sulfide abatement wastes from geothermal energy production
- Workover wastes
- · Produced sand
- Constituents removed from produced water before it is injected

#### Tank Bottoms

- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining
- · Waste crude oil from primary field operations

#### **E&P Contaminated Soil**

· On-Lease oil spill

# Wash Out Water

- · Rigwash
- · Cooling tower blowdown

#### Completion Fluids/Flowback

- Well completion, treatment, and stimulation fluids, and frac proppant
- · Packing fluids

#### Produced Water

- · Produced water
- · Geothermal Production Fluids
- Materials ejected from a producing well during blowdown

# Gathering Line Water/Waste

- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- · Pigging wastes from gathering lines

#### Gas Plant Waste

- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Gas plant sweetering wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes

# Non-Exempt E&P Waste

All non-exempt oil & gas waste must be analyzed for and be below the threshold limits for Toxicity (TCLP Metals), Ignitability, Corrosivity and Reactivity.

www.epa.gov/osw/hazard/wastetypes/characteristic.htm

. Unused fracturing fluids or acids

19 Maded no White

- . Gas plant cooling tower cleaning wastes
- Oil and gas service company wastes such as drum rinsate, sandblast media, painging wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Non-Exempt E&P liquid and solid wastes generated by crude oil and tank bottom reclaimers
- · Waste compressor filters and blowdown
- Non-Exempt E&P waste in transportation pipeline related pits
- · Caustic or acid cleaners
- Boiler cleaning wastes
- · Boiler scrubber fluids, sludges, and ash
- E&P Contaminated Soil
  - Transportation spill of post-production oil and gas

CHEVRON							
	MCBU						
	Carlsba	d, NM					
NO #	CAR- 4916 NON-HAZARDOUS WASTE N	MANIFEST	1. PAG	GE_LOF	2. TRAIL	ER NO.	31
G	3. COMPANY NAME 4. ADDRESS CHEVRON CARLSBAD 5301 L	OMAS DR.		5. P	ICK-UP DATI	3	
J	PHONE NO. CITY STATE ZIP 6. CARLSBAD, NM 88220						
E	7. NAME OR DESCRIPTION OF WASTE SHIPPED:			TAINERS Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	
N	a. Soil excaveted during spill Remen	diation					20
E	b. c.						
	d.						
R					13. WASTE I	ROFILE 1	NO.
A							
Т	T IN CASE OF EMERGENCY OR SPILL, CONTACT  24-HOUR EMERGENCY NO.						
	CHEVRON CARLSBAD 575-887-5676  15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.						
O	0						
R	printed typed NAME Jones Lovely on behalf of Travis Stevens	SIGNATURE	An	fo	_	3/3	DATE 30/22
T R	16. TRANSPORTER (1) NAME	17. NAME	TF	RANSPO	RTER (2)		
A N							
S P	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:					
O R	18. TRANSPORTER (1): Acknowledgment of receipt of material	19. TRANSF			nowledgment	of receipt of	of material
E PRINTED/TYPED NAME AIFONSO MUNOZ		PRINTED/TYPED NAME					
R S	SIGNATURE DATE 3-30-22	SIGNATURE				DATE	
D F I A	ADDRESS:	0 Environment 5053 US Hw Orla, TX 79	y 285	on :	PHONE:		
S C P I O L	PERMIT NO.	20. COMMEN					
S I A T	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Hereby certificatility is authorized and permitted to receive such wastes.	fy that the above	describe	d wastes w	ere delivered	to this faci	lity, that the
LY	AUTHORIZED SIGNATURE	CELL NO.		DATE 3	3027	TIM	1E 238

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Compan	y Man Cor	Rect montation
Name	news 5	Stevers

Name Travis Steven	-	_	-
	Name _	Mus 5	Steven

SOLUTIONS	) 1 000	Life Street Assessment of the	Phone No.
	GENE	RATOR	NO. 247904
Operator No.	- No. 1		cotton Hills 23 26 27
Operators Name Chevian Carli Address 5301 Longs D	Shad	Name & No	Federal Com # 001 H
City, State, Zip Carls load, NM	88220	API No3 Rig Name & No	10015415350001
Phone No. <u>575 - 887 - 56</u>		AFE/PO No.	CRE 10200 (DB) (915541)
Oil Based Muds	e/Service Identification and Amount NON-INJECTABLE WATERS	(place volume next to waste	type in barrels or cubic yards)  OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings Waste Based Muds Water Based Cuttings Produced Formation Solids Tank Bottoms	Washout Water (Non-Injectable) Completion Fluid/Flow Back (Non-Injectable) Produced Water (Non-Injectable) Gathering Line Water/Waste (Non-Injectable)	n - n ini sungan masusuni	Belly
E&P Contaminated Soil Gas Plant Waste	INTERNAL USE ONLY Truck Washout (exempt waste)	drykan wakan mereke ja	large states with the control of the
WASTE GENERATION PROCESS: DRILLIN	NG COMPLETION	PRODUCTION	☐ GATHERING LINES
All non-exempt E&P wa	NON-EXEMPT E&P Waste/Se ste must be analysed and be below thres	ervice Identification and Amount hold limits for toxicity (TCLP), Ign	itability, Corrosivity adn Reactivity.
Non-Exempt Other			om Non-Exempt Waste List on back
QUANTITY	B-BARRELS		20 Y-YARDS E-EACH
I hereby certify that the above listed material(s), is (are) no packaged, and is in proper condition for transportation according to the condition of the condition of transportation according to the condition of the condition o	t hazardous waste as defined by 40 CFR F ording to applicable regulation.	Part 261 or any applicable state la	aw. That each waste has been properly described, classified and
	generated from oil and gas exploration ar	nd production operation and are i	not mixed with non-exempt waste (R360 Accepts certifications on a
RCRA NON-EXEMPT: Oil field waste w 40 CFR 261.21-2	which is non-hazardous that does not exce 161.24, or listed hazardous waste as defin azardous is attached. (Check the appropria	ed by 40 CFR, part 261, subpart [	vaste hazardous by characteristics established in RCRA regulations, D, as amended. The following documentation demonstrating the  Other (Provide Description Below)
times Lovely on behalf of T	Tay's Stevens 47	7 2 2 ATE	SIGNATURE
Transporter's (\lambda \lambda	TRANS	PORTER	agree ball a property
Name	divel rensionitation and	Driver's Name	When Ruiz
Address		Phone No Truck No	#09
Phone No.		WHP No.	7337
I hereby certify that the above named material(s) was were	W KUIZ MANAGE	4/17/20	Albro Ruiz
SHIPMENT DATE  TRUCK TIME STAMP	DICEOCAL	DELIVERY DATE	RECEIVING AREA
IN: 12:39 OUT:	DISPUSAL Taras Parada Anno Anno Anno Anno Anno Anno Anno Ann	ANTIGORIA DE CONTRA LA SECUENCIA DE LA SECUENCIA DE CONTRA DE CONT	Name/No.
Site Name/ Permit No. Address  Red Bluff Facility / STF-0 5053 US Hwy 285, Orla, T.		Phone No. <u>432-</u>	448-4239 baltere vi in
NORM READINGS TAKEN? (Circle		If YES, was reading > 50.n	picro roentgents? (Circle One) YES NO
po no compressor de propieto e en esta	-VIII- a INFORM	NORM (mR/hr)	maov inflation
	TANK BO	OTTOMS	reference and the feet this entire the second
1st Guage Feet 2nd Guage Received	Inches	Remark Thomas Fr	Received BS&W (%) ree Water Received
I hereby certify that the above load material has been (circl	4-1-12	illure	d, why?
NAME (PRINT)	DATE	TITLE	SIGNATURE

	CHEVRON							
		<u>MCE</u>	BU					
		Carlsba	d, NM					
NO #C	CAR- 5015 NON-HAZARI	OUS WASTE N	<b>1ANIFEST</b>	1. PAGI	E <u></u> OF_	2. TRAIL	ER NO.	
	3. COMPANY NAME	4. ADDRESS	OMAS DR.		5. P	ICK-UP DATE	3	
G	PHONE NO. CITY STATE				IP 6.			
E	575-887-5676  7. NAME OR DESCRIPTION OF WASTE SHIP		AD, NM 882	20 8. CONT/	AINERS		10. UNIT	
[	a. So! 1 Excavated during Sp:11 Remediation			No.	Туре	QUANTITY	WT/Vol.	Yords
N	APT 3001541535	0001						20
E	С.			-+				
_	d.							
R	12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE F	ROFILE	IO.
A	•	RE 1020			Λ	Α		
	14. IN CASE OF EMERGENCY OR SPILL, CONTACT 24-HOUR EMERGENCY NO.							
T	CHEVRON CARLSBAD 373 667 5676					576		
o	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.							
-	PRINTED TYPED NAME James LOVELY ON SIGNATURE / DATE							
R	behalf of Trais S	terns		1	-	_		122
T	16. TRANSPORTER (1)		17.	TR	ANSPO	RTER (2)		
R A	NAME My Mata	,	NAME					i
N S	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:					
P O	EMERGENCY PHONE:		EMERGENCY PHONE:					
R T	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material					
E	PRINTED/TYPED NAME	1(1)2	PRINTED/TYPED NAME					
R S	SIGNATURE AVAIL RUR	DATE 04/07	SIGNATURE				DATE	
D F	R360 Environmental Solutions 5053 US Hwy 285 Orla, TX 79770	ADDRESS:				PHONE	:	
S C	PERMIT NO.		20. COMMENT	rs				
P I O L	STF065							the about
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive suc		ify that the above	described	i wastes v	were delivered	to this faci	nty, that the
LY	AUTHORIZED SIGNATURE		CELL NO.	1/224	DATE	7-21-	TIM	E I Z.
	Jet page yarrin		432.448	1119	17-	1-11	11/	1797

GENERATOR: COPY 1

TRANSPORTER: COPY 2

**DISPOSAL SITE: COPY 3 & 4** 

# Appendix D

# **Photographic Documentation**

Client: Chevron MCBU Project Number: 60657072

Project Name: Cotton Hills 23 26 27 Federal Com
#001H

Site Location: Eddy County, NM

# **REMEDIATION REPORT**

Photograph No.

Photographer: J Lovely

**Date:** 3/29/2022

Comments: Looking southeast at northwestern corner of excavation area.



# REMEDIATION REPORT

Photograph No.

Photographer: J Lovely

**Date:** 3/31/2022

Comments: View of excavation immediately north of the pump jack.



Client: Chevron MCBU Project Number: 60657072

Project Name: Cotton Hills 23 26 27 Federal Com #001H

Site Location: Eddy County, NM

# **REMEDIATION REPORT**

Photograph No.

Photographer:

Date: 4/4/2022

J Lovely

Comments: View of excavation area east of the pump jack.



## **REMEDIATION REPORT**

Photograph No.

Photographer: J Lovely

**Date:** 04/04/2022

Comments:
Looking southeast
near the northwest
corner of
excavation
following
completion.



Client: Chevron MCBU Project Number: 60657072

Project Name: Cotton Hills 23 26 27 Federal Com #001H

Site Location: Eddy County, NM

# **REMEDIATION REPORT**

Photograph No.

Photographer: J Lovely

**Date:** 3/31/2022

Comments:
Hydrovac soil
removal along the
electrical service
line north of the
pump jack in
background with
excavation
proceeding in
foreground.



# **REMEDIATION REPORT**

Photograph No. 6

Photographer: J Lovely

**Date:** 4/6/2022

Comments: Compaction of excavation backfill material.



Client: Chevron MCBU Project Number: 60657072

Project Name: Cotton Hills 23 26 27 Federal Com #001H

Site Location: Eddy County, NM

# **REMEDIATION REPORT**

Photograph No.

Photographer: J Lovely

**Date:** 4/8/2022

Comments:
Backfilled and
graded excavation
area east of the
pump jack.



# REMEDIATION REPORT

Photograph No.

Photographer: J Lovely

Date: 4/8/2022

Comments:
Overview of
backfilled and
graded excavation
area.



Received by OCD: 6/15/2022 10:01:39 AM

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

	1 ugc our of or
Incident ID	NAB1915130679
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be incl	uded in the plan.					
<ul> <li>□ Detailed description of proposed remediation technique</li> <li>□ Scaled sitemap with GPS coordinates showing delineation points</li> <li>□ Estimated volume of material to be remediated</li> <li>□ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>□ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>						
Defended Description Color Foot of the College Manifest M	ad an agent of any page agent for defanged of your edication					
<u>Deferral Requests Only:</u> Each of the following items must be confirmed	ea as part of any request for deferral of remediation.					
☐ Contamination must be in areas immediately under or around product deconstruction.	ion equipment where remediation could cause a major facility					
X Extents of contamination must be fully delineated.						
☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.						
I hereby certify that the information given above is true and complete to trules and regulations all operators are required to report and/or file certain which may endanger public health or the environment. The acceptance of liability should their operations have failed to adequately investigate and surface water, human health or the environment. In addition, OCD acceptance of the property of the environment of the environment of the environment of the environment. In addition, OCD acceptance with any other federal, state, or local laws and the environment of the environment o	release notifications and perform corrective actions for releases f a C-141 report by the OCD does not relieve the operator of remediate contamination that pose a threat to groundwater, tance of a C-141 report does not relieve the operator of					
Printed Name: Amy Barnhill Ti	tle: Lead Environmental Specialist - Water					
A 34	ate: 6-10-2022					
email: ABarnhill@chevron.com Te	elephone: 432-687-7108					
OCD Only						
Received by: Robert Hamlet Date	te: <u>10/19/2022</u>					
Approved	oval Denied Deferral Approved					
Signature: Robert Hamlet Date	: 10/19/2022					

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

District II

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

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

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

CONDITIONS

Action 117312

## **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	117312
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

rhamlet  Chevron's deferral requests to complete final remediation during any future major construction/alteration or final pluggir first. AECOM and Chevron do not believe deferment will result in imminent risk to human health, the environment, or gro deferral are around the electric line and identified on the site map as "ELD-1" and "ELD-2". The areas have been delined At this time, OCD approves this request. The Deferral Request and C-141 will be accepted for record and marked according in OCD database files and reflect an open environmental issue. This is a Federal site and will require like approval from	undwater. The areas requested for ted and documented in the report. dingly. The release will remain open