Received by OCD: 12/7/2022 9:52:11 AM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

	Page 1 of	62
Incident ID	nCH1823935024	
District RP	1RP-5176	
Facility ID		
Application ID		

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-1</u> 00 (ft bgs)					
Did this release impact groundwater or surface water?						
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No					
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No					
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No					
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No					
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No					
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No					
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No					
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No					
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No					
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No					
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🖂 No					

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

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

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

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

Received by OCD: 12	/7/2022 9:52:11 AM State of New Mexico		Page 2 of 62				
roim C-141			Incident ID	nCH1823935024			
age 4 Oil Conservation Division			District RP	1RP-5176			
			Facility ID				
			Application ID				
regulations all operato public health or the en failed to adequately in	Woodall	ifications and perform co OCD does not relieve the eat to groundwater, surfa	prrective actions for rele- coperator of liability sho ce water, human health iance with any other fec ional	ases which may endanger ould their operations have or the environment. In			
OCD Only Received by:	Jocelyn Harimon	Date: 12/0	07/2022				

Page 5

Oil Conservation Division

Incident ID	nCH1823935024
District RP	1RP-5176
Facility ID	
Application ID)

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Closure

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

<u>Closure Report Attachment Checklist</u> : Each of the following i	tems must be included in the closure report.							
A scaled site and sampling diagram as described in 19.15.29.11 NMAC								
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)								
Laboratory analyses of final sampling (Note: appropriate ODC	C 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 certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and ren human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the co accordance with 19.15.29.13 NMAC including notification to the O Printed Name: Dale Woodall Signature: Dale Woodall	Ations. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete							
email:dale.woodall@dvn.com	Telephone: 575-748-1838							
OCD Only Jocelyn Harimon	12/07/2022							
Received by:	Date:							
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.							
Closure Approved by: Ashley Maxwell	Date: 2/02/2023							
Printed Name: Ashley Maxwell	Title: Environmental Specialist							



1

October 10, 2019 (edited 12/7/2022)

NMOCD District 2 1625 N. French Drive Hobbs, New Mexico 88240

To Whom It May Concern:

M&M Excavating, Inc. (MMX) has prepared this Remediation Closure Report for Devon Energy Production Company that describes the site characterization and remediation of the fire associated with 1RP-5176 at the Thistle Unit #118H site. The site is in Unit N, Section 34, Township 23S, Range 33E, Latitude 32.2556006, Longitude -103.5616293, Lea County, New Mexico, on State land. Figure 1 provides the vicinity and site location on an USGS 7.5-minute quadrangle map.

Site Information and Closure Criteria

The Thistle Unit #118H is located approximately thirty (30) miles east of Malaga, New Mexico on State land at an elevation of approximately 3,650 feet above mean sea level (amsl).

Based upon well water data. (Appendix B), depth to groundwater in the area is estimated to be between > 51 feet below grade surface (bgs). 12/7/2022 Edit: There is one well within 0.5 miles of the location, C-0495 POD1, according to the New Mexico Office of the State Engineer (NMOSE) and USGS. The nearest significant watercourse is an unnamed pond located approximately 5975 feet to the southwest.

The site has been remediated to the applicable NMOCD Closure Criteria for groundwater of 51-100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

Release Information and Closure Criteria								
Name		Thistle Unit #118H						
API Number		30-025-43451						
Incident Number		1RP-5176						
Source of Release	Fire/Compressor							
Released Material	N/A	N/A Released 0 BBLS						
Recovered Volume	0 BBLS Net Release 0 BBLS							
NMOCD Closure Criteria	>51but < 100 feet to groundwater							

Thistle Unit #118H - 1RP-5176 Devon Energy Production Company

Release Information

On August 10, 2018, a lease operator arrived on location and discovered a 2-foot flame coming from the top of the compressor on the blowdown line. Shortly after, the flame went out on its own with no apparent release associated with the fire. Figures 1 and 2 illustrate the vicinity and site location. Figure 3 illustrates the release location. The C-141 forms are included in Appendix A.

Release Characterization and Remediation Activities

On August 22, 2019, MMX personnel arrived on site in response to the release associated with Thistle Unit #118H. MMX collected soil samples at the surface and at six inch depth at five (5) sample locations (L1-L5) around the source of the fire. A ten (10) samples were collected for laboratory analysis of a total of of total chloride Method combination usina EPA 300.0: benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

As summarized in Table 3, sample location L1 exceeded NMOCD Closure Criteria for TPH at the surface, but was below closure criteria at six inches. The remainder of the sample locations met the closure criteria for the location.

On September 20, 2019, MMX personnel returned to the location to excavate the area represented by sample location L1. A five-point composite confirmation sample was collected from the bottom of the 10-inch excavation (BH) and from the sidewalls (SW). Sample SW and BH were analyzed using the methods listed above. Figure 3 shows the final extent of the excavation and sample locations.

NMOCD was notified on 9/18/2019 that confirmation samples were to be collected within 48 hours. All laboratory results are summarized in Table 3 and all laboratory reports are included in Appendix C.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at an NMOCD permitted disposal facility. A photo of the excavation prior to backfill is included in Appendix D.

On behalf of Devon Energy, MMX requests closure for the release associated with 1RP-5176.

Submitted by: M&M Excavating, Inc.

Lupe Carrasco

Lupe Carrasco

Thistle Unit #118H - 1RP-5176 Devon Energy Production Company

ATTACHMENTS:

Tables:

Table 2: NMOCD Closure Criteria Justification Table 3: Summary of Sample Results

Figures:

Figure 1: Vicinity and Well Head Protection Map Figure 2: Surface Water Radius Map Figure 3: Site and Sample Location Map

Appendices:

Appendix A: Form C-141 Appendix B: Water Well Data Appendix C: Laboratory Analytical Reports Appendix D: Excavation Photo

Tables

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company

Table 2: NMOCD Closure Criteria

Thistle Unit #118H Devon Energy Production Company

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	135-150	OSE & USGS (Appendix B)
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)		
Hortizontal Distance to Nearest Significant Watercourse (ft)	5975	Unnamed pond/lake to the southwest

Closure Criteria (1	9.15.29.12.	B(4) and T	able 1 NMAC)				
	Closure Criteria (units in mg/kg)						
Depth to Groundwater	Chloride *numerical limit or background, whichever is greater	ТРН	GRO + DRO	BTEX	Benzene		
Less than 50' BGS			600	100		50	10
Greater than 100'			20000	2500	1000	50	10
51' to 100'	х	(10000	2500	1000	50	10
Surface Water	Yes	No	if yes, then				
Less than 300' from continuously flowing watercourse or other significant watercourse? Less than 200' from lakebed, sinkhole or playa lake?		x x					
Water Well or Water Source			1				
Less than 500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock							
watering purposes?		x	4				
Less than 1000' from fresh water well or spring?		x	4				
Human and Other Areas			600	100		50	10
Less than 300' from an occupied permanent residence, school, hospital, institution or church?							
Within incorporated municipal boundaries or within a defined							
municipal fresh water well field?							
Less than 100' from wetland?							
Within area overlying a subsurface mine							
Within an unstable area?							
Within a 100-year floodplain?		x					



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Table 3: Summary of Sample Results

Thistle Unit #118H Devon Energy Production Company 1RP-5176

Sample	Sample Date	Depth	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-	
ID		(feet bgs)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
NMO	NMOCD Closure Criteria			10				2,500	10,000	
			(Compress	sor					
L1		surface	1.45	<0.050	20.9	701	2560	3281.9	32	
LI		0.5			<10.0	29.4	318	347.4	48	
L2	8/22/2019	surface	<0.300	<0.050	<10.0	<10.0	21.7	21.7	96	
LZ			0.5		-				=	96
		surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	3840	
L3		0.5							8930	
		3						-	640	
L4	-	surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	128	
L4		0.5		-				=	96	
L5		surface	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	32	
LO		0.5							32	
BH	9/20/2019	0.8	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	96	
SW	5/20/2015	0-0.8	<0.300	<0.050	<10.0	<10.0	<10.0	<30.0	96	

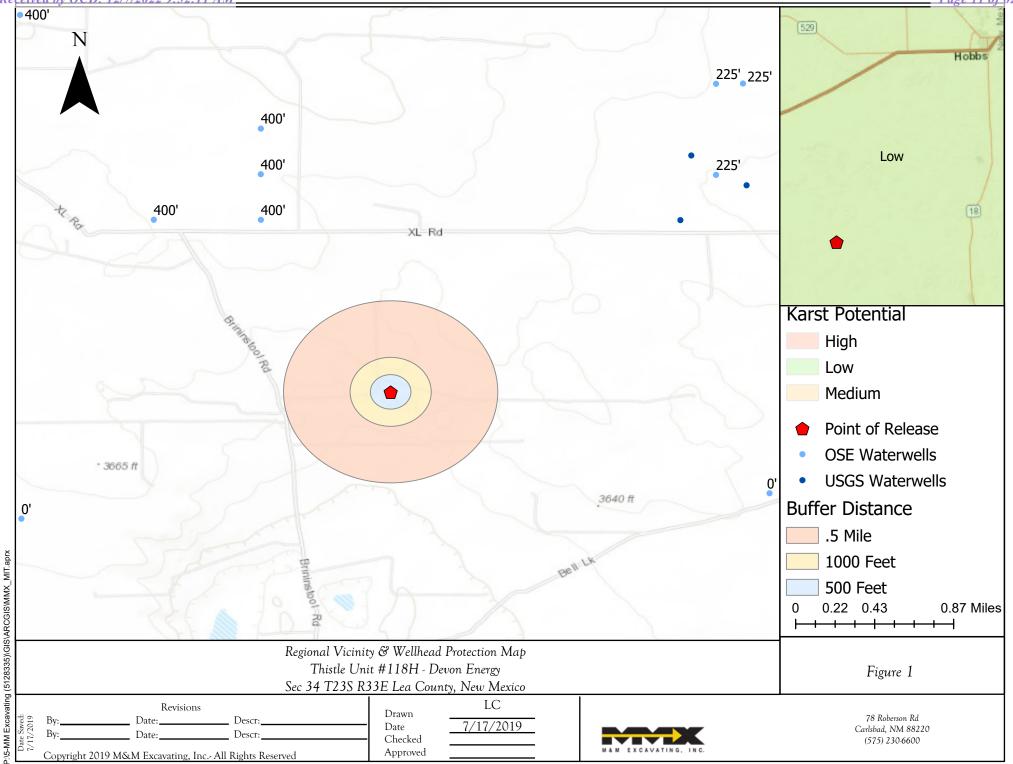


Figures

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company

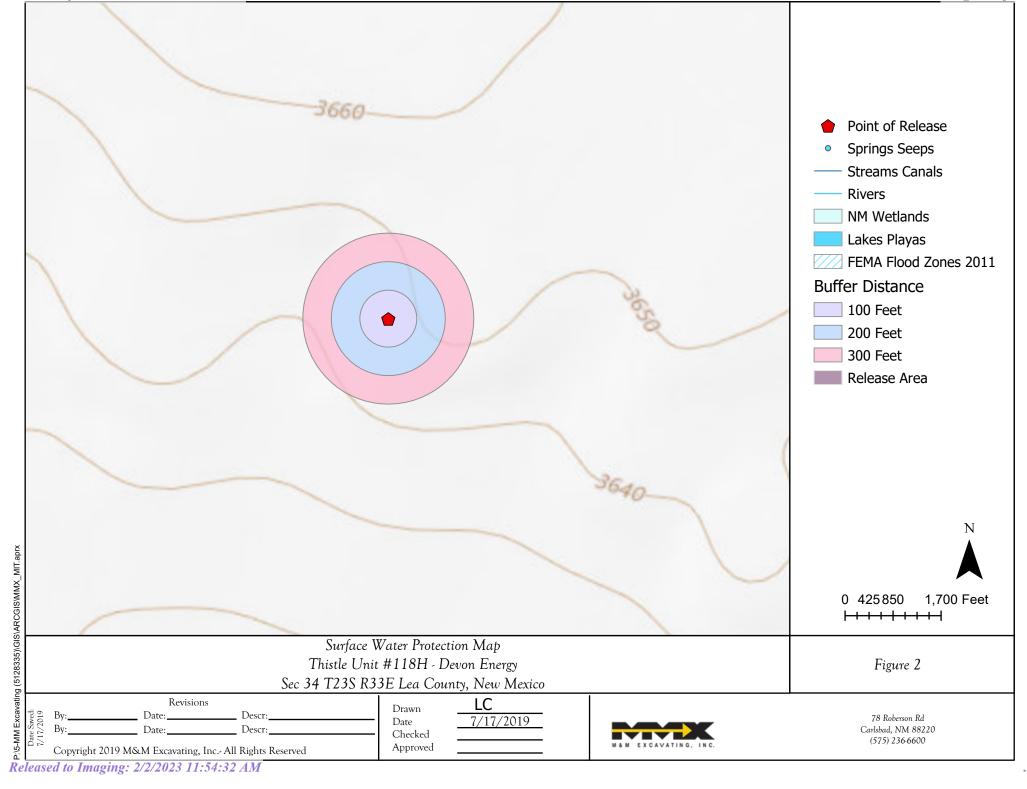
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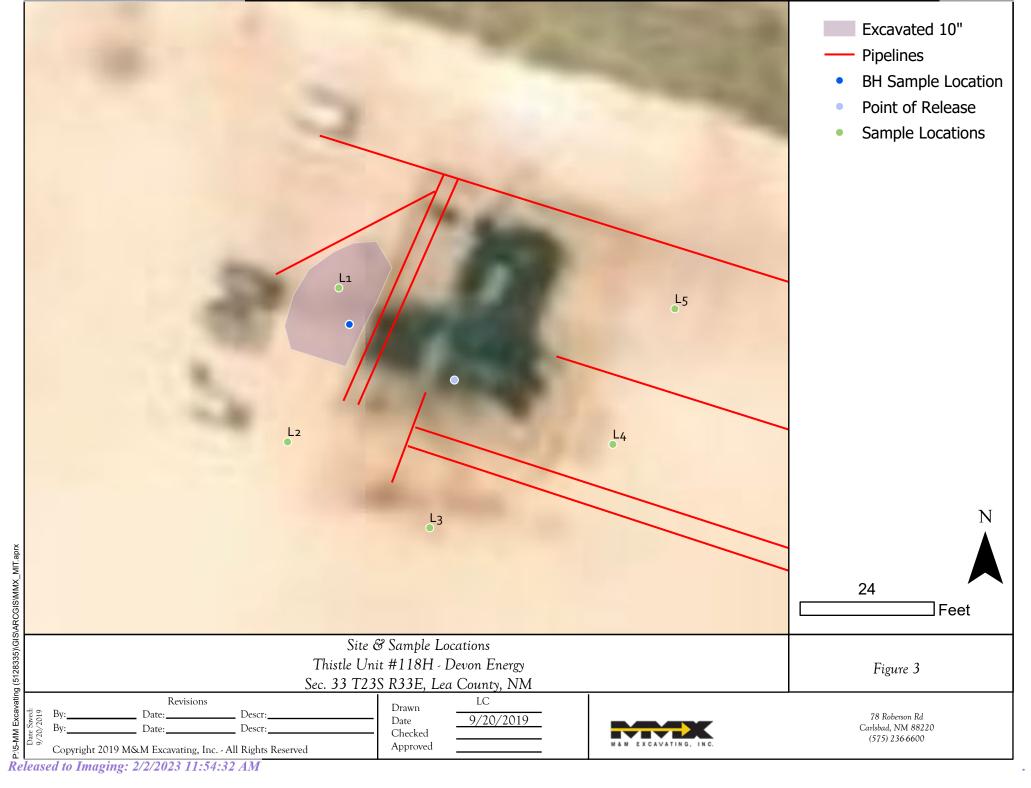


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Appendix A Form C-141

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company

State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

	OPERATOR	Initial Report	Final Report
Name of Company Devon Energy Production Company	Contact Merle Lewis, Productio	n Foreman	
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-748-3371		
Facility Name Thistle Unit 118H	Facility Type		

Surface Owner StateMineral Owner StateAPI No. 30-025-43451
--

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Ν	34	23S	33E	621'	FSL	2199'	FWL	Lea

Latitude_32.2556006_ Longitude_103.5616293_ NAD83

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered	
Fire	0	0	
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery	
Compressor	August 10, 2018 @ 5:00 AM	August 10, 2018 @ 5:00 AM	
Was Immediate Notice Given?	If YES, To Whom?	-	
Yes No Not Required	Olivia Yu, OCD		
	Chistina Hernandez, BLM		
By Whom?	Date and Hour		
Brett Fulks, EHS Representative	August 11, 2018 @ 1:29 PM		
Was a Watercourse Reached?	If YES, Volume Impacting the Wate	ercourse	
\square Yes \square No	N/A	loouise.	
— —			
If a Watercourse was Impacted, Describe Fully.*	RECEIVED		
N/A			
	Bv CHernandez a	nt 9:19 am, Aug 27, 2018	
Describe Cause of Problem and Remedial Action Taken.*		, , , , , , , , , , , , , , , , , , , ,	
Lease Operator arrived on location and discovered a 2' flame coming from	n the top of the compressor on the blow	vdown line.	
	1 1		
Describe Area Affected and Cleanup Action Taken.*			
The flame went out on its own and no release was associated with the fire			
The funite went out on its own and no release was associated with the fire	•		
I hereby certify that the information given above is true and complete to the	he best of my knowledge and understa	ad that pursuant to NMOCD rules and	
regulations all operators are required to report and/or file certain release n			
public health or the environment. The acceptance of a C-141 report by the			
should their operations have failed to adequately investigate and remediat			
or the environment. In addition, NMOCD acceptance of a C-141 report d			
federal, state, or local laws and/or regulations.	des not reneve the operator of responsi	binty for compliance with any other	
rederal, state, or local laws and/or regulations.			
	<u>OIL CONSERV</u>	ATION DIVISION	
Signature: Sheíla Físher		X)]]	
	Approved by Environmental Specialist		
Printed Name: Sheila Fisher			
	9/27/2019		
Title: Field Admin Support	Approval Date: 8/27/2018	Expiration Date:	
		•	
E-mail Address: Sheila.Fisher@dvn.com	Conditions of Approval:		
	NMAC 19.15.29 effective Aug	Attached	
Attach Additional Shoots If Nacassany	2018. Complete release		
Attach Additional Sneets If Necessary 1RP-5176	characterization before any s	ignificant nCH1823935024	
	remediation. Dated photo		
	documentation of the fire site	DCU1022020700	
	uocumentation of the fire site	. pCH1823939786	

Devon - Internal

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

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

)

Incident ID	
District RP	1RP-5176
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Devon Energy	OGRID: 6137
Contact Name: Amanda Davis	Contact Telephone: 575-748-0176
Contact email: Amanda.davis@dvn.com	Incident # (assigned by OCD)
Contact mailing address: 6488 Seven Rivers Highway Artesia NM 88210	

Location of Release Source

Latitude <u>32.2556006</u>

Longitude <u>-103.5616293</u> (NAD 83 in decimal degrees to 5 decimal places)

Site Name: Thistle Unit #118H	Site Type: Oil Well
Date Release Discovered: 8/10/2018	API# (if applicable) 30-025-43451

Unit Letter	Section	Township	Range	County
Ν	34	23S	33E	Lea

Surface Owner: State Federal Tribal Private (Name:

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

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

Cause of Release

Fire. Lease operator arrived on location and discovered a 2' flame coming from the top of the compressor on the blowdown line

Page 2

e 2	Oil Conservation Division	District RP 1RP-5176		
		Facility ID		
		Application ID		
				_
Was this a major	If YES, for what reason(s) does the responsible party c	onsider this a major release?		
release as defined by				
19.15.29.7(A) NMAC?				
🛛 Yes 🗌 No	Fire			
res [] No				

Incident ID

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes. To Olivia Yu (District 2) & BLM by Brett Faulks 8/11/2018 via email

Initial Response

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

 \boxtimes The source of the release has been stopped.

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

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

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

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

No recoverable liquids/materials

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

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

Printed Name:	Title:
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:

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Oil Conservation Division

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Incident ID	nCH1823935024
District RP	1RP-5176
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-1</u> 00 (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🛛 No

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

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

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

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

Form C-141	by OCD: 12/7/2022 9:52:11 AM State of New Mexico			Incident ID	Page 19 o nCH1823935024
age 4	Oil Conservation Division	onservation Division		District RP	1RP-5176
				Facility ID	1KF-31/0
				Application ID	
regulations all operators are r public health or the environm failed to adequately investiga	mation given above is true and complete to the required to report and/or file certain release no nent. The acceptance of a C-141 report by the ate and remediate contamination that pose a the c a C-141 report does not relieve the operator of	tifications a OCD does n reat to grour	nd perform co not relieve the ndwater, surface	rrective actions for rele operator of liability sho ce water, human health	ases which may endanger ould their operations have or the environment. In
Printed Name: <u>Dale Woo</u> Signature: <u>Dala Wo</u> email: <u>dale.woodall@dvr</u> OCD Only	odall	Date:	Env. Profess: 1 <u>2/7/2022</u> ne: <u>575-748</u>	_	

Oil Conservation Division

Incident ID	nCH1823935024
District RP	1RP-5176
Facility ID	
Application ID	

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Closure

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

<u>Closure Report Attachment Checklist</u> : Each of the following i	items must be included in the closure report.
\square A scaled site and sampling diagram as described in 19.15.29.1	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	C 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 certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and ren human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in DCD when reclamation and re-vegetation are complete.
Signature: Dals Woodall	
email:dale.woodall@dvn.com	Telephone:575-748-1838
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

Appendix B Water Well Data with 12-7-2022 addendum

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company

ADDENDUM

Location name: Thistle Unit #118H OCD Spill Number: NCH1823935024 From: Dale Woodall, Devon Energy Date: 12/7/2022

Since this report for the above referenced spill(s) was written, there has been an update in the status of the PODs for the location.

A review of New Mexico Office of the State Engineers (OSE) online water well database (New Mexico Office of the State Engineer (NMOSE) online water well database <u>https://gis.ose.state.nm.us/gisapps/ose_pod_locations/</u>).

One pod location is within $\frac{1}{2}$ mile radius and less than 25 years old.

C-4595 POD 1 (installed in 2022) did not encounter groundwater and is within 0.5 miles of the location

The spill was remediated to criteria for DTW of 51-100 feet bgs.

Boring log of the well C-4595 POD1 is attached.

A map denoting the location of pod C4595 and Thistle Unit 118H is attached.



New Mexico Office of the State Engineer Point of Diversion Summary

						E 3=SV largest	V 4=SE) :)	(NAD83 U	TM in meters)	
Well Tag POI	Number	Q64	Q16	Q4	Sec	Tws	Rng	х	Y	
NA C 0	4595 POD1	4	3	3	34	23S	33E	635150	3569564)
Driller License:	1249	Driller	Con	ıpan	y:	AT	KINS E	NGINEERII	NG ASSOC. I	INC.
Driller Name:	JACKIE ATKINS									
Drill Start Date:	03/09/2022	Drill F	inish	Dat	e:	0	3/09/20	22 Ph	ig Date:	03/31/2022
Log File Date:	04/04/2022	PCWI	Rcv I)ate:				So	urce:	
Pump Type:		Pipe D	ischa	rge	Size:			Es	timated Yiel	d:
Casing Size:		Depth	xx				5 feet	р.	pth Water:	

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

12/7/22 7:31 AM

POINT OF DIVERSION SUMMARY





WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

ION	OSE POD NO POD 1 (TV		D.)		WELL TAG ID NO.			OSE FILE NO(C-4595	S) .					
OCATI	WELL OWN Devon Ene)					PHONE (OPTI 575-748-18						
GENERAL AND WELL LOCATION	WELL OWN 6488 7 Riv							CITY STATE ZIP Artesia NM 88210					ZIP	
CAND.	WELL LOCATIO	N	DE	GREES 32	MINUTES 15	SECON 16.		* ACCURACY REQUIRED: ONE TENTH OF A SECOND						
NERA	(FROM GP	PS)	NGITUDE	103	33	54.9		* DATUM REG	QUIRED: WG	5 84				
1. GE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHJIP, RANGE) WHERE AVAILABLE SE SW SW Sec. 34 T23S R33E													
	LICENSE NO		NAME OF LICENSED		lackie D. Atkins				NAME OF			COMPANY Associates, In		
	DRILLING S		DRILLING ENDED		MPLETED WELL (FT	0	BORE HO	LE DEPTH (FT)				UNTERED (FT)		
	03/09/	2022	03/09/2022		orary well casing			±55			n/a			
NC	COMPLETE	D WELL IS:	ARTESIAN	✓ DRY HOL	LE SHALLO		WATER LEV		у	DATE STATIC I 03/9/22,3				
ATIC	ORILLING FLUID: AIR MUD ADDITIVES - SPECIFY: DRILLING METHOD: ROTARY HAMMER CABLE TOOL OTHER - SPECIFY: Hollow Stem Auger CHECK HERE IF PITLESS ADAPTER IS													
ORM	DRILLING M		ROTARY HAM	MER 🗌 CABI	LE TOOL 🔽 OTHI	ER – SPEC	IFY: H	Iollow Stem	Auger	INSTAL	LED	PITLESS ADAP		
INF		(feet bgl)	BORE HOLE	CASING	MATERIAL AND GRADE	O/OR		ASING	CASI			ING WALL	SLOT	
2. DRILLING & CASING INFORMATION	FROM	то	DIAM (inches)	(include on note a	each casing string, sections of screen)	and	Т	NECTION TYPE ling diameter)	INSIDE (inch			ICKNESS (inches)	SIZE (inches)	
& CA	0	55	±6.5		Boring		(aud coup)							
ING										_				
RILL														
2. D]														
1														
1 - S.														
1.1									· · · · ·					
	DEPTU	(feet bgl)					TEDIAL				T			
IAL	FROM	(leet bgl) TO	BORE HOLE DIAM. (inches)		ST ANNULAR SE VEL PACK SIZE-					OUNT bic feet)		METHO PLACEM		
3. ANNULAR MATERIAL														
MA														
AR														
INN									050	<u>DII AP</u>	R42	1022 pm210	in t	
3. AL												n ne hann danse i danse dan	nd.	
FOR	OSE INTER	NAL USE	1					WR-2	0 WELL PI	ECORD	LOG	(Version 01/2	8/2022)	
	ENO. C	-45	95		POD NO			TRN		1101	71			

0

2

2

WELL TAG ID NO.

LOCATION

PAGE 1 OF 2

.

	DEPTH (: FROM	feet bgl) TO	THICKNESS (feet)	INCLUDE WAT	ND TYPE OF M ER-BEARING (pplemental shee	CAVITIES O	R FRAC	TURE ZONE	s	WAT BEAR (YES	ING?	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	0	4	4	Caliche, w	Y	√ N						
	4	24	20		, medium/ fine gr		Y	√ N				
-	24	29	5		um/ fine grained,		Y	√ N				
	29	55	26	Sand, medium/ f	ine grained, poor	ly graded, w	ith clay F	eddish Brown	n	Y	√ N	
L GL										Y	N	
Ľ										Y	N	
4. HYDROGEOLOGIC LOG OF WELL										Y	N	
OF V										Y	N	
og										Y	N	
ICL										Y	N	
OG										Y	N	
EOI										Y	N	
ROG										Y	N	
										Y	N	
4. F										Y	N	
										N		
1421	Y N											
										Y	N	
1	Y N									m		
										Y	N	
2 - I										Y	N	
1	METHOD U	ISED TO ES	TIMATE YIELD	OF WATER-BEARIN	IG STRATA:				TOTA	L ESTIN	ATED	
	PUM		IR LIFT	BAILER O	THER – SPECIF	Y:			WELI	L YIELD	(gpm):	0.00
NO	WELL TES	T TEST STAR	RESULTS - ATT T TIME, END TI	ACH A COPY OF DA ME, AND A TABLE S	TA COLLECTE HOWING DISC	D DURING HARGE AN	WELL T	ESTING, ING VDOWN OVI	CLUDIN ER THE	G DISC TESTIN	HARGE I	METHOD,)D.
5. TEST; RIG SUPERVISION	MISCELLA	NEOUS INF		emporary well mater clow ground surface(n total d	epth to ten feet
TEST	PRINT NAM	Æ(S) OF D	RILL RIG SUPER	RVISOR(S) THAT PRO	OVIDED ONSIT	E SUPERVI	SION OF	WELL CON	STRUC	TION O	THER TH	IAN LICENSEE:
5.1			elo Trevino, Can									
TURE	CORRECT I	RECORD O	F THE ABOVE I	FIES THAT, TO THE 1 DESCRIBED HOLE A1 30 DAYS AFTER COM	ND THAT HE O	R SHE WIL	L FILE 7	THIS WELL I	RECORI	O WITH	THE ST.	IS A TRUE AND ATE ENGINEER 2 PM2:05
6. SIGNATURE	Jack Ar	kins		Ja	ackie D. Atkins						/2022	
°		SIGNAT	URE OF DRILLE	ER / PRINT SIGNEE	NAME		_				DATE	
FOF	R OSE INTER	NAL USE						WR-20 WE	LL REC	ORD &		rsion 01/28/2022)
		459	5		POD NO.	1		TRN NO.	T	191	71	
LOC	CATION	135	.33F.	34 4	3		WELL	TAG ID NO.				PAGE 2 OF 2
		-			the second se							

•

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD replaced, O=orphar C=the file closed)	ned,	I		· •				V 2=NE est to lar	3=SW 4=S gest) (N	E) JAD83 UTM in m	ueters)	(In f	reet)	
		POD Sub-		0	Q	0									
POD Number	Code		County	-	-	_		Tws	Rng	X	Y	DistanceDe	othWellDep		Vater olumr
<u>C 02281</u>		CUB	LE	3	4	4	28	23S	33E	634495	3571183* 🌍	1806	545	400	14:
<u>C 02280</u>		CUB	LE	3	2	4	28	238	33E	634489	3571586* 🌍	2157	650	400	25
<u>C 02279</u>		CUB	LE	3	4	3	28	238	33E	633691	3571173* 🌍	2341	650	400	25
<u>C 02308</u>		CUB	LE	1	3	1	10	24S	33E	634953	3567364* 🌍	2372	40	20	2
<u>C 02278</u>		CUB	LE	3	4	2	28	238	33E	634484	3571989* 🌍	2523	650	400	25
<u>C 03591 POD1</u>		CUB	LE	2	1	4	05	24S	33E	632731	3568518 🌍	2991			
											Averag	ge Depth to Wat	ier:	324 fee	et
												Minimum De	epth:	20 fee	et
												Maximum De	pth:	400 fee	:t
Record Count: 6															
UTMNAD83 Radius	s Search (in	meters)	<u>:</u>												
Easting (X): 635	5490		North	ning	g (Y):	3569	9675			Radius: 3000				
*UTM location was derived	from PLSS -	see Help													



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site_no list =

• 321611103321601

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321611103321601 23S.33E.26.42100

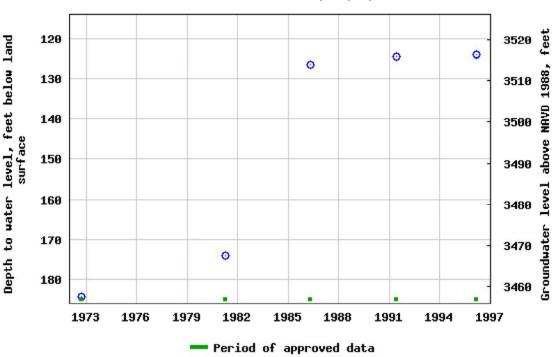
Available data for this siteGroundwater: Field measurementsGOLea County, New MexicoHydrologic Unit Code 13070007Latitude 32°16'28.0", Longitude 103°32'15.6" NAD83Land-surface elevation 3,641 feet above NAVD88The depth of the well is 190 feet below land surface.This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data Tab-separated data

Graph of data

Reselect period



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Breaks in the plot represent a gap of at least one year between field measurements.

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AccessibilityPlug-InsFOIAPrivacyPolicies and NoticesU.S. Department of the InteriorU.S. Geological SurveyTitle:Groundwater for USA:Water LevelsURL:https://nwis.waterdata.usgs.gov/nwis/gwlevels?



Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2019-07-17 19:00:46 EDT 1.25 1.09 nadww01



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National Water Information System: Web Interface

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site_no list =

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Minimum number of levels = 1

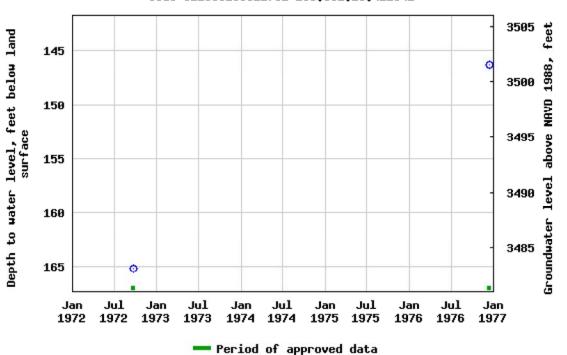
Save file of selected sites to local disk for future upload

USGS 321609103321701 23S.33E.26.421342

Available data for this site Groundwater: Field measurements GO Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°16'09", Longitude 103°32'17" NAD27 Land-surface elevation 3,648 feet above NAVD88 The depth of the well is 173 feet below land surface. This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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



USGS 321609103321701 235,33E,26,421342

Breaks in the plot represent a gap of at least one year between field measurements.

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AccessibilityPlug-InsFOIAPrivacyPolicies and NoticesU.S. Department of the InteriorU.S. Geological SurveyTitle:Groundwater for USA:Water LevelsURL:https://nwis.waterdata.usgs.gov/nwis/gwlevels?



Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2019-07-17 18:59:27 EDT 1.04 0.91 nadww01

Appendix C Laboratory Analytical Reports

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company



September 05, 2019

MELODIE SANJARI

MMX

2737 PECOS HWY

CARLSBAD, NM 88220

RE: 118 H - COMP

Enclosed are the results of analyses for samples received by the laboratory on 08/26/19 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager

Analytical Results For:

MMX 2737 PECOS HWY CARLSBAD NM, 88220	Project: 118 H - COMP Project Number: NONE GIVEN Project Manager: MELODIE SANJA Fax To: (575) 236-6201		
---	---	--	--

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L 1 - SURFACE	H902927-01	Soil	22-Aug-19 06:00	26-Aug-19 11:15
L 1 - 0.5'	H902927-02	Soil	22-Aug-19 06:10	26-Aug-19 11:15
L 2 - SURFACE	H902927-03	Soil	22-Aug-19 07:00	26-Aug-19 11:15
L 2 - 0.5'	H902927-04	Soil	22-Aug-19 07:10	26-Aug-19 11:15
L 3 - SURFACE	H902927-05	Soil	22-Aug-19 08:00	26-Aug-19 11:15
L 3 - 0.5'	H902927-06	Soil	22-Aug-19 08:10	26-Aug-19 11:15
L 4 - SURFACE	H902927-07	Soil	22-Aug-19 09:00	26-Aug-19 11:15
L 4 - 0.5'	H902927-08	Soil	22-Aug-19 09:10	26-Aug-19 11:15
L 5 - SURFACE	H902927-09	Soil	22-Aug-19 10:00	26-Aug-19 11:15
L 5 - 0.5'	H902927-10	Soil	22-Aug-19 10:10	26-Aug-19 11:15

09/04/19 - Client added TPH to sampe -02.

09/05/19 - This is the revised report and will replace the one sent on 08/29/19.

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

MMX 2737 PECOS HWY CARLSBAD NM, 88220	Project: 118 H - COMP Reported Project Number: NONE GIVEN 05-Sep-19 Project Manager: MELODIE SANJARI Fax To: (575) 236-6201									05
				SURFA()27-01 (Se						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds			16.0			0002010	<u>cu</u>	20.4 10	4500 CL D	
Chloride	32.0		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	
Volatile Organic Compounds	by EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Toluene*	0.083		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Ethylbenzene*	0.227		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total Xylenes*	1.14		0.150	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total BTEX	1.45		0.300	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			89.7 %	73.3-129		9082803	BF	28-Aug-19	8021B	
Petroleum Hydrocarbons by (GC FID									
GRO C6-C10*	20.9		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
DRO >C10-C28*	701		10.0	mg/kg	1	9082706	СК	28-Aug-19	8015B	
EXT DRO >C28-C36	2560		10.0	mg/kg	1	9082706	СК	28-Aug-19	8015B	
Surrogate: 1-Chlorooctane			104 %	41-142		9082706	СК	28-Aug-19	8015B	
Surrogate: 1-Chlorooctadecane			118 %	37.6-147		9082706	СК	28-Aug-19	8015B	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

MMX 2737 PECOS HWY CARLSBAD NM, 88220		Project: 118 H - COMP Project Number: NONE GIVEN Project Manager: MELODIE SANJARI Fax To: (575) 236-6201					Reported: 05-Sep-19 09:05			
				1 - 0.5' 927-02 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	48.0		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	
Petroleum Hydrocarbons by G	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9090401	MS	04-Sep-19	8015B	
DRO >C10-C28*	29.4		10.0	mg/kg	1	9090401	MS	04-Sep-19	8015B	
EXT DRO >C28-C36	318		10.0	mg/kg	1	9090401	MS	04-Sep-19	8015B	
Surrogate: 1-Chlorooctane			73.8 %	41-	142	9090401	MS	04-Sep-19	8015B	
Surrogate: 1-Chlorooctadecane		76.9 %	37.6-147		9090401	MS	04-Sep-19	8015B		

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Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Num Project Mana	ber: NON ger: MEL	-			0	Reported: 5-Sep-19 09:	05
				SURFA(927-03 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
<u>Inorganic Compounds</u> Chloride	96.0		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	
Volatile Organic Compounds b	oy EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)	1		87.1 %	73.3	-129	9082803	BF	28-Aug-19	8021B	
Petroleum Hydrocarbons by G	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
EXT DRO >C28-C36	21.7		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
Surrogate: 1-Chlorooctane			103 %	41-	142	9082706	CK	28-Aug-19	8015B	
Surrogate: 1-Chlorooctadecane			116 %	37.6	-147	9082706	СК	28-Aug-19	8015B	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Numb Project Manag	er: N er: M				C	Reported: 5-Sep-19 09:	05
			L : H9029	2 - 0.5 27-04						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardinal	Labo	ratories					
Inorganic Compounds										
Chloride	96.0		16.0	mg/kg	; 4	9082818	СК	28-Aug-19	4500-Cl-B	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Num Project Mana Fax	ber: NON ger: MEL To: (57!	ODIE SAN 5) 236-620			0	Reported: 5-Sep-19 09:	05
				SURFA(927-05 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
<u>Inorganic Compounds</u> Chloride	3840		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	
Volatile Organic Compounds b	y EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			87.9 %	73.3	-129	9082803	BF	28-Aug-19	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9082706	СК	28-Aug-19	8015B	
Surrogate: 1-Chlorooctane			102 %	41-	142	9082706	СК	28-Aug-19	8015B	
Surrogate: 1-Chlorooctadecane			116 %	37.6	-147	9082706	СК	28-Aug-19	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Num Project Mana	iber: N iger: M	.18 H - COMP IONE GIVEN 1ELODIE SAN: 575) 236-620			0	Reported: 05-Sep-19 09:	05
				3 - 0.5 927-06						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labo	ratories					
Inorganic Compounds										
Chloride	8930		16.0	mg/kg	g 4	9082818	CK	28-Aug-19	4500-Cl-B	

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Num Project Mana Fax	ber: NOI ger: MEL To: (57!	ODIE SAN 5) 236-620			0	Reported: 5-Sep-19 09:	05
				SURFA()27-07 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
<u>Inorganic Compounds</u> Chloride	128		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	
Volatile Organic Compounds b	y EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	9082803	BF	28-Aug-19	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			89.6 %	73.3	-129	9082803	BF	28-Aug-19	8021B	
Petroleum Hydrocarbons by G	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B	
Surrogate: 1-Chlorooctane			92.9 %	41-	142	9082706	CK	28-Aug-19	8015B	
Surrogate: 1-Chlorooctadecane			104 %	37.6	-147	9082706	СК	28-Aug-19	8015B	

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Numl Project Manag	per: N ger: M				0	Reported: 5-Sep-19 09:	05
			L H9029	4 - 0.5 27-08 (
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardinal	Labo	ratories					
Inorganic Compounds										
Chloride	96.0		16.0	mg/kg	4	9082818	CK	28-Aug-19	4500-Cl-B	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220		Project: 118 H - COMP Reported: Project Number: NONE GIVEN 05-Sep-19 09:05 Project Manager: MELODIE SANJARI Fax To: (575) 236-6201 L 5 - SURFACE											
				SURFA(927-09 (So									
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
			Cardina	l Laborat	ories								
Inorganic Compounds Chloride	32.0		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B				
Volatile Organic Compounds	by EPA Method 8	8021											
Benzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B				
Toluene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B				
Ethylbenzene*	< 0.050		0.050	mg/kg	50	9082803	BF	28-Aug-19	8021B				
Total Xylenes*	< 0.150		0.150	mg/kg	50	9082803	BF	28-Aug-19	8021B				
Total BTEX	< 0.300		0.300	mg/kg	50	9082803	BF	28-Aug-19	8021B				
Surrogate: 4-Bromofluorobenzene (PID))		89.8 %	73.3	-129	9082803	BF	28-Aug-19	8021B				
Petroleum Hydrocarbons by (GC FID												
GRO C6-C10*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B				
DRO >C10-C28*	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B				
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	9082706	CK	28-Aug-19	8015B				
Surrogate: 1-Chlorooctane			107 %	41-	142	9082706	CK	28-Aug-19	8015B				
Surrogate: 1-Chlorooctadecane			122 %	37.6	-147	9082706	СК	28-Aug-19	8015B				

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220			Project Num Project Mana	iber: N Iger: M	18 H - Comp Ione Given 1elodie San: 575) 236-620			C	Reported: 5-Sep-19 09:	05
			_	5 - 0.5 927-10 (
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labo	ratories					
Inorganic Compounds										
Chloride	32.0		16.0	mg/kg	4	9082818	СК	28-Aug-19	4500-Cl-B	

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220	Project Number: Project Manager:	118 H - COMP NONE GIVEN MELODIE SANJARI (575) 236-6201	Reported: 05-Sep-19 09:05
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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9082818 - 1:4 DI Water										
Blank (9082818-BLK1)				Prepared &	Analyzed:	28-Aug-19				
Chloride	ND	16.0	mg/kg							
LCS (9082818-BS1)				Prepared &	Analyzed:	28-Aug-19				
Chloride	400	16.0	mg/kg	400		100	80-120			
LCS Dup (9082818-BSD1)				Prepared &	Analyzed:	28-Aug-19				
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

Cardinal Laboratories

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220	Project Number: Project Manager:	118 H - COMP NONE GIVEN MELODIE SANJARI (575) 236-6201	Reported: 05-Sep-19 09:05
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Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9082803 - Volatiles										
Blank (9082803-BLK1)				Prepared &	Analyzed:	28-Aug-1	9			
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0887		mg/kg	0.100		88.7	73.3-129			
LCS (9082803-BS1)				Prepared &	Analyzed:	28-Aug-1	9			
Benzene	1.77	0.050	mg/kg	2.00		88.6	72.2-131			
Toluene	1.95	0.050	mg/kg	2.00		97.5	71.7-126			
Ethylbenzene	2.09	0.050	mg/kg	2.00		105	68.9-126			
Total Xylenes	6.27	0.150	mg/kg	6.00		104	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0889		mg/kg	0.100		88.9	73.3-129			
LCS Dup (9082803-BSD1)				Prepared &	Analyzed:	28-Aug-1	9			
Benzene	1.68	0.050	mg/kg	2.00		83.9	72.2-131	5.48	6.91	
Toluene	1.86	0.050	mg/kg	2.00		92.8	71.7-126	4.88	7.12	
Ethylbenzene	2.01	0.050	mg/kg	2.00		101	68.9-126	4.00	7.88	
Total Xylenes	6.05	0.150	mg/kg	6.00		101	71.4-125	3.52	7.46	
Surrogate: 4-Bromofluorobenzene (PID)	0.0873		mg/kg	0.100		87.3	73.3-129			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220		Project Ni Project Ma	umber: mager:	118 H - COM NONE GIVE MELODIE S/ (575) 236-6	n Anjari				Reported: Sep-19 09	9:05
	Petroleum	•	•	GC FID - (oratories	Quality C	ontrol				
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9082706 - General Prep - Organics										
Blank (9082706-BLK1)				Prepared: 2	27-Aug-19	Analyzed:	28-Aug-19			
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	53.1		mg/kg	50.0		106	41-142			
Surrogate: 1-Chlorooctadecane	59.3		mg/kg	50.0		119	37.6-147			
LCS (9082706-BS1)				Prepared: 2	27-Aug-19	Analyzed:	28-Aug-19			
GRO C6-C10	227	10.0	mg/kg	200		113	76.5-133			
DRO >C10-C28	234	10.0	mg/kg	200		117	72.9-138			
Total TPH C6-C28	461	10.0	mg/kg	400		115	78-132			
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	41-142			
Surrogate: 1-Chlorooctadecane	63.1		mg/kg	50.0		126	37.6-147			
LCS Dup (9082706-BSD1)				Prepared: 2	27-Aug-19	Analyzed:	28-Aug-19			
GRO C6-C10	227	10.0	mg/kg	200		114	76.5-133	0.151	20.6	
DRO >C10-C28	241	10.0	mg/kg	200		121	72.9-138	3.14	20.6	
Total TPH C6-C28	468	10.0	mg/kg	400		117	78-132	1.68	18	
Surrogate: 1-Chlorooctane	60.8		mg/kg	50.0		122	41-142			
Surrogate: 1-Chlorooctadecane	63.7		mg/kg	50.0		127	37.6-147			
Batch 9090401 - General Prep - Organics										
Blank (9090401-BLK1)				Prepared &	Analyzed:	04-Sep-19)			
GRO C6-C10	ND	10.0	mg/kg	-						

GRO C6-C10	ND	10.0	mg/kg			
DRO >C10-C28	ND	10.0	mg/kg			
EXT DRO >C28-C36	ND	10.0	mg/kg			
Surrogate: 1-Chlorooctane	41.4		mg/kg	50.0	82.8	41-142
Surrogate: 1-Chlorooctadecane	43.5		mg/kg	50.0	87.0	37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX 2737 PECOS HWY CARLSBAD NM, 88220	Project Number: Project Manager:	118 H - COMP NONE GIVEN MELODIE SANJARI (575) 236-6201	Reported: 05-Sep-19 09:05
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Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9090401 - General Prep - Organics										
LCS (9090401-BS1)				Prepared &	Analyzed:	04-Sep-19				
GRO C6-C10	203	10.0	mg/kg	200		101	76.5-133			
DRO >C10-C28	211	10.0	mg/kg	200		105	72.9-138			
Total TPH C6-C28	414	10.0	mg/kg	400		103	78-132			
Surrogate: 1-Chlorooctane	44.9		mg/kg	50.0		89.8	41-142			
Surrogate: 1-Chlorooctadecane	45.0		mg/kg	50.0		90.0	37.6-147			
LCS Dup (9090401-BSD1)				Prepared &	Analyzed:	04-Sep-19	1			
GRO C6-C10	199	10.0	mg/kg	200		99.3	76.5-133	2.19	20.6	
DRO >C10-C28	204	10.0	mg/kg	200		102	72.9-138	3.43	20.6	
Total TPH C6-C28	402	10.0	mg/kg	400		101	78-132	2.82	18	
Surrogate: 1-Chlorooctane	44.8		mg/kg	50.0		89.5	41-142			
Surrogate: 1-Chlorooctadecane	44.5		mg/kg	50.0		89.0	37.6-147			

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 12/7/2022 9:52:11 AM

רטר (575	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	240 76			
Company Name:	MMX ,		BILL TO	ANALYSIS REQUEST	ST
Project Manager:	merodic Sanjan	P.O.	#		_
Address:	_	Co	Company: MMX		
City:	State:	Zip: Attn:	lupec	aizsup.	
Phone #:	Fax #:	Ad	Address:		
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Project Name:	SH-Comp		State: Zip:	9/	
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Sampler Name:	Sall	Fa	Fax #:	ide	
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING	c	
Lab I.D.	Sample I.D.	RAB OR (C)OMP DNTAINERS DUNDWATER STEWATER L DGE IER :	d/base: / cool ier :	PH PH 1- PH a	
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PLEASE NOTE: Liability and Damages. Cardinal's liability and cli analyses. All claims including those for negligence and any other service. In no event shall Cardinal be liable for incidental or conse affiliates or successors arising out of or related to the head-	Cardinal's liability and client's exclusive remedy for regligence and any other cause whatsoever shall be ble for incidental or consequental damages, includir pateor to the nerformance of environe becauted by alteor to the nerformance of environe becauted by	any claim arising whether based in contract or tort, shall be limited to deterned waived unless made in writing and received by Cardinal wi guithout limitation, business interruptions, loss of use, or loss of loss of contract interruptions of the two sets and the sets of the set of the sets of the	rt, shall be limited to the amount paid by ived by Cardinal within 30 days after co if use, or loss of profits incurred by clien	aid by the client for the ter completion of the applicable client, its subsidiaries,	
Relinquished By:	Date: 8-26-1	Received By:		Phone Result: Yes No Add'I Phone #: Fax Result: Yes No Add'I Fax #:	
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+ Cardinal cann	Cardinal cannot accent verbal channes Please fax written channes to (575) 393-2326	e fax written channes to (575	51 393-2326		

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 18 of 18



September 11, 2019

MELODIE SANJARI

MMX

2737 PECOS HWY

CARLSBAD, NM 88220

RE: 118 H - COMP

Enclosed are the results of analyses for samples received by the laboratory on 09/09/19 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



MMX MELODIE SANJARI 2737 PECOS HWY CARLSBAD NM, 88220 Fax To: (575) 236-6201

Received:	09/09/2019	Sampling Date:	08/22/2019
Reported:	09/11/2019	Sampling Type:	Soil
Project Name:	118 H - COMP	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: L 3 - 3' (H903096-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	09/10/2019	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 12/7/2022 9:52:11 AM

	CHAIN-OF-CUSIOUY AND ANALYSIS REQUEST
101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476	
Company Name: MMX	BILL TO ANALYSIS REQUEST
Project Manager: Meloche Sunjari P.O. #	共
	company: MMX
City: State: Zip: Attn:	: we araseo
Phone #: Fax #: Address:	ss:
Project #: Project Owner: City:	
Project Name: 1184 Comp. State:	e: Zip:
	ŧ
MRS	#
MATRIX	PRESERV. SAMPLING
(G)RAB OR (C)O CONTAINERS GROUNDWATEF WASTEWATER SOIL SLUDGE DTHER : ACID/BASE:	
×	8/22/19 8:45
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the annicable	hall be limited to the amount paid by the client for the bandwidth of the amount paid by the client for the bandwidth of the amount paid by the client for the bandwidth of the amount paid by Cardinal within 30 days after completion of the amount paid by the client for the bandwidth of the amount paid by the client for the bandwidth of the amount paid by the client for the bandwidth of the bandw
v Cardinal, regardless of whether such claim is based up Received By:	on any of the above stated reasons or otherwise.
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Page 54 qf 62

ARDINAL boratories

Page 4 of 4



September 26, 2019

LUPE CARRASCO

MMX

2737 PECOS HWY

CARLSBAD, NM 88220

RE: THISTLE UNIT 118H

Enclosed are the results of analyses for samples received by the laboratory on 09/23/19 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



MMX LUPE CARRASCO 2737 PECOS HWY CARLSBAD NM, 88220 Fax To: (575) 236-6201

Received:	09/23/2019	Sampling Date:	09/20/2019
Reported:	09/26/2019	Sampling Type:	Soil
Project Name:	THISTLE UNIT 118H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: BH (H903261-01)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/24/2019	ND	1.87	93.4	2.00	4.41	
Toluene*	<0.050	0.050	09/24/2019	ND	1.80	90.2	2.00	2.88	
Ethylbenzene*	<0.050	0.050	09/24/2019	ND	1.78	89.1	2.00	2.93	
Total Xylenes*	<0.150	0.150	09/24/2019	ND	5.30	88.3	6.00	3.54	
Total BTEX	<0.300	0.300	09/24/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	82.0	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	09/24/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/24/2019	ND	202	101	200	0.0144	
DRO >C10-C28*	<10.0	10.0	09/24/2019	ND	199	99.6	200	10.3	
EXT DRO >C28-C36	<10.0	10.0	09/24/2019	ND					
Surrogate: 1-Chlorooctane	78.4	% 41-142	,						
Surrogate: 1-Chlorooctadecane	84.2	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



MMX LUPE CARRASCO 2737 PECOS HWY CARLSBAD NM, 88220 Fax To: (575) 236-6201

Received:	09/23/2019	Sampling Date:	09/20/2019
Reported:	09/26/2019	Sampling Type:	Soil
Project Name:	THISTLE UNIT 118H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MMX		

Sample ID: SW (H903261-02)

BTEX 8021B	mg/	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/25/2019	ND	1.87	93.4	2.00	4.41	
Toluene*	<0.050	0.050	09/25/2019	ND	1.80	90.2	2.00	2.88	
Ethylbenzene*	<0.050	0.050	09/25/2019	ND	1.78	89.1	2.00	2.93	
Total Xylenes*	<0.150	0.150	09/25/2019	ND	5.30	88.3	6.00	3.54	
Total BTEX	<0.300	0.300	09/25/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	81.3	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	09/24/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/24/2019	ND	202	101	200	0.0144	
DRO >C10-C28*	<10.0	10.0	09/24/2019	ND	199	99.6	200	10.3	
EXT DRO >C28-C36	<10.0	10.0	09/24/2019	ND					
Surrogate: 1-Chlorooctane	82.9	% 41-142	2						
Surrogate: 1-Chlorooctadecane	88.5	% 37.6-14	7						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

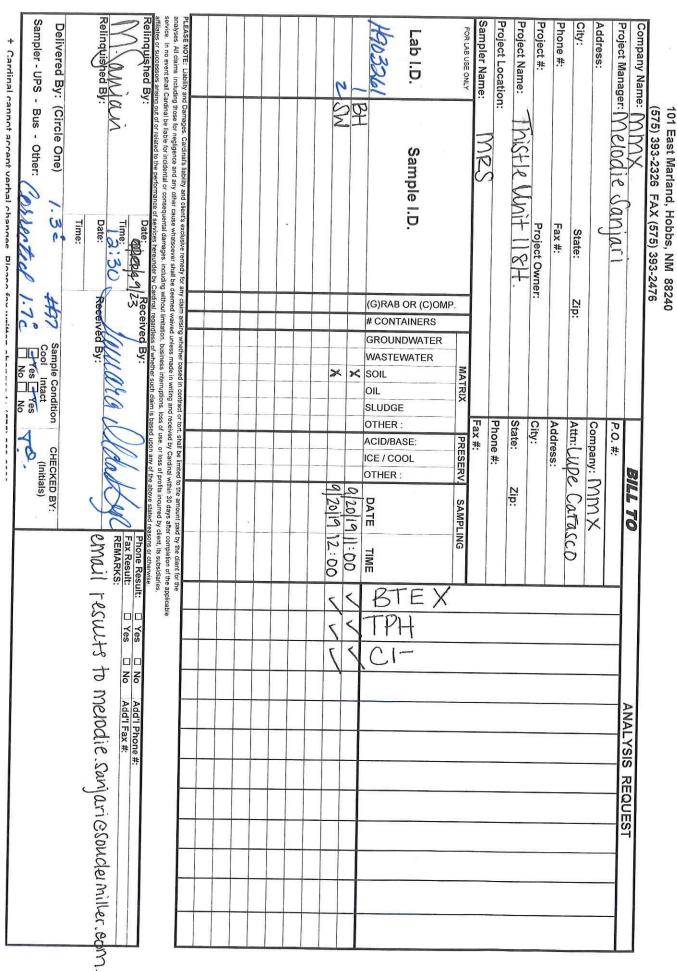
Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 12/7/2022 9:52:11 AM



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Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Appendix D Excavation Photo

Thistle Unit #118H – 1RP-5176 Devon Energy Production Company



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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 District IV

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

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

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	164781
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By		Condition Date
amaxwell	None	2/2/2023

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Action 164781