



April 23, 2020

Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM 88240

Ryan Mann
New Mexico State Land Office
1001 S. Atkinson
Roswell, NM 88230

Closure Report:

Osprey 20 State Com #001H
API#: 30-025-40968
RP#: 2RP-5253
DOR: July 29, 2019
GPS: 32.464628 -103.490332
Unit Letter G, Section 20, Township 21 South, Range 34 East
Lea County, New Mexico

To Whom It May Concern,

COG Operating, LLC (COG) is pleased to submit the following closure report in response to a release that occurred at the Osprey 20 State Com #001H. The release was located in Unit Letter G, Section 20, Township 21 South and Range 34 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.464628 North and -103.490332 West.

BACKGROUND

The release was discovered on July 29, 2019. A C-141 report was submitted to the New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO). The C-141 is presented in Appendix The release was caused by an unknown third party striking the line while doing dirt work. The release consisted of approximately twenty-five (25) barrels (bbls) of produced water.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the United States Geological Survey (USGS) the nearest water well with measurement data (322738103263701) indicates that groundwater in the project vicinity is approximately seven-hundred (700) feet below ground surface (BGS). The water well information is shown in Appendix B.

A risk based evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation, no other receptors (water wells, playas, karst, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data are summarized in Appendix B. The delineation and closure criteria are listed below:

GENERAL SITE CHARACTERIZATION AND GROUNDWATER:

Site Characterization	Average Groundwater Depth (ft.)
None Located	700 feet

DELINEATION AND CLOSURE CRITERIA:

Table I Closure Criteria	
Chlorides	20,000 mg/kg
TPH (GRO and DRO and MRO)	2,500 mg/kg
TPH (GRO and DRO)	1,000 mg/kg
Benzene	10 mg/kg
Total BTEX	50 mg/kg

Remedial Actions

- The impacted area was excavated to depths ranging from three (3) feet BGS to five (5) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from the bottom and sidewalls of the excavated areas per NMED 19.15.29.13.
- Upon receipt of acceptable analytical results from the confirmation soil sampling activities the excavation was backfilled with clean “like” material.

SITE RECLAMATION AND RESTORATION

Per NMED 19.15.29.13 reclamation of the pasture area has been performed by removing the impacted soil containing chloride concentrations greater than 600 mg/kg within the first four (4) feet BGS. Once excavated, soil samples were collected from the bottom and sidewalls of the excavation to confirm the removal of impacted soil greater than 600 mg/kg of chlorides. The backfill material was non-contaminated with concentrations below 600 mg/kg of chlorides. The surface was left in a rough condition to approximate natural surface deviations. The site will be mechanically seeded with the surface lease holders preferred seed mixture.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the New Mexico State Land Office grant closure approval for the Osprey 20 State Com #001H incident that occurred on July 29, 2019.

Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,



Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

FIGURES

Osprey 20 St. Com #001H



TABLES

**Table 1
COG Operating LLC.
Osprey 20 State Com #001H
Lea County, New Mexico**

Sample ID	Sample Depth (ft)	Sample Date	Soil Status		TPH (mg/kg)						Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	
			In-Situ	Removed	GRO	DRO	MRO	Total	GRO	DRO				Total
NMOCDD RRAL Limits (mg/kg)					-			2,500	-			10	50	20,000
BTTM-1	3	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	352
BTTM-2	3	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	576
BTTM-3	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	832
BTTM-4	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	800
BTTM-5	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	864
BTTM-6	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	2,720
BTTM-7	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	976
BTTM-8	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	3,080
BTTM-9	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	3,160
BTTM-10	3	2/21/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	2,560
SW-1	N/A	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	16.0
SW-2	N/A	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	16.0
SW-3	N/A	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	16.0
SW-4	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	<16.0
SW-5	N/A	2/21/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.300	<16.0
BTTM-3	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	16.0
BTTM-4	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	<16.0
BTTM-5	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	<16.0
BTTM-6	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	<16.0
BTTM-7	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	96.0
BTTM-8	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	96.0
BTTM-9	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	32.0
BTTM-10	5	3/2/2020	X		#	#	#	0.0	#	#	0.0	#	#	32.0

(#) Not Analyzed

APPENDIX A

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

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

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
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: <u>Sheldon Nitam</u> Date: _____ email: _____ Telephone: _____
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> 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?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> 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 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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
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Application ID	

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: Sheldon Nitan Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: Sheldon Nitan Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: *Each of the following 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 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 District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: Sheldon Hittman Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B

Legend

OSE PODs

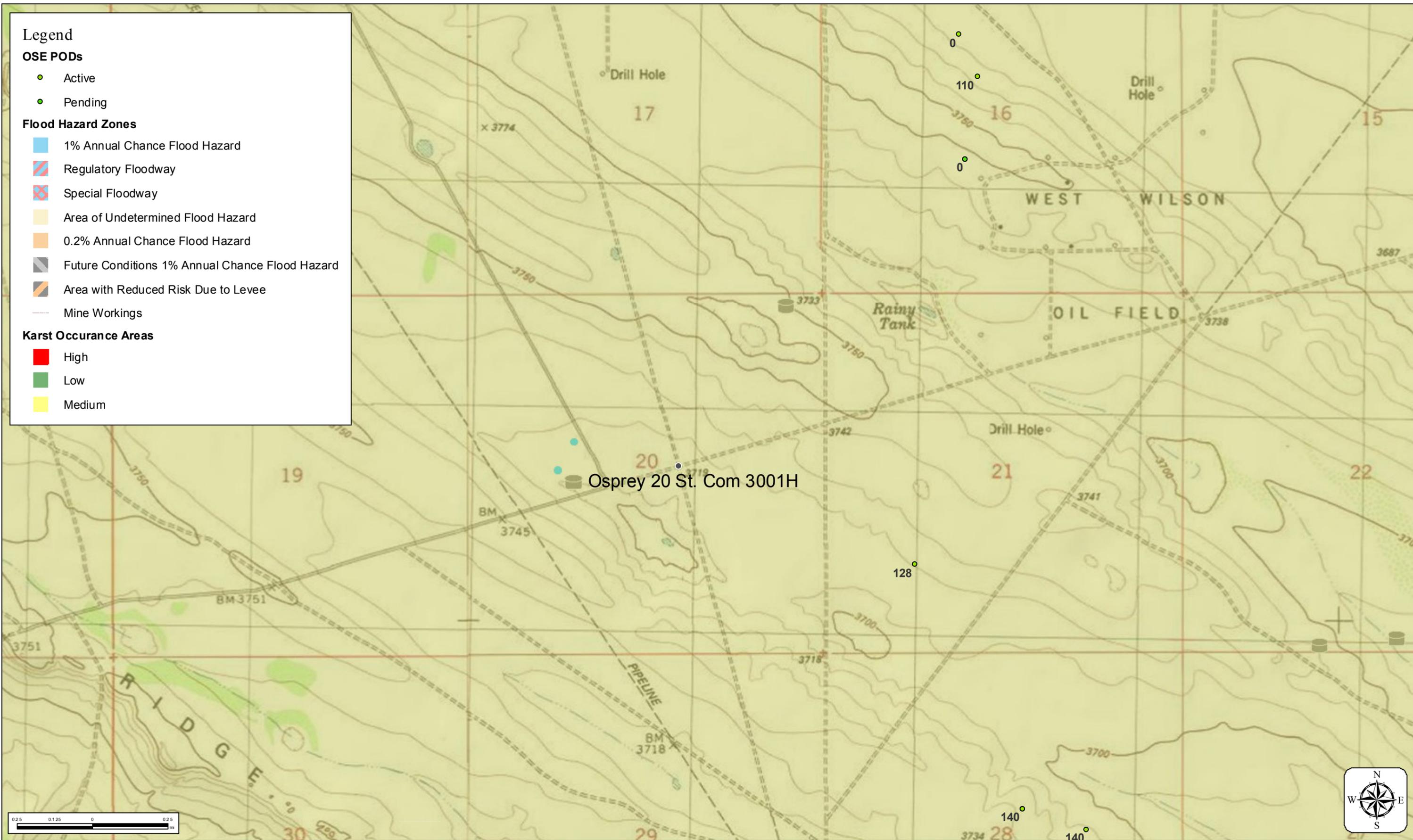
- Active
- Pending

Flood Hazard Zones

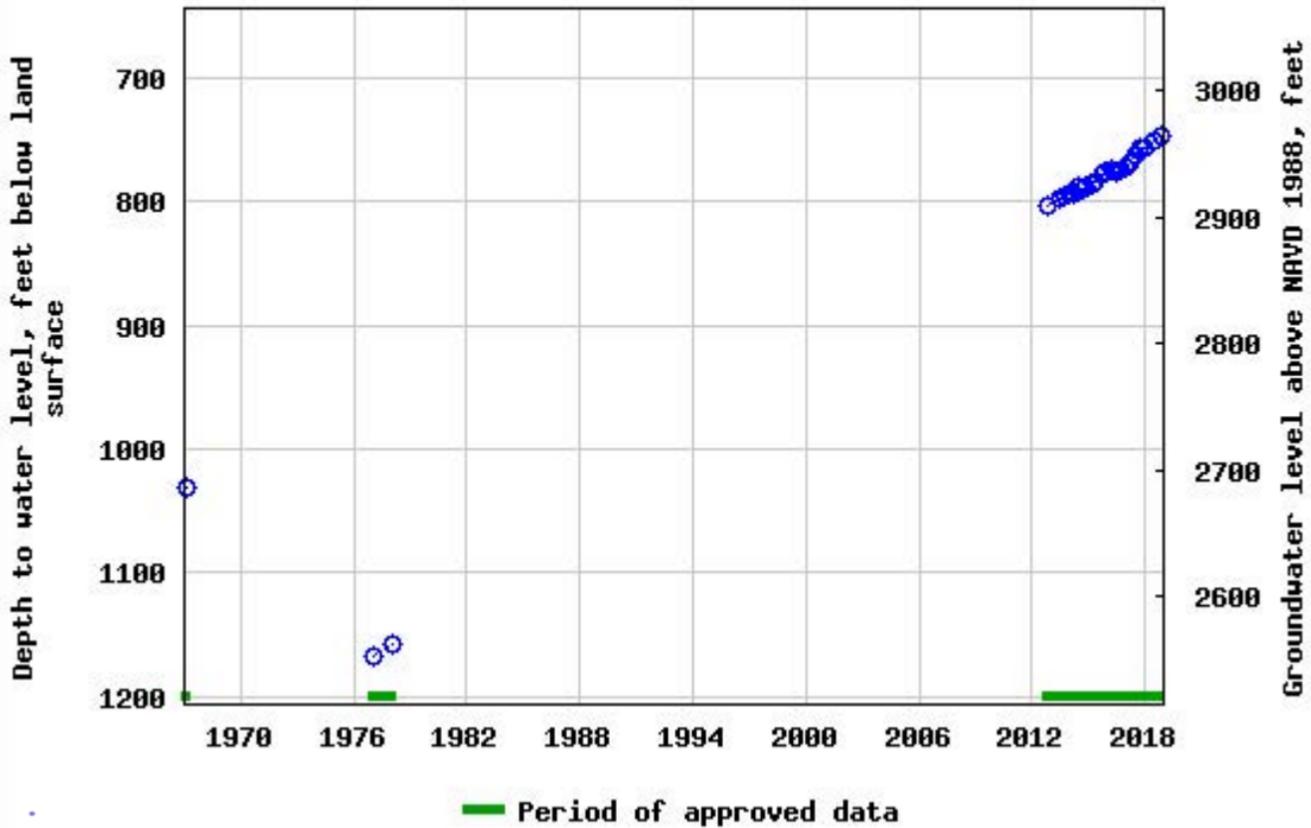
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Mine Workings

Karst Occurance Areas

- High
- Low
- Medium



USGS 322738103263701 21S.34E.23.31000



APPENDIX C



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

February 24, 2020

SHELDON HITCHCOCK
COG OPERATING
P. O. BOX 1630
ARTESIA, NM 88210

RE: OSPREY 20 ST. #3

Enclosed are the results of analyses for samples received by the laboratory on 02/21/20 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: BTM - 1 3' (H000556-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78	
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43	
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65	
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46	
Total BTEX	<0.300	0.300	02/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	02/24/2020	ND	384	96.0	400	8.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 82.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.9 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: BTTM - 2 3' (H000556-02)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78		
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43		
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65		
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46		
Total BTEX	<0.300	0.300	02/21/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 84.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.6 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BTTM - 3 3' (H000556-03)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78	
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43	
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65	
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46	
Total BTEX	<0.300	0.300	02/21/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	02/24/2020	ND	384	96.0	400	8.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 82.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BTTM - 4 3' (H000556-04)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78		
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43		
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65		
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46		
Total BTEX	<0.300	0.300	02/21/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 83.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: BTM - 5 3' (H000556-05)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78		
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43		
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65		
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46		
Total BTEX	<0.300	0.300	02/21/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 84.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BTM - 6 3' (H000556-06)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2020	ND	1.83	91.3	2.00	2.78		
Toluene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.43		
Ethylbenzene*	<0.050	0.050	02/21/2020	ND	1.79	89.7	2.00	3.65		
Total Xylenes*	<0.150	0.150	02/21/2020	ND	5.29	88.1	6.00	3.46		
Total BTEX	<0.300	0.300	02/21/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2720	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 78.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.9 % 42.2-156

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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: BTM - 7 3' (H000556-07)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2020	ND	1.83	91.3	2.00	2.78		
Toluene*	<0.050	0.050	02/22/2020	ND	1.79	89.7	2.00	3.43		
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.79	89.7	2.00	3.65		
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.29	88.1	6.00	3.46		
Total BTEX	<0.300	0.300	02/22/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	976	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	196	97.9	200	1.45		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	208	104	200	0.601		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 74.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 77.9 % 42.2-156

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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: BTM - 8 3' (H000556-08)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358		
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169		
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568		
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559		
Total BTEX	<0.300	0.300	02/22/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3080	16.0	02/24/2020	ND	384	96.0	400	8.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 80.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BTM - 9 3' (H000556-09)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358		
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169		
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568		
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559		
Total BTEX	<0.300	0.300	02/22/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3160	16.0	02/24/2020	ND	432	108	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 78.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BTTM - 10 3' (H000556-10)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358		
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169		
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568		
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559		
Total BTEX	<0.300	0.300	02/22/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	02/24/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80		
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND						

Surrogate: 1-Chlorooctane 84.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SW - 1 (H000556-11)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358	
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169	
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568	
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559	
Total BTEX	<0.300	0.300	02/22/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/24/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 85.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.8 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/21/2020	Sampling Date:	02/21/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SW - 2 (H000556-12)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358	
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169	
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568	
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559	
Total BTEX	<0.300	0.300	02/22/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/24/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 82.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.1 % 42.2-156

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 4 (H000556-13)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358	
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169	
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568	
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559	
Total BTEX	<0.300	0.300	02/22/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/24/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 84.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.4 % 42.2-156

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/21/2020
 Reported: 02/24/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/21/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 5 (H000556-14)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2020	ND	1.86	93.2	2.00	0.358	
Toluene*	<0.050	0.050	02/22/2020	ND	1.87	93.4	2.00	0.169	
Ethylbenzene*	<0.050	0.050	02/22/2020	ND	1.87	93.6	2.00	0.568	
Total Xylenes*	<0.150	0.150	02/22/2020	ND	5.43	90.5	6.00	0.559	
Total BTEX	<0.300	0.300	02/22/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/24/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 84.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.4 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- 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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



One Concho Center/600/1111 Illinois Avenue/Midland, Texas Tel (432) 683-7443

Client Name: COG-Artesia Site Manager: Sheldon Hitchcock

Project Name: OS Proj 20 St. #3

Project Location: (county, state) Leon, NM Project #:

Invoice to: Sheldon Hitchcock

Receiving Laboratory: Sheldon Hitchcock Sampler Name: Sheldon Hitchcock

Comments:

LAB # (LAB USE ONLY) H000556

SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	(C)omposite/(G)rab
	YEAR: 2019	DATE	TIME	WATER	SOIL	HCL	HNO ₃		
11 SW-1		2/21	9:00		X				1 C
12 SW-2			9:05						X
13 SW-3			9:10						X
13 SW-4			9:15						X
14 SW-5			9:20						X

ANALYSIS REQUEST (Circle or Specify Method No.)

TPH 8015M (GRO - DRO - MRO)

BTEX 8021B

Chloride

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

LAB USE ONLY

Sample Temperature: #113 TD, 0.6°C

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY



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

February 25, 2020

SHELDON HITCHCOCK
COG OPERATING
P. O. BOX 1630
ARTESIA, NM 88210

RE: OSPREY 20 ST. #3

Enclosed are the results of analyses for samples received by the laboratory on 02/24/20 10:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	02/24/2020	Sampling Date:	02/24/2020
Reported:	02/25/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: SW - 3 (H000566-01)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/24/2020	ND	1.59	79.5	2.00	24.0		
Toluene*	<0.050	0.050	02/24/2020	ND	1.58	79.0	2.00	24.4		
Ethylbenzene*	<0.050	0.050	02/24/2020	ND	1.58	79.0	2.00	23.9		
Total Xylenes*	<0.150	0.150	02/24/2020	ND	4.60	76.6	6.00	24.3		
Total BTEX	<0.300	0.300	02/24/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/24/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	193	96.6	200	1.52		
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	185	92.4	200	1.34		
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND						

Surrogate: 1-Chlorooctane 84.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.5 % 42.2-156

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

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Celest D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

March 03, 2020

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: OSPREY 20 ST. #3

Enclosed are the results of analyses for samples received by the laboratory on 03/02/20 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received:	03/02/2020	Sampling Date:	03/02/2020
Reported:	03/03/2020	Sampling Type:	Soil
Project Name:	OSPREY 20 ST. #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG - LEA CO NM		

Sample ID: B - 3 (H000667-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 4 (H000667-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 5 (H000667-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 6 (H000667-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/03/2020	ND	432	108	400	0.00	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 03/02/2020
 Reported: 03/03/2020
 Project Name: OSPREY 20 ST. #3
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 03/02/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B - 7 (H000667-05)

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	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 8 (H000667-06)

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	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 9 (H000667-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/03/2020	ND	432	108	400	0.00	

Sample ID: B - 10 (H000667-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/03/2020	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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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

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



One Concho Center/800 Illinois Avenue/Midland, Texas Tel (432) 583-7443

Client Name: COG-Artesia

Site Manager:

Sheldon Hitchcock

Project Name:

D Sprey 20 St. #3

Project Location: (county, state)

Lee, NM

Project #:

Invoice to:

Sheldon Hitchcock

Receiving Laboratory:

Central

Sampler Name:

Sheldon Hitchcock

Comments:

LAB # (LAB USE ONLY) **HOOD/67**

SAMPLE IDENTIFICATION

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	(C)omposite/(G)rab	
		YEAR: 2020	DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE
1	B-3		3/2	10:00	X			X		1	C
2	B-4			10:05							
3	B-5			10:10							
4	B-6			10:15							
5	B-7			10:20							
6	B-8			10:25							
7	B-9			10:30							
8	B-10			10:35							

Relinquished by: *[Signature]*

Received by: *[Signature]*

Date: 11/10

Relinquished by: *[Signature]*

Received by: *[Signature]*

Date: 3-2-20

Relinquished by:

Received by:

Date:

TPH 8015M (GRO - DRO - MRO)

BTEX 8021B

Chloride

ANALYSIS REQUEST (Circle or Specify Method No.)

REMARKS:

- RUSH: Same Day 24 hr 48 hr 72 hr
- Rush Charges Authorized
- Special Report Limits or TRRP Report

LAB USE ONLY
Sample Temperature
#113
0.1c

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #

Hold

APPENDIX D

NW

N

NE

330

0

30

60

☉ 15°N (T) ● 32°27'52"N, 103°29'25"W ±16ft ▲ 3716ft



21 Feb 2020, 09:36:45



☀ 60°NE (T) ● 32°27'53"N, 103°29'25"W ±16ft ▲ 3711ft



21 Feb 2020, 09:37:15

