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

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 Merrion Oil & Gas Corporation	Contact Philana Thompson
Address 610 Reilly Ave Farmington, NM 87401	Telephone No. 505-486-1171
Facility Name Hickman A 2	Facility Type Historical reclamation (well plugged 7/13/94)

Surface Owner BLM	Mineral Owner BLM	API No. 30-045-06037

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	3	26N	12W	1980	South	660	West	San Juan

Latitude 36.5154076 **Longitude** -108.1057358 NAD83

NATURE OF RELEASE

Type of Release Unknown	Volume of Release Unknown	Volume Recovered 12 yards
Source of Release Unknown	Date and Hour of Occurrence UK	Date and Hour of Discovery 3/31/16
Was Immediate Notice Given? Unknown (historical reclamation) ☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Notified Vanessa Fields 7/10/2017 of the upcoming sampling required by BLM	
By Whom? Philana Thompson	Date and Hour 7/10/2017	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historical reclamation. Well was plugged 7/13/94

Describe Area Affected and Cleanup Action Taken.*
During inspection of historical Plugged wells a small area at this location had stained soil. See attached photo & SUPO. The soil was removed and taken to the Envirotech land farm. The small area was sampled (see attached report) prior to continuing with site rehabilitation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Philana Thompson	OIL CONSERVATION DIVISION
Printed Name: Philana Thompson	Approved by Environmental Specialist: Vanessa Fields
Title: Regulatory Compliance Specialist	Approval Date: 8/31/2017 Expiration Date:
E-mail Address: pthompson@merrion.bz	Conditions of Approval: — Attached ☐
Date: 8/15/2017 Phone: 505-486-1171	

* Attach Additional Sheets If Necessary

NVF1724338605

19

RECEIVED

JUL 28 2016

Farmington Field Office
Bureau of Land Management

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
SF-080384B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Hickman A 2

2. Name of Operator
Merrion Oil & Gas Corporation

9. API Well No.
30-045-06037

3a. Address
610 Reilly Ave Farmington, NM 87401

3b. Phone No. *(include area code)*
505-486-1171

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
1980 FSL & 660 FWL S3 T26N, R12W

11. Country or Parish, State
San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☑ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

The location was inspected on 3/31/2016 please see the attached SUPO of work to be done.

AUG – 8 2016

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
Philana Thompson

Title Regulatory Compliance Specialist

Signature

Date 07/28/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
MD
7/29/16

Title AFM

Date 07/29/16

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office BLM-FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

OPERATOR

P&A Reclamation Plan

PURPOSE AND SCOPE

The purpose of this Reclamation Plan is to ensure final reclamation of the **Hickman A 2** well pad site and associated access road based on the BLM/Merrion Oil & Gas on-site inspection conducted on **3/31/16** and in accordance with Onshore Order #1 and the FFO Bare Soil Reclamation Procedures.

PROPOSED RECLAMATION PLAN

Merrion Oil & Gas Corporation will comply with the requirements in accordance with the approved Sundry Notice associated with this submittal.

- Contact BLM 48 hours prior to commencing earthwork.
- Reclamation to be completed within 1 year of plugging date. **(N/A, plugged 7/13/94)**
- Remove all underground production piping. **(Completed at the time of original reclamation)**
- Remove Power poles, rectifier and radio equipment. **(Completed at the time of original reclamation)**
- Remove all rig anchors on the location.
- Strip available topsoil from areas that will be disturbed during the reclamation of this well site.
- Remove all gravel on well pad surface. Gravel may be used as fill material at the base of the cut slope to re-establish the natural topography.
- Use fill material on the location to reconstruct natural topography. If enough fill material is available, excess material will be used to build up the access road AFTER ripping the road base to eliminate surface compaction hard pan.

Per Farmington BLM Environmental Protections Specialist, and inspection conducted on 3/31/16

- **Remove contaminated soil- sample before filling in**
- **Disc & Re- Seed**

NOTE: NO disturbance will occur outside the areas currently disturbed by the well location access road boundaries.

- After location has been re-contoured, rip, disk and seed the location with a disk type seed drill.
- Install a sign on seeded areas, i.e. Seeded Area -- Do Not Disturb.

Waste Material Handling and Disposal

All surface equipment and trash, if any, will be removed from the location and disposed of at an approved waste disposal facility.

If contaminated soil is discovered during the reclamation of this well location, Merrion Oil & Gas Corporation will follow NTL 93-1 "Guidelines for Unlined Surface Impoundments Closure" for testing requirements and allowable threshold limits.

Surface Reconstruction and Stabilization

The long term objective of final reclamation is to set the course for eventual ecosystem restoration including the restoration of natural vegetation. Merrion Oil & Gas Corporation will avoid disturbance to the mature vegetation that has become well established on the pad perimeter to the extent practicable, and will focus reclamation efforts toward de-compaction, removing sharp, angular features to more closely approximate the natural contours, re-establishing natural drainage patterns, and re-vegetating the abandoned well pad and associated access road.

Well Pad Reclamation

(Note: some steps may occur in a different sequence than listed below or may occur simultaneously as the case may be):

1. The following activities would take place before commencing with any dirt work to restore the pad surface:

- The BLM Authorized Officer will be notified at least 48 hours prior to construction;
- Pre-construction conditions will be documented and pictures taken from the four cardinal directions for future reference;
- The P&A marker will remain as is. All pertinent well information is permanently imprinted onto the marker for future reference.
- Temporary and/or permanent stormwater and erosion control BMPs will be employed at appropriate locations around the pad as dictated by local drainage patterns and expected areas of disturbance and slopes AND across the access road. BMP selection will be determined by local factors and will be a combination of sediment and erosions controls that are deemed effective and low maintenance. Straw wattles, diversion ditches, mulch, soil blankets, and/or other suitable BMPs may be used in various combinations, as appropriate, during and after construction activities;
- Remove all gravel on well pad surface. Gravel may be used at the base of the cut slope underneath the fill material to re-establish the natural topography; except for red rock.
- Use fill material to reconstruct natural topography.
- If enough fill material is available, excess material will be used to build up the access road (which is lower in depth than the natural grade due to compaction and erosion) AFTER ripping the road base to eliminate surface compaction hard pan;
- Those areas where healthy, mature, and weed-free vegetation has established along the pad perimeter will remain undisturbed to the extent possible;
- Natural drainage patterns will be restored, as practical, as near as possible to pre-disturbance conditions;
- The pad surface will be ripped by Bulldozer or Grader to reduce compaction and to establish a suitable root zone in preparation for topsoil replacement;
- Topsoil will be redistributed across the pad surface and disked to prepare the soil for seeding;
- After location has been re-contoured, rip, disk and seed the location and access road with a disk type seed drill;
- All disturbed areas will be seeded in accordance with the FFO Bare Soil Reclamation Procedures.

Access Road Reclamation

Upon completion of all well pad reclamation activities, the associated access road will be reclaimed using much the same methods as described above. The road will be ripped and scarified to reduce compaction, and any sharp or angular cuts or fills would be restored as near as possible to pre-disturbance contours. Natural drainage patterns will be restored, to the extent practical, as near as possible to pre-disturbance conditions. **NO disturbance will occur outside the areas currently disturbed by the access road boundaries.**

Established vegetation along the roadsides will remain undisturbed where possible to encourage native plant growth onto the new disturbance and to maintain erosion and sediment control. Straw wattles and/or diversion ditches will be placed at appropriate locations along the road as needed to prevent sediment transport to local drainages. Other suitable BMPs may be used in various combinations, as appropriate, during and after construction activities.

All disturbed areas will be re-seeded in accordance with BLM FFO Bare Soil Reclamation Procedures.

To discourage future use of the road, a temporary fence consisting of woven wire fence at and across the access road leading to the well site at the intersection of the main road and take off point(s) to discourage access on rehabilitated access road and will serve as a barricade to discourage access to the newly reclaimed road and will be left in place until the road & well pad have been stabilized.

A sign will be installed on the fence, i.e. "Seeded Area -- Do Not Disturb" or equivalent.

Re-establishing Surface Hydrology

Natural drainage patterns will be restored as near as possible to pre-construction conditions, except where restoring the natural drainage will cause excessive disturbance and disrupt the natural rehabilitation processes that have already established. In those areas, additional means for ensuring proper drainage, such as water bars or diversion ditches, may be employed.

Eroded areas will be filled in using fill material from the well location and Best Management Practices (BMP's) for Storm water pollution prevention such as silt traps, excelsior mats, wattles/sediment control logs and straw distributed on the surface and crimped or harrowed into the soil after drill seeding.

Given that the well pad will effectively be inaccessible following road reclamation and because the only potential pollution source will be runoff sediment; the temporary stormwater BMPs will be removed upon completion of construction activities. Drainage, sediment, and erosion controls will be managed through vegetative practices and/or biodegradable materials (i.e. soil blankets, straw wattles, crimped straw, mulch, brush and woody debris, pocking, etc..).

All drainage, sediment, and erosion controls will be implemented in accordance with Merrion Oil & Gas standard Stormwater Management Plan.

Site Preparation, Soil Management and Handling

Prior to seeding, all disturbed areas will be left with a rough surface to facilitate moisture and seed retention, and vegetative slash/brush will be placed at expected discharge areas to minimize sediment transport. The topsoil in the area is generally deep and no soil amendments are expected or proposed.

Final Reclamation Inspection/Monitoring - Environmental

Case #: Lease #: Operator: **MERRION** Present: Yes ☒ No ☐	Multi-Well Location Yes ☐ No ☒	Well Name: Well #: HICKMAN A2 API #: Well Status: Plugged Date:
Twn: Rng: Sec: Qtr: N/S Foot: E/W Foot:	County: SAN JUAN State: NM Lat: Long:	Facility ID: Facility Name: H2S: Yes ☐ No ☒
Surface Owner: Present: Yes ☐ No ☐		Inspection Activity: ES/ SA
Office Time: **.5**	Travel Time: .5	Inspection Time: .25	Trips: 1
Inspection Open Date: **3/31/2016**	Inspection Close Date: 4/11/2016	Inspector: Bullock

Inspected: Well/Facility Location ☒; Road ☐; Pipeline ☐; Power Line ☐; Other ☐

Inspection Items	**Met**	**Not Met**	**N/A**	**Order/ INC**
1. All Facilities Removed for Final Reclamation (Including cement, surface and shallow pipes, risers, markers, signs, fences, culverts, gates, cattleguards, trash, etc.)	☒	☐	☐	☐☐
2. Surfacing Material Removed from Location and Road	☒	☐	☐	☐☐
3. Free of Oil or Salt-Contaminated Soil	☒	☐	☐	☐☐
4. Compacted Areas Ripped/Disked (Locations, Roads, etc.)	☐	☒	☐	☐☐
5. All Original Disturbance Areas Recontoured Back to Original Contour	☒	☐	☐	☐☐
6. Adequate Topsoil Replaced	☐	☐	☒	☐☐
7. Seeded Drill Seeded ☐ Broadcast Seeded ☐ Other	☐	☒	☐	☐☐
8. Adequate Surface Roughness	☐	☐	☒	☐☐
9. Erosion and Runoff Controlled Methods	☒	☐	☐	☐☐
10. Mulch Type	☐	☐	☒	☐☐
11. Reclamation Fence: Follow-up needed to ensure fence removal? Yes ☐ No ☒	☐	☐	☒	☐☐
12. Dry-hole Marker: Surface Monumented ☒ Subsurface Monumented (preferred) ☐	☒	☐	☐	☐☐
13. Free of Noxious or Invasive Weeds Treatment Needed Yes ☐ No ☒ Species Present	☒	☐	☐	☐☐
14. Revegetation Success & Desired Species Density/Cover Measurement and % Species Types and % Reference Site Density/Cover Measurement and % Reference Site Species Types and % Transect Sheets Completed Yes ☐ No ☒	☐	☒	☐	☐☐
15. Overall Site Stability (Wind & Water Erosion, Subsidence, Vegetation)	☒	☐	☐	☐☐
16. Split Estate: Surface Owner Consultation/Concurrence	☐	☐	☒	
17. Other: (Describe)	☐	☐	☒	☐☐
Summary: **All Reclamation Work According to the Approved Reclamation Plan & BLM Policy and Successful**	☐	☒		

Final Reclamation Approvable - Yes ☐ No ☒

Comments, Inspection/Monitoring Results, and Additional Actions Necessary:
- **DISC AND RESEED**
- **SOIL SAMPLE - CONTAMINATION?**

Original Disturbance Acres/Well: (including location, roads, and pipelines):		Meets Final Reclamation Standards Acres/Well:	
Follow-up Requirements: Choose an item.	Correct problem by: Click here to enter a date.	Next Inspection date: Click here to enter a date.	Date AFMSS updated: Click here to enter a date.

Order/INC No.

The Privacy Act of 1974 and the regulations in 43 CFR 2.48(d) require that you be furnished the following information.
Authority: 30 U.S.C. 181 et seq.; 43 CFR 3160; Onshore Oil and Gas Order No. 1.
Principal purpose: The BLM uses this information to document and track compliance with the terms of a Federal permit and to contact permittees and affected parties.
Routine uses: (1) Document and track compliance with permit conditions. (2) Gather contact information for permittees and parties affected by the permit, for example, split estate surface owners. (3) Track monitoring data. (4) Information from the record and/or the record will be transferred to appropriate Federal, State, or local agencies when relevant to civil, criminal, or regulatory investigations or prosecutions.
Effect of not providing information: Disclosure of the information is voluntary; however, failure to provide the requested information may impede individual participation.

Final Reclamation ES – Photo Log	
PHOTO NUMBER	PHOTO INFORMATION
1.	DHM
2.	DHM
3.	DHM
4.	DHM
5.	CONTAMINATION
6.	CONTAMINATION
7.	CONTAMINATION
8.	VEGETATION

Photo 1

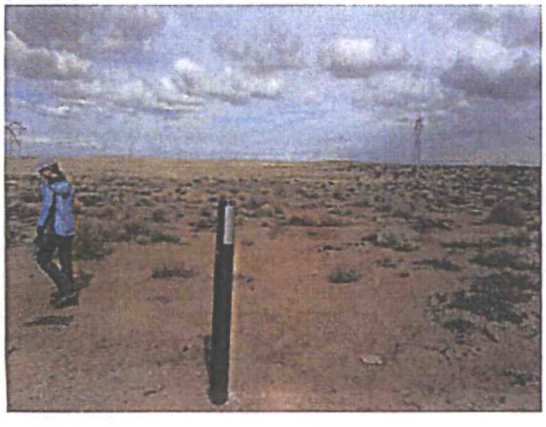


Photo 2

Photo 3

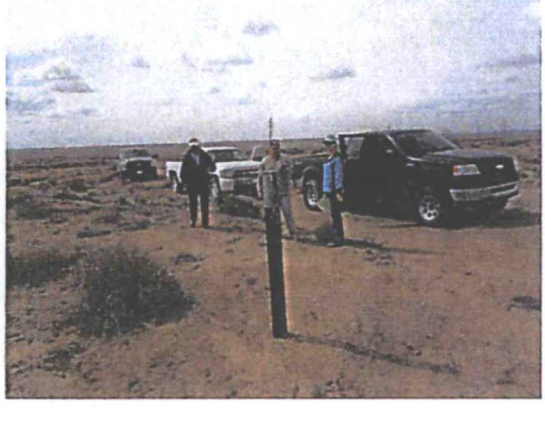


Photo 4

Photo 5

Photo 6

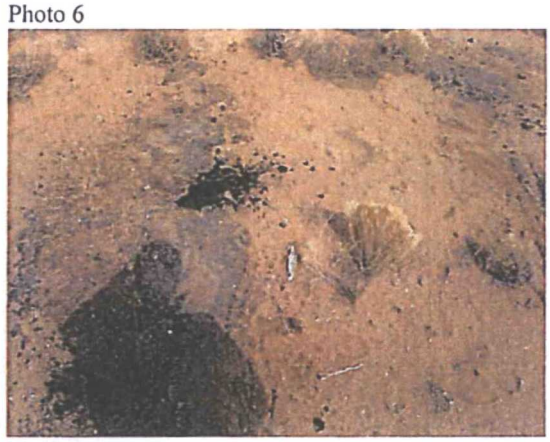


Photo 7

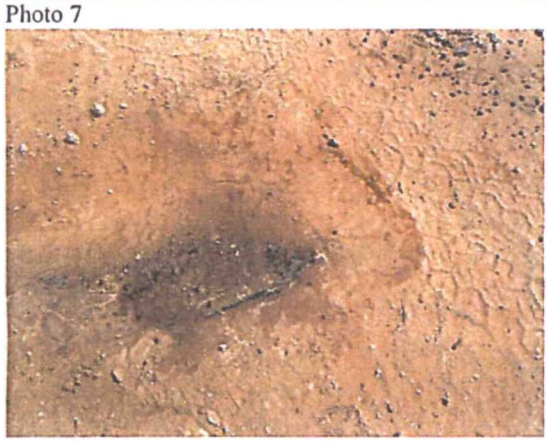
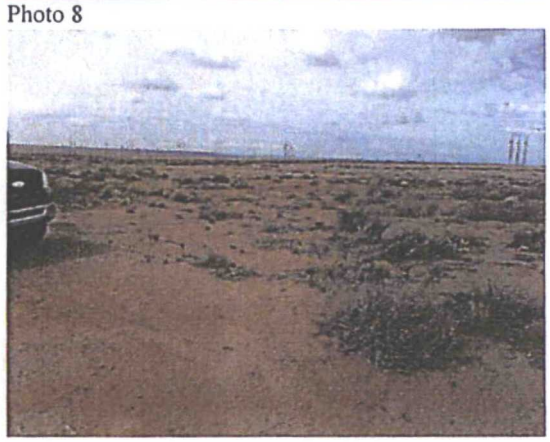


Photo 8



envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Merrion Oil & Gas

Chain Of Custody Number:

Samples Received: 7/28/2017 9:40:00AM

Job Number: 03048-0009

Work Order: P707052

Project Name/Location: Hickman A #2

Report Reviewed By: _____ Date: 8/7/17

Walter Hinchman, Laboratory Director

_____ Date: 8/7/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

envirotech
Analytical Laboratory

Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Hickman A #2	P707052-01A	Soil	07/28/17	07/28/17	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Hickman A #2
P707052-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		*96.1 %*		*50-150*	*1731022*	*08/04/17*	*08/04/17*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1731022	08/04/17	08/04/17	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1731019	08/04/17	08/04/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*97.7 %*		*50-150*	*1731022*	*08/04/17*	*08/04/17*	*EPA 8015D*	
Surrogate: n-Nonane		*96.4 %*		*50-200*	*1731019*	*08/04/17*	*08/04/17*	*EPA 8015D*	
Anions by 300.0									
Chloride	ND	20.0	mg/kg	1	1732002	08/07/17	08/07/17	EPA 300.0	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	ND	40.0	mg/kg	1	1731020	08/04/17	08/04/17	EPA 418.1	

envirotech
Analytical Laboratory

Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1731022 - Purge and Trap EPA 5030A										
Blank (1731022-BLK1)				Prepared & Analyzed: 04-Aug-17						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	*7.62*		"	*8.00*		*95.2*	*50-150*			
LCS (1731022-BS1)				Prepared & Analyzed: 04-Aug-17						
Benzene	4.88	0.10	mg/kg	5.00		97.6	70-130			
Toluene	4.80	0.10	"	5.00		96.0	70-130			
Ethylbenzene	4.79	0.10	"	5.00		95.8	70-130			
p,m-Xylene	9.53	0.20	"	10.0		95.3	70-130			
o-Xylene	4.68	0.10	"	5.00		93.6	70-130			
Total Xylenes	14.2	0.10	"	15.0		94.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.77*		"	*8.00*		*97.2*	*50-150*			
Matrix Spike (1731022-MS1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Benzene	5.00	0.10	mg/kg	5.00	ND	100	54.3-133			
Toluene	4.91	0.10	"	5.00	ND	98.3	61.4-130			
Ethylbenzene	4.90	0.10	"	5.00	ND	97.9	61.4-133			
p,m-Xylene	9.75	0.20	"	10.0	ND	97.5	63.3-131			
o-Xylene	4.78	0.10	"	5.00	ND	95.7	63.3-131			
Total Xylenes	14.5	0.10	"	15.0	ND	96.9	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.78*		"	*8.00*		*97.3*	*50-150*			
Matrix Spike Dup (1731022-MSD1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Benzene	4.73	0.10	mg/kg	5.00	ND	94.6	54.3-133	5.64	20	
Toluene	4.65	0.10	"	5.00	ND	93.1	61.4-130	5.46	20	
Ethylbenzene	4.64	0.10	"	5.00	ND	92.8	61.4-133	5.39	20	
p,m-Xylene	9.22	0.20	"	10.0	ND	92.3	63.3-131	5.53	20	
o-Xylene	4.53	0.10	"	5.00	ND	90.6	63.3-131	5.49	20	
Total Xylenes	13.7	0.10	"	15.0	ND	91.7	63.3-131	5.52	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.77*		"	*8.00*		*97.1*	*50-150*			

Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1731019 - DRO Extraction EPA 3570										
Blank (1731019-BLK1)				Prepared & Analyzed: 04-Aug-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	*54.5*		"	*50.0*		*109*	*50-200*			
LCS (1731019-BS1)				Prepared & Analyzed: 04-Aug-17						
Diesel Range Organics (C10-C28)	480	25.0	mg/kg	500		96.0	38-132			
Surrogate: n-Nonane	*46.7*		"	*50.0*		*93.5*	*50-200*			
Matrix Spike (1731019-MS1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Diesel Range Organics (C10-C28)	482	25.0	mg/kg	500	ND	96.4	38-132			
Surrogate: n-Nonane	*47.0*		"	*50.0*		*94.0*	*50-200*			
Matrix Spike Dup (1731019-MSD1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Diesel Range Organics (C10-C28)	468	25.0	mg/kg	500	ND	93.6	38-132	2.94	20	
Surrogate: n-Nonane	*45.0*		"	*50.0*		*90.0*	*50-200*			

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Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1731022 - Purge and Trap EPA 5030A										
Blank (1731022-BLK1)				Prepared & Analyzed: 04-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.75*		"	*8.00*		*96.9*	*50-150*			
LCS (1731022-BS1)				Prepared & Analyzed: 04-Aug-17						
Gasoline Range Organics (C6-C10)	56.6	20.0	mg/kg	60.9		93.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.88*		"	*8.00*		*98.5*	*50-150*			
Matrix Spike (1731022-MS1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Gasoline Range Organics (C6-C10)	56.1	20.0	mg/kg	60.9	ND	92.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.63*		"	*8.00*		*95.4*	*50-150*			
Matrix Spike Dup (1731022-MSD1)		Source: P707052-01		Prepared & Analyzed: 04-Aug-17						
Gasoline Range Organics (C6-C10)	55.7	20.0	mg/kg	60.9	ND	91.4	70-130	0.805	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.99*		"	*8.00*		*99.8*	*50-150*			

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Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Anions by 300.0 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732002 - Anion Extraction EPA 300.0										
Blank (1732002-BLK1)				Prepared & Analyzed: 07-Aug-17						
Chloride	ND	20.0	mg/kg							
LCS (1732002-BS1)				Prepared & Analyzed: 07-Aug-17						
Chloride	255	20.0	mg/kg	250		102	90-110			
Matrix Spike (1732002-MS1)	Source: P707052-01			Prepared & Analyzed: 07-Aug-17						
Chloride	258	20.0	mg/kg	250	ND	103	80-120			
Matrix Spike Dup (1732002-MSD1)	Source: P707052-01			Prepared & Analyzed: 07-Aug-17						
Chloride	261	20.0	mg/kg	250	ND	104	80-120	1.09	20	

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Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	**Reported:**
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1731020 - 418 Freon Extraction										
Blank (1731020-BLK1)				Prepared & Analyzed: 04-Aug-17						
Total Petroleum Hydrocarbons	ND	40.0	mg/kg							
LCS (1731020-BS1)				Prepared & Analyzed: 04-Aug-17						
Total Petroleum Hydrocarbons	966	40.0	mg/kg	1000		96.6	80-120			
Matrix Spike (1731020-MS1)	Source: P707052-01			Prepared & Analyzed: 04-Aug-17						
Total Petroleum Hydrocarbons	992	40.0	mg/kg	1000	ND	99.2	70-130			
Matrix Spike Dup (1731020-MSD1)	Source: P707052-01			Prepared & Analyzed: 04-Aug-17						
Total Petroleum Hydrocarbons	1030	40.0	mg/kg	1000	ND	103	70-130	3.95	30	

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Merrion Oil & Gas	Project Name:	Hickman A #2	
610 Reilly Ave.	Project Number:	03048-0009	Reported:
Farmington NM, 87401	Project Manager:	Philana Thompson	07-Aug-17 17:36

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody

Project Information	Report Attention	Lab Use Only	TAT	EPA Program
Client: Mercian Oil & Gas	Report due by:	Lab WO# P707052	Job Number 03048-0009	1D 3D	RCRA	CWA x	SDWA
Project Manager: Ryan Davis	Attention:						
Address: 610 Reily	Address:						
City, State, Zip Farmington, NM 87401	City, State, Zip						
Phone: 505-320-9796	Phone:						
Email: Pthompson@mercian.biz	Email:						

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	VOC by 8260 Chloride 300	Metals by 200.7	Hg by CFAA 245.1	TPH by 418.1 Anions by 300.0	pH by SM4500H B	Alkalinity SM2320B	Cond/Res by SM2510B	HEM/SGT-HEM by 1664A	TS/TDS/TSS by SM2540B/C/D	Ammon/TKN by SM4500NH3D/C	8015 GRO/DRO	BETX 8021	Remarks
8:46AM	7/27/17	S	g	Hickman A #2	01	X	Ba Cr Pb 1.2	1.2	X							X	X	

Additional Instructions: Logged in Project Name: Hickman A #2 7/31/17 lw

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Steve Calkins

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	7/28/17	9:40AM		7.28.17	940
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4.0 visible ice

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech Analytical Laboratory
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