



May 14, 2015

Colorado Department of Public Health and Environment
Air Pollution Control Division, APCD-SS-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Subject: 2014 Annual Leak Detection and Repair (LDAR) Report
Extraction Oil and Gas, LLC.
1888 Sherman Street, Suite 200
Denver, Colorado, 80203

To Whom It May Concern:

On behalf of Extraction Oil & Gas LLC (Extraction), CGRS Inc. herein submits the 2014 Annual Leak Detection and Repair (LDAR) Report as required by Colorado Regulation 7, Section XVII.F.9. Please find the attached Colorado Department of Public Health and Environment (CDPHE) LDAR Annual Report Form. Additionally, the LDAR Report packet includes a list of Extraction facility inspections that resulted in the detection of fugitive emissions from component(s) on site (or fugitive emission tags). The included list also provides the leaking equipment and component type, the component ID, and the fugitive emission status (or tag status) for the reporting period Oct. 15, 2014 through December 31, 2014.

Of the 15 facilities that were inspected, only the Raindance and Rubyanna Tank Batteries were required to follow the monitoring schedule per Colorado Regulation 7, Section XVII.F, during the reporting period of Oct. 15, 2014 through December 31, 2014. All other facilities listed were monitored on a voluntary basis, during that time period.

If you have any questions or concerns regarding the attached 2014 Annual LDAR Report, please call me or Ms. Kelly Kinsman at (800) 288-2657.

Sincerely,
CGRS, Inc.

Drezden Kinnaird
Permit Technician

Reviewed By:



Kelly Kinsman
Project Manager/Scientist

Attachments:

2014 CDPHE Annual Leak Detection and Repair (LDAR) Report Form
2014 Summary of Fugitive Emission Tags—Extraction Oil & Gas, LLC

ec: Mr. Josh Carlisle; jcarlisle@extractionog.com
Mr. John Tonello; jtonello@extractionog.com



Leak Detection and Repair (LDAR) Annual Report Form (Version December 18, 2014)

Regulation 7, Section XVII.F.9

Section 1: General Information

Company Name:	Extraction Oil & Gas, LLC		
Inspection Year:	2014	# Facilities Inspected: ¹	15
Contact Person:	Josh Carlisle	Title:	Environmental Supervisor
Phone Number:	720-481-2372	E-mail Address:	Jcarlisle@ExtractionOG.com

¹ Identify the list of facilities inspected in the Addendum Table 1 in Section 5

Section 2: LDAR Inspections

Inspection Method	# Inspections
AIMM at Natural Gas Compressor Stations:	0
AIMM at Well Production Facilities:	31
AVO at Well Production Facilities:	31
TOTAL	62

Section 3: Leaking Components Details

Component Type	# Leaks Identified	# Leaks Repaired	# Leaks on Delay of Repair List as of Dec 31
Valves:	12	12	0
Connectors:	32	32	0
Flanges:	1	1	0
Pump Seals:	0	0	0
Pressure Relief Devices:	16	16	0
TOTAL	61	61	0

Section 4: Responsible Official Certification

All information contained in the LDAR Annual Report must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section 1.B.38.

Please note the Colorado Statutes state that any person who knowingly, as defined in §18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of §25-7 122.1, C.R.S.

I, the Responsible Official, have reviewed this annual report in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this report are true, accurate and complete.

Printed/Typed Name - Responsible Official:	Title:
Josh Carlisle	Environmental Supervisor
Signature:	Date:
	5/4/15

Date Range	10/15/2014-12/31/2014
Company Name	Extraction Oil & Gas LLC
Facilities Inspected	15
# of Inspections	62

Summary of Fugitive Emission Tags

AIRS ID	Date Assigned	Site Location	Facility Name	Tag ID	Tag Status	Equipment Type	Component Type	Component ID
123-9BA6	11/10/2014	40.431420/-104.738500	Bestway Facility	2517-111014	Closed	Well	Connector	Hammer flange
123-9BA6	12/8/2014	40.431420/-104.738500	Bestway Facility	2540-120814	Closed	Separator	Connector	1/4-inch fitting
123-9BED	12/8/2014	40.466500/-104.869200	Diamond Valley East	2796-120814	Closed	Tank	Other	Thief hatch
123-9A97	10/21/2014	40.438490/-104.909300	Frye Farms	2489-102114	Closed	ECD	Connector	Compression fitting
123-9D66	11/11/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2520-111114	Closed	Tank	Other	Thief hatch
123-9D66	11/11/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2519-111114	Closed	Well	Connector	Hammer union
123-9D66	11/11/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2521-111114	Closed	Well	Connector	Compression fitting
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2543-120814	Closed	Separator	Connector	Sight glass fitting
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2544-120814	Closed	Separator	Connector	1/4-inch fitting
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2545-120814	Closed	Separator	Connector	1/4-inch fitting
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2546-120814	Closed	Tank	Other-PRV	Pressure relief valve.
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2547-120814	Closed	Tank	Other-Thief Hatch	Thief hatch
123-9D66	12/8/2014	40.435440/-104.684300	Habitat - Downtown Greeley Directional	2548-120814	Closed	Tank	Other-Thief Hatch	Thief hatch
123-9B1A	11/14/2014	40.442190/-104.695500	Island Grove Facility	2524-111414	Closed	Separator	Connector	Middle sight-glass
123-9B1A	11/14/2014	40.442190/-104.695500	Island Grove Facility	2525-111414	Closed	Tank	Other	Thief hatch
123-9B1A	12/4/2014	40.442190/-104.695500	Island Grove Facility	2795-120414	Closed	Tank	Valve	2-inch ball valve
123-9B1A	12/4/2014	40.442190/-104.695500	Island Grove Facility	2794-120414	Closed	Well	Valve	Kimray motor valve
123-9B1B	12/8/2014	40.438530/-104.684100	Johnson Facility	2542-120814	Closed	Well	Other	Bradenhead
123-9B1B	12/8/2014	40.438530/-104.684100	Johnson Facility	2541-120814	Closed	Well	Valve	Master valve stem
123-7283	11/5/2014	40.355470/-104.709500	LaSalle Directional Facility	2514-110514	Closed	Tank	Other	Thief hatch
123-7283	12/4/2014	40.355470/-104.709500	LaSalle Directional Facility	2791-120414	Closed	Separator	Valve	1/2-inch ball valve
123-7283	12/4/2014	40.355470/-104.709500	LaSalle Directional Facility	2788-120414	Closed	Well	Connector	1/2-inch compression fitting.
123-9CEB	10/21/2014	40.439160/-104.925200	Pavistma South	2488-102114	Closed	Separator	Connector	Oil sight glass fitting
123-9CEB	12/17/2014	40.439160/-104.925200	Pavistma South	2937-121714	Closed	Separator	Connector	Ball valve
123-9CEB	12/17/2014	40.439160/-104.925200	Pavistma South	2935-121714	Closed	Well	Connector	1/2-inch union
123-9CEB	12/17/2014	40.439160/-104.925200	Pavistma South	2936-121714	Closed	Well	Connector	Ball valve
Pending	12/18/2014	40.451280/-104.927900	Raindance Pad	2939-121814	Closed	Separator	Connector	1/4-inch compression fitting
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2735-111914	Closed	Separator	Connector	Tubing compression fitting
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2742-111914	Closed	Tank	Other	Taylor pressure relief valve
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2736-111914	Closed	Tank	Other-Thief Hatch	Thief Hatch
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2738-111914	Closed	Tank	Other-Thief Hatch	Thief Hatch
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2739-111914	Closed	Tank	Other-Thief Hatch	Thief Hatch
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2740-111914	Closed	Tank	Other-Thief Hatch	Thief Hatch
123-9D5A	11/19/2014	40.481740/-104.833200	Rubyanna Tank Battery	2741-111914	Closed	Tank	Other-Thief Hatch	Thief Hatch
123-9D5A	12/15/2014	40.481740/-104.833200	Rubyanna Tank Battery	2914-121514	Closed	Separator	Valve	Ball valve
123-9D5A	12/15/2014	40.481740/-104.833200	Rubyanna Tank Battery	2916-121514	Closed	Tank	Open-Ended Valve/Line	2-inch vent line
123-6310	11/17/2014	40.391390/-104.680600	Southeast Greeley Directional	2527-111714	Closed	Separator	Connector	Sight glass fitting
123-6310	11/17/2014	40.391390/-104.680600	Southeast Greeley Directional	2528-111714	Closed	Separator	Connector	Compression fitting
123-6310	11/17/2014	40.391390/-104.680600	Southeast Greeley Directional	2530-111714	Closed	Separator	Connector	Compression fitting
123-6310	11/17/2014	40.391390/-104.680600	Southeast Greeley Directional	2529-111714	Closed	Separator	Valve	Sight glass valve
123-6310	11/17/2014	40.391390/-104.680600	Southeast Greeley Directional	2526-111714	Closed	Tank	Other	Thief hatch catch pan
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2926-121614	Closed	Separator	Connector	1/4-inch compression fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2929-121614	Closed	Separator	Connector	Sight glass valve fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2930-121614	Closed	Separator	Connector	1/4-inch compression fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2931-121614	Closed	Separator	Connector	Sight glass fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2932-121614	Closed	Separator	Connector	Sight glass fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2933-121614	Closed	Separator	Connector	Ball valve handle
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2934-121614	Closed	Tank	Other-Thief Hatch	Thief hatch
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2915-111914	Closed	Well	Connector	Balon 1/2 ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2917-111914	Closed	Well	Connector	Balon 1/2 ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2918-121614	Closed	Well	Connector	Braden head
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2921-111914	Closed	Well	Connector	1-inch union
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2922-121614	Closed	Well	Connector	Bradenhead
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2927-121614	Closed	Well	Connector	1/4-inch compression fitting
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2919-111914	Closed	Well	Flange	Fisher pressure regulator
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2920-111914	Closed	Well	Valve	Balon 1/2 ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2923-111914	Closed	Well	Valve	Balon 1/2 ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2924-121614	Closed	Well	Valve	Ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2925-121614	Closed	Well	Valve	Balon 1/2 ball valve
123-6310	12/16/2014	40.391390/-104.680600	Southeast Greeley Directional	2928-121614	Closed	Well	Valve	Master valve
123-9B1C	11/5/2014	40.384150/-104.764900	T-Bone Facility	2516-110514	Closed	Well	Connector	1/2-inch union
123-7009	12/2/2014	40.388510/-104.634400	Vetting Facility	2785-120214	Closed	Well	Valve	Kimray motor valve

Component Type	# Leaks Identified	# Leaks Repaired	# Leaks on Delay of Repair
Valves :	12	12	0
Connector :	32	32	0
Flanges :	1	1	0
Pump Seals :	0	0	0
Pressure Relief Devices :	16	16	0
TOTAL :	61	61	0