FORM 4 Rev 04/13

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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DE	ET	OE	ES

Document Number: 401979737

Date Received: 03/20/2019

SUNDRY NOTICE

Submit a signed original. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full in Comments or provide as an attachment. Identify Well by API Number; identify Oil and Gas Location by Location ID Number; identify other Facility by Facility ID Number.

OGCC Operator Number: 10433 Contact Name: Dan Fouts

Name of Operator: LARAMIE ENERGY LLC Phone: (970) 852-1170

Address: 1401 SEVENTEENTH STREET #1401 Fax: ( )

City: DENVER State: CO Zip: 80202 Email: dfouts@laramie-energy.com

Complete the Attachment Checklist

OP OGCC

API Number : 05- 077 09002 00 OGCC Facility ID Number: 282734

Well/Facility Name: VEGA UNIT Well/Facility Number: 34-12

Location QtrQtr: SENE Section: 33 Township: 9S Range: 93W Meridian: 6

County: MESA Field Name: VEGA

Federal, Indian or State Lease Number:

Attachment Checklist	OP	OGCC
Survey Plat		
Directional Survey		
Srfc Eqpmt Diagram		
Technical Info Page		
Other		

CHANGE OF LOCATION OR AS BUILT GPS REPORT

☐ Change of Location * ☐ As-Built GPS Location Report ☐ As-Built GPS Location Report with Survey

* Well location change requires new plat. A substantive surface location change may require new Form 2A.

SURFACE LOCATION GPS DATA

Data must be provided for Change of Surface Location and As Built Reports.

Latitude _____ PDOP Reading _____ Date of Measurement _____

Longitude _____ GPS Instrument Operator's Name _____

LOCATION CHANGE **(all measurements in Feet)**

Well will be: _____ (Vertical, Directional, Horizontal)

		FNL/FSL		FEL/FWL	
Change of **Surface** Footage **From** Exterior Section Lines:		2589	FNL	262	FEL
Change of **Surface** Footage **To** Exterior Section Lines:					
Current **Surface** Location **From**	QtrQtr SENE Sec 33 Twp 9S Range 93W Meridian 6				
New **Surface** Location **To**	QtrQtr Sec Twp Range Meridian				
Change of **Top of Productive Zone** Footage **From** Exterior Section Lines:		1646	FNL	355	FWL
Change of **Top of Productive Zone** Footage **To** Exterior Section Lines:					**
Current **Top of Productive Zone** Location **From**	Sec 34 Twp 9S Range 93W				
New **Top of Productive Zone** Location **To**	Sec Twp Range				
Change of **Bottomhole** Footage **From** Exterior Section Lines:		1646	FNL	355	FWL
Change of **Bottomhole** Footage **To** Exterior Section Lines:					**
Current **Bottomhole** Location	Sec 34 Twp 9S Range 93W				
New **Bottomhole** Location	Sec Twp Range				

** attach deviated drilling plan

Is location in High Density Area? _____

Distance, in feet, to nearest building _____, public road: _____, above ground utility: _____, railroad: _____, property line: _____, lease line: _____, well in same formation: _____

Ground Elevation _____ feet Surface owner consultation date _____

CHANGE OR ADD OBJECTIVE FORMATION AND/OR SPACING UNIT

Objective Formation	Formation Code	Spacing Order Number	Unit Acreage	Unit Configuration

OTHER CHANGES

- [ ] **REMOVE FROM SURFACE BOND** **Signed surface use agreement is a required attachment**
- [ ] **CHANGE OF WELL, FACILITY OR OIL & GAS LOCATION NAME OR NUMBER**

From: Name VEGA UNIT Number 34-12 Effective Date: _____

To: Name _____ Number _____

- [ ] **ABANDON PERMIT: Permit can only be abandoned if the permitted operation has NOT been conducted. Field inspection will be conducted to verify site status.**
  - [ ] WELL:Abandon Application for Permit-to-Drill (Form2) – Well API Number _____ has not been drilled.
  - [ ] PIT: Abandon Earthen Pit Permit (Form 15) – COGCC Pit Facility ID Number _____ has not been constructed (Permitted and constructed pit requires closure per Rule 905)
  - [ ] CENTRALIZED E&P WASTE MANAGEMENT FACILITY: Abandon Centralized E&P Waste Management Facility Permit (Form 28) – Facility ID Number _____ has not been constructed (Constructed facility requires closure per Rule 908)

  OIL & GAS LOCATION ID Number: _____
    - [ ] Abandon Oil & Gas Location Assessment (Form 2A) – Location has not been constructed and site will not be used in the future.
    - [ ] Keep Oil & Gas Location Assessment (Form 2A) active until expiration date. This site will be used in the future.

  Surface disturbance from Oil and Gas Operations must be reclaimed per Rule 1003 and Rule 1004.

- [ ] **REQUEST FOR CONFIDENTIAL STATUS**
- [ ] **DIGITAL WELL LOG UPLOAD**
- [ ] **DOCUMENTS SUBMITTED** Purpose of Submission: _____

RECLAMATION

INTERIM RECLAMATION

- [ ] Interim Reclamation will commence approximately _____

  Per Rule 1003.e.(3) operator shall submit Sundry Notice reporting interim reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

- [ ] Interim reclamation complete, site ready for inspection.
  Per Rule 1003.e(3) describe interim reclamation procedure in Comments below or provide as an attachment and attach required location photographs.

  Field inspection will be conducted to document Rule 1003.e. compliance

FINAL RECLAMATION

- [ ] Final Reclamation will commence approximately _____

  Per Rule 1004.c.(4) operator shall submit Sundry Notice reporting final reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

- [ ] Final reclamation complete, site ready for inspection. Per Rule 1004.c(4) describe final reclamation procedure in Comments below or provide as an attachment.

  Field inspection will be conducted to document Rule 1004.c. compliance

Comments:

ENGINEERING AND ENVIRONMENTAL WORK

☐ NOTICE OF CONTINUED TEMPORARILY ABANDONED STATUS

Indicate why the well is temporarily abandoned and describe future plans for utilization in the COMMENTS box below or provide as an attachment, as required by Rule 319.b.(3).

Date well temporarily abandoned _____ Has Production Equipment been removed from site? _____

Mechanical Integrity Test (MIT) required if shut in longer than 2 years. Date of last MIT _____

☐ SPUD DATE: _____

TECHNICAL ENGINEERING AND ENVIRONMENTAL WORK

Details of work must be described in full in the COMMENTS below or provided as an attachment.

☒ NOTICE OF INTENT Approximate Start Date 04/22/2019

☐ REPORT OF WORK DONE Date Work Completed _____

☐ Intent to Recomplete (Form 2 also required)	☐ Request to Vent or Flare	☐ E&P Waste Mangement Plan
☐ Change Drilling Plan	☐ Repair Well	☐ Beneficial Reuse of E&P Waste
☐ Gross Interval Change	☐ Rule 502 variance requested. Must provide detailed info regarding request.	
☒ Other Test for SWD conversion	☐ Status Update/Change of Remediation Plans for Spills and Releases	

COMMENTS:

PROCEDURE:
1. Abandon Production Perforations and Pressure Test Wellbore:
2. Hold pre-job safety meeting with all personnel involved in each operation.
3. MIRU service rig, pump, and 400-500 bbl water tank.
4. Kill well with lease water.
5. ND production tree.
6. NU and test Class III BOPE to 2500 psi for 10 minutes.
7. Unland tubing hanger.
8. POOH standing back tubing.
9. MIRU wireline unit.
10. Run wireline gauge ring to 6550'.
11. Wireline set 4-1/2" 10K CIBP @ 6500'.
12. Fill well with production water to ensure CIBP holds fluid column.
13. Perform charted pressure test of casing to 2,000 psi for 30'.
14. Dump 50 LF (4 sx) neat Class G cement plug on top of CIBP @ 6450'-6500'.
15. Allow cement to set for at least 24 hours.
Prep for Wireline Operations:
16. MIRU nitrogen unit.
17. RIH open ended tubing and blow well dry down to top of plug @ 6450'.
18. RDMO nitrogen unit.
19. POOH laying down tubing.
20. RDMO workover rig.
21. Shoot fluid level and submit to engineering.
Perforate Injection Formations:
22. MIRU wireline.
23. NU and test wireline BOPE.
24. Run gauge ring to fluid level.
25. Set 4-1/2" 10K CIBP @ 100' above fluid level. Note: CIBP must be set no higher than 5800'.
26. Correlate to Halliburton CBL dated "1 OCTOBER 2006" (COGCC Document # 1405639).
27. Perforate the following intervals with 3-1/8" HSC guns loaded 3 spf 120 deg with Owen 19g HERO SGH-3119-330 charges:
a. 5605'-5620' (15')
b. 5586'-5596' (10')
c. 5480'-5510' (30')
d. 5450'-5462' (12')
e. 5377'-5443' (66')

f. 5286’-5304’ (18’)
g. 5235’-5255’ (20’)
h. 5190’-5228’ (38’)
i. 5170’-5185’ (15’)
Collect Injection Formations Water Samples for Analysis:
28. Hold pre-job safety meeting with all personnel involved in this operation.
29. Collect (3) x 1 quart samples of formation water using wireline bailer.
30. RDMO wireline.
31. Send water samples to lab for analysis.
Pump Step Rate Test:
32. Hold pre-job safety meeting with all personnel involved in this operation.
33. Manifold tanks in (2) parallel trains with a central take-point to ensure adequate deliverability.
34. Fill portable tanks with lease water.
35. Install flow meter at wellhead. Reconfigure tubing transducer to record bradenhead pressure.
36. Verify automation and telemetry are functioning and recording data.
37. Install company owned memory pressure gauges on casing and bradenhead for redundancy.
38. MIRU charge pump, filter pod unit with 10 micron filters, and 500 hp triplex pump.
39. Pump step tate test as per attached “Step Rate Test Schedule.”
40. Shut in well upstream of casing pressure gauges immediately at end of pumping.
41. Continue collecting data until surface gauge reads 0 psi for 24 hours.
42. Shut in and secure well.
43. Engineering to analyze step rate test to determine frac gradient.
Pump Injectivity Test:
44. Pump produced water up to maximum pressure and rate determined from step rate test data analysis for up to 30 days to determine viability of well for long term SWD purposes.
45. Shut in and secure well.
Step Rate Test Schedule
Step Number Notes Step Time Duration (minutes) Step Time Duration (hours) Time Cumulative (minutes) Time Cumulative (hours) Pump Rate (GPM Pump Rate (BPM) Step Volume (BBLS) Volume Cumulative (BBLS)
1 Zero Rate 60 1 60 1 0 0.00 0 0
2 Min Rate 60 1 120 2 21 0.50 30 30
3 60 1 180 3 31.5 0.75 45 75
4 60 1 240 4 42 1.00 60 135
5 60 1 300 5 56 1.33 80 215
6 60 1 360 6 70 1.67 100 315
7 60 1 420 7 84 2.00 120 435
8 60 1 480 8 105 2.50 150 585
9 60 1 540 9 126 3.00 180 765
10 60 1 600 10 168 4.00 240 1005
11 60 1 660 11 210 5.00 300 1305
12 60 1 720 12 252 6.00 360 1665
13 60 1 780 13 294 7.00 420 2085
14 60 1 840 14 336 8.00 480 2565
15 60 1 900 15 378 9.00 540 3105
16 Max Rate 60 1 960 16 420 10.00 600 3705
17 Fall Off 4320 72 5280 88 0.00 0 3705
TOTAL 5100 88 5280 88 3705

CASING AND CEMENTING CHANGES

Casing Type	Size	Of	/	Hole	Size	Of	/	Casing	Wt/Ft	Csg/LinTop	Setting Depth	Sacks of Cement	Cement Bottom	Cement Top

H2S REPORTING

Data Fields in this section are intended to document Sample and Location Data associated with the collection of a Gas Sample that is submitted for Laboratory Analysis.

Gas Analysis Report must be attached.

H2S Concentration: _____ in ppm (parts per million) Date of Measurement or Sample Collection _____

Description of Sample Point:

Absolute Open Flow Potential _____ in CFPD (cubic feet per day)

Description of Release Potential and Duration (If flow is not open to the atmosphere, identify the duration in which the container or pipeline would likely be opened for servicing operations.):

Distance to nearest occupied residence, school, church, park, school bus stop, place of business, or other areas where the public could reasonably be expected to frequent: _____

Distance to nearest Federal, State, County, or municipal road or highway owned and principally maintained for public use: _____

COMMENTS:

Best Management Practices

No	BMP/COA Type	Description

Operator Comments:

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: Print Name: Joan Proulx

Title: Regulatory Analyst Email: jproulx@laramie-energy.com Date: 3/20/2019

Based on the information provided herein, this Sundry Notice (Form 4) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: KOEHLER, BOB Date: 3/22/2019

CONDITIONS OF APPROVAL, IF ANY:

COA Type	Description
	Operator states that they will attempt to swab well to get good formation water samples. Other wells in area did not provide enough water for sampling in a reasonable amount of time. If water available monitor conductivity during sampling. Conductivity should stabilize for good samples.
	Requirement for Form 33 specified in Injection UIC Disposal - Wells Recompletion and Workover - Approval & Reporting Requirements Matrix Guidance are waived. Form 33 cannot be entered without Form 31 creating UIC Facility Number. Operator required to file full Form 31/33 UIC application if they decide to convert well for disposal.
	Procedural Alteration: 1. Place CIBP and cement @ 6500 ft as planned. 2. Place 2nd CIBP between 5800 and 6230 ft. 3. Perform witnessed MIT prior to perforating Wasatch and Ohio Creek. MIT must be performed with at least a 300 psi differential pressure above anticipated Maximum Surface Injection Pressure of Step Rate or Injectivity Tests. 4. If well passes MIT then Laramie may perforate the well. 5. Perform the Step Rate Test. 6. Consult with COGCC (Shannon Chollette, Craig Burger, or Bob Koehler) regarding results of Step Rate Test and plan for Injectivity Test. 7. With verbal approval after consultation perform Injectivity Test. 8. If Laramie decides to convert well for injection, tubing and packer assembly is required for injection.

General Comments

User Group	Comment	Comment Date
Engineer	Added review task for Bob Koehler (UIC).	03/21/2019

Total: 1 comment(s)

Attachment Check List

Att Doc Num	Name
401979737	SUNDRY NOTICE APPROVED-OTHER
401979753	WELLBORE DIAGRAM
401979754	OTHER
401982394	FORM 4 SUBMITTED

Total Attach: 4 Files