

# RECEIVED

Form 3160-5  
(March 2012)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MAY 21 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

Farmington Field Office

5. Lease Serial No.  
NM 89021 & V1399

6. Indian, Allottee or Tribe Name  
N/A

**SUNDRY NOTICES AND REPORTS ON WELLS of Land Management**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Encana Oil & Gas (USA) Inc.

3a. Address  
370 17th Street, Suite 1700  
Denver, CO 80202

3b. Phone No. (include area code)  
720-876-5331

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

8. Well Name and No.  
Lybrook H32-2306 01H

9. API Well No.  
30-043-21126

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
SHL: 1785 FNL, 250 FEL, SENE of Section 32, T23N R6W  
BHL: 1879' FNL, 2276' FEL (SWNW Section 32, T23N R6W)

10. Field and Pool or Exploratory Area  
Lybrook Gallup

11. County or Parish, State  
Sandoval County, New Mexico

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

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |   |
|--|---|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       | Installation of Gas Lift                  |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> 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 recompleat 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 recompleat 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.)

Encana Oil & Gas (USA) Inc. is requesting authorization to install gas lift on the Lybrook H32-230601H well pad. Attached is a schematic of the pad with gas lift, gas allocation method and a gas metering statement.

RCVD JUN 6 '13  
OIL CONS. DIV.  
DIST. 3

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Holly Hill

Title Regulatory Analyst

Signature

*Holly Hill*

Date 05/13/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*Jim Walsh*

Title

*Petr. Eng.*

Date

*6/4/13*

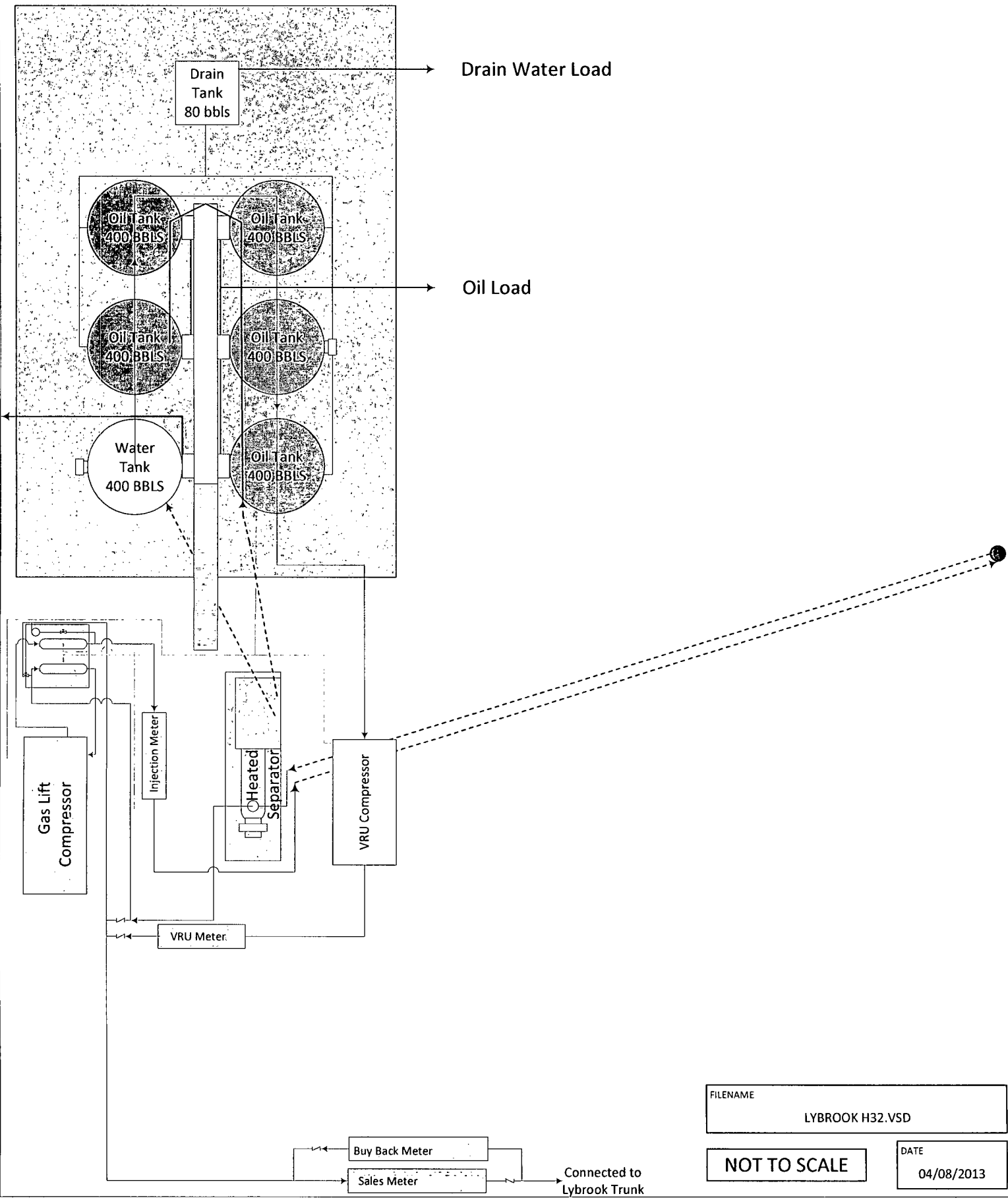
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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)

NMOCDA



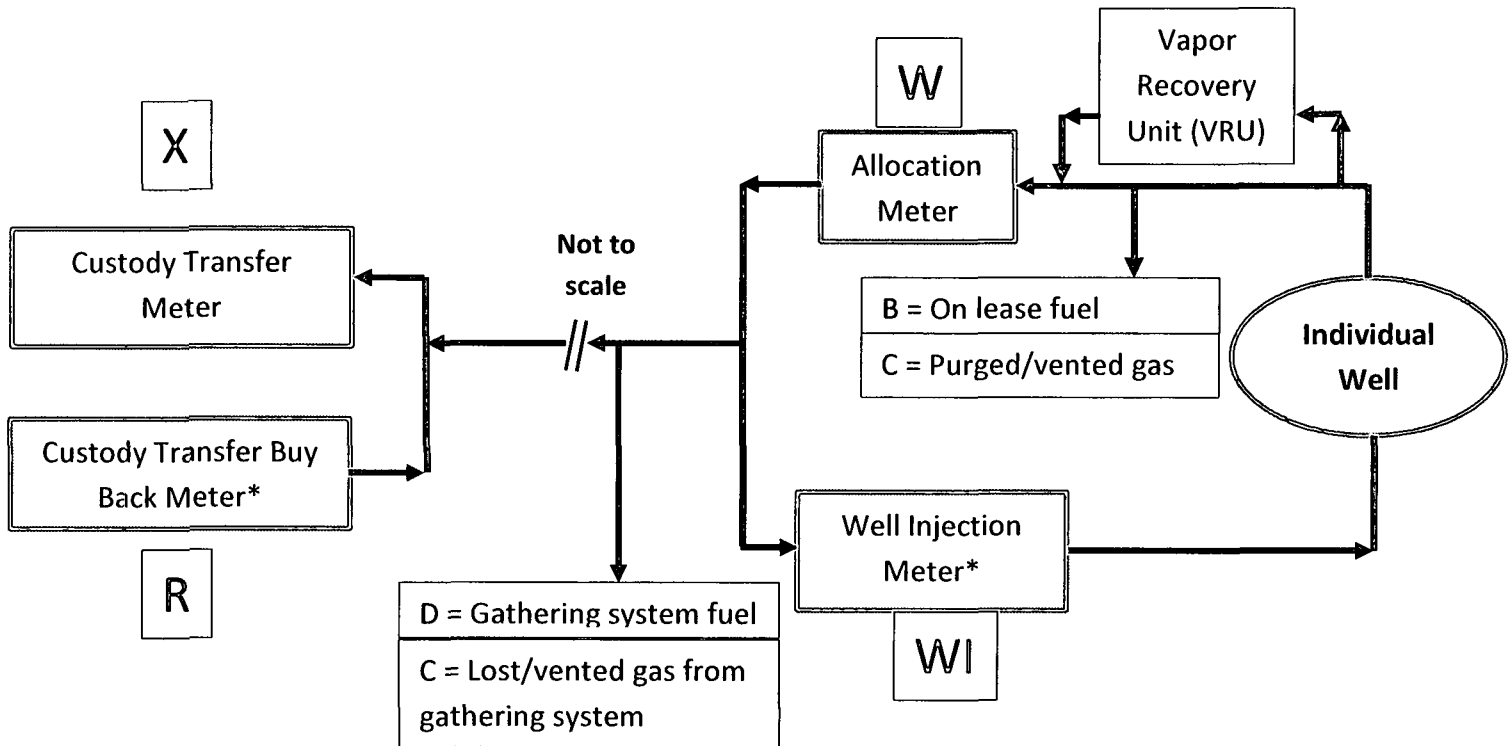
## Gas Metering on Lybrook H32-2306 01H with Gas Lift

The Lybrook H32-2306 01H will have two additional gas meters installed for use with the gas lift system. The typical sales gas meter continues to be used for the same functionality as if the well did not have gas lift. The additional meters are a buy back meter and an injection (for information purposes only) meter.

The buy back meter is used to meter any gas that is brought back from the Lybrook Trunk Pipeline for kickoff and re-start purposes only. This meter will be installed parallel to the sales meter with check valves preventing back flow through either meter. The buy back volume is expected to be minimal on a monthly basis. Once the well is producing excess gas from what is being circulated, the gas is sold and no buy back gas is used. The only difference from a typical well setup is that at the end of the month, the sales meter and buy back meter are combined to determine the net sales volume.

The other additional meter is an injection meter which is used for metering the injection gas that is circulated through the wellbore. This meter is for informational / operational optimization purposes only. Since this meter is upstream of the sales meter, this meter is not used to calculate sales volumes.

## Allocation Procedures



\*Meter will only be installed and active when gas lift is installed.

### Base Data:

X = Gas Volume (MCF) from Custody Transfer Meter during allocation period. (Enterprise)

R = Gas Volume (MCF) from Custody Transfer Buy Back Meter (Enterprise)\*

W = Gas Volume (MCF) from allocation meters at individual wells during allocation period. (Encana)

WI = Gas Volume (MCF) from well injection meter at individual wells during allocation period. (Encana)\*

Y = Heating Value (BTU/scf) from Custody Transfer Meter and Custody Transfer Buy Back Meter during allocation period. (Enterprise)

Z = Heating Value (BTU/scf) from individual well allocation meter and well injection meter. (Encana)

Allocation Period is typically a calendar month and will be the same for all wells.

**Individual Well Gas Production** = A + B + C + D + E

A = Allocated Gas production off lease, MCF:  $((W-WI) / \text{SUM}(W-WI)) * (X-R)$

B = On lease fuel usage, MCF. Determined from equipment specification and operating conditions. This includes, but is not limited to, compression, vapor recovery unit (VRU) compression, burners, and pump jacks.

C = Lost and/or vented gas from well and/or lease equipment, MCF. Calculated using equipment and piping specifications and operating pressures.

D = Allocated fuel from gathering system equipment, MCF. The total fuel required to operate gathering system equipment will be allocated to the individual wells benefiting from the equipment using allocation factors determined by  $(W-WI) / \text{SUM}(W-WI)$ .

E = Allocated volume of gas lost and/or vented from the gathering system, gathering system equipment, condensate collection, and water collection in MCF. The total volume will be determined using industry accepted procedures the time of the loss. The total volumes lost and/or vented will be allocated to the individual wells affected using factors determined by  $(W-WI) / \text{SUM}(W-WI)$ .

**Individual Well BTU's** =  $((W-WI) * Z) / \text{SUM}((W-WI) * Z) * Y$

Individual well gas heating values to be determined in accordance with BLM regulations.



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Farmington Field Office  
6252 College Blvd., Suite A  
Farmington, New Mexico 87402

IN REPLY REFER TO:

### **CONDITIONS OF APPROVAL FOR GAS LIFT INSTALLATION**

- The buy-back meter isolation valve, either up or down stream of the buy-back meter must be effectively sealed in the closed position to prevent produced gas from potentially by-passing the measurement and sales meter. In lieu of the seal requirement at least two check valves can be installed immediately downstream of the buy-back meter.

Contact this office so a BLM witness verify installation of either the seal or check valves.

- If seals are installed, seal records must be maintained and made available upon request.
- Measurement of gas at this facility must be conducted in accordance with the requirements outlined in Onshore Order No. 3, Site security, Onshore Order No. 4, Oil Measurement, Onshore Order No. 5, Gas Measurement and NM NTL 2008-01, Standards for the Use of Electronic Flow Computers.
- Production and Sales allocation must be made on a Volumetric and MMBTU basis and be conducted in accordance with the allocation methodology proposed