Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

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.

RECEIVED

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

JAN 21 2015

Farmington Field Office
Bureau of Land Management

5. Lease Serial No. NMNM 117562	
6. If Indian, Allottee or Tribe Name N/A	
7. If Unit of CA/Agreement, Name and/or No. Pending	
1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	8. Well Name and No. Lybrook P03-2206 01H
2. Name of Operator Encana Oil & Gas (USA) Inc.	9. API Well No. 30-043-21221
3a. Address 370 17th Street, Suite 1700, Denver, CO 80202	3b. Phone No. *(include area code)* 720-876-3926
	10. Field and Pool or Exploratory Area Lybrook Gallup
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SHL: 438' FSL, 1222' FEL Section 3, Township 22N, Range 6W BHL: 2347' FNL, 2070' FEL Section 15, Township 22N, Range 6W	11. Country 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			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Installtion of Gas Lift
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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.)

Encana Oil & Gas (USA) Inc. is requesting authorization to install gas lift at the Lybrook P03-2206 01H well. Attached is a schematic of the pad with the gas lift and the gas allocation procedure.

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JAN 30 2015
NMOCD
DISTRICT III

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* Jessica Gregg	Title Regulatory Analyst
Signature Jessica Gregg	Date 1/15/19

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

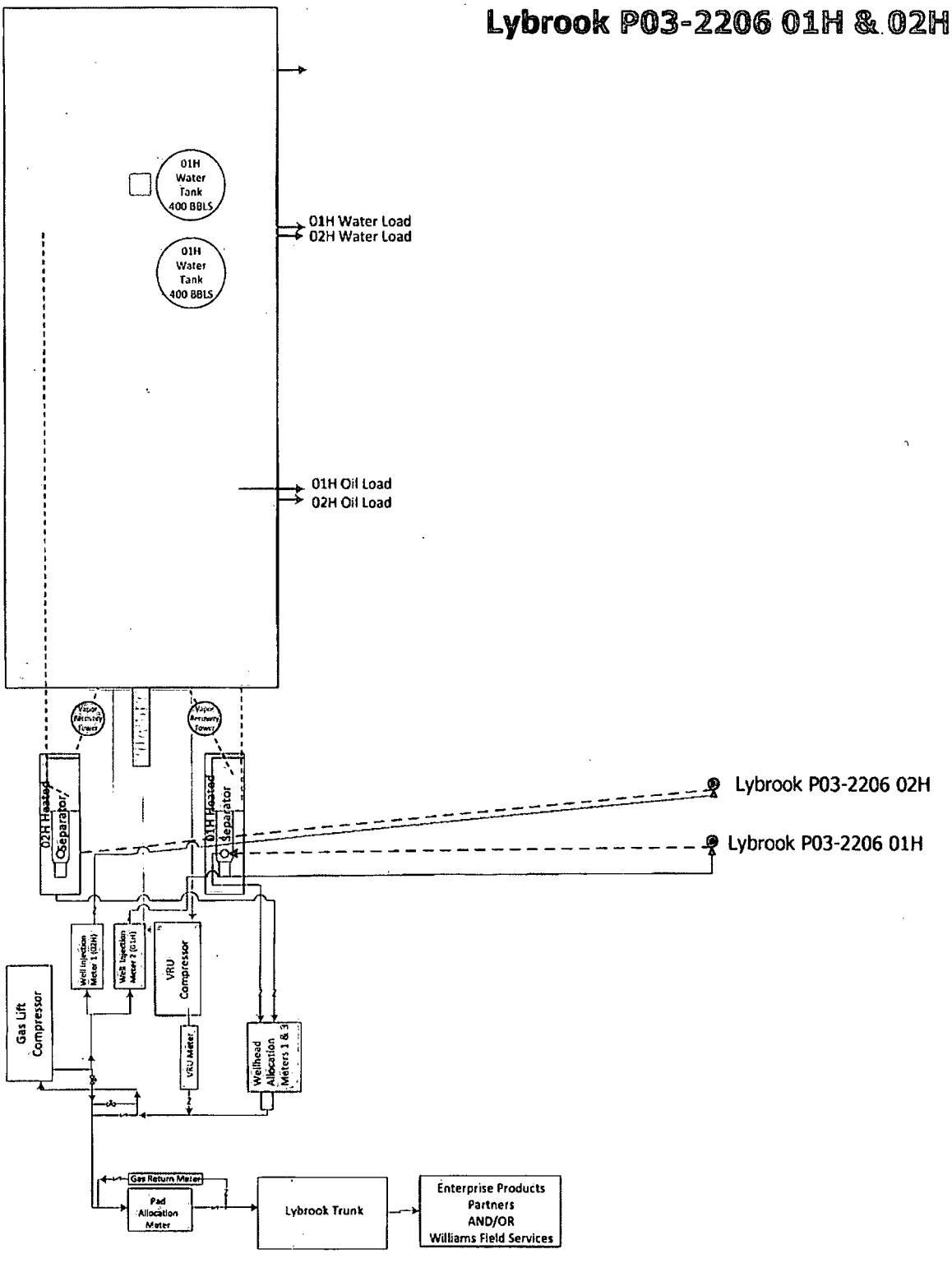
Approved by William Tambekou	Title Petroleum Engineer	Date 1/29/2015
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office 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)

NMOCD

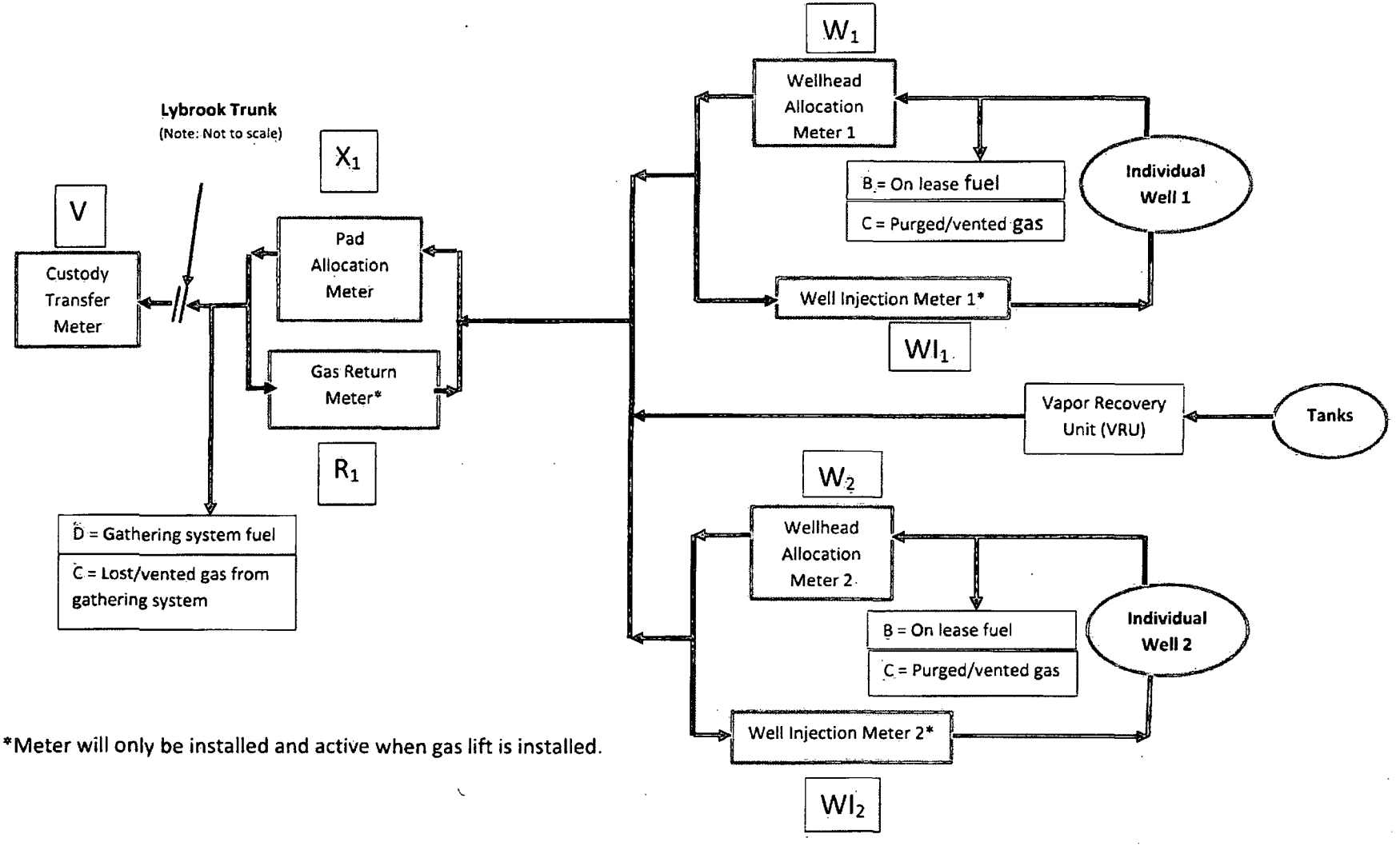
Lybrook P03-2206 01H & 02H



NOT TO SCALE

Attachment No. 5
Encana Oil & Gas (USA) Inc.
Lybrook Trunk Line #1, Gathering System
Sandoval County, New Mexico
Amendment Dated May 15, 2014

Gas Measurement Allocation Procedure for Multi-Well Pads



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

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Encana Oil & Gas (USA) Inc.
Lybrook Trunk Line #1, Gathering System
Sandoval County, New Mexico
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Base Data:

V = Gas Volume (MCF) from Custody Transfer Meter during allocation period (Enterprise Products Partners)
X_x = Gas Volume (MCF) from Pad Allocation Meter during allocation period. (Encana)
R_x = Gas Volume (MCF) from Gas Return Meter at Well Pad (Encana)*
$(X_x - R_x)$ = Gas Volume (MCF) for total Well Pad Production (Encana)
W_x = Gas Volume (MCF) from Wellhead Allocation Meter at individual wells during allocation period. (Encana)
WI_x = Gas Volume (MCF) from Well Injection Meter at individual wells during allocation period. (Encana)*
Y = Heating Value (BTU/scf) from Custody Transfer Meter during allocation period. (Enterprise Products Partners)
Z = Heating Value (BTU/scf) from individual Wellhead Allocation Meter and Well Injection Meter. (Encana)

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

Well Pad Gas Production = A + B + C + D + E

A = Allocated Gas production off lease for Well Pad, MCF: $[(X_1-R_1)/((X_1-R_1)+(X_2-R_2)+(X_n-R_n))]*(V)$

Please note, gas production (MCF) for individual wells on a Well Pad is calculated using the formula:
$[(W_1-WI_1)/((W_1-WI_1)+(W_2-WI_2)+(W_n-WI_n))]*(X_1-R_1)$

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 Well Pads benefiting from the equipment using allocation factors determined by $[(X_1-R_1)/((X_1-R_1)+(X_2-R_2)+(X_n-R_n))]$ and for individual wells using allocation factors determined by $[(W_1-WI_1)/((W_1-WI_1)+(W_2-WI_2)+(W_n-WI_n))]$.

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 Well Pads affected using factors determined by $[(X_1-R_1)/((X_1-R_1)+(X_2-R_2)+(X_n-R_n))]$, and for individual wells using factors determined by $[(W_1-WI_1)/((W_1-WI_1)+(W_2-WI_2)+(W_n-WI_n))]$.

Individual Well BTU's = $[[\{(W_n-WI_n)*Z_n\}/\{SUM((W_n-WI_n)*Z_n)\}]*(V*Y)*1000]$
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 & BUY BACK METER INSTALLATIONS:

- 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 either up and down stream of the buyback meter or in line with the buy-back meter to prevent produced gas from potentially by-passing the measurement and sales 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.

  - **Post a Facility Card or Sign that clearly identifies <u>both</u> the sales and buy-back meters.**
  - **Gas Meters must be installed and calibrated in accordance with Onshore Order 5.**