

RECEIVED

Form 3160-5
(August 2007)

UNITED STATES

OCT 19 2012

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010Farmington Field Office
Bureau of Land Management

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.
NM-287486. If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Encana Oil & Gas (USA) Inc.3a. Address
370 17th Street, Suite 1700
Denver, CO 802023b. Phone No. (include area code)
720-876-3437

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

8. Well Name and No.
Lybrook H26-2307 01H9. API Well No.
30-043-211184. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 2257' FNL and 357' FEL Section 26, T23N, R7W
BHL: 2210' FNL and 330' FWL Section 26, T23N, R7W10. Field and Pool or Exploratory Area
Lybrook-Gallup11. Country or Parish, State
Sandoval 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☐ Subsequent Report☐ Final Abandonment Notice☐ Acidize☐ Alter Casing☐ Casing Repair☒ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other _____

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. (Encana) would like to adjust the surface hole location, bottom hole location, intermediate casing setting depth, TD and directional plan for the Lybrook H26-2307 01H oil well.

The new surface hole location will be 2257' FNL, 357' FEL Section 26, T23N, R7W. The new bottom hole location will be 2210' FNL, 330' FWL Section 26, T23N, R7W. Please see attached C-102.

The new intermediate casing setting depth is 5751'MD/5568'TVD. The new TD of this well will be 9882'MD/5576'TVD. Please see attached wellbore diagram for further detail.

Please see attached directional plan.

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

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations.

CEMENT to surface

RCVD NOV 7 '12
OIL CONS. DIV.
DIST. 3

CONFIDENTIAL

Hold C104
for Directional Survey
and "As Drilled" plat

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Amanda Cavoto

Title Engineering Technologist

Signature

Amanda Cavoto

Date

10/18/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salvors

Title

Petroleum Engineer

Date

10/30/2012

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

FEO

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.

Hold C104

(Instructions on page 2)

NMOC

for Directional Survey
and "As Drilled" plat

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT
RCVD NOV 7 '12
OIL CONS. DIV.
DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21118	*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 39120	*Property Name LYBROOK H26-2307	*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 7233'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	26	23N	7W		2257	NORTH	357	EAST	SANDOVAL

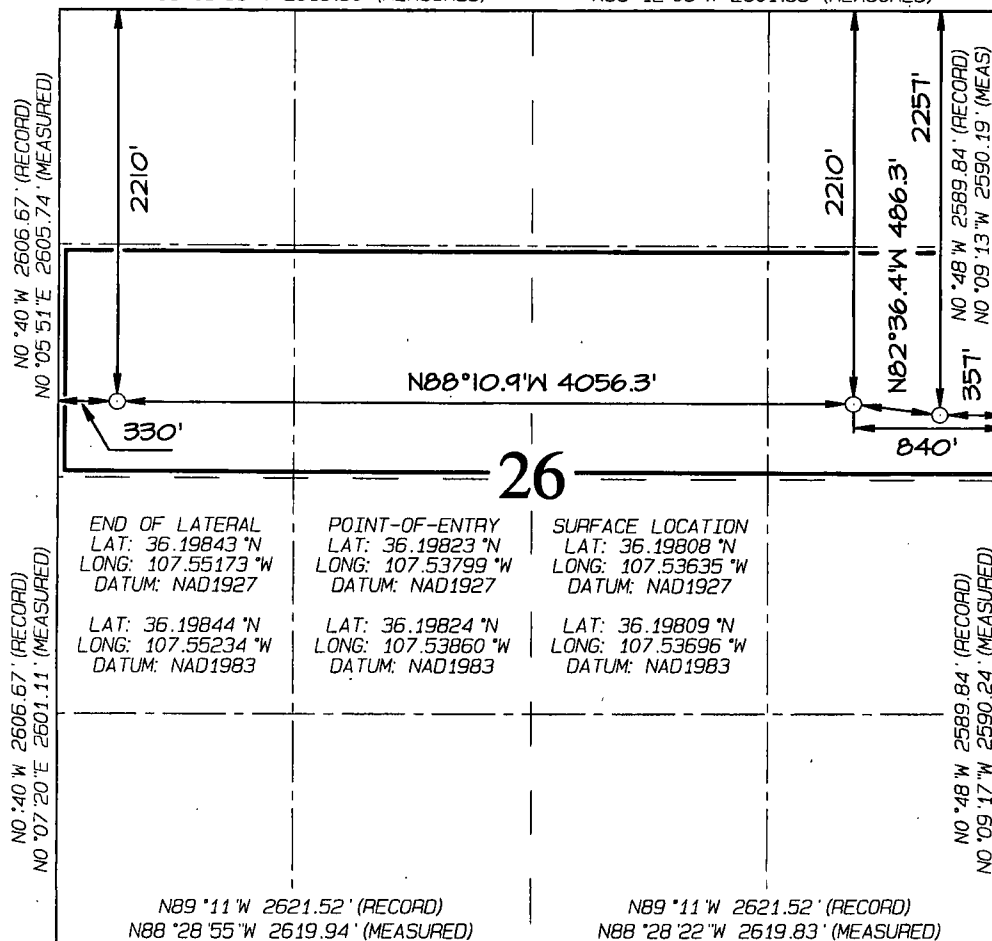
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	26	23N	7W		2210	NORTH	330	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres (S/2 N/2) Section 26	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ N88°55'W 2613.27' (RECORD) N88°55'W 2613.27' (RECORD)
N88°09'35"W 2615.30' (MEASURED) N88°12'03"W 2601.33' (MEASURED)



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

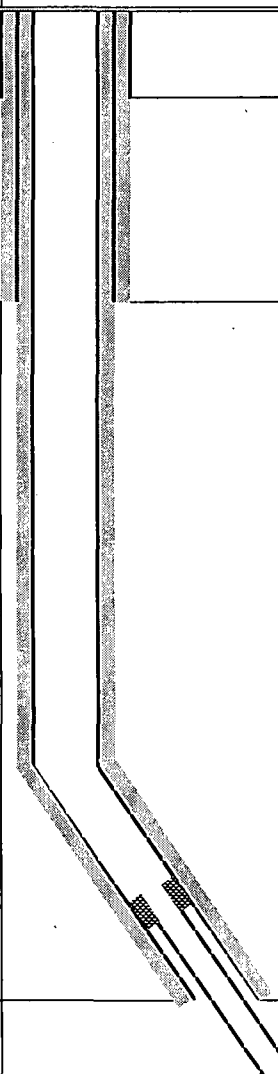
Signature: *Brenda R. Linster* Date: 10/19/12
Printed Name: Brenda R. Linster, Regulatory Lead
E-mail Address: brenda.linster@encana.com

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Survey Date: OCTOBER 3, 2012
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

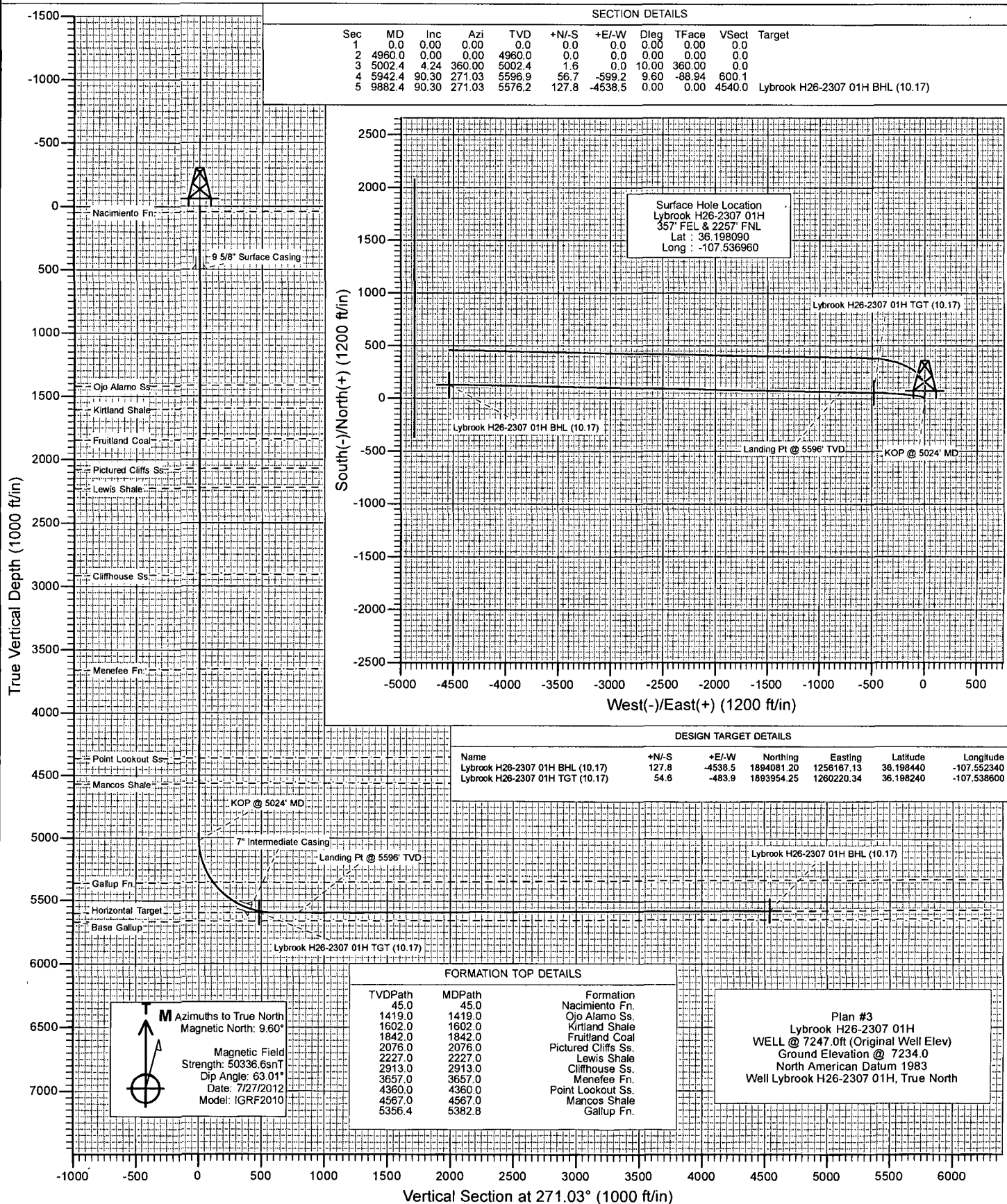
LOC: Sec 26-T23N-R7W County: Sandoval WELL: Lybrook H26-2307 01H			Encana Natural Gas WELL SUMMARY			encana™ natural gas		ENG: J. Fox/ A. 11/15/12 RIG: GLE: 7233 RKBE: 7247	
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH			HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			TVD	MD					
			60	60'		30	20" 94# 100sx Type I Neat 48.8ppg cmt	Fresh wtr 8.3-9.2	
Surveys After csg is run	None	Nacimiento	45			12 1/4	9 5/8" 36ppf J55 STC TOC @ surface 178 sks Type III Cmt	Fresh wtr 8.4-8.6	Vertical <1°
Surveys every 500'	No OH logs	Ojo Alamo Kirtland Fruitland Coal Pictured Cliffs Ss Lewis Shale Cliffhouse Ss Menelee Fn Point Lookout Ss Mancos Sh	1419 1,602 1842 2076 2227 2913 3657 4360 4567			8 1/2	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 626sks Lead 155 sks Tail 471sks	Fresh Wtr 8.5-8.8	Vertical <1°
	Mud logger onsite	KICK OFF PT	5024						KOP 5024 10 deg/100'
		Gallup	5357						
			5568	5751					
		horz target Base Gallup	5596 5667	6139		6 1/8	200' overlap at liner top 3744' Lateral		.25deg updip 5576'TVD TD = 9882' MD
Surveys every 500' Gyro at CP MWD Gamma Directional	No OH Logs						4 1/2" 11.6ppf SB80 LTC Running external swellable csg packers for isolation of prod string	Switch to OBM 8.6-9.0	

NOTES:

- 1) Drill with 30" bit to 60', set 20" 94# conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 5024' , 8 1/2" hole size
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 5751' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 3744' lateral to 9882', run 4 1/2" liner with external swellable csg packers



Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook H26-2307 01H
Wellbore: HZ
Design: Plan #3



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H26-2307 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Project:	Sandoval County, NM	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site:	Lybrook	North Reference:	True
Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Project			
Sandoval County, NM			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site		Lybrook			
Site Position:		Northing:	1,882,676.45 ft	Latitude:	36.168210
From:	Lat/Long	Easting:	1,287,068.90 ft	Longitude:	-107.447150
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.71 °

Well	Lybrook H26-2307 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,893,893.21 ft	Latitude:	36.198090
	+E/-W	0.0 ft	Easting:	1,260,703.52 ft	Longitude:	-107.536960
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,234.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/27/2012	9.60	63.01	50,337

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	271.03

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,960.0	0.00	0.00	4,960.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,002.4	4.24	360.00	5,002.4	1.6	0.0	10.00	10.00	0.00	360.00	
5,942.4	90.30	271.03	5,596.9	56.7	-599.2	9.60	9.16	-9.46	-88.94	
9,882.4	90.30	271.03	5,576.2	127.8	-4,538.5	0.00	0.00	0.00	0.00	Lybrook H26-2307 01

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Project:	Sandoval County, NM	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site:	Lybrook	North Reference:	True
Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
45.0	0.00	0.00	45.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8" Surface Casing
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,419.0	0.00	0.00	1,419.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,602.0	0.00	0.00	1,602.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,842.0	0.00	0.00	1,842.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,076.0	0.00	0.00	2,076.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,227.0	0.00	0.00	2,227.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
2,913.0	0.00	0.00	2,913.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,657.0	0.00	0.00	3,657.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Project:	Sandoval County, NM	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site:	Lybrook	North Reference:	True
Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,360.0	0.00	0.00	4,360.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,567.0	0.00	0.00	4,567.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	
4,960.0	0.00	0.00	4,960.0	0.0	0.0	0.0	0.00	0.00	
5,000.0	4.00	360.00	5,000.0	1.4	0.0	0.0	10.00	10.00	
5,002.4	4.24	360.00	5,002.4	1.6	0.0	0.0	10.00	10.00	
5,024.0	4.75	334.11	5,023.9	3.2	-0.4	0.4	9.60	2.38	KOP @ 5024' MD
5,100.0	10.35	295.02	5,099.3	8.9	-8.0	8.1	9.60	7.36	
5,200.0	19.49	283.15	5,195.8	16.5	-32.4	32.7	9.60	9.15	
5,300.0	28.93	278.77	5,286.9	24.0	-72.6	73.1	9.60	9.43	
5,382.8	36.80	276.74	5,356.4	30.0	-117.1	117.7	9.60	9.51	Gallup Fn.
5,400.0	38.44	276.42	5,370.0	31.2	-127.6	128.1	9.60	9.53	
5,500.0	47.98	274.89	5,442.8	37.8	-195.6	196.3	9.60	9.54	
5,600.0	57.54	273.76	5,503.3	43.8	-274.9	275.7	9.60	9.56	
5,700.0	67.10	272.85	5,549.7	48.8	-363.2	364.0	9.60	9.56	
5,751.2	72.00	272.44	5,567.6	51.1	-411.1	412.0	9.60	9.57	7" Intermediate Casing
5,800.0	76.67	272.06	5,580.7	52.9	-458.1	458.9	9.60	9.57	
5,828.1	79.36	271.85	5,586.6	53.8	-485.6	486.5	9.60	9.57	Lybrook H26-2307 01H TGT (10.17)
5,900.0	86.24	271.34	5,595.6	55.8	-556.8	557.7	9.60	9.57	
5,942.4	90.30	271.03	5,596.9	56.7	-599.2	600.1	9.60	9.57	
6,000.0	90.30	271.03	5,596.6	57.7	-656.8	657.7	0.00	0.00	
6,100.0	90.30	271.03	5,596.0	59.5	-756.7	757.7	0.00	0.00	
6,138.7	90.30	271.03	5,595.8	60.2	-795.4	796.4	0.00	0.00	Landing Pt @ 5596' TVD
6,200.0	90.30	271.03	5,595.5	61.3	-856.7	857.7	0.00	0.00	
6,300.0	90.30	271.03	5,595.0	63.1	-956.7	957.7	0.00	0.00	
6,400.0	90.30	271.03	5,594.5	65.0	-1,056.7	1,057.7	0.00	0.00	
6,500.0	90.30	271.03	5,593.9	66.8	-1,156.7	1,157.7	0.00	0.00	
6,600.0	90.30	271.03	5,593.4	68.6	-1,256.6	1,257.7	0.00	0.00	
6,700.0	90.30	271.03	5,592.9	70.4	-1,356.6	1,357.7	0.00	0.00	
6,800.0	90.30	271.03	5,592.4	72.2	-1,456.6	1,457.7	0.00	0.00	
6,900.0	90.30	271.03	5,591.8	74.0	-1,556.6	1,557.7	0.00	0.00	
7,000.0	90.30	271.03	5,591.3	75.8	-1,656.6	1,657.7	0.00	0.00	
7,100.0	90.30	271.03	5,590.8	77.6	-1,756.6	1,757.7	0.00	0.00	
7,200.0	90.30	271.03	5,590.2	79.4	-1,856.5	1,857.7	0.00	0.00	
7,300.0	90.30	271.03	5,589.7	81.2	-1,956.5	1,957.7	0.00	0.00	
7,400.0	90.30	271.03	5,589.2	83.0	-2,056.5	2,057.7	0.00	0.00	
7,500.0	90.30	271.03	5,588.7	84.8	-2,156.5	2,157.7	0.00	0.00	
7,600.0	90.30	271.03	5,588.1	86.6	-2,256.5	2,257.7	0.00	0.00	
7,700.0	90.30	271.03	5,587.6	88.4	-2,356.5	2,357.7	0.00	0.00	
7,800.0	90.30	271.03	5,587.1	90.2	-2,456.4	2,457.7	0.00	0.00	
7,900.0	90.30	271.03	5,586.6	92.0	-2,556.4	2,557.7	0.00	0.00	
8,000.0	90.30	271.03	5,586.0	93.8	-2,656.4	2,657.7	0.00	0.00	
8,100.0	90.30	271.03	5,585.5	95.6	-2,756.4	2,757.7	0.00	0.00	
8,200.0	90.30	271.03	5,585.0	97.4	-2,856.4	2,857.7	0.00	0.00	
8,300.0	90.30	271.03	5,584.5	99.2	-2,956.3	2,957.7	0.00	0.00	
8,400.0	90.30	271.03	5,583.9	101.0	-3,056.3	3,057.7	0.00	0.00	
8,500.0	90.30	271.03	5,583.4	102.8	-3,156.3	3,157.6	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H26-2307 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Project:	Sandoval County, NM	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site:	Lybrook	North Reference:	True
Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,600.0	90.30	271.03	5,582.9	104.6	-3,256.3	3,257.6	0.00	0.00	
8,700.0	90.30	271.03	5,582.4	106.4	-3,356.3	3,357.6	0.00	0.00	
8,800.0	90.30	271.03	5,581.8	108.3	-3,456.3	3,457.6	0.00	0.00	
8,900.0	90.30	271.03	5,581.3	110.1	-3,556.2	3,557.6	0.00	0.00	
9,000.0	90.30	271.03	5,580.8	111.9	-3,656.2	3,657.6	0.00	0.00	
9,100.0	90.30	271.03	5,580.3	113.7	-3,756.2	3,757.6	0.00	0.00	
9,200.0	90.30	271.03	5,579.7	115.5	-3,856.2	3,857.6	0.00	0.00	
9,300.0	90.30	271.03	5,579.2	117.3	-3,956.2	3,957.6	0.00	0.00	
9,400.0	90.30	271.03	5,578.7	119.1	-4,056.2	4,057.6	0.00	0.00	
9,500.0	90.30	271.03	5,578.2	120.9	-4,156.1	4,157.6	0.00	0.00	
9,600.0	90.30	271.03	5,577.6	122.7	-4,256.1	4,257.6	0.00	0.00	
9,700.0	90.30	271.03	5,577.1	124.5	-4,356.1	4,357.6	0.00	0.00	
9,800.0	90.30	271.03	5,576.6	126.3	-4,456.1	4,457.6	0.00	0.00	
9,882.4	90.30	271.03	5,576.2	127.8	-4,538.5	4,540.0	0.00	0.00	Lybrook H26-2307 01H BHL (10.17)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Lybrook H26-2307 01H I	0.00	0.00	5,576.2	127.8	-4,538.5	1,894,081.20	1,256,167.13	36.198440	-107.552340
- plan hits target center									
- Polygon									
Point 1			5,576.2	1,945.0	-330.0	1,896,030.41	1,255,862.97		
Point 2			5,576.2	-500.0	-330.0	1,893,585.62	1,255,830.53		
Lybrook H26-2307 01H ~	0.00	0.00	5,597.5	54.6	-483.9	1,893,954.25	1,260,220.34	36.198240	-107.538600
- plan misses target center by 11.0ft at 5828.1ft MD (5586.6 TVD, 53.8 N, -485.6 E)									
- Point									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
5,751.2	5,567.6	7" Intermediate Casing	0.000	0.000
500.0	500.0	9 5/8" Surface Casing	0.000	0.000

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H26-2307 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Project:	Sandoval County, NM	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site:	Lybrook	North Reference:	True
Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
45.0	45.0	Nacimiento Fn.		-0.30	271.03
1,419.0	1,419.0	Ojo Alamo Ss.		-0.30	271.03
1,602.0	1,602.0	Kirtland Shale		-0.30	271.03
1,842.0	1,842.0	Fruitland Coal		-0.30	271.03
2,076.0	2,076.0	Pictured Cliffs Ss.		-0.30	271.03
2,227.0	2,227.0	Lewis Shale		-0.30	271.03
2,913.0	2,913.0	Cliffhouse Ss.		-0.30	271.03
3,657.0	3,657.0	Menefee Fn.		-0.30	271.03
4,360.0	4,360.0	Point Lookout Ss.		-0.30	271.03
4,567.0	4,567.0	Mancos Shale		-0.30	271.03
5,382.8	5,357.0	Gallup Fn.		-0.30	271.03

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,024.0	5,023.9	3.2	-0.4	KOP @ 5024' MD	
6,138.7	5,595.8	60.2	-795.4	Landing Pt @ 5596' TVD	
9,938.7				TD at 9938.7	

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook H26-2307 01H

HZ

Plan #3

Anticollision Report

17 October, 2012

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook H26-2307 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Reference Site:	Lybrook	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	10/17/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	9,882.4	Plan #3 (HZ)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lybrook						
Lybrook H26-2307 02H - HZ - Plan #3	4,455.6	4,455.6	29.1	13.6	1.878	CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook H26-2307 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7247.0ft (Original Well Elev)
Reference Site:	Lybrook	MD Reference:	WELL @ 7247.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook H26-2307 01H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook H26-2307 02H - HZ - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	29.1	0.0	29.1	28.8	0.30	95.908		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.620		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	29.1	0.0	29.1	28.1	1.00	29.073		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	29.1	0.0	29.1	27.8	1.35	21.561		
500.0	500.0	500.0	500.0	0.8	0.8	0.00	29.1	0.0	29.1	27.4	1.70	17.133		
600.0	600.0	600.0	600.0	1.0	1.0	0.00	29.1	0.0	29.1	27.1	2.05	14.215		
700.0	700.0	700.0	700.0	1.2	1.2	0.00	29.1	0.0	29.1	26.7	2.40	12.146		
800.0	800.0	800.0	800.0	1.4	1.4	0.00	29.1	0.0	29.1	26.4	2.75	10.602		
900.0	900.0	900.0	900.0	1.5	1.5	0.00	29.1	0.0	29.1	26.0	3.10	9.407		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	0.00	29.1	0.0	29.1	25.7	3.45	8.454		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	0.00	29.1	0.0	29.1	25.3	3.79	7.676		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	0.00	29.1	0.0	29.1	25.0	4.14	7.029		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	0.00	29.1	0.0	29.1	24.6	4.49	6.483		
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	0.00	29.1	0.0	29.1	24.3	4.84	6.016		
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	0.00	29.1	0.0	29.1	23.9	5.19	5.611		
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	0.00	29.1	0.0	29.1	23.6	5.54	5.258		
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	0.00	29.1	0.0	29.1	23.2	5.89	4.946		
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	0.00	29.1	0.0	29.1	22.9	6.24	4.669		
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	0.00	29.1	0.0	29.1	22.5	6.59	4.422		
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	0.00	29.1	0.0	29.1	22.2	6.94	4.199		
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	0.00	29.1	0.0	29.1	21.8	7.29	3.998		
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	0.00	29.1	0.0	29.1	21.5	7.63	3.815		
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	0.00	29.1	0.0	29.1	21.1	7.98	3.648		
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	0.00	29.1	0.0	29.1	20.8	8.33	3.496		
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	0.00	29.1	0.0	29.1	20.4	8.68	3.355		
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	0.00	29.1	0.0	29.1	20.1	9.03	3.225		
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	0.00	29.1	0.0	29.1	19.7	9.38	3.105		
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	0.00	29.1	0.0	29.1	19.4	9.73	2.994		
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	0.00	29.1	0.0	29.1	19.0	10.08	2.890		
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	0.00	29.1	0.0	29.1	18.7	10.43	2.793		
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	0.00	29.1	0.0	29.1	18.4	10.78	2.703		
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	0.00	29.1	0.0	29.1	18.0	11.12	2.618		
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	0.00	29.1	0.0	29.1	17.7	11.47	2.538		
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	0.00	29.1	0.0	29.1	17.3	11.82	2.464		
3,500.0	3,500.0	3,500.0	3,500.0	6.1	6.1	0.00	29.1	0.0	29.1	17.0	12.17	2.393		
3,600.0	3,600.0	3,600.0	3,600.0	6.3	6.3	0.00	29.1	0.0	29.1	16.6	12.52	2.326		
3,700.0	3,700.0	3,700.0	3,700.0	6.4	6.4	0.00	29.1	0.0	29.1	16.3	12.87	2.263		
3,800.0	3,800.0	3,800.0	3,800.0	6.6	6.6	0.00	29.1	0.0	29.1	15.9	13.22	2.203		
3,900.0	3,900.0	3,900.0	3,900.0	6.8	6.8	0.00	29.1	0.0	29.1	15.6	13.57	2.147		
4,000.0	4,000.0	4,000.0	4,000.0	7.0	7.0	0.00	29.1	0.0	29.1	15.2	13.92	2.093		
4,100.0	4,100.0	4,100.0	4,100.0	7.1	7.1	0.00	29.1	0.0	29.1	14.9	14.27	2.042		
4,200.0	4,200.0	4,200.0	4,200.0	7.3	7.3	0.00	29.1	0.0	29.1	14.5	14.62	1.993		
4,300.0	4,300.0	4,300.0	4,300.0	7.5	7.5	0.00	29.1	0.0	29.1	14.2	14.96	1.946		
4,400.0	4,400.0	4,400.0	4,400.0	7.7	7.7	0.00	29.1	0.0	29.1	13.8	15.31	1.902		
4,455.6	4,455.6	4,455.6	4,455.6	7.8	7.8	0.00	29.1	0.0	29.1	13.6	15.51	1.878 CC, ES, SF		
4,500.0	4,500.0	4,498.8	4,498.8	7.8	7.8	0.02	29.6	0.0	29.6	14.0	15.66	1.893		
4,600.0	4,600.0	4,592.3	4,591.5	8.0	8.0	0.29	41.1	0.2	42.0	26.0	16.00	2.623		
4,700.0	4,700.0	4,679.9	4,675.6	8.2	8.2	0.56	65.4	0.6	69.8	53.5	16.33	4.275		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Reference Site: Lybrook
Site Error: 0.0ft
Reference Well: Lybrook H26-2307 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #3

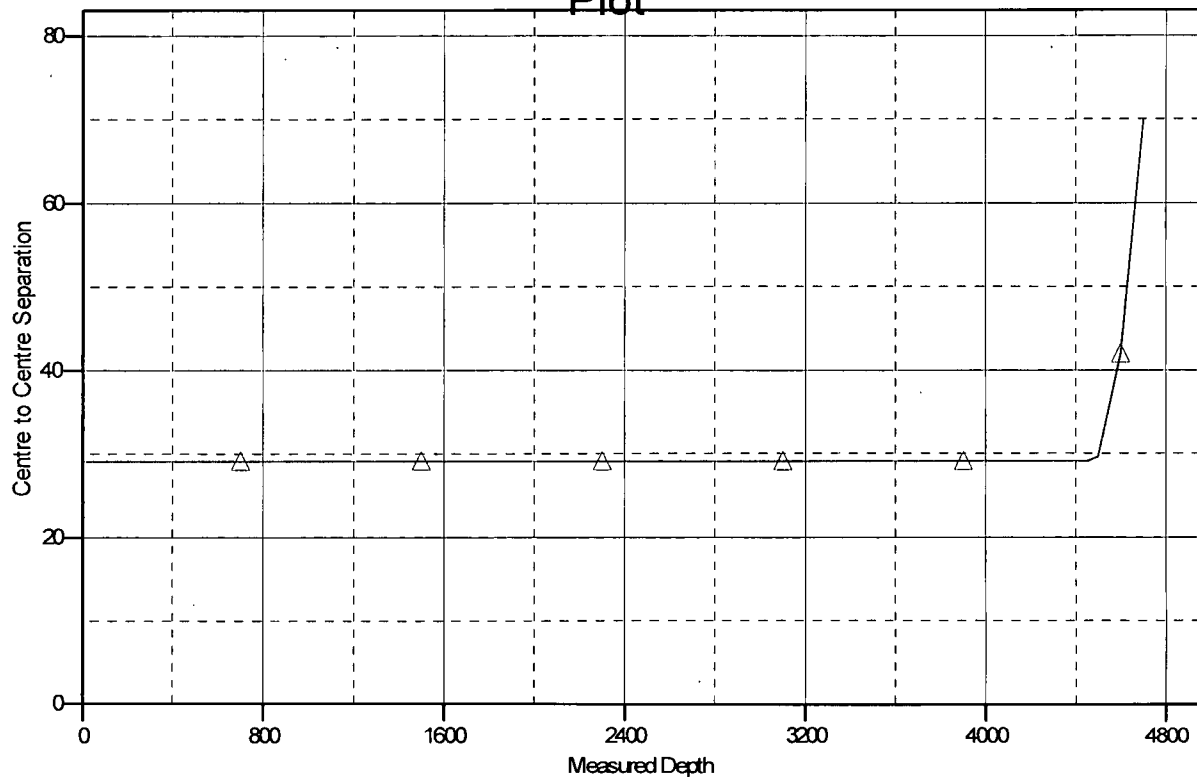
Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Output errors are at
Database:
Offset TVD Reference:

Well Lybrook H26-2307 01H
 WELL @ 7247.0ft (Original Well Elev)
 WELL @ 7247.0ft (Original Well Elev)
 True
 Minimum Curvature
 2.00 sigma
 USA EDM 5000 Multi Users DB
 Offset Datum

Reference Depths are relative to WELL @ 7247.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.250000 °

Coordinates are relative to: Lybrook H26-2307 01H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.76°

Ladder Plot



LEGEND

Lybrook H26-2307 02H, HZ, Plan #3 V0