

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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.

5. Lease Serial No.
NMNM 112953

6. If Indian, Allottee or Tribe Name
N/A

RCVD JAN 15 '14

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

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

OIL CONS. DIV.

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

8. Well Name and No.
Lybrook E27-2306 01H

DIST. 3

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

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

9. API Well No.
30-043-21152

10. Field and Pool or Exploratory Area
Counselors Gallup-Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1569' FNL and 199' FWL Section 27, T23N, R6W
BHL: 700' FNL and 660' FWL Section 28, T23N, R6W

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 w/drawal of 09/27/13
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	sundry; clarification of
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	BHL and POE

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.)

In an effort to alleviate any confusion Encana Oil & Gas (USA) Inc. (Encana) wishes to do the following in relation to the Lybrook E27-2306 01H oil well:

Formally request to withdraw the sundry submitted on September 27, 2013 as bottom hole location and point of entry has changed. Said sundry was approved by the Bureau of Land Management (BLM) on October 17, 2013.

Further Encana wishes to clarify that the adjustments requested in the sundry Encana dated October 15, 2013 are the correct/new revisions and shall supercede the September 27, 2013 sundry. Please note that the BLM and NMOCDA have both approved the October 17, 2013 sundry, which reflects the correct adjustments as follows:

- Point of entry: 700' FNL, 660' FEL Section 28, T23N, R6W.
- Bottom hole location: 700' FNL, 660' FWL Section 28, T23N, R6W.
- Casing Program: 7" Intermediate casing: 6,035' MD from 6,450' MD.
- Total depth: 5,570' TVD/10,506' MD from 5,560' TVD/11,171' MD

For reference only please find attached the sundry dated October 15, 2013 in it's entirety.

Estimated spud date for the Lybrook E27-2306 01H well is December 14, 2013.

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

Name (Printed/Typed)
Holly Hill

Title Regulatory Analyst

Signature

Holly Hill

Date

11/11/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB No. 1004-0137

Expires July 31, 2010

CONFIDENTIAL

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5. Lease Serial No.
NMNM 112953

6. If Indian, Allottee or Tribe Name
N/A

SEP 10 2013

SUBMIT IN TRIPLICATE – Other instructions on page 2.

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

8. Well Name and No.
Lybrook E27-2306 01H

9. API Well No.
30-043-21152

10. Field and Pool or Exploratory Area
Counselors Gallup-Dakota

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

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)
720-876-3567

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1569' FNL and 199' FWL Section 27, T23N, R6W
BHL: 1270' FNL and 330' FWL Section 28, T23N, R6W

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 revise BHL
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	and 7" csg depth
	☐ 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 recompletable 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 recompletable 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 bottom hole location, and 7" casing setting depth and cement program for the Lybrook E27-2306 01H oil well.

The new bottom hole location will be 1270' FNL, 330' FWL Section 28, T23N, R6W.

Encana's casing program will contain the following changes: 7" Intermediate casing: from 6,450' MD to 5,832.

These revisions change the total depth (TD) of subject well to 5,563' TVD/10,539' MD from 5,560' TVD/11,171' MD

Please see attached C-102, drilling plan, directional plan and wellbore diagram for details.

Estimated spud date for the Lybrook E27-2306 01H well is December 27, 2013.

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.

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

Name (Printed/Typed)
Catherine Anadu

Title Regulatory Analyst

Signature

Date 9/27/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

William Tenbrun

Title

Petroleum Engineer

Date

10/17/2013

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.

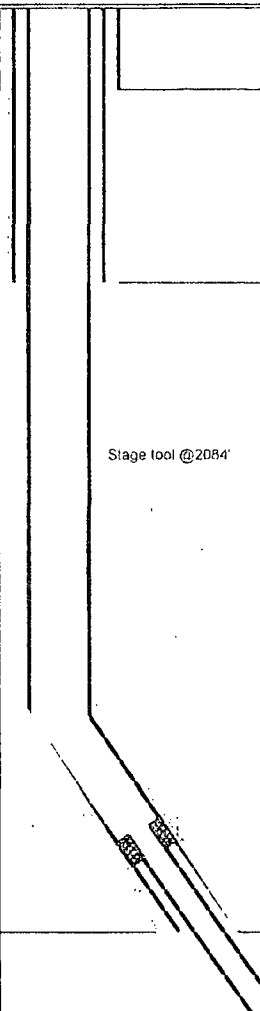
Office

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)

OPERATOR

LOC: Sec 27-T23N-R6W County: Sandoval WELL: Lybrook E27-2306 01H			Encana Natural Gas WELL SUMMARY					ENG: 9/26/13 RIG: GLE: 7054 RKBE: 7067	
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 Neal 16.0ppg cmt	Fresh wtr 8.3-9.2	
Surveys After csg is run	None		500	500		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 Menefee Fn Point Lookout Ss Mancos Sh	1477 1633 1852 2034 2157 2896 3580 4280 4481			8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 590 sksTotal. Stage 1 Lead : 241sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL- 52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk. Stage 1 Tail: 165sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk. Stage 2: 184 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk.	Fresh Wtr 8.5-8.8	Vertical <1°
	Mud logger onsite	KICK OFF PT Mancos Silt Gallup Top 7" csg	4866 5098 5342 5570	5832		6 1/8	200' overlap at liner top		KOP 4866 10 deg/100'
		horz target	5587	5983			4952' Lateral	8.6-9.0 OBM	2500g mud 5563'TVD TD = 10539' 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 Plan on setting top packer within 100' of intermediate casing shoe	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 4866', 8 3/4" hole size,
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 5832' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 4952' lateral to 10539', run 4 1/2" liner with external swellable csg packers

District I
3625 N. Federal Drive, Hobbs, NM 88240
Phone (505) 393 6161 Fax (505) 393-0720

District II
811 S. Santa Fe Street, Artesia, NM 88210
Phone (505) 748 1233 Fax (505) 748 9720

District III
3625 N. Federal Drive, 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 EN-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

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

RECEIVED

NOV 13 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

Farmington Field Office
Bureau of Land Management

Well Number	13579	Property Name	COUNSFLORES GALLUP DAKOTA
Well Number	01H	Operator Name	LYBROOK E27-2306
Elevation	7054	Operator Name	ENCANA OIL & GAS (USA) INC.

10 Surface Location

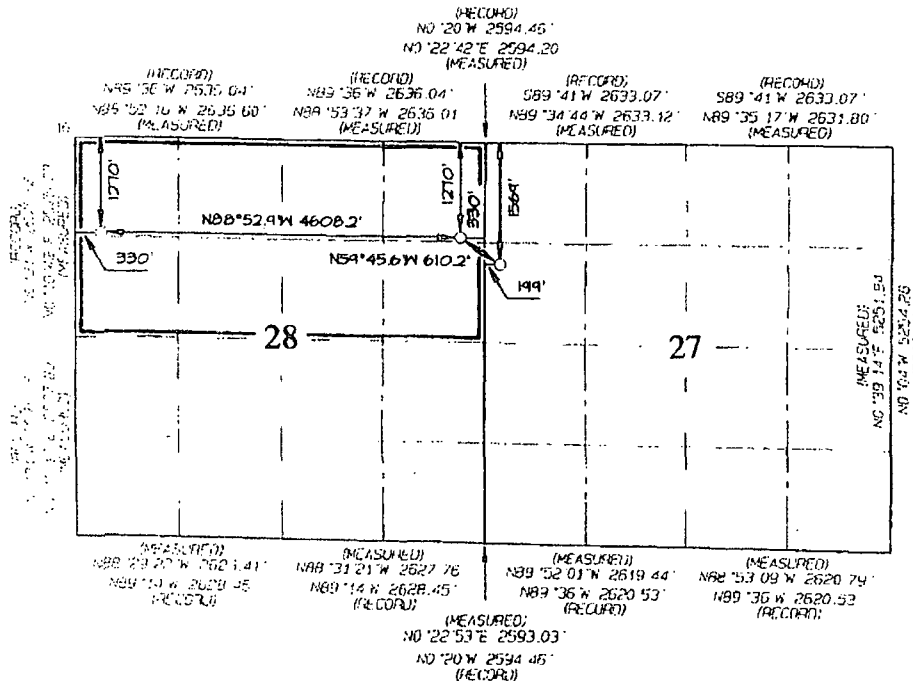
Section	Range	Lot	Feet from the	North/South Line	Feet from the	Last/Next Line	County
27	23N	6W	1569	NORTH	199	WEST	SANDOVAL

Bottom Hole Location If Different From Surface

Section	Range	Lot	Feet from the	North/South Line	Feet from the	Last/Next Line	County
28	23N	6W	1270	NORTH	330	WEST	SANDOVAL

Acres	320.00 Acres	Block or Initial	Consolidation Code	Order No.
	N/2 - Section 28			

NO ACREAGE WILL BE ASSIGNED TO THIS COMPLETION UNIT IF ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

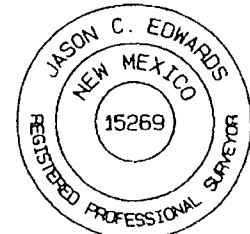


17 OPERATOR CERTIFICATION
I hereby certify that the information contained
herein is true and complete to the best of my
knowledge and belief, and that this organization
either owns a working interest or unleased
mineral interest in the land including the
proposed bottom-hole location or has a right
to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

Holly Hill 9/17/13
Signature
Holly Hill
Print Name
Holly Hill, Encana, Inc.
Print Address

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

Date Revised: 09/19/2013
Survey Date: OCTOBER 22, 2013
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

POINT OF ENTRY
1270 FM. 330 F.W.
SECTION 28, 23N, 6W
LAT. 36.19988° N
LONG. 107.46502° W
DATUM: NAD1983

POINT OF ENTRY
1270 FM. 330 F.W.
SECTION 27, 23N, 6W
LAT. 36.19988° N
LONG. 107.46502° W
DATUM: NAD1983

SURFACE LOCATION
1569 FM. 199 F.W.
SECTION 27, 23N, 6W
LAT. 36.19905° N
LONG. 107.46322° W
DATUM: NAD1983

Lybrook E27-2306 01H – API: 30-043-21152
 SHL: SWNW Section 27, T23N, R6W
 1569 FNL and 199 FWL
 BHL: NWNW Section 28, T23N, R6W
 1270 FNL and 330 FWL
 Sandoval County, New Mexico
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Encana Oil & Gas (USA) Inc. Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
Ojo Alamo Ss.	1,477
Kirtland Shale	1,633
Fruitland Coal	1,852
Pictured Cliffs Ss.	2,034
Lewis Shale	2,157
Cliffhouse Ss.	2,896
Menefee Fn.	3,580
Point Lookout Ss.	4,280
Mancos Shale	4,481
Mancos Silt	5,098
Gallup Fn.	5,342

The referenced surface elevation is 7054', KB 7070'.

2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS, & OTHER MINERAL BEARING FORMATIONS

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,852
Oil/Gas	Pictured Cliffs Ss.	2,034
Oil/Gas	Cliffhouse Ss.	2,896
Gas	Menefee Fn.	3,580
Oil/Gas	Point Lookout Ss.	4,280
Oil/Gas	Mancos Shale	4,481
Oil/Gas	Mancos Silt	5,098
Oil/Gas	Gallup Fn.	5,342

All shows of fresh water and minerals will be reported and protected.

3. PRESSURE CONTROL

- a) Pressure control equipment and configuration will be designed to meet 2M standards.
- b) Working pressure on rams and BOPE will be 3,000 psi
- c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.

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- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- l) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

- a) The proposed casing design is as follows:

Casing	Depth	Hole Size	Csg Size	Weight	Grade
Conductor	0-60'	30"	20"	94#	H40, STC New
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5832'MD	8 3/4"	7"	26#	J55, LTC New
Production Liner	5632'-10539'MD	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lb)	Collapse	Burst	Tension
9 5/8"	36	J55	STC	2020	3520	394	1.125	1.1	1.5
7"	26	J55	LTC	4320	4980	367	1.125	1.1	1.5
4 1/2"	11.6	B80	LTC	6350	7780	201	1.125	1.1	1.5

Casing design is subject to revision based on geologic conditions encountered.

Lybrook E27-2306 01H – API: 30-043-21152

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1270 FNL and 330 FWL

Sandoval County, New Mexico

Lease Number: NMNM 112953

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

b) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

Casing	Depth	Cement Volume (sacks)	Cement Type&Yield	Designed TOC	Centralizers
Conductor	60'	100sk	Type I Neat 16.0 ppg	Surface	None
Surface	500'	178sk	Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 16ppg, 1.38cuft/sk	Surface	1 per joint on bottom 3 joints
Intermediate	5832'MD	30% open hole excess Stage 1 Lead: 241sks Stage 1 Tail: 165sks Stage 2 Lead: 184sks	Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuft/sk Tail (Stage 1): Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuft/sk	Surface	1 per joint for bottom 3 joints, 1 every 3 joints for remaining joints
Production Liner*	5632'-10539'	None – External casing packers	N/A	N/A	N/A

*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner.

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected.

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

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1270 FNL and 330 FWL

Sandoval County, New Mexico

Lease Number: NMNM 112953

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4866'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5563'/10539'	Gallup

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60' TVD	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0-500' TVD	Fresh Water	8.4-8.6	60-70	NC
8 3/4"	500'TVD- 5570'TVD/5832'MD	Fresh Water LSND	8.5-8.8	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5832'-10539'	Synthetic Oil Based Mud	8.6-9.0	15-25	<15

- c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals, including fresh water and oil-based operations. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

7. TESTING, CORING and LOGGING

- a) Drill Stem Testing – None anticipated
b) Coring – None anticipated.
c) Mud Logging – Mud loggers will be on location from kick off point to TD.
d) Logging – See Below

Cased Hole:

CBL/CCL/GR/VDL will be run as needed for perforating control

Lybrook E27-2306 01H – API: 30-043-21152

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1569 FNL and 199 FWL

BHL: NWNW Section 28, T23N, R6W

1270 FNL and 330 FWL

Sandoval County, New Mexico

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8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2615 psi based on a 9.0 ppg at 5587' TVD of the landing point of the horizontal lateral. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H₂S is encountered, the guidelines in Onshore Order No. 6 will be followed.

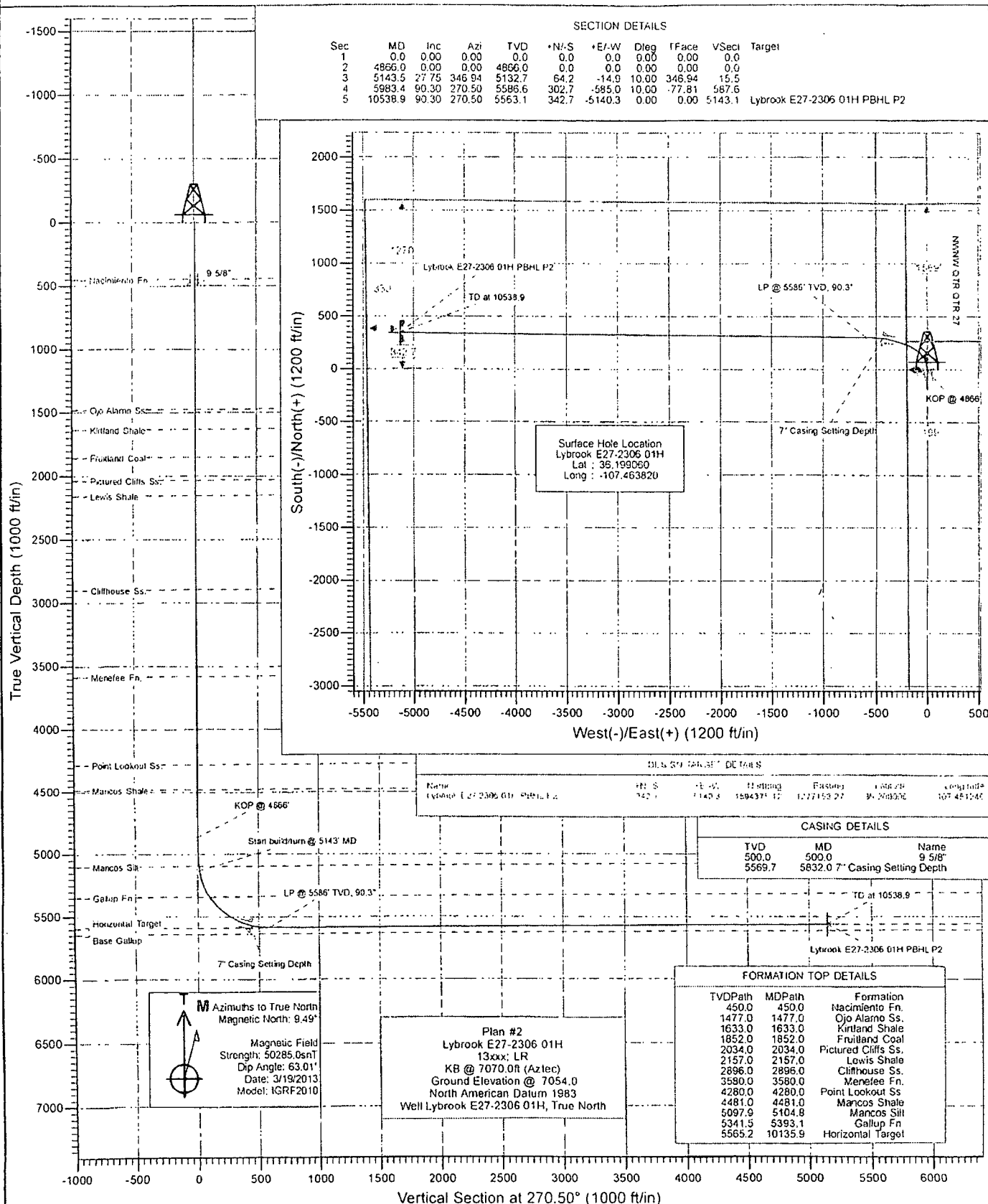
9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on December 27, 2013. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 20 days.

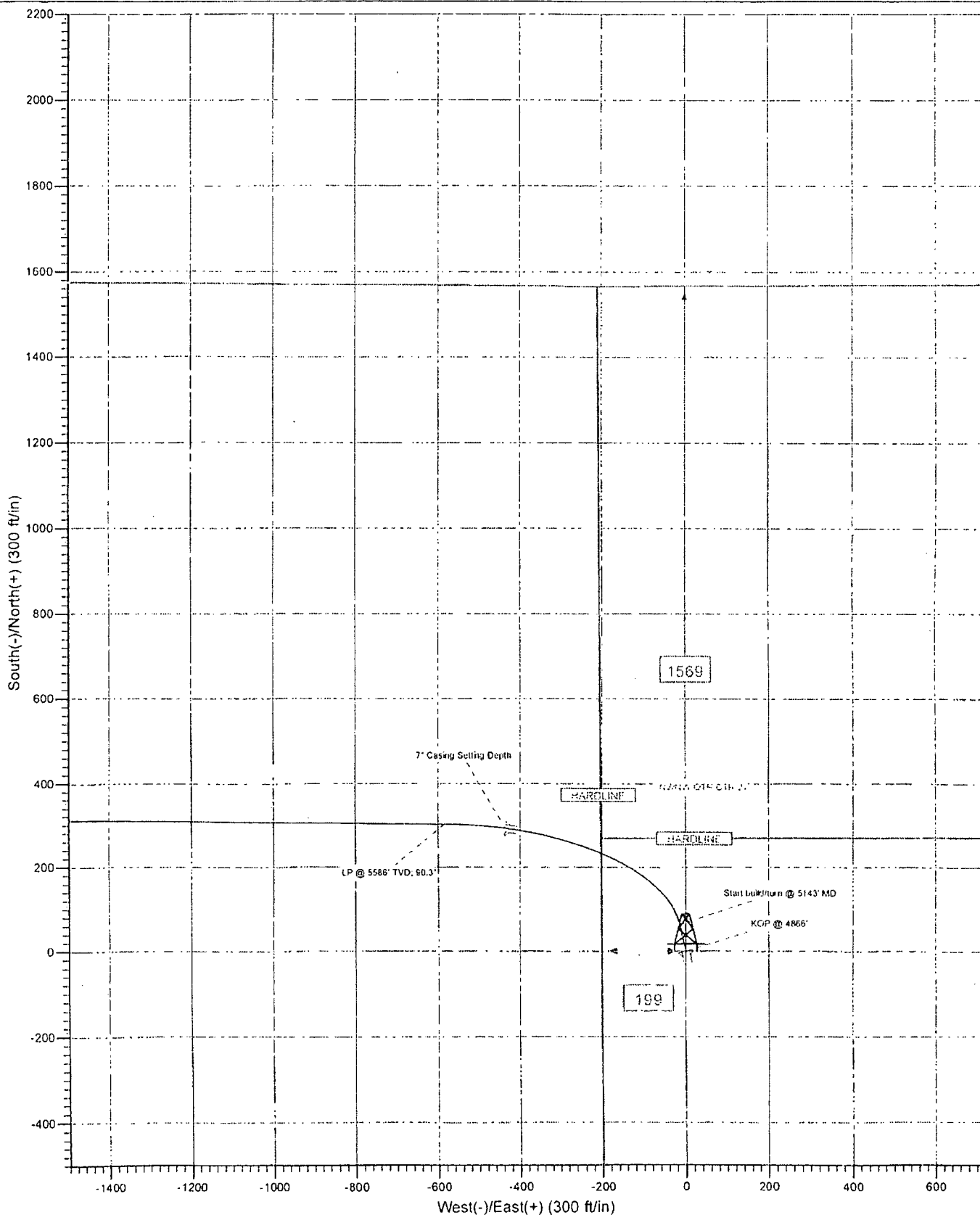


Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook E27-2306 01H
Wellbore: Hz
Design: Plan #2





Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook E27-2306 01H
Wellbore: Hz
Design: Plan #2



Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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 E27-2306 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,893,968.14 ft	Latitude:	36.199060
	+E/-W	0.0 ft	Easting:	1,282,288.84 ft	Longitude:	-107.463820
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,054.0 ft	

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2013	9.49	- 63.01	50,285

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	270.50

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	
4,866.0	0.00	0.00	4,866.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,143.5	27.75	346.94	5,132.7	64.2	-14.9	10.00	10.00	0.00	346.94	
5,983.4	90.30	270.50	5,586.6	302.7	-585.0	10.00	7.45	-9.10	-77.81	
10,538.9	90.30	270.50	5,563.1	342.7	-5,140.3	0.00	0.00	0.00	0.00	Lybrook E27-2306 01

10/17/2013
 William Tamborek
 10/17/2013

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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	
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	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fm
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8"
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	
1,477.0	0.00	0.00	1,477.0	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	
1,633.0	0.00	0.00	1,633.0	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	
1,852.0	0.00	0.00	1,852.0	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	
2,034.0	0.00	0.00	2,034.0	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	
2,157.0	0.00	0.00	2,157.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
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	
2,896.0	0.00	0.00	2,896.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
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	
3,580.0	0.00	0.00	3,580.0	0.0	0.0	0.0	0.00	0.00	Menefee Fm
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
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	
4,280.0	0.00	0.00	4,280.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook E27-2306 01H
Wellbore: Hz
Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
TVD Reference: KB @ 7070.0ft (Aztec)
MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature

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
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,481.0	0.00	0.00	4,481.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
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	
4,866.0	0.00	0.00	4,866.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4866'
4,900.0	3.40	346.94	4,900.0	1.0	-0.2	0.2	10.00	10.00	
5,000.0	13.40	346.94	4,998.8	15.2	-3.5	3.7	10.00	10.00	
5,100.0	23.40	346.94	5,093.5	45.9	-10.7	11.1	10.00	10.00	
5,104.8	23.88	346.94	5,097.9	47.8	-11.1	11.5	10.00	10.00	Mancos Silt
5,143.5	27.75	346.94	5,132.7	64.2	-14.9	15.5	10.00	10.00	Start build/turn @ 5143' MD
5,200.0	29.42	335.63	5,182.4	89.7	-23.6	24.4	10.00	2.96	
5,300.0	34.34	319.07	5,267.5	133.5	-52.3	53.5	10.00	4.92	
5,393.1	40.46	307.46	5,341.5	171.8	-93.6	95.1	10.00	6.57	Gallup Fm
5,400.0	40.95	306.73	5,346.7	174.5	-97.2	98.7	10.00	7.16	
5,500.0	48.56	297.47	5,417.8	211.5	-156.8	158.7	10.00	7.61	
5,600.0	56.75	290.23	5,478.4	243.3	-229.5	231.6	10.00	8.19	
5,700.0	65.28	284.26	5,526.9	269.0	-313.0	315.3	10.00	8.53	
5,800.0	74.02	279.07	5,561.6	287.8	-404.7	407.2	10.00	8.74	
5,832.0	76.84	277.52	5,569.7	292.3	-435.3	437.9	10.00	8.83	7" Casing Setting Depth
5,900.0	82.87	274.32	5,581.7	299.2	-501.9	504.5	10.00	8.87	
5,983.4	90.30	270.50	5,586.6	302.7	-585.0	587.6	10.00	8.90	LP @ 5586' TVD, 90.3°
6,000.0	90.30	270.50	5,586.5	302.8	-601.6	604.2	0.00	0.00	
6,100.0	90.30	270.50	5,586.0	303.7	-701.6	704.2	0.00	0.00	
6,200.0	90.30	270.50	5,585.5	304.6	-801.6	804.2	0.00	0.00	
6,300.0	90.30	270.50	5,585.0	305.4	-901.6	904.2	0.00	0.00	
6,400.0	90.30	270.50	5,584.5	306.3	-1,001.5	1,004.2	0.00	0.00	
6,500.0	90.30	270.50	5,584.0	307.2	-1,101.5	1,104.2	0.00	0.00	
6,600.0	90.30	270.50	5,583.4	308.1	-1,201.5	1,204.2	0.00	0.00	
6,700.0	90.30	270.50	5,582.9	309.0	-1,301.5	1,304.2	0.00	0.00	
6,800.0	90.30	270.50	5,582.4	309.8	-1,401.5	1,404.2	0.00	0.00	
6,900.0	90.30	270.50	5,581.9	310.7	-1,501.5	1,504.2	0.00	0.00	
7,000.0	90.30	270.50	5,581.4	311.6	-1,601.5	1,604.2	0.00	0.00	
7,100.0	90.30	270.50	5,580.9	312.5	-1,701.5	1,704.2	0.00	0.00	
7,200.0	90.30	270.50	5,580.3	313.3	-1,801.5	1,804.2	0.00	0.00	
7,300.0	90.30	270.50	5,579.8	314.2	-1,901.5	1,904.2	0.00	0.00	
7,400.0	90.30	270.50	5,579.3	315.1	-2,001.5	2,004.2	0.00	0.00	
7,500.0	90.30	270.50	5,578.8	316.0	-2,101.5	2,104.2	0.00	0.00	
7,600.0	90.30	270.50	5,578.3	316.9	-2,201.5	2,204.2	0.00	0.00	
7,700.0	90.30	270.50	5,577.8	317.7	-2,301.5	2,304.2	0.00	0.00	
7,800.0	90.30	270.50	5,577.2	318.6	-2,401.5	2,404.2	0.00	0.00	
7,900.0	90.30	270.50	5,576.7	319.5	-2,501.5	2,504.2	0.00	0.00	
8,000.0	90.30	270.50	5,576.2	320.4	-2,601.5	2,604.2	0.00	0.00	
8,100.0	90.30	270.50	5,575.7	321.3	-2,701.5	2,704.2	0.00	0.00	
8,200.0	90.30	270.50	5,575.2	322.1	-2,801.5	2,804.2	0.00	0.00	
8,300.0	90.30	270.50	5,574.7	323.0	-2,901.5	2,904.2	0.00	0.00	
8,400.0	90.30	270.50	5,574.1	323.9	-3,001.4	3,004.2	0.00	0.00	
8,500.0	90.30	270.50	5,573.6	324.8	-3,101.4	3,104.2	0.00	0.00	
8,600.0	90.30	270.50	5,573.1	325.6	-3,201.4	3,204.2	0.00	0.00	
8,700.0	90.30	270.50	5,572.6	326.5	-3,301.4	3,304.2	0.00	0.00	

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
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Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
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MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature

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
8,800.0	90.30	270.50	5,572.1	327.4	-3,401.4	3,404.2	0.00	0.00	
8,900.0	90.30	270.50	5,571.6	328.3	-3,501.4	3,504.2	0.00	0.00	
9,000.0	90.30	270.50	5,571.0	329.2	-3,601.4	3,604.1	0.00	0.00	
9,100.0	90.30	270.50	5,570.5	330.0	-3,701.4	3,704.1	0.00	0.00	
9,200.0	90.30	270.50	5,570.0	330.9	-3,801.4	3,804.1	0.00	0.00	
9,300.0	90.30	270.50	5,569.5	331.8	-3,901.4	3,904.1	0.00	0.00	
9,400.0	90.30	270.50	5,569.0	332.7	-4,001.4	4,004.1	0.00	0.00	
9,500.0	90.30	270.50	5,568.5	333.6	-4,101.4	4,104.1	0.00	0.00	
9,600.0	90.30	270.50	5,567.9	334.4	-4,201.4	4,204.1	0.00	0.00	
9,700.0	90.30	270.50	5,567.4	335.3	-4,301.4	4,304.1	0.00	0.00	
9,800.0	90.30	270.50	5,566.9	336.2	-4,401.4	4,404.1	0.00	0.00	
9,900.0	90.30	270.50	5,566.4	337.1	-4,501.4	4,504.1	0.00	0.00	
10,000.0	90.30	270.50	5,565.9	337.9	-4,601.4	4,604.1	0.00	0.00	
10,100.0	90.30	270.50	5,565.4	338.8	-4,701.4	4,704.1	0.00	0.00	
10,135.9	90.30	270.50	5,565.2	339.1	-4,737.3	4,740.1	0.00	0.00	Horizontal Target
10,200.0	90.30	270.50	5,564.9	339.7	-4,801.4	4,804.1	0.00	0.00	
10,300.0	90.30	270.50	5,564.3	340.6	-4,901.3	4,904.1	0.00	0.00	
10,400.0	90.30	270.50	5,563.8	341.5	-5,001.3	5,004.1	0.00	0.00	
10,500.0	90.30	270.50	5,563.3	342.3	-5,101.3	5,104.1	0.00	0.00	
10,538.9	90.30	270.50	5,563.1	342.7	-5,140.3	5,143.1	0.00	0.00	TD at 10538.9

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Lybrook E27-2306 01H I - hit/miss target - Shape - Point	0.00	0.00	5,590.9	302.2	-531.1	1,894,276.95	1,281,761.52	36.199890	-107.465620
- plan misses target center by 6.3ft at 5929.9ft MD (5584.7 TVD, 301.0 N, -531.6 E)									
Lybrook E27-2306 01H I - plan hits target center - Point	0.00	0.00	5,563.1	342.7	-5,140.3	1,894,375.12	1,277,153.27	36.200000	-107.481240
Lybrook E27-2306 01H I - plan misses target center by 710.0ft at 10538.9ft MD (5563.1 TVD, 342.7 N, -5140.3 E) - Point	0.00	0.00	5,563.0	1,052.6	-5,146.0	1,895,085.08	1,277,156.38	36.201950	-107.481260

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.0	500.0	9 5/8"	0.000	0.000
5,832.0	5,569.7	7" Casing Setting Depth	0.000	0.000

Planning Report

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Project: Sandoval County, NM
Site: Lybrook
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Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
TVD Reference: KB @ 7070.0ft (Aztec)
MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
450.0	450.0	Nacimiento Fn.		-0.30	270.50	
1,477.0	1,477.0	Ojo Alamo Ss.		-0.30	270.50	
1,633.0	1,633.0	Kirtland Shale		-0.30	270.50	
1,852.0	1,852.0	Fruitland Coal		-0.30	270.50	
2,034.0	2,034.0	Pictured Cliffs Ss.		-0.30	270.50	
2,157.0	2,157.0	Lewis Shale		-0.30	270.50	
2,896.0	2,896.0	Cliffhouse Ss.		-0.30	270.50	
3,580.0	3,580.0	Menefee Fn.		-0.30	270.50	
4,280.0	4,280.0	Point Lookout Ss.		-0.30	270.50	
4,481.0	4,481.0	Mancos Shale		-0.30	270.50	
5,104.8	5,098.0	Mancos Silt		-0.30	270.50	
5,393.1	5,342.0	Gallup Fn.		-0.30	270.50	
10,135.9	5,590.0	Horizontal Target		-0.30	270.50	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
4,866.0	4,866.0	0.0	0.0	KOP @ 4866'	
5,143.5	5,132.7	64.2	-14.9	Start build/turn @ 5143' MD	
5,983.4	5,586.6	302.7	-585.0	LP @ 5586' TVD: 90.3°	
10,538.9	5,563.1	342.7	-5,140.3	TD at 10538.9	

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook E27-2306 01H

Hz

Plan #2

Anticollision Report

23 September, 2013

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Reference Site: Lybrook
 Site Error: 0.0ft
 Reference Well: Lybrook E27-2306 01H
 Well Error: 0.0ft
 Reference Wellbore: Hz
 Reference Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 10.0ft	Error Model:	Systematic Ellipse
Depth Range:	7,735.0 to 999,999.0ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date 9/23/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,538.9	Plan #2 (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 E27-2306 03H - Hz - Plan #2						Out of range

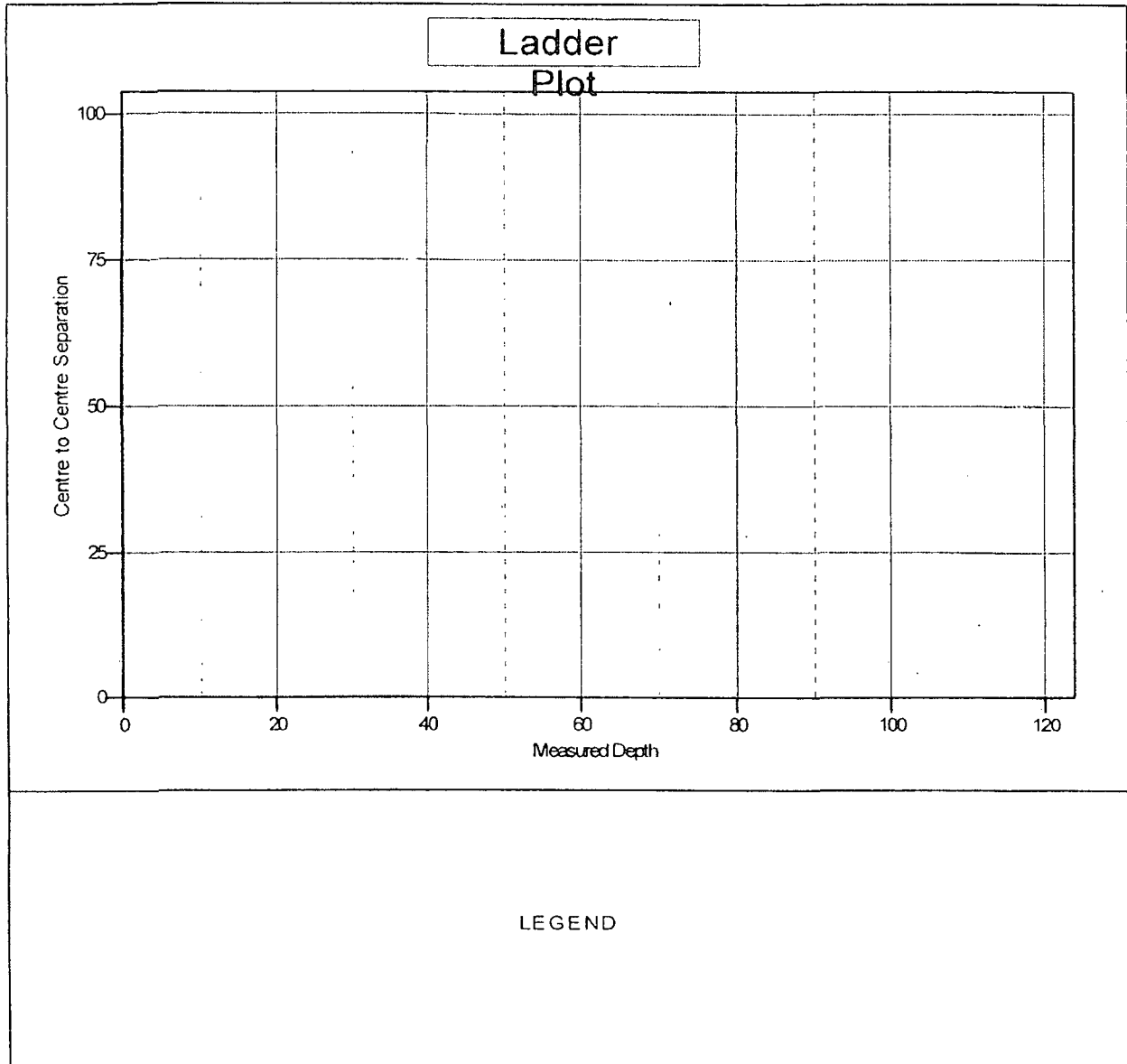
Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Reference Site: Lybrook
Site Error: 0.0ft
Reference Well: Lybrook E27-2306 01H
Well Error: 0.0ft
Reference Wellbore: Hz
Reference Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
TVD Reference: KB @ 7070.0ft (Aztec)
MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 7070.0ft (Aztec)
Offset Depths are relative to Offset Datum
Central Meridian is -106.250000 °

Coordinates are relative to: Lybrook E27-2306 01H
Coordinate System is US State Plane 1983, New Mexico Central Zone
Grid Convergence at Surface is: -0.72°



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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.**

5. Lease Serial No.
MINM 112953

6. If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE - Other instructions on page 2. **MAR 21 2014**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

Farmington Field Office
Bureau of Land Management

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

8. Well Name and No.
Lybrook E27-2306 01H

9. API Well No.
30-043-21152

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

3b. Phone No. (include area code)
720-876-3567

10. Field and Pool or Exploratory Area
Counselors Gallup-Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1569' FNL and 199' FWL Section 27, T23N, R6W
BHL: 1270' FNL and 330' FWL Section 28, T23N, R6W

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 revise BHL
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	and 7" csg depth
	☐ 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 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 bottom hole location, and 7" casing setting depth and cement program for the Lybrook E27-2306 01H oil well.

The new bottom hole location will be 1270' FNL, 330' FWL Section 28, T23N, R6W.

Encana's casing program will contain the following changes: 7" Intermediate casing: from 6,450' MD to 5,832.

These revisions change the total depth (TD) of subject well to 5,563' TVD/10,539' MD from 5,560' TVD/11,171' MD

Please see attached C-102, drilling plan, directional plan and wellbore diagram for details.

Estimated spud date for the Lybrook E27-2306 01H well is December 27, 2013.

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

Name (Printed/Typed)
Catherine Anadu

Title Regulatory Analyst

Signature

Date

9/27/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

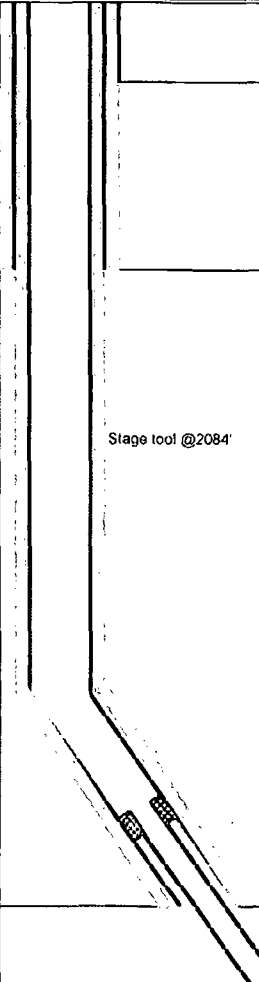
Date

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)

LOC: Sec 27-T23N-R6W County: Sandoval WELL: Lybrook E27-2306 01H			Encana Natural Gas WELL SUMMARY						ENG: 9/26/13 RIG: GLE: 7054 RKBE: 7067
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 16.0ppg cmt	Fresh wtr 8.3-9.2	
Surveys After csg is run	None					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 Menefee Fr Point Lookout Ss Mancos Sh	1477 1633 1852 2034 2157 2896 3580 4280 4481	500 500		8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 590 sks Total. Stage 1 Lead: 241sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL- 52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk. Stage 1 Tail: 165sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk. Stage 2: 184 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk.	Fresh Wtr 8.5-8.8	Vertical <1°
	Mud logger onsite	KICK OFF PT Mancos Silt Gallup Top 7" csg	4866 5098 5342 5570	5832		6 1/8	200' overlap at liner top 4952' Lateral		
Surveys every 500' Gyro at CP MWD Gamma Directional	No OH Logs	horz target Base Gallup	5587 5639	5983			4 1/2" 11.6ppf SB80 LTC Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe	Switch to OBM 8.6-9.0	25deg updip 5563' TVD TD = 10539' MD

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 4866' . 8 3/4" hole size.
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 5832' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 4952' lateral to 10539', run 4 1/2" liner with external swellable csg packers

7 JAN 6 1967
 NOV 1966 - AUGUST 1967

SECRET and COPY 1
ATTN: DISTRICT OFFICE

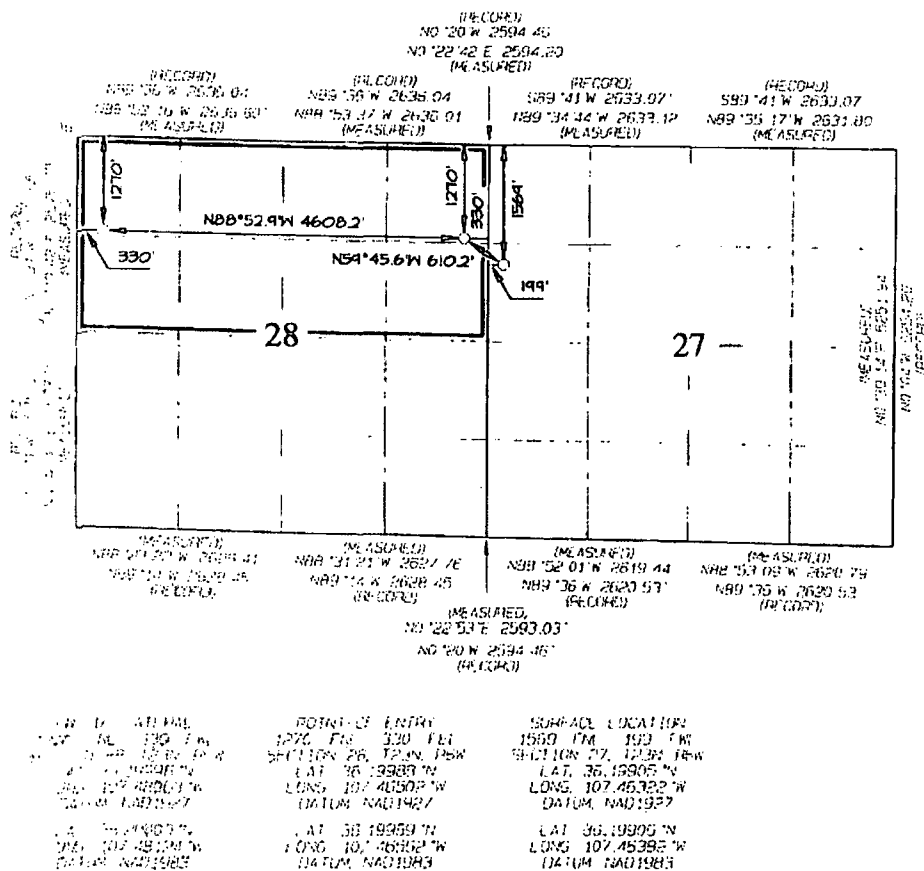
RECEIVED

MAR 21 2014

Postnet Inc.
1075 S.W. 1st Avenue, Suite 18, Fort Lauderdale, FL 33305
Phone (954) 476-3460 Fax (954) 476-3462

Farmington Field Office
Bureau of Land Management

NO ACTIONABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE
 BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



7 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 neither owns a working interest or possesses mineral rights in the land including the proposed surface location for a road to drill this well at this location nor has it a contract with or under it with a third party working interest, or to a separate pooling agreement or a community pooling or other beneficial interest in the division.

Holly Hill - 9/17/13
Superior Unit
Holly Hill
Holly Hill
E-Unit Wells

18 SURVEYOR CERTIFICATE

I hereby certify that the well shown on this plan was located by the stated party of actual surveyors and by the stated party of witnesses and that the same is true and correct to the best of my belief.

Date Received JULY 18, 2011
Survey Date OCTOBER 26, 2011

Signature and Seal of Registered Surveyor



JASON C. EDWARDS
Certificate Number 152069

Lybrook E27-2306 01H – API: 30-043-21152
 SHL: SWNW Section 27, T23N, R6W
 1569 FNL and 199 FWL
 BHL: NWNW Section 28, T23N, R6W
 1270 FNL and 330 FWL
 Sandoval County, New Mexico
 Lease Number: NMNM 112953

Encana Oil & Gas (USA) Inc. Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
Ojo Alamo Ss.	1,477
Kirtland Shale	1,633
Fruitland Coal	1,852
Pictured Cliffs Ss.	2,034
Lewis Shale	2,157
Cliffhouse Ss.	2,896
Menefee Fn.	3,580
Point Lookout Ss.	4,280
Mancos Shale	4,481
Mancos Silt	5,098
Gallup Fn.	5,342

The referenced surface elevation is 7054', KB 7070'.

2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS, & OTHER MINERAL BEARING FORMATIONS

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,852
Oil/Gas	Pictured Cliffs Ss.	2,034
Oil/Gas	Cliffhouse Ss.	2,896
Gas	Menefee Fn.	3,580
Oil/Gas	Point Lookout Ss.	4,280
Oil/Gas	Mancos Shale	4,481
Oil/Gas	Mancos Silt	5,098
Oil/Gas	Gallup Fn.	5,342

All shows of fresh water and minerals will be reported and protected.

3. PRESSURE CONTROL

- a) Pressure control equipment and configuration will be designed to meet 2M standards.
- b) Working pressure on rams and BOPE will be 3,000 psi
- c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.

Lybrook E27-2306 01H – API: 30-043-21152

SHL: SWNW Section 27, T23N, R6W
1569 FNL and 199 FWL

BHL: NWNW Section 28, T23N, R6W
1270 FNL and 330 FWL

Sandoval County, New Mexico

Lease Number: NMNM 112953

- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- l) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

- a) The proposed casing design is as follows:

Casing	Depth	Hole Size	Csg Size	Weight	Grade
Conductor	0-60'	30"	20"	94#	H40, STC New
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5832'MD	8 3/4"	7"	26#	J55, LTC New
Production Liner	5632'-10539'MD	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lb)	Collapse	Burst	Tension
9 5/8"	36	J55	STC	2020	3520	394	1.125	1.1	1.5
7"	26	J55	LTC	4320	4980	367	1.125	1.1	1.5
4 1/2"	11.6	B80	LTC	6350	7780	201	1.125	1.1	1.5

Casing design is subject to revision based on geologic conditions encountered.

Lybrook E27-2306 01H – API: 30-043-21152
SHL: SWNW Section 27, T23N, R6W
1569 FNL and 199 FWL
BHL: NWNW Section 28, T23N, R6W
1270 FNL and 330 FWL
Sandoval County, New Mexico
Lease Number: NMNM 112953

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

b) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

Casing	Depth	Cement Volume (sacks)	Cement Type&Yield	Designed TOC	Centralizers
Conductor	60'	100sk	Type I Neat 16.0 ppg	Surface	None
Surface	500'	178sk	Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 16ppg, 1.38cuft/sk	Surface	1 per joint on bottom 3 joints
Intermediate	5832'MD	30% open hole excess Stage 1 Lead: 241sks Stage 1 Tail: 165sks Stage 2 Lead: 184sks	Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuft/sk Tail (Stage 1): Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuft/sk	Surface	1 per joint for bottom 3 joints, 1 every 3 joints for remaining joints
Production Liner*	5632'-10539'	None – External casing packers	N/A	N/A	N/A

*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner.

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected.

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

Lybrook E27-2306 01H – API: 30-043-21152
 SHL: SWNW Section 27, T23N, R6W
 1569 FNL and 199 FWL
 BHL: NWNW Section 28, T23N, R6W
 1270 FNL and 330 FWL
 Sandoval County, New Mexico
 Lease Number: NMNM 112953

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4866'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5563'/10539'	Gallup

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60' TVD	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0-500' TVD	Fresh Water	8.4-8.6	60-70	NC
8 3/4"	500'TVD- 5570'TVD/5832'MD	Fresh Water LSND	8.5-8.8	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5832'-10539'	Synthetic Oil Based Mud	8.6-9.0	15-25	<15

- c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals, including fresh water and oil-based operations. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

7. TESTING, CORING and LOGGING

- a) Drill Stem Testing – None anticipated
 b) Coring – None anticipated.
 c) Mud Logging – Mud loggers will be on location from kick off point to TD.
 d) Logging – See Below

Cased Hole:
 CBL/CCL/GR/VDL will be run as needed for perforating control

Lybrook E27-2306 01H – API: 30-043-21152

**SHL: SWNW Section 27, T23N, R6W
1569 FNL and 199 FWL**

**BHL: NWNW Section 28, T23N, R6W
1270 FNL and 330 FWL**

Sandoval County, New Mexico

Lease Number: NMNM 112953

8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

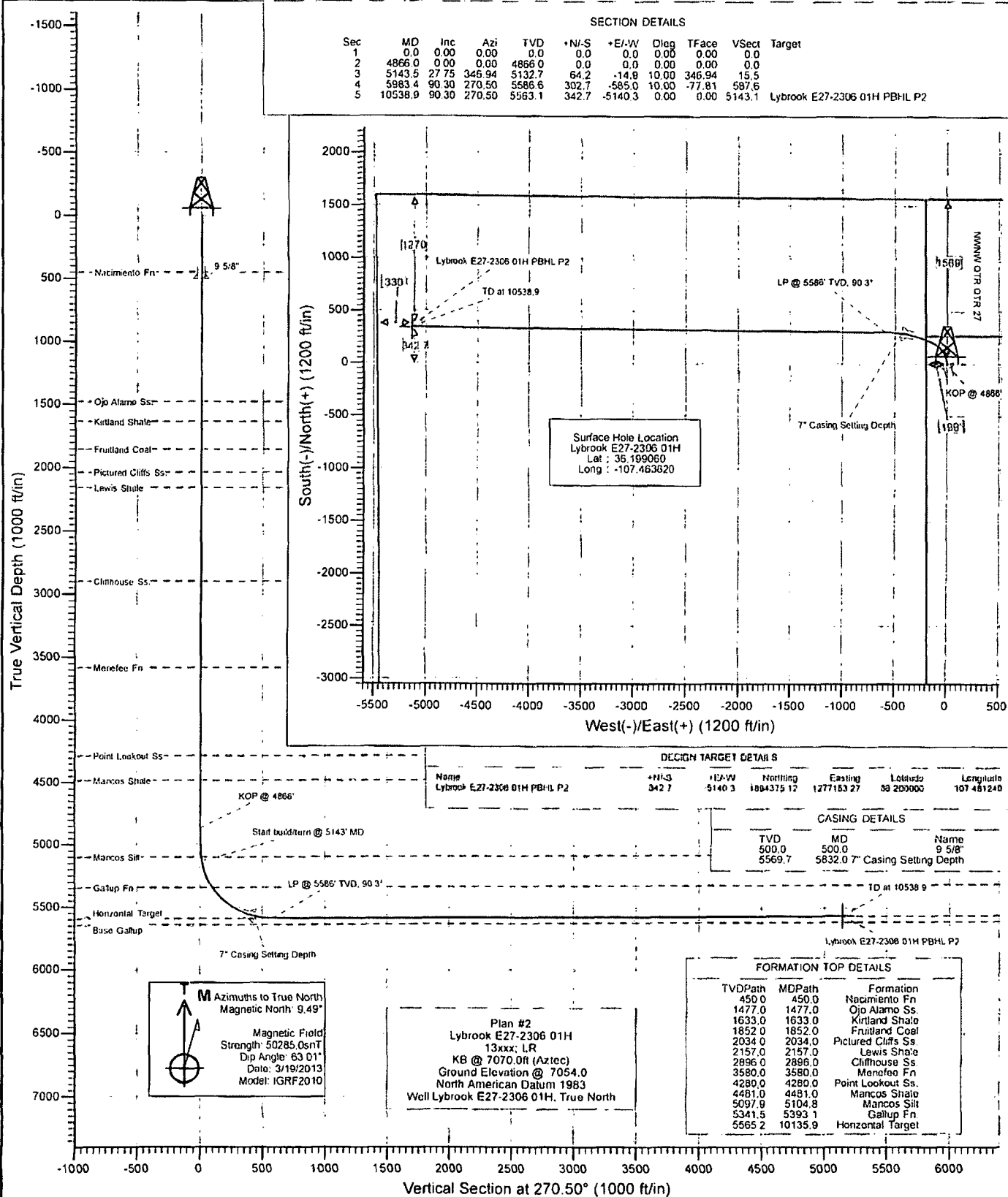
The anticipated bottom hole pressure is +/- 2615 psi based on a 9.0 ppg at 5587' TVD of the landing point of the horizontal lateral. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H₂S is encountered, the guidelines in Onshore Order No. 6 will be followed.

9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

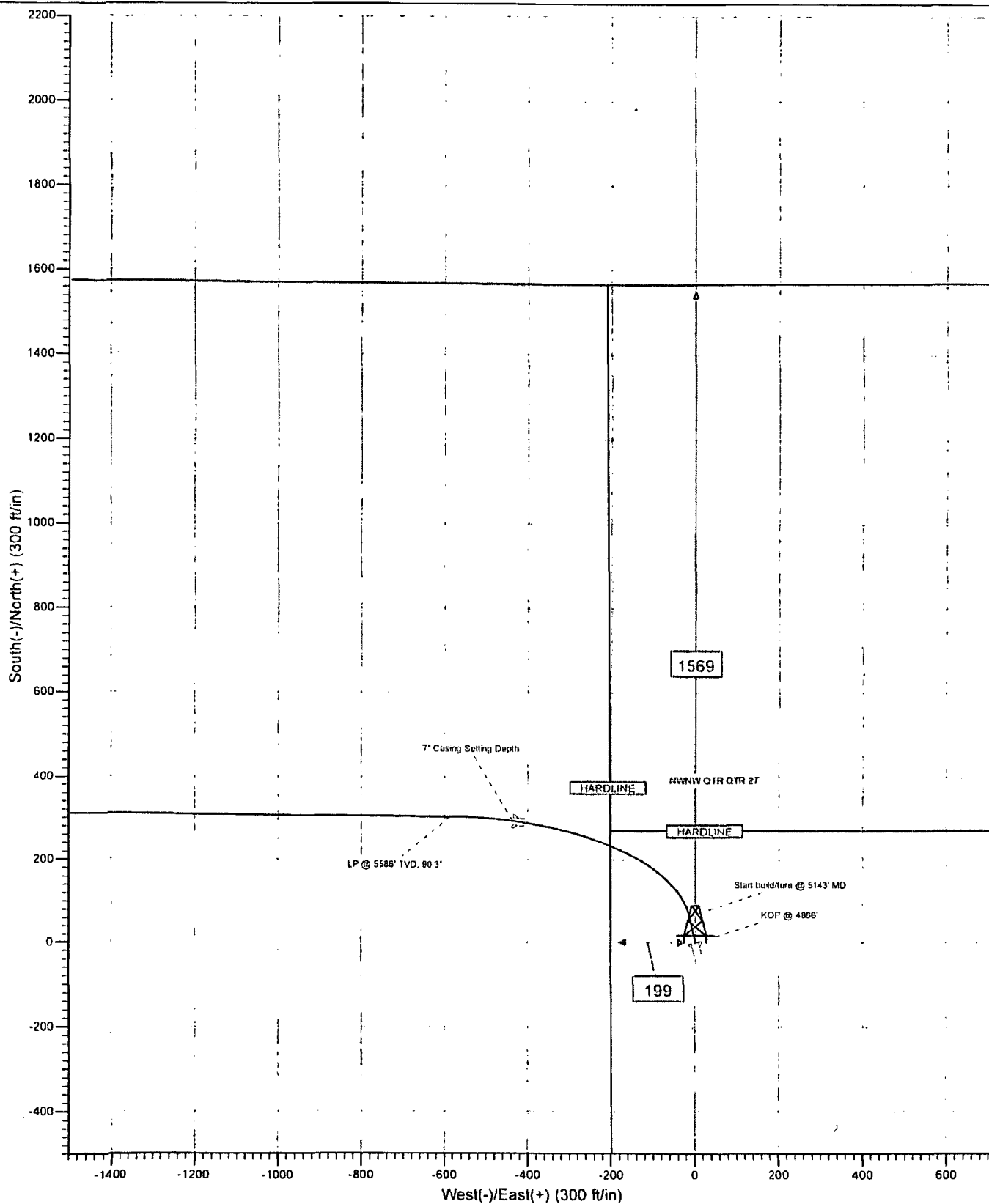
Drilling is estimated to commence on December 27, 2013. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 20 days.





Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook E27-2306 01H
Wellbore: Hz
Design: Plan #2



Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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 E27-2306 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,893,968.14 ft	Latitude:	36.199060
	+E/-W	0.0 ft	Easting:	1,282,288.84 ft	Longitude:	-107.463820
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,054.0 ft	

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2013	9.49	63.01	50,285

Design	Plan #2			
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	270.50

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	
4,866.0	0.00	0.00	4,866.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,143.5	27.75	346.94	5,132.7	64.2	-14.9	10.00	10.00	0.00	346.94	
5,983.4	90.30	270.50	5,586.6	302.7	-585.0	10.00	7.45	-9.10	-77.81	
10,538.9	90.30	270.50	5,563.1	342.7	-5,140.3	0.00	0.00	0.00	0.00	Lybrook E27-2306 01

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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	
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	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8"
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	
1,477.0	0.00	0.00	1,477.0	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	
1,633.0	0.00	0.00	1,633.0	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	
1,852.0	0.00	0.00	1,852.0	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	
2,034.0	0.00	0.00	2,034.0	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	
2,157.0	0.00	0.00	2,157.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
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	
2,895.0	0.00	0.00	2,895.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
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	
3,580.0	0.00	0.00	3,580.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
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	
4,280.0	0.00	0.00	4,280.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,481.0	0.00	0.00	4,481.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
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	
4,866.0	0.00	0.00	4,866.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4866'
4,900.0	3.40	346.94	4,900.0	1.0	-0.2	0.2	10.00	10.00	
5,000.0	13.40	346.94	4,998.8	15.2	-3.5	3.7	10.00	10.00	
5,100.0	23.40	346.94	5,093.5	45.9	-10.7	11.1	10.00	10.00	
5,104.8	23.88	346.94	5,097.9	47.8	-11.1	11.5	10.00	10.00	Mancos Silt
5,143.5	27.75	346.94	5,132.7	64.2	-14.9	15.5	10.00	10.00	Start build/turn @ 5143' MD
5,200.0	29.42	335.63	5,182.4	89.7	-23.6	24.4	10.00	2.96	
5,300.0	34.34	319.07	5,267.5	133.5	-52.3	53.5	10.00	4.92	
5,393.1	40.46	307.46	5,341.5	171.8	-93.6	95.1	10.00	6.57	Gallup Fr.
5,400.0	40.95	306.73	5,346.7	174.5	-97.2	98.7	10.00	7.16	
5,500.0	48.56	297.47	5,417.8	211.5	-156.8	158.7	10.00	7.61	
5,600.0	56.75	290.23	5,478.4	243.3	-229.5	231.6	10.00	8.19	
5,700.0	65.28	284.26	5,526.9	269.0	-313.0	315.3	10.00	8.53	
5,800.0	74.02	279.07	5,561.6	287.8	-404.7	407.2	10.00	8.74	
5,832.0	76.84	277.52	5,569.7	292.3	-435.3	437.9	10.00	8.83	7" Casing Setting Depth
5,900.0	82.87	274.32	5,581.7	299.2	-501.9	504.5	10.00	8.87	
5,983.4	90.30	270.50	5,586.6	302.7	-585.0	587.6	10.00	8.90	LP @ 5586' TVD; 90.3°
6,000.0	90.30	270.50	5,586.5	302.8	-601.6	604.2	0.00	0.00	
6,100.0	90.30	270.50	5,586.0	303.7	-701.6	704.2	0.00	0.00	
6,200.0	90.30	270.50	5,585.5	304.6	-801.6	804.2	0.00	0.00	
6,300.0	90.30	270.50	5,585.0	305.4	-901.6	904.2	0.00	0.00	
6,400.0	90.30	270.50	5,584.5	306.3	-1,001.5	1,004.2	0.00	0.00	
6,500.0	90.30	270.50	5,584.0	307.2	-1,101.5	1,104.2	0.00	0.00	
6,600.0	90.30	270.50	5,583.4	308.1	-1,201.5	1,204.2	0.00	0.00	
6,700.0	90.30	270.50	5,582.9	309.0	-1,301.5	1,304.2	0.00	0.00	
6,800.0	90.30	270.50	5,582.4	309.8	-1,401.5	1,404.2	0.00	0.00	
6,900.0	90.30	270.50	5,581.9	310.7	-1,501.5	1,504.2	0.00	0.00	
7,000.0	90.30	270.50	5,581.4	311.6	-1,601.5	1,604.2	0.00	0.00	
7,100.0	90.30	270.50	5,580.9	312.5	-1,701.5	1,704.2	0.00	0.00	
7,200.0	90.30	270.50	5,580.3	313.3	-1,801.5	1,804.2	0.00	0.00	
7,300.0	90.30	270.50	5,579.8	314.2	-1,901.5	1,904.2	0.00	0.00	
7,400.0	90.30	270.50	5,579.3	315.1	-2,001.5	2,004.2	0.00	0.00	
7,500.0	90.30	270.50	5,578.8	316.0	-2,101.5	2,104.2	0.00	0.00	
7,600.0	90.30	270.50	5,578.3	316.9	-2,201.5	2,204.2	0.00	0.00	
7,700.0	90.30	270.50	5,577.8	317.7	-2,301.5	2,304.2	0.00	0.00	
7,800.0	90.30	270.50	5,577.2	318.6	-2,401.5	2,404.2	0.00	0.00	
7,900.0	90.30	270.50	5,576.7	319.5	-2,501.5	2,504.2	0.00	0.00	
8,000.0	90.30	270.50	5,576.2	320.4	-2,601.5	2,604.2	0.00	0.00	
8,100.0	90.30	270.50	5,575.7	321.3	-2,701.5	2,704.2	0.00	0.00	
8,200.0	90.30	270.50	5,575.2	322.1	-2,801.5	2,804.2	0.00	0.00	
8,300.0	90.30	270.50	5,574.7	323.0	-2,901.5	2,904.2	0.00	0.00	
8,400.0	90.30	270.50	5,574.1	323.9	-3,001.4	3,004.2	0.00	0.00	
8,500.0	90.30	270.50	5,573.6	324.8	-3,101.4	3,104.2	0.00	0.00	
8,600.0	90.30	270.50	5,573.1	325.6	-3,201.4	3,204.2	0.00	0.00	
8,700.0	90.30	270.50	5,572.6	326.5	-3,301.4	3,304.2	0.00	0.00	

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook E27-2306 01H
 Wellbore: Hz
 Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
 TVD Reference: KB @ 7070.0ft (Aztec)
 MD Reference: KB @ 7070.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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
8,800.0	90.30	270.50	5,572.1	327.4	-3,401.4	3,404.2	0.00	0.00	
8,900.0	90.30	270.50	5,571.6	328.3	-3,501.4	3,504.2	0.00	0.00	
9,000.0	90.30	270.50	5,571.0	329.2	-3,601.4	3,604.1	0.00	0.00	
9,100.0	90.30	270.50	5,570.5	330.0	-3,701.4	3,704.1	0.00	0.00	
9,200.0	90.30	270.50	5,570.0	330.9	-3,801.4	3,804.1	0.00	0.00	
9,300.0	90.30	270.50	5,569.5	331.8	-3,901.4	3,904.1	0.00	0.00	
9,400.0	90.30	270.50	5,569.0	332.7	-4,001.4	4,004.1	0.00	0.00	
9,500.0	90.30	270.50	5,568.5	333.6	-4,101.4	4,104.1	0.00	0.00	
9,600.0	90.30	270.50	5,567.9	334.4	-4,201.4	4,204.1	0.00	0.00	
9,700.0	90.30	270.50	5,567.4	335.3	-4,301.4	4,304.1	0.00	0.00	
9,800.0	90.30	270.50	5,566.9	336.2	-4,401.4	4,404.1	0.00	0.00	
9,900.0	90.30	270.50	5,566.4	337.1	-4,501.4	4,504.1	0.00	0.00	
10,000.0	90.30	270.50	5,565.9	337.9	-4,601.4	4,604.1	0.00	0.00	
10,100.0	90.30	270.50	5,565.4	338.8	-4,701.4	4,704.1	0.00	0.00	
10,135.9	90.30	270.50	5,565.2	339.1	-4,737.3	4,740.1	0.00	0.00	Horizontal Target
10,200.0	90.30	270.50	5,564.9	339.7	-4,801.4	4,804.1	0.00	0.00	
10,300.0	90.30	270.50	5,564.3	340.6	-4,901.3	4,904.1	0.00	0.00	
10,400.0	90.30	270.50	5,563.8	341.5	-5,001.3	5,004.1	0.00	0.00	
10,500.0	90.30	270.50	5,563.3	342.3	-5,101.3	5,104.1	0.00	0.00	
10,538.9	90.30	270.50	5,563.1	342.7	-5,140.3	5,143.1	0.00	0.00	TD at 10538.9

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Lybrook E27-2306 01H I	0.00	0.00	5,590.9	302.2	-531.1	1,894,276.95	1,281,761.52	36.199890	-107.465620
- plan misses target center by 6.3ft at 5929.9ft MD (5584.7 TVD, 301.0 N, -531.6 E)									
- Point									
Lybrook E27-2306 01H I	0.00	0.00	5,563.1	342.7	-5,140.3	1,894,375.12	1,277,153.27	36.200000	-107.481240
- plan hits target center									
- Point									
Lybrook E27-2306 01H I	0.00	0.00	5,563.0	1,052.6	-5,146.0	1,895,085.08	1,277,156.38	36.201950	-107.481260
- plan misses target center by 710.0ft at 10538.9ft MD (5563.1 TVD, 342.7 N, -5140.3 E)									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.0	500.0	9 5/8"	0.000	0.000
5,832.0	5,569.7	7" Casing Setting Depth	0.000	0.000

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook E27-2306 01H
Wellbore: Hz
Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
TVD Reference: KB @ 7070.0ft (Aztec)
MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
450.0	450.0	Nacimiento Fn.		-0.30	270.50
1,477.0	1,477.0	Ojo Alamo Ss.		-0.30	270.50
1,633.0	1,633.0	Kirtland Shale		-0.30	270.50
1,852.0	1,852.0	Fruitland Coal		-0.30	270.50
2,034.0	2,034.0	Pictured Cliffs Ss.		-0.30	270.50
2,157.0	2,157.0	Lewis Shale		-0.30	270.50
2,896.0	2,896.0	Cliffhouse Ss.		-0.30	270.50
3,580.0	3,580.0	Menefee Fn.		-0.30	270.50
4,280.0	4,280.0	Point Lookout Ss.		-0.30	270.50
4,481.0	4,481.0	Mancos Shale		-0.30	270.50
5,104.8	5,098.0	Mancos Silt		-0.30	270.50
5,393.1	5,342.0	Gallup Fn.		-0.30	270.50
10,135.9	5,590.0	Horizontal Target		-0.30	270.50

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,866.0	4,866.0	0.0	0.0	KOP @ 4866'
5,143.5	5,132.7	64.2	-14.9	Start build/turn @ 5143' MD
5,983.4	5,586.6	302.7	-585.0	LP @ 5586' TVD: 90.3°
10,538.9	5,563.1	342.7	-5,140.3	TD at 10538.9

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook E27-2306 01H

H₂

Plan #2

Anticollision Report

23 September, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook E27-2306 01H
Project:	Sandoval County, NM	TVD Reference:	KB @ 7070.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	KB @ 7070.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook E27-2306 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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 10.0ft	Error Model:	Systematic Ellipse
Depth Range:	7,735.0 to 999,999.0ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	9/23/2013	
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0.0	10,538.9	Plan #2 (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 E27-2306 03H - Hz - Plan #2						Out of range

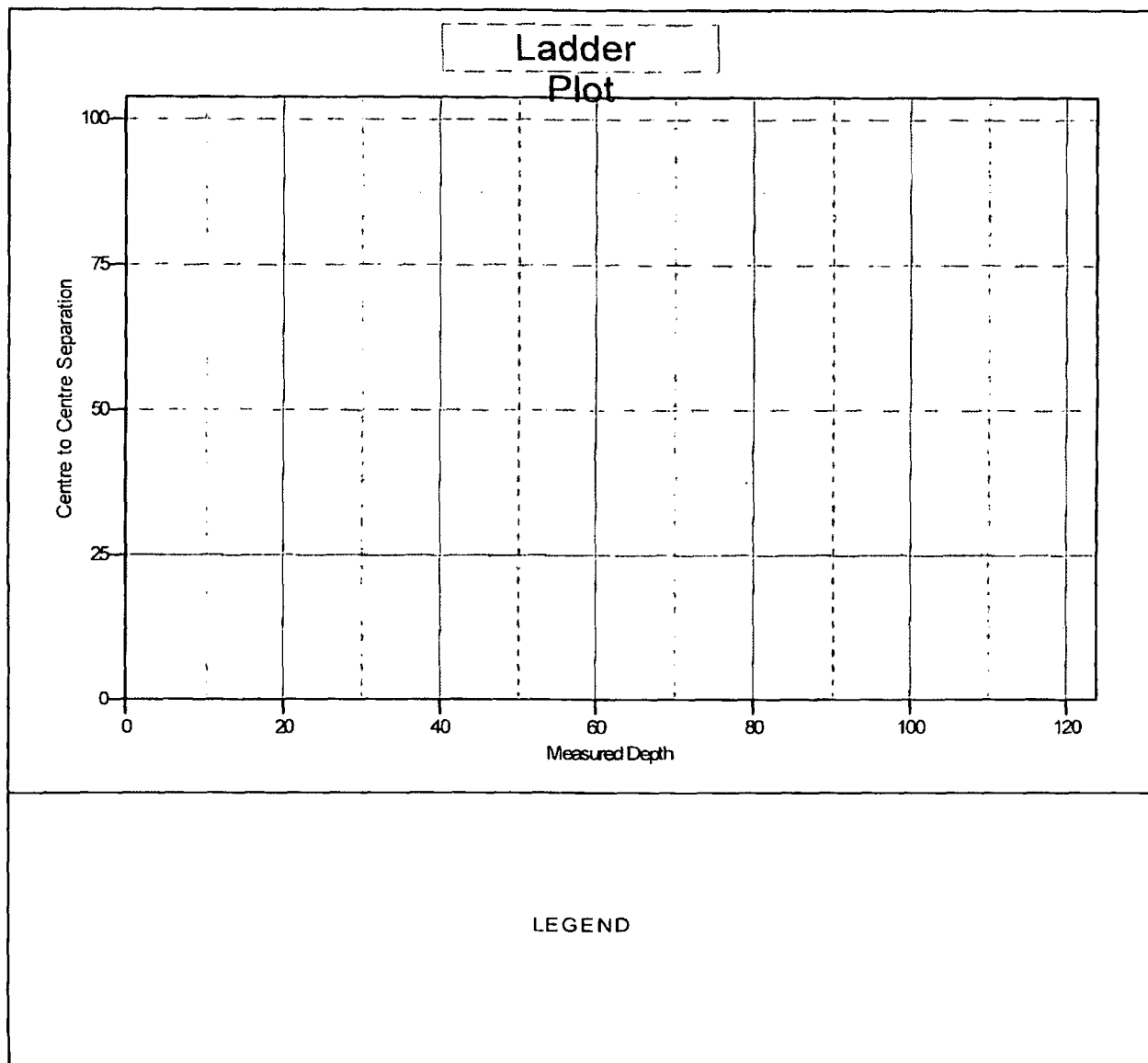
Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Reference Site: Lybrook
Site Error: 0.0ft
Reference Well: Lybrook E27-2306 01H
Well Error: 0.0ft
Reference Wellbore: Hz
Reference Design: Plan #2

Local Co-ordinate Reference: Well Lybrook E27-2306 01H
TVD Reference: KB @ 7070.0ft (Aztec)
MD Reference: KB @ 7070.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 7070.0ft (Aztec)
Offset Depths are relative to Offset Datum
Central Meridian is -106.250000 °

Coordinates are relative to: Lybrook E27-2306 01H
Coordinate System is US State Plane 1983, New Mexico Central Zone
Grid Convergence at Surface is: -0.72°



hp color LaserJet 5550 printers



job storage status page

1

Error: Unable to store job at printer

Reason: Insufficient disk space for this job

Solution: Delete some files from the disk before resending this job.