

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.
NM NM 109386

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

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

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

3b. Phone No. (include area code)
720-876-5353

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

8. Well Name and No.
Lybrook H03-2206 01H

9. API Well No.
30-043-21123

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 2325' FNL and 138' FEL Sec 3, T22N, R6W
BHL: 2240' FNL and 330' FWL Sec 3, T22N, R6W

10. Field and Pool or Exploratory Area
Wildcat Gallup

11. Country or Parish, State
Sandoval, NM

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
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Encana Oil & Gas (USA) Inc. (Encana) would like to revise the vertical hole size and cement plans for the Lybrook H03-2206 01H well. Encana would like to change the vertical hole size from 8 1/2" to 8 3/4" and increase intermediate cement volume to accommodate the larger hole. Encana would also like to change the BHL from 2325' FNL and 330' FWL to 2240' FNL and 330'. Please see attached directional plan, 10 point drilling plan, and wellbore diagram.

RCVD MAR 8 '13
OIL CONS. DIV.
DIST. 3

Hold C104

for Directional Survey
and "As Drilled" plat

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.

Hold C104
for Directional Survey
and "As Drilled" plat

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

Name (Printed/Typed)
Amie Weis

Title Drilling Engineer

Signature

Amie Weis

Date

2-26-13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salvors

Title

Petroleum Engineer

Date

3/6/2013

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)

NMOCDA

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21123	*Pool Code	*Pool Name WILDCAT (GALLUP)
*Property Code	*Property Name LYBROOK H03-2206	*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 7052'

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	3	22N	6W		2325	NORTH	138	EAST	SANDOVAL

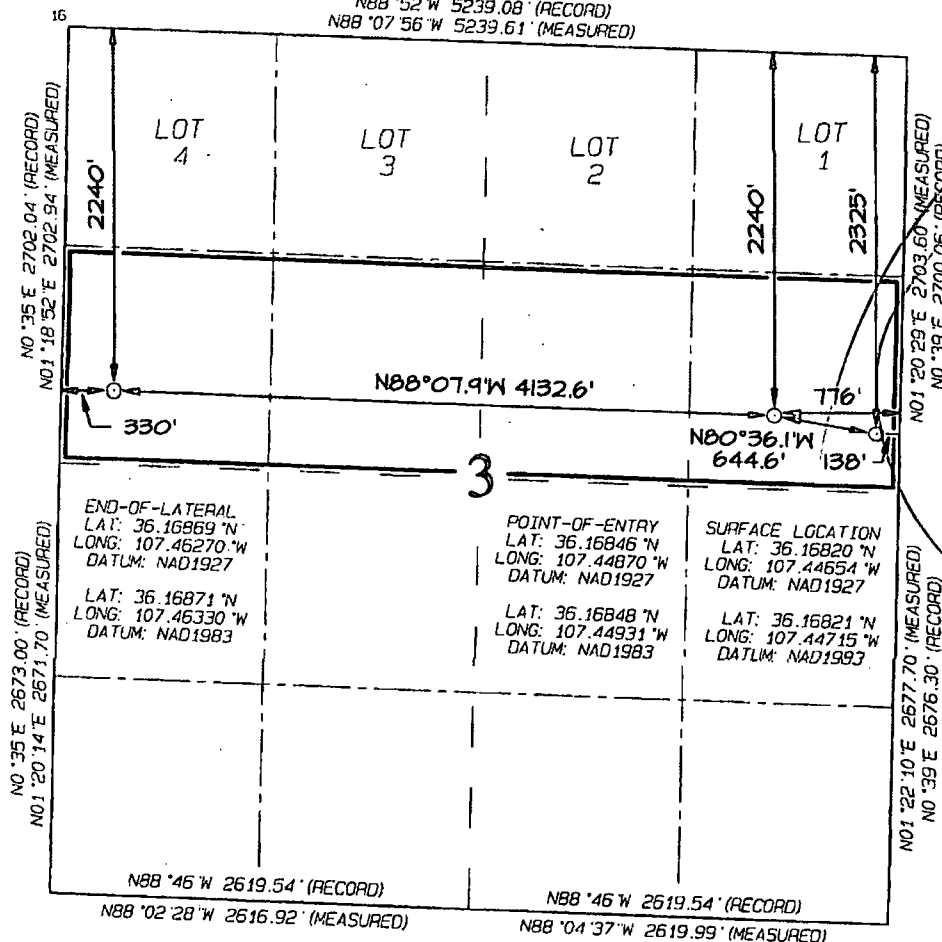
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	3	22N	6W		2240	NORTH	330	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres - (S/2 N/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD MAR 8 '13
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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

OIL CONS. DIV.
DIST. 3



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	Date
Printed Name	
E-mail Address	
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.	
Date Revised: FEBRUARY 20, 2013	
Date of Survey: APRIL 20, 2012	
Signature and Seal of Professional Surveyor	
JASON C. EDWARDS Certificate Number 15269	

Requires signed plat
a

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Phone: (505) 334-6178 Fax: (505) 334-6170

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Phone: (505) 476-3450 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

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Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☒ AMENDED REPORT

RCVD MAR 21 '13
OIL CONS. DIV.

DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21123		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 39534	*Property Name LYBROOK H03-2206		*Well Number 01H
*OGRIID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 7052'

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	3	22N	6W		2325	NORTH	138	EAST	SANDOVAL

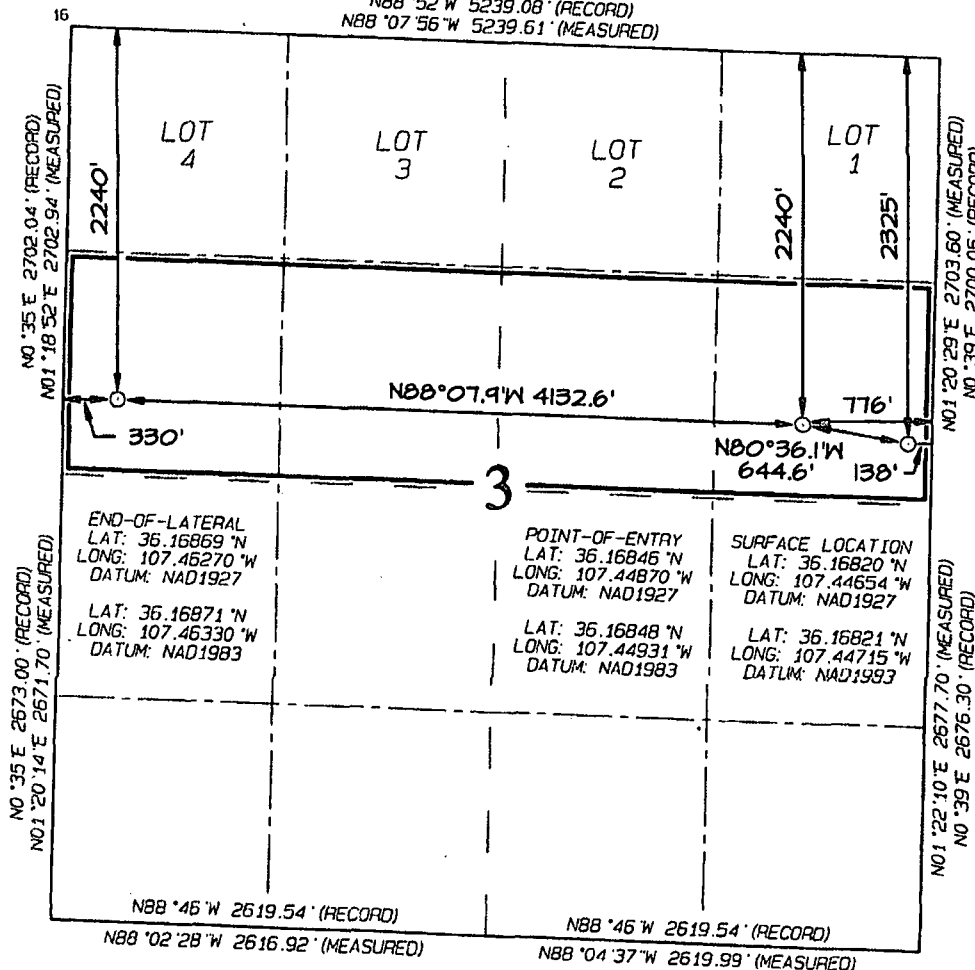
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	3	22N	6W		2240	NORTH	330	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres - (S/2 N/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N88°52'W 5239.06' (RECORD)
N88°07'56"W 5239.61' (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: 03/21/13
Brenda R. Linster, Regulatory Lead
Printed Name
brenda.linster@encana.com
E-mail Address

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.

Date Revised: FEBRUARY 20, 2013
Date of Survey: APRIL 20, 2012

Signature and Seal of Professional Surveyor

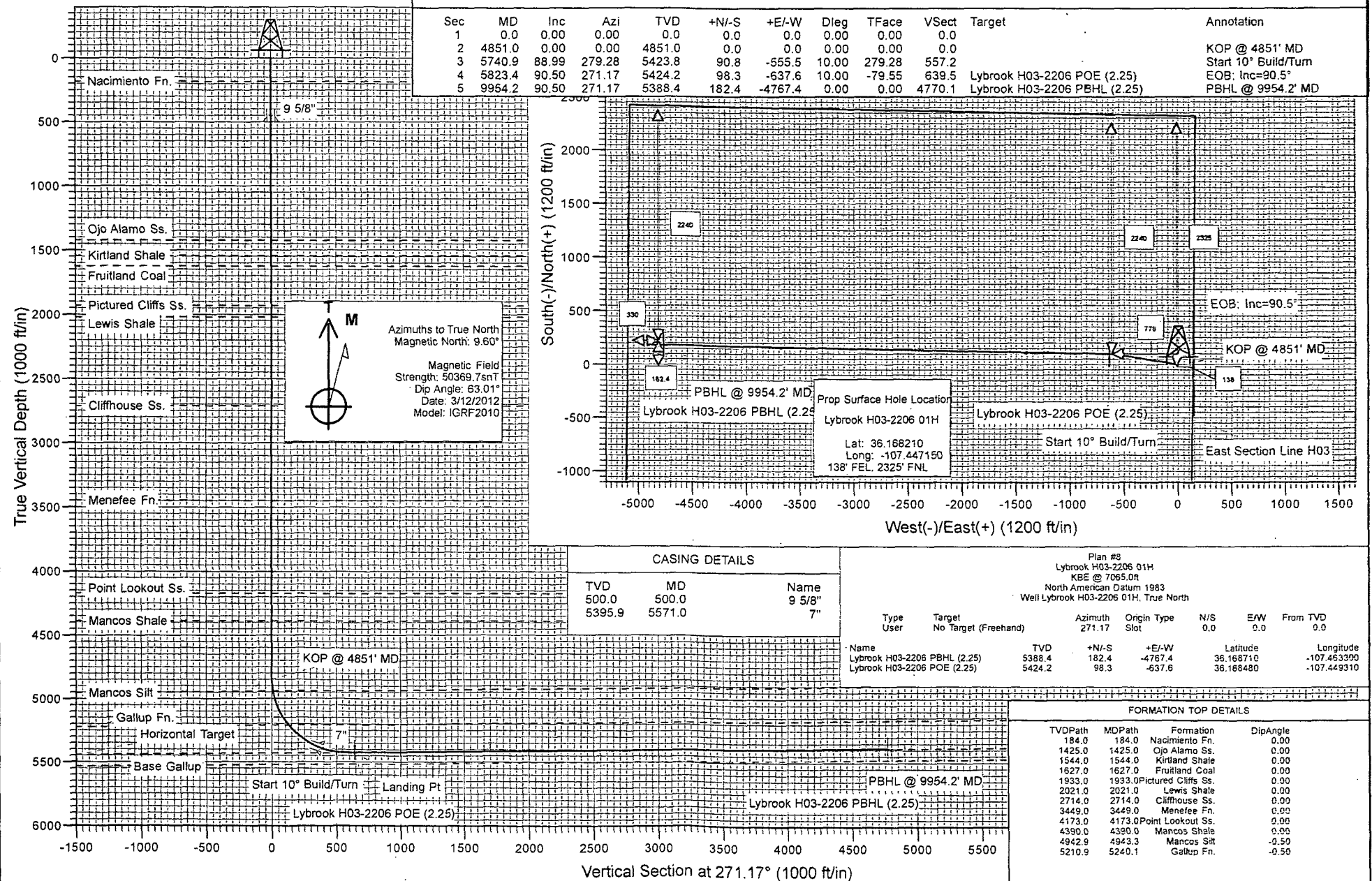
JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

encana™

natural gas

Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook H03-2206 01H
Wellbore: HZ
Design: Plan #8



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H03-2206 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7065.0ft
Project:	Sandoval County, NM	MD Reference:	KBE @ 7065.0ft
Site:	Lybrook	North Reference:	True
Well:	Lybrook H03-2206 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #8		

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

Well	Lybrook H03-2206 01H		
Well Position	+N/-S	0.0 ft	Northing: 1,882,676.43 ft
	+E/-W	0.0 ft	Easting: 1,287,068.90 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	36.168210
		Longitude:	-107.447150
		Ground Level:	7,052.0 ft

Wellbore	HZ		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	3/12/2012	9.60
			63.01
			50,370

Design	Plan #8		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			271.17

Plan Sections											
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(%/100ft)	(%/100ft)	(%/100ft)	(°)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00		
4,851.0	0.00	0.00	4,851.0	0.0	0.0	0.00	0.00	0.00	0.00		
5,740.9	88.99	279.28	5,423.8	90.8	-555.5	10.00	10.00	0.00	279.28		
5,823.4	90.50	271.17	5,424.2	98.3	-637.6	10.00	1.82	-9.83	-79.55	Lybrook H03-2206 PC	
9,954.2	90.50	271.17	5,388.4	182.4	-4,767.4	0.00	0.00	0.00	0.00	Lybrook H03-2206 PE	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H03-2206 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7065.0ft
Project:	Sandoval County, NM	MD Reference:	KBE @ 7065.0ft
Site:	Lybrook	North Reference:	True
Well:	Lybrook H03-2206 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #8		

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	
184.0	0.00	0.00	184.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
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"
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	
1,425.0	0.00	0.00	1,425.0	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	
1,544.0	0.00	0.00	1,544.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,627.0	0.00	0.00	1,627.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
1,933.0	0.00	0.00	1,933.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,021.0	0.00	0.00	2,021.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
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	
2,300.0	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	
2,714.0	0.00	0.00	2,714.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
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	
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	
3,449.0	0.00	0.00	3,449.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
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	
3,700.0	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	
4,173.0	0.00	0.00	4,173.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H03-2206 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7065.0ft
Project:	Sandoval County, NM	MD Reference:	KBE @ 7065.0ft
Site:	Lybrook	North Reference:	True
Well:	Lybrook H03-2206 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #8		

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	
4,390.0	0.00	0.00	4,390.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
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	
4,600.0	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	
4,851.0	0.00	0.00	4,851.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4851' MD
4,900.0	4.90	279.28	4,899.9	0.3	-2.1	2.1	10.00	10.00	
4,943.3	9.23	279.28	4,942.9	1.2	-7.3	7.4	10.00	10.00	Mancos Silt
5,000.0	14.90	279.28	4,998.3	3.1	-19.0	19.1	10.00	10.00	
5,100.0	24.90	279.28	5,092.2	8.6	-52.6	52.7	10.00	10.00	
5,200.0	34.90	279.28	5,178.8	16.6	-101.7	102.0	10.00	10.00	
5,240.1	38.92	279.28	5,210.9	20.5	-125.5	125.9	10.00	10.00	Gallup Fn.
5,300.0	44.90	279.28	5,255.4	27.0	-164.9	165.4	10.00	10.00	
5,400.0	54.90	279.28	5,319.8	39.3	-240.3	241.1	10.00	10.00	
5,500.0	64.90	279.28	5,369.8	53.2	-325.6	326.6	10.00	10.00	
5,571.0	72.00	279.28	5,395.9	63.9	-390.7	392.0	10.00	10.00	7"
5,600.0	74.90	279.28	5,404.2	68.4	-418.2	419.5	10.00	10.00	
5,700.0	84.91	279.28	5,421.7	84.2	-515.2	516.8	10.00	10.00	
5,740.9	88.99	279.28	5,423.8	90.8	-555.5	557.2	10.00	10.00	Start 10° Build/Turn
5,800.0	90.07	273.47	5,424.3	97.4	-614.2	616.1	10.00	1.82	
5,823.4	90.50	271.17	5,424.2	98.3	-637.6	639.5	10.00	1.82	EOB; Inc=90.5°
5,900.0	90.50	271.17	5,423.5	99.9	-714.2	716.1	0.00	0.00	
6,000.0	90.50	271.17	5,422.7	101.9	-814.1	816.1	0.00	0.00	
6,100.0	90.50	271.17	5,421.8	104.0	-914.1	916.1	0.00	0.00	
6,200.0	90.50	271.17	5,420.9	106.0	-1,014.1	1,016.1	0.00	0.00	
6,300.0	90.50	271.17	5,420.1	108.0	-1,114.1	1,116.0	0.00	0.00	
6,400.0	90.50	271.17	5,419.2	110.1	-1,214.0	1,216.0	0.00	0.00	
6,500.0	90.50	271.17	5,418.3	112.1	-1,314.0	1,316.0	0.00	0.00	
6,600.0	90.50	271.17	5,417.5	114.1	-1,414.0	1,416.0	0.00	0.00	
6,700.0	90.50	271.17	5,416.6	116.2	-1,514.0	1,516.0	0.00	0.00	
6,800.0	90.50	271.17	5,415.7	118.2	-1,614.0	1,616.0	0.00	0.00	
6,900.0	90.50	271.17	5,414.9	120.2	-1,713.9	1,716.0	0.00	0.00	
7,000.0	90.50	271.17	5,414.0	122.3	-1,813.9	1,816.0	0.00	0.00	
7,100.0	90.50	271.17	5,413.1	124.3	-1,913.9	1,916.0	0.00	0.00	
7,200.0	90.50	271.17	5,412.3	126.4	-2,013.9	2,016.0	0.00	0.00	
7,300.0	90.50	271.17	5,411.4	128.4	-2,113.8	2,116.0	0.00	0.00	
7,400.0	90.50	271.17	5,410.5	130.4	-2,213.8	2,216.0	0.00	0.00	
7,500.0	90.50	271.17	5,409.7	132.5	-2,313.8	2,316.0	0.00	0.00	
7,600.0	90.50	271.17	5,408.8	134.5	-2,413.8	2,416.0	0.00	0.00	
7,700.0	90.50	271.17	5,407.9	136.5	-2,513.7	2,516.0	0.00	0.00	
7,800.0	90.50	271.17	5,407.1	138.6	-2,613.7	2,616.0	0.00	0.00	
7,900.0	90.50	271.17	5,406.2	140.6	-2,713.7	2,716.0	0.00	0.00	
8,000.0	90.50	271.17	5,405.3	142.6	-2,813.7	2,816.0	0.00	0.00	
8,100.0	90.50	271.17	5,404.5	144.7	-2,913.6	2,916.0	0.00	0.00	
8,200.0	90.50	271.17	5,403.6	146.7	-3,013.6	3,016.0	0.00	0.00	
8,300.0	90.50	271.17	5,402.7	148.8	-3,113.6	3,116.0	0.00	0.00	
8,400.0	90.50	271.17	5,401.9	150.8	-3,213.6	3,216.0	0.00	0.00	
8,500.0	90.50	271.17	5,401.0	152.8	-3,313.5	3,316.0	0.00	0.00	
8,600.0	90.50	271.17	5,400.1	154.9	-3,413.5	3,416.0	0.00	0.00	
8,700.0	90.50	271.17	5,399.2	156.9	-3,513.5	3,516.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H03-2206 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7065.0ft
Project:	Sandoval County, NM	MD Reference:	KBE @ 7065.0ft
Site:	Lybrook	North Reference:	True
Well:	Lybrook H03-2206 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #8		

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	90.50	271.17	5,398.4	158.9	-3,613.5	3,616.0	0.00	0.00	
8,900.0	90.50	271.17	5,397.5	161.0	-3,713.4	3,715.9	0.00	0.00	
9,000.0	90.50	271.17	5,396.6	163.0	-3,813.4	3,815.9	0.00	0.00	
9,100.0	90.50	271.17	5,395.8	165.0	-3,913.4	3,915.9	0.00	0.00	
9,200.0	90.50	271.17	5,394.9	167.1	-4,013.4	4,015.9	0.00	0.00	
9,300.0	90.50	271.17	5,394.0	169.1	-4,113.3	4,115.9	0.00	0.00	
9,400.0	90.50	271.17	5,393.2	171.2	-4,213.3	4,215.9	0.00	0.00	
9,500.0	90.50	271.17	5,392.3	173.2	-4,313.3	4,315.9	0.00	0.00	
9,600.0	90.50	271.17	5,391.4	175.2	-4,413.3	4,415.9	0.00	0.00	
9,700.0	90.50	271.17	5,390.6	177.3	-4,513.2	4,515.9	0.00	0.00	
9,800.0	90.50	271.17	5,389.7	179.3	-4,613.2	4,615.9	0.00	0.00	
9,900.0	90.50	271.17	5,388.8	181.3	-4,713.2	4,715.9	0.00	0.00	
9,954.2	90.50	271.17	5,388.4	182.4	-4,767.4	4,770.1	0.00	0.00	PBHL @ 9954.2' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Lybrook H03-2206 PBHL - hit/miss target - plan misses target center by 342.3ft at 9954.2ft MD (5388.4 TVD, 182.4 N, -4767.4 E) - Point	0.00	359.28	5,396.5	524.7	-4,764.4	1,883,259.82	1,282,311.35	36.169650	-107.463290
Lybrook H03-2206 PBHL - plan hits target center - Point	0.00	359.28	5,388.4	182.4	-4,767.4	1,882,917.66	1,282,304.12	36.168710	-107.463300
Lybrook H03-2206 POE - plan hits target center - Point	0.00	359.28	5,424.2	98.3	-637.6	1,882,782.61	1,286,432.54	36.168480	-107.449310
Lybrook H03-2206 POE - plan misses target center by 345.9ft at 5824.5ft MD (5424.2 TVD, 98.3 N, -638.7 E) - Point	0.00	359.28	5,428.9	444.2	-631.7	1,883,128.37	1,286,442.72	36.169430	-107.449290

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
5,571.0	5,395.9	7"	0.000	0.000	
500.0	500.0	9 5/8"	0.000	0.000	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook H03-2206 01H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7065.0ft
Project:	Sandoval County, NM	MD Reference:	KBE @ 7065.0ft
Site:	Lybrook	North Reference:	True
Well:	Lybrook H03-2206 01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #8		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
184.0	184.0	Nacimiento Fn.		0.00	271.12	
1,425.0	1,425.0	Ojo Alamo Ss.		0.00	271.12	
1,544.0	1,544.0	Kirtland Shale		0.00	271.12	
1,627.0	1,627.0	Fruitland Coal		0.00	271.12	
1,933.0	1,933.0	Pictured Cliffs Ss.		0.00	271.12	
2,021.0	2,021.0	Lewis Shale		0.00	271.12	
2,714.0	2,714.0	Cliffhouse Ss.		0.00	271.12	
3,449.0	3,449.0	Menefee Fn.		0.00	271.12	
4,173.0	4,173.0	Point Lookout Ss.		0.00	271.12	
4,390.0	4,390.0	Mancos Shale		0.00	271.12	
4,943.3	4,943.0	Mancos Silt		-0.50	271.12	
5,240.1	5,212.0	Gallup Fn.		-0.50	271.12	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
4,851.0	4,851.0	0.0	0.0	KOP @ 4851' MD	
5,740.9	5,423.8	90.8	-555.5	Start 10° Build/Turn	
5,823.4	5,424.2	98.3	-637.6	EOB; Inc=90.5°	
9,954.2	5,388.4	182.4	-4,767.4	PBHL @ 9954.2' 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 4851', 8 3/4" hole size,
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 5571' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 4131' lateral to 9954', run 4 1/2" liner with external swellable csg packers

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SHL: SENE Section 3, T22N, R6W
2325 FNL and 138 FEL

BHL: SWNW Section 3, T22N, R6W
2240 FNL and 330 FWL

Sandoval County, New Mexico

Lease Number: NMNM 109386

Encana Oil & Gas (USA) Inc. Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth (TVD)</u>
Ojo Alamo Ss.	1425'
Kirtland	1544'
Fruitland Coal	1627'
Pictured Cliffs	1933'
Lewis	2021'
Cliffhouse	2714'
Menefee	3449'
Point Lookout	4173'
Mancos Shale	4390'
Mancos Silt	4943'
Gallup	5212'

The referenced surface elevation is 7052', KB 7065'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth (TVD)</u>
Gas	Fruitland Coal	1627'
Gas	Pictured Cliffs	1933'
Gas	Cliffhouse	2714'
Gas	Point Lookout	4173'
Oil/Gas	Mancos	4390'

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.
- 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.

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- 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'-5571'MD	8 3/4"	7"	26#	J55, LTC New
Production Liner	5371'-9954'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

*B80 pipe specifications are attached

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

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.

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Casing	Depth	Cement Volume (sacks)	Cement Type&Yield	Designed TOC	Centralizers
Conductor	60'	100sk	Type I Neat 14.8 ppg	Surface	None
Surface	500'	178sk	Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 14.6ppg, 1.38cuft/sk	Surface	1 per joint on bottom 3 joints
Intermediate	5571'MD	30% open hole excess Stage 1 Lead: 231sks Stage 1 Tail: 159sks Stage 2 Lead: 175sks	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*	5371'-9954'	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.

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4851'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5388'/9954'	Gallup

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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- 5396'TVD/5571'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"	5571'-9954'	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

8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2539 psi based on a 9.0 ppg at 5424' 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.

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Sandoval County, New Mexico

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9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on March 4, 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 25 days.