

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

☒ As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21129	² Pool Code 42289	³ Pool Name LYBROOK GALLUP
⁴ Property Code 39270	⁵ Property Name LYBROOK I32-2306	⁶ Well Number 01H
⁷ OGRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 7101'

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
I	32	23N	6W		1307	SOUTH	288	EAST	SANDOVAL

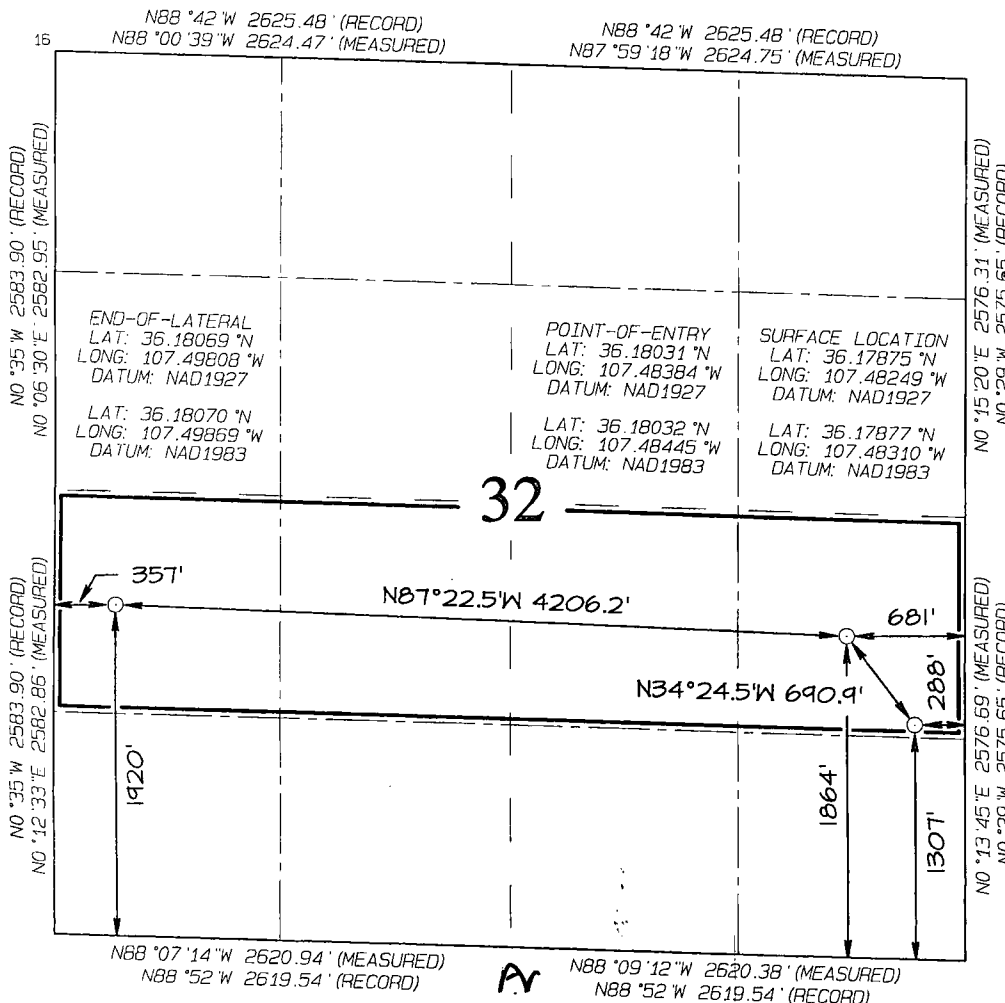
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	23N	6W		1920	SOUTH	357	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres - (N/2 S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD JUN 6 '13 OIL CONS. DIV.
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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

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 *Robynn Haden* Date 6/4/13

Printed Name
Robynn Haden

E-mail Address
robynn.haden@encana.com

¹⁸ SURVEYOR CERTIFICATION

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

Date Revised: JUNE 4, 2013
Date of Survey: MARCH 30, 2012

Signature and Seal of Professional Surveyor



Jason C. Edwards
Certificate Number 15269

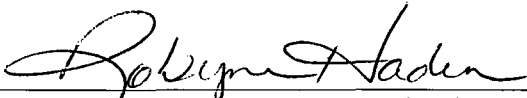
DEVIATION SURVEYS

MD (Feet)	Inclination (Degree)
566	.20
810	.20
1115	.40
1426	.40
1741	.20
2055	.20
2369	.30
2684	.90
2999	.40
3314	.20
3629	.30
3944	.20
4259	.20
4574	.40
4762	1.3

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

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.



Robynn Haden, Engineering Technologist

6/4/13

6/4/13

ACKNOWLEDGMENT

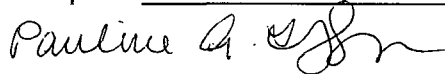
State of Colorado
City and County of Denver

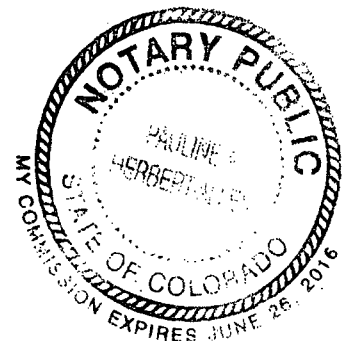
This instrument was acknowledged before me on this 4th day of June, 2013 by Robynn Haden as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said corporation.

In witness whereof, I hereunto set my hand and official seal.

Notary Public: PAULINE A. HERBERT ALLEN

My Commission Expires: JUNE 26, 2016





encana™

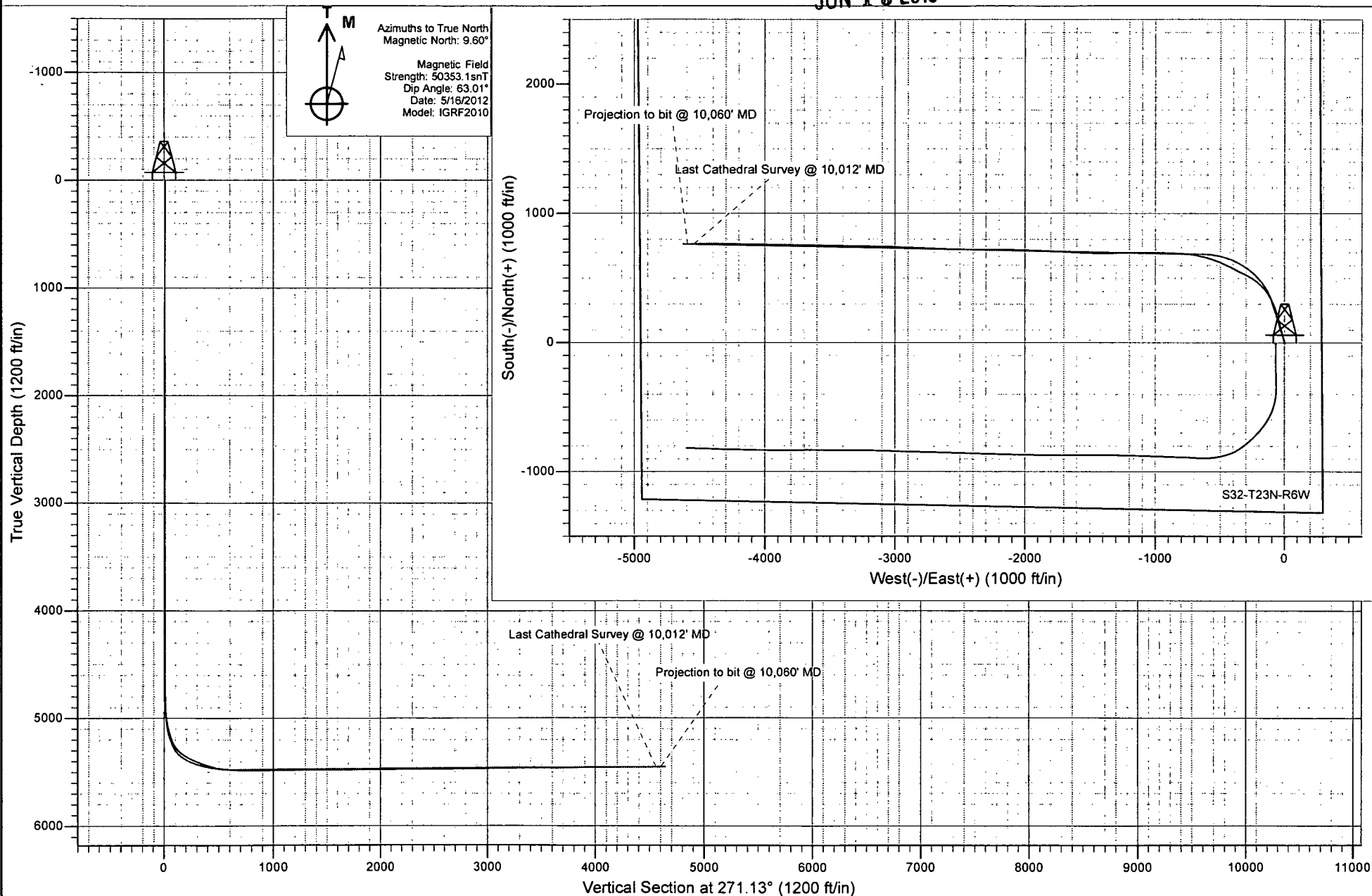
natural gas

Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook 132-2306 01H
Wellbore: HZ
Design: FINAL

OIL CONS. DIV DIST. 3


CATHEDRAL

JUN 13 2013



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook I32-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7114.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	WELL @ 7114.0ft (Original Well Elev)
Well:	Lybrook I32-2306 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	HZ	Database:	USA EDM 5000 Multi Users DB

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 I32-2306 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,886,653.52 ft	Latitude:	36.178770
	+E/-W	0.0 ft	Easting:	1,276,506.24 ft	Longitude:	-107.483100
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,102.0 ft	

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	5/16/2012	(°)	(°)	(nT)
			9.60	63.01	50,353

Design	HZ				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	271.13	

Survey Program	Date 5/19/2013				
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
566.0	10,060.0	Survey #1 (HZ)	MWD	Geolink MWD	

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Formations /
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Comments
(ft)			(ft)			(ft)	(°/100ft)	(°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
566.0	0.20	128.80	566.0	-0.6	0.8	-0.8	0.04	0.04	
628.0	0.20	188.70	628.0	-0.8	0.8	-0.9	0.32	0.00	
689.0	0.40	245.70	689.0	-1.0	0.6	-0.6	0.55	0.33	
749.0	0.04	133.30	749.0	-1.1	0.5	-0.5	0.69	-0.60	
810.0	0.20	225.30	810.0	-1.2	0.4	-0.4	0.34	0.26	
871.0	0.10	279.50	871.0	-1.2	0.3	-0.3	0.27	-0.16	
932.0	0.04	193.50	932.0	-1.3	0.2	-0.2	0.17	-0.10	
993.0	0.30	218.80	993.0	-1.4	0.1	-0.1	0.43	0.43	
1,054.0	0.40	220.60	1,054.0	-1.7	-0.1	0.1	0.16	0.16	
1,115.0	0.40	212.10	1,115.0	-2.0	-0.4	0.3	0.10	0.00	
1,176.0	0.30	175.40	1,176.0	-2.4	-0.5	0.4	0.39	-0.16	
1,238.0	0.40	251.70	1,238.0	-2.6	-0.7	0.6	0.71	0.16	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook I32-2306 01H
Wellbore: HZ
Design: HZ

Local Co-ordinate Reference: Well Lybrook I32-2306 01H
TVD Reference: WELL @ 7114.0ft (Original Well Elev)
MD Reference: WELL @ 7114.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,300.0	0.10	294.70	1,300.0	-2.6	-0.9	0.9	0.54	-0.48	
1,363.0	0.10	248.90	1,363.0	-2.6	-1.0	1.0	0.12	0.00	
1,426.0	0.40	228.00	1,426.0	-2.8	-1.3	1.2	0.49	0.48	
1,489.0	0.10	207.30	1,489.0	-3.0	-1.4	1.4	0.49	-0.48	
1,552.0	0.10	201.40	1,552.0	-3.1	-1.5	1.4	0.02	0.00	
1,615.0	0.20	230.30	1,615.0	-3.2	-1.6	1.5	0.19	0.16	
1,678.0	0.30	270.90	1,678.0	-3.3	-1.8	1.8	0.31	0.16	
1,741.0	0.20	231.50	1,741.0	-3.4	-2.1	2.0	0.31	-0.16	
1,804.0	0.20	220.90	1,804.0	-3.5	-2.2	2.2	0.06	0.00	
1,866.0	0.30	260.70	1,866.0	-3.6	-2.5	2.4	0.31	0.16	
1,929.0	0.40	290.60	1,929.0	-3.6	-2.8	2.8	0.33	0.16	
1,992.0	0.10	185.60	1,992.0	-3.5	-3.1	3.0	0.69	-0.48	
2,055.0	0.20	197.70	2,055.0	-3.7	-3.1	3.0	0.17	0.16	
2,118.0	0.30	344.40	2,118.0	-3.6	-3.2	3.1	0.76	0.16	
2,180.0	0.30	313.30	2,180.0	-3.4	-3.3	3.3	0.26	0.00	
2,243.0	0.40	274.00	2,243.0	-3.3	-3.7	3.6	0.40	0.16	
2,306.0	0.70	228.10	2,306.0	-3.5	-4.2	4.1	0.81	0.48	
2,369.0	0.30	341.60	2,369.0	-3.6	-4.5	4.5	1.37	-0.63	
2,433.0	0.70	337.80	2,433.0	-3.1	-4.7	4.7	0.63	0.62	
2,496.0	0.70	5.60	2,496.0	-2.3	-4.8	4.8	0.53	0.00	
2,558.0	0.60	358.90	2,558.0	-1.6	-4.8	4.8	0.20	-0.16	
2,621.0	0.80	346.00	2,621.0	-0.9	-4.9	4.9	0.40	0.32	
2,684.0	0.90	18.10	2,684.0	0.0	-4.9	4.9	0.76	0.16	
2,747.0	0.80	23.00	2,747.0	0.9	-4.5	4.6	0.20	-0.16	
2,810.0	0.50	33.10	2,809.9	1.5	-4.2	4.2	0.51	-0.48	
2,873.0	0.70	27.10	2,872.9	2.1	-3.9	3.9	0.33	0.32	
2,936.0	0.50	55.20	2,935.9	2.6	-3.5	3.5	0.56	-0.32	
2,999.0	0.40	27.90	2,998.9	3.0	-3.2	3.2	0.37	-0.16	
3,062.0	0.40	69.10	3,061.9	3.2	-2.9	2.9	0.45	0.00	
3,125.0	0.20	318.30	3,124.9	3.4	-2.7	2.8	0.80	-0.32	
3,188.0	0.04	279.50	3,187.9	3.5	-2.8	2.9	0.27	-0.25	
3,251.0	0.40	271.20	3,250.9	3.5	-3.1	3.1	0.57	0.57	
3,314.0	0.20	221.80	3,313.9	3.4	-3.4	3.4	0.49	-0.32	
3,377.0	0.30	254.10	3,376.9	3.3	-3.6	3.6	0.27	0.16	
3,440.0	0.70	225.30	3,439.9	3.0	-4.0	4.1	0.73	0.63	
3,503.0	0.50	152.40	3,502.9	2.4	-4.2	4.2	1.16	-0.32	
3,566.0	0.30	85.70	3,565.9	2.2	-3.9	3.9	0.75	-0.32	
3,629.0	0.30	167.60	3,628.9	2.1	-3.7	3.7	0.62	0.00	
3,692.0	0.60	179.30	3,691.9	1.6	-3.6	3.7	0.50	0.48	
3,755.0	0.30	140.30	3,754.9	1.1	-3.5	3.5	0.65	-0.48	
3,818.0	0.50	139.90	3,817.9	0.8	-3.2	3.3	0.32	0.32	
3,881.0	0.30	158.40	3,880.9	0.4	-3.0	3.0	0.37	-0.32	
3,944.0	0.20	119.10	3,943.9	0.2	-2.8	2.8	0.31	-0.16	
4,008.0	0.30	177.20	4,007.9	0.0	-2.7	2.7	0.40	0.16	
4,071.0	0.10	186.70	4,070.9	-0.2	-2.7	2.7	0.32	-0.32	
4,134.0	0.30	89.20	4,133.9	-0.3	-2.6	2.6	0.52	0.32	
4,197.0	0.20	175.60	4,196.9	-0.4	-2.4	2.4	0.56	-0.16	
4,259.0	0.20	269.90	4,258.9	-0.5	-2.5	2.5	0.47	0.00	
4,322.0	0.10	340.00	4,321.9	-0.4	-2.6	2.6	0.30	-0.16	
4,385.0	0.20	233.00	4,384.9	-0.5	-2.7	2.7	0.39	0.16	
4,448.0	0.10	350.60	4,447.9	-0.5	-2.8	2.8	0.42	-0.16	
4,511.0	0.50	254.80	4,510.9	-0.5	-3.1	3.1	0.82	0.63	
4,574.0	0.40	226.90	4,573.9	-0.7	-3.5	3.5	0.38	-0.16	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook I32-2306 01H
Wellbore: HZ
Design: HZ

Local Co-ordinate Reference: Well Lybrook I32-2306 01H
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MD Reference: WELL @ 7114.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
4,637.0	0.50	258.00	4,636.9	-0.9	-4.0	3.9	0.41	0.16	
4,700.0	0.40	220.20	4,699.9	-1.1	-4.4	4.4	0.49	-0.16	
4,730.0	0.30	236.90	4,729.9	-1.3	-4.5	4.5	0.47	-0.33	
4,762.0	1.30	338.70	4,761.9	-1.0	-4.7	4.7	4.35	3.12	
4,793.0	4.20	345.60	4,792.9	0.5	-5.1	5.1	9.40	9.35	
4,825.0	7.50	349.90	4,824.7	3.6	-5.8	5.9	10.40	10.31	
4,856.0	11.00	349.30	4,855.3	8.5	-6.7	6.9	11.29	11.29	
4,888.0	14.40	350.10	4,886.5	15.5	-7.9	8.2	10.64	10.62	
4,919.0	18.20	348.80	4,916.2	24.0	-9.5	10.0	12.31	12.26	
4,951.0	21.80	347.80	4,946.3	34.7	-11.8	12.5	11.30	11.25	
4,982.0	25.40	347.00	4,974.7	46.8	-14.5	15.4	11.66	11.61	
5,014.0	28.30	346.40	5,003.3	60.9	-17.8	19.0	9.10	9.06	
5,045.0	31.70	345.80	5,030.1	75.9	-21.5	23.0	11.01	10.97	
5,077.0	35.00	345.30	5,056.8	93.0	-25.9	27.8	10.35	10.31	
5,108.0	37.80	346.10	5,081.8	110.8	-30.5	32.6	9.16	9.03	
5,140.0	39.30	346.10	5,106.8	130.2	-35.3	37.8	4.69	4.69	
5,171.0	41.40	345.90	5,130.4	149.6	-40.1	43.1	6.79	6.77	
5,203.0	43.70	345.10	5,154.0	170.6	-45.5	48.9	7.38	7.19	
5,235.0	46.30	344.10	5,176.6	192.4	-51.5	55.3	8.42	8.12	
5,266.0	48.60	342.30	5,197.6	214.2	-58.2	62.4	8.56	7.42	
5,298.0	51.50	340.00	5,218.1	237.5	-66.1	70.8	10.61	9.06	
5,329.0	54.30	337.60	5,236.8	260.5	-75.0	80.2	10.94	9.03	
5,361.0	56.60	337.60	5,255.0	284.9	-85.1	90.7	7.19	7.19	
5,392.0	59.20	335.70	5,271.5	309.0	-95.5	101.6	9.86	8.39	
5,424.0	60.80	334.00	5,287.5	334.0	-107.3	113.8	6.79	5.00	
5,455.0	62.20	329.80	5,302.3	358.1	-120.1	127.1	12.73	4.52	
5,487.0	63.50	325.90	5,316.9	382.2	-135.3	142.8	11.58	4.06	
5,518.0	64.90	322.10	5,330.4	404.7	-151.7	159.6	11.92	4.52	
5,550.0	65.60	319.10	5,343.8	427.2	-170.1	178.5	8.79	2.19	
5,581.0	66.80	312.60	5,356.3	447.5	-189.9	198.6	19.57	3.87	
5,612.0	68.10	308.90	5,368.2	466.2	-211.5	220.7	11.79	4.19	
5,644.0	68.60	306.30	5,380.0	484.3	-235.1	244.6	7.71	1.56	
5,675.0	68.80	303.10	5,391.2	500.8	-258.8	268.7	9.64	0.65	
5,707.0	69.70	299.30	5,402.6	516.3	-284.4	294.6	11.45	2.81	
5,738.0	71.10	297.60	5,413.0	530.2	-310.1	320.5	6.86	4.52	
5,753.0	71.40	296.90	5,417.8	536.7	-322.7	333.3	4.85	2.00	
5,775.0	72.00	295.80	5,424.7	546.0	-341.5	352.2	5.47	2.73	
5,806.0	73.80	296.10	5,433.8	558.9	-368.1	379.0	5.88	5.81	
5,836.0	75.60	297.00	5,441.7	571.9	-394.0	405.2	6.66	6.00	
5,866.0	76.90	296.90	5,448.9	585.1	-420.0	431.4	4.35	4.33	
5,898.0	78.50	295.00	5,455.7	598.7	-448.1	459.8	7.66	5.00	
5,929.0	80.90	295.30	5,461.2	611.7	-475.7	487.6	7.80	7.74	
5,961.0	82.40	292.90	5,465.9	624.6	-504.6	516.8	8.78	4.69	
5,993.0	83.40	290.60	5,469.8	636.4	-534.1	546.5	7.79	3.12	
6,024.0	84.10	288.40	5,473.2	646.7	-563.1	575.8	7.41	2.26	
6,056.0	85.20	285.60	5,476.2	656.0	-593.6	606.4	9.37	3.44	
6,087.0	87.20	284.20	5,478.3	664.0	-623.5	636.4	7.87	6.45	
6,119.0	87.10	282.70	5,479.8	671.4	-654.5	667.7	4.69	-0.31	
6,150.0	87.10	280.80	5,481.4	677.7	-684.9	698.1	6.12	0.00	
6,182.0	87.80	277.80	5,482.8	682.9	-716.4	729.7	9.62	2.19	
6,213.0	89.70	276.00	5,483.5	686.6	-747.2	760.6	8.44	6.13	
6,245.0	90.50	273.90	5,483.5	689.3	-779.0	792.5	7.02	2.50	
6,276.0	90.40	272.90	5,483.2	691.2	-810.0	823.5	3.24	-0.32	
6,308.0	90.70	273.00	5,482.9	692.8	-841.9	855.4	0.99	0.94	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook I32-2306 01H
Wellbore: HZ
Design: HZ

Local Co-ordinate Reference: Well Lybrook I32-2306 01H
TVD Reference: WELL @ 7114.0ft (Original Well Elev)
MD Reference: WELL @ 7114.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,371.0	90.80	271.30	5,482.1	695.2	-904.9	918.4	2.70	0.16	
6,434.0	90.80	271.70	5,481.2	696.8	-967.9	981.4	0.63	0.00	
6,497.0	90.40	271.00	5,480.5	698.3	-1,030.8	1,044.4	1.28	-0.63	
6,560.0	90.20	269.70	5,480.2	698.7	-1,093.8	1,107.4	2.09	-0.32	
6,623.0	90.90	269.60	5,479.6	698.3	-1,156.8	1,170.4	1.12	1.11	
6,686.0	90.50	268.30	5,478.8	697.2	-1,219.8	1,233.3	2.16	-0.63	
6,749.0	90.50	267.90	5,478.3	695.1	-1,282.8	1,296.2	0.63	0.00	
6,812.0	90.90	269.50	5,477.5	693.6	-1,345.8	1,359.2	2.62	0.63	
6,875.0	90.00	269.40	5,477.0	693.0	-1,408.8	1,422.1	1.44	-1.43	
6,938.0	90.20	271.40	5,476.9	693.5	-1,471.8	1,485.1	3.19	0.32	
7,001.0	90.40	272.20	5,476.6	695.5	-1,534.7	1,548.1	1.31	0.32	
7,064.0	90.00	272.90	5,476.4	698.3	-1,597.7	1,611.1	1.28	-0.63	
7,127.0	90.60	273.10	5,476.0	701.6	-1,660.6	1,674.1	1.00	0.95	
7,190.0	90.70	272.50	5,475.3	704.6	-1,723.5	1,737.0	0.97	0.16	
7,253.0	90.50	272.90	5,474.7	707.6	-1,786.4	1,800.0	0.71	-0.32	
7,316.0	89.90	273.20	5,474.4	711.0	-1,849.3	1,863.0	1.06	-0.95	
7,379.0	89.90	271.80	5,474.5	713.7	-1,912.3	1,926.0	2.22	0.00	
7,442.0	90.70	271.50	5,474.2	715.5	-1,975.2	1,989.0	1.36	1.27	
7,505.0	90.40	272.10	5,473.6	717.5	-2,038.2	2,052.0	1.06	-0.48	
7,568.0	90.20	271.70	5,473.3	719.6	-2,101.2	2,114.9	0.71	-0.32	
7,631.0	90.20	270.00	5,473.1	720.5	-2,164.2	2,177.9	2.70	0.00	
7,694.0	90.90	269.80	5,472.5	720.4	-2,227.2	2,240.9	1.16	1.11	
7,757.0	90.70	269.50	5,471.6	720.0	-2,290.1	2,303.9	0.57	-0.32	
7,820.0	90.50	271.50	5,470.9	720.6	-2,353.1	2,366.9	3.19	-0.32	
7,883.0	89.60	270.90	5,470.9	721.9	-2,416.1	2,429.9	1.72	-1.43	
7,946.0	90.40	270.50	5,470.9	722.7	-2,479.1	2,492.9	1.42	1.27	
8,009.0	90.30	270.90	5,470.5	723.4	-2,542.1	2,555.9	0.65	-0.16	
8,072.0	90.20	273.00	5,470.2	725.6	-2,605.1	2,618.9	3.34	-0.16	
8,135.0	90.70	272.90	5,469.7	728.8	-2,668.0	2,681.8	0.81	0.79	
8,198.0	90.40	271.80	5,469.1	731.4	-2,730.9	2,744.8	1.81	-0.48	
8,261.0	90.00	272.60	5,468.9	733.8	-2,793.9	2,807.8	1.42	-0.63	
8,324.0	90.70	272.30	5,468.5	736.5	-2,856.8	2,870.8	1.21	1.11	
8,386.0	91.50	272.50	5,467.3	739.1	-2,918.8	2,932.8	1.33	1.29	
8,449.0	90.70	272.40	5,466.1	741.8	-2,981.7	2,995.7	1.28	-1.27	
8,513.0	90.30	271.70	5,465.5	744.1	-3,045.6	3,059.7	1.26	-0.62	
8,575.0	90.20	271.00	5,465.3	745.6	-3,107.6	3,121.7	1.14	-0.16	
8,638.0	90.80	270.70	5,464.7	746.5	-3,170.6	3,184.7	1.06	0.95	
8,701.0	90.90	271.00	5,463.8	747.4	-3,233.6	3,247.7	0.50	0.16	
8,764.0	90.60	270.80	5,463.0	748.4	-3,296.6	3,310.7	0.57	-0.48	
8,827.0	90.60	270.70	5,462.3	749.2	-3,359.6	3,373.7	0.16	0.00	
8,890.0	90.00	271.80	5,462.0	750.6	-3,422.6	3,436.7	1.99	-0.95	
8,953.0	90.70	271.20	5,461.6	752.3	-3,485.5	3,499.7	1.46	1.11	
9,016.0	90.30	270.50	5,461.0	753.2	-3,548.5	3,562.7	1.28	-0.63	
9,079.0	90.30	271.50	5,460.7	754.3	-3,611.5	3,625.7	1.59	0.00	
9,142.0	90.90	270.30	5,460.0	755.3	-3,674.5	3,688.7	2.13	0.95	
9,205.0	91.80	270.50	5,458.6	755.7	-3,737.5	3,751.7	1.46	1.43	
9,268.0	91.10	270.20	5,457.0	756.1	-3,800.5	3,814.6	1.21	-1.11	
9,331.0	90.40	270.90	5,456.1	756.7	-3,863.5	3,877.6	1.57	-1.11	
9,394.0	90.20	271.50	5,455.8	758.0	-3,926.4	3,940.6	1.00	-0.32	
9,457.0	90.60	271.70	5,455.4	759.8	-3,989.4	4,003.6	0.71	0.63	
9,520.0	90.70	271.20	5,454.7	761.4	-4,052.4	4,066.6	0.81	0.16	
9,583.0	90.90	270.70	5,453.8	762.4	-4,115.4	4,129.6	0.85	0.32	
9,646.0	90.70	271.50	5,452.9	763.6	-4,178.4	4,192.6	1.31	-0.32	

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Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
9,709.0	90.00	271.40	5,452.5	765.2	-4,241.3	4,255.6	1.12	-1.11	
9,772.0	90.20	271.00	5,452.4	766.6	-4,304.3	4,318.6	0.71	0.32	
9,835.0	89.80	270.30	5,452.4	767.3	-4,367.3	4,381.6	1.28	-0.63	
9,898.0	90.10	270.10	5,452.5	767.5	-4,430.3	4,444.6	0.57	0.48	
9,961.0	90.60	268.10	5,452.1	766.5	-4,493.3	4,507.5	3.27	0.79	
10,012.0	91.10	267.70	5,451.3	764.6	-4,544.3	4,558.5	1.26	0.98	Last Cathedral Survey @ 10,012' MD
10,060.0	91.10	267.70	5,450.4	762.7	-4,592.2	4,606.4	0.00	0.00	Projection to bit @ 10,060' MD

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 I32-2306 #01 BI	0.00	0.00	5,451.4	764.9	-4,628.0	1,887,477.19	1,271,888.36	36.180870	-107.498780
- survey misses target center by 35.8ft at 10060.0ft MD (5450.4 TVD, 762.7 N, -4592.2 E)									
- Polygon									
Point 1			5,451.4	500.0	-330.0	1,887,981.34	1,271,564.74		
Point 2			5,451.4	-500.0	-330.0	1,886,981.43	1,271,552.03		

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,012.0	5,451.3	764.6	-4,544.3	Last Cathedral Survey @ 10,012' MD
10,060.0	5,450.4	762.7	-4,592.2	Projection to bit @ 10,060' MD

Checked By: _____

Approved By: _____

Date: _____