

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

*API Number 30-045-35525		*Pool Code 1039	*Pool Name ALAMITO - GALLUP
*Property Code 313255	*Property Name LYBROOK 035-2308		*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 6860'

¹⁰ Surface Location

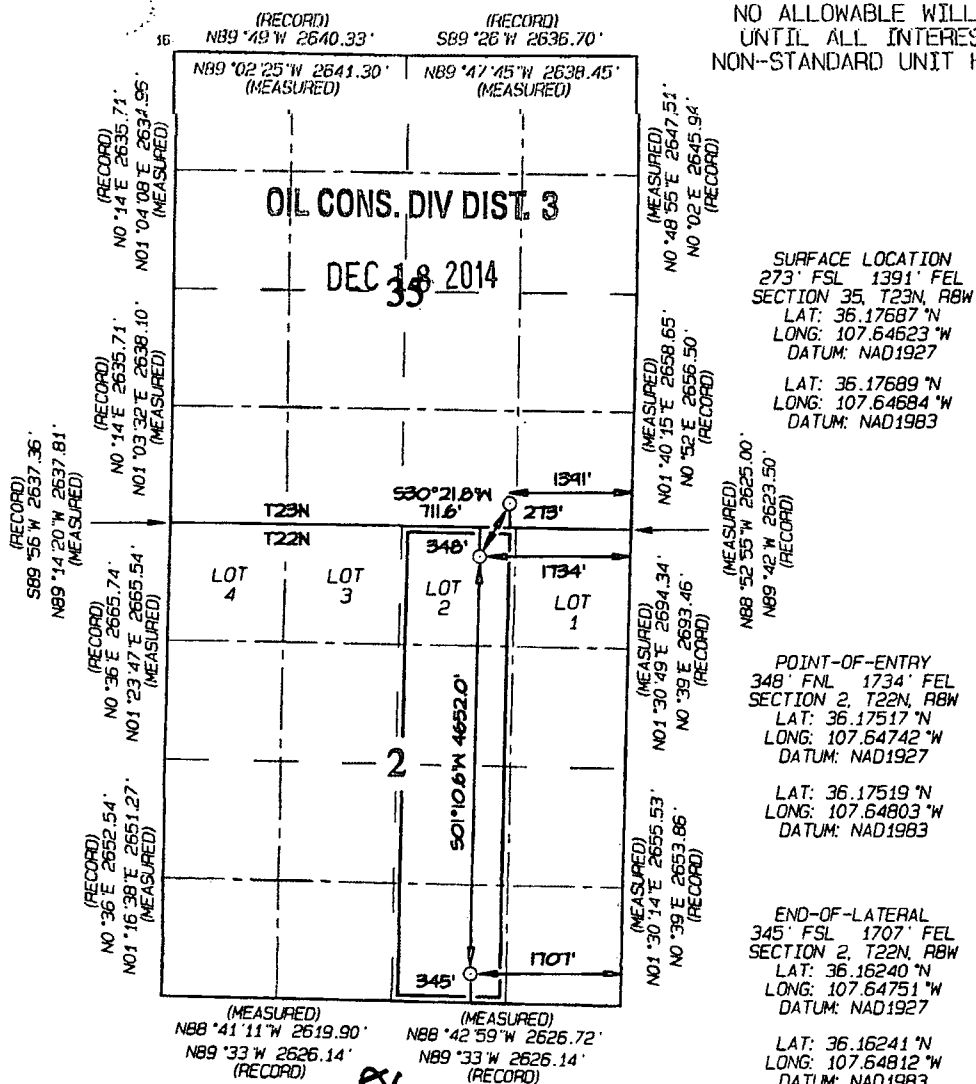
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	35	23N	8W		273	SOUTH	1391	EAST	SAN JUAN

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
0	2	22N	8W		345	SOUTH	1707	EAST	SAN JUAN

¹² Dedicated Acrea 160.90 Acres W/2 E/2 - Section 2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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: *Katie Wegner* Date: 12/16/14
Printed Name: Katie Wegner
E-mail Address: Katie.Wegner@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: DECEMBER 13, 2014
Date of Survey: JUNE 4, 2013

Signature and Seal of Professional Surveyor



Jason C. Edwards
Certificate Number 15269

DEVIATION SURVEYS
Lybrook O35-2308 01H
30-045-35525

MD (Feet)	Inclination (Degree)
292'	0.50
621'	0.40
938'	0.40
1254'	0.60
1563'	0.40
1870'	0.40
2177'	0.60
2485'	0.60
2794'	0.70
3109'	0.80
3425'	1.00
3741'	0.50
3931'	6.90

OIL CONS. DIV DIST. 3

DEC 18 2014

OPERATOR CERTIFICATION

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

Cristi Bauer

Cristi Bauer, Operations Technician

12/16/14

Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 16th day of December, 2014 by Cristi Bauer as Operations Technician of Encana Oil & Gas (USA) Inc., authorized agent for Encana Oil & Gas (USA) Inc., on behalf of said corporation.

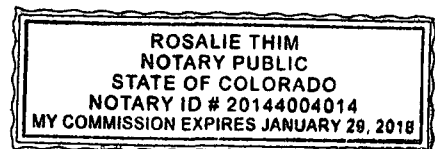
In witness whereof, I hereunto set my hand and official seal.

Notary Public

Rosalie Thim

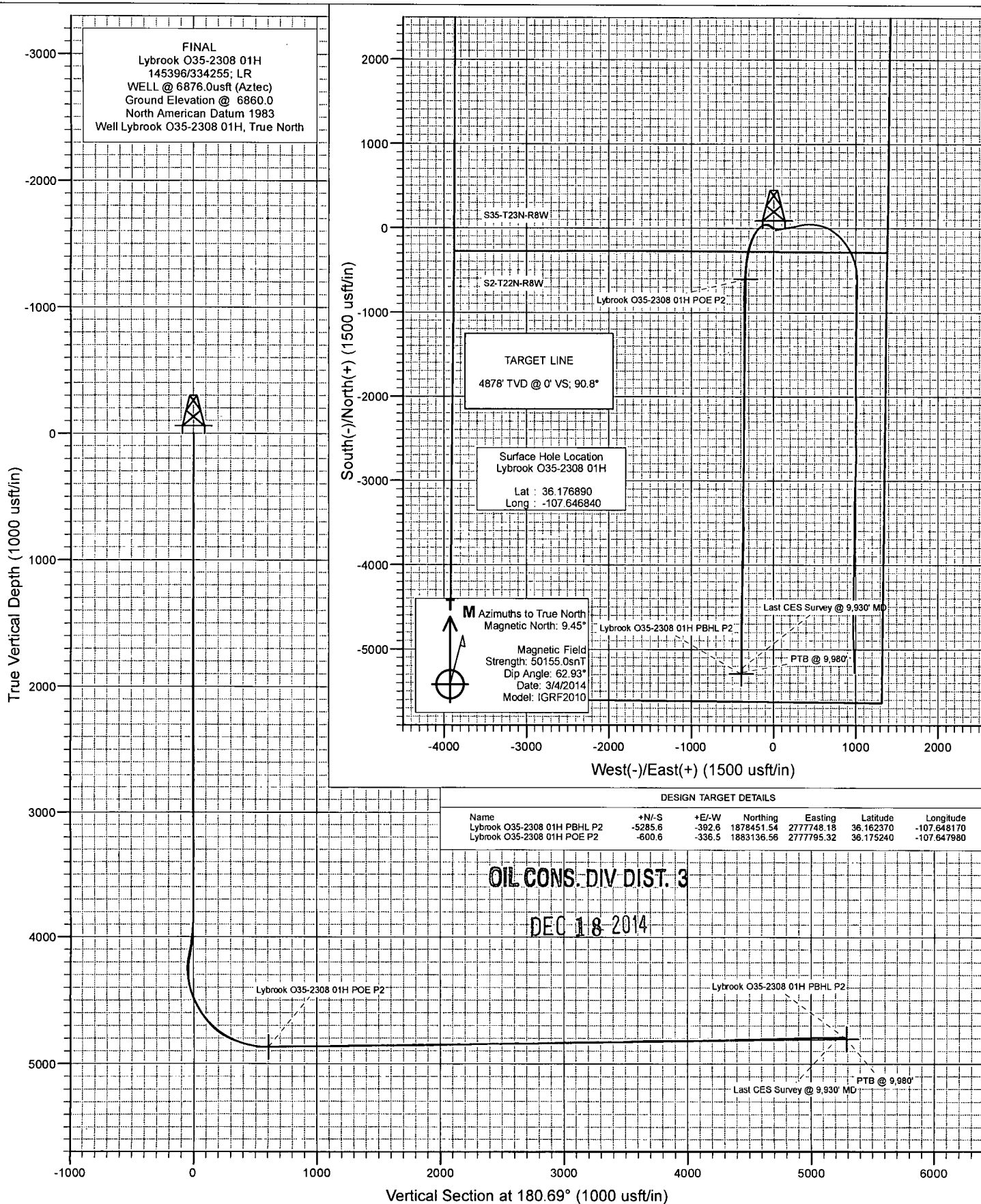
My Commission Expires:

1/29/18





Project: San Juan County, NM
 Site: S35-T23N-R8W
 Well: Lybrook O35-2308 01H
 Wellbore: HZ
 Design: FINAL



FINAL
 Lybrook O35-2308 01H
 145396/334255; LR
 WELL @ 6876.0usft (Aztec)
 Ground Elevation @ 6860.0
 North American Datum 1983
 Well Lybrook O35-2308 01H, True North

TARGET LINE
 4878' TVD @ 0° VS: 90.8°

Surface Hole Location
 Lybrook O35-2308 01H
 Lat : 36.176890
 Long : -107.646840

M Azimuths to True North
 Magnetic North: 9.45°
 Magnetic Field
 Strength: 50155.0snT
 Dip Angle: 62.93°
 Date: 3/4/2014
 Model: IGRF2010

West(-)/East(+) (1500 usft/in)

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lybrook O35-2308 01H PBHL P2	-5285.6	-392.6	1878451.54	2777748.18	36.162370	-107.648170
Lybrook O35-2308 01H POE P2	-600.6	-336.5	1883136.56	2777795.32	36.175240	-107.647980

OIL CONS. DIV DIST. 3

DEC 18 2014

Lybrook O35-2308 01H POE P2

Lybrook O35-2308 01H PBHL P2

Last CES Survey @ 9,930' MD

PTB @ 9,980'

Vertical Section at 180.69° (1000 usft/in)

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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

Site		S35-T23N-R8W			
Site Position:		Northing:	1,883,780.33 usft	Latitude:	36.177020
From:	Lat/Long	Easting:	2,775,554.08 usft	Longitude:	-107.655570
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.10 °

Well	Lybrook O35-2308 01H					
Well Position	+N/-S	0.0 usft	Northing:	1,883,737.84 usft	Latitude:	36.176890
	+E/-W	0.0 usft	Easting:	2,778,130.62 usft	Longitude:	-107.646840
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,860.0 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	3/4/2014	9.45	62.93	50,155

Design	FINAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	180.69

Survey Program	Date	11/3/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
136.0	9,980.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Formations /
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Comments
(usft)			(usft)			(usft)	(°/100usf	(°/100u	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
136.0	0.20	236.30	136.0	-0.1	-0.2	0.1	0.15	0.15	
166.0	0.20	324.60	166.0	-0.1	-0.3	0.1	0.93	0.00	
229.0	0.30	243.30	229.0	-0.1	-0.5	0.1	0.53	0.16	
292.0	0.50	221.60	292.0	-0.4	-0.8	0.4	0.39	0.32	
354.0	0.60	226.40	354.0	-0.8	-1.2	0.8	0.18	0.16	
418.0	0.60	224.90	418.0	-1.3	-1.7	1.3	0.02	0.00	
466.0	0.40	202.60	466.0	-1.6	-1.9	1.6	0.57	-0.42	
558.0	0.40	238.20	558.0	-2.1	-2.3	2.1	0.27	0.00	
621.0	0.40	215.40	621.0	-2.4	-2.7	2.4	0.25	0.00	
685.0	0.40	239.40	685.0	-2.7	-3.0	2.7	0.26	0.00	
748.0	0.70	233.90	748.0	-3.0	-3.5	3.0	0.48	0.48	
811.0	0.80	248.90	811.0	-3.4	-4.2	3.4	0.35	0.16	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
875.0	1.00	245.90	875.0	-3.8	-5.1	3.8	0.32	0.31	
938.0	0.40	356.70	938.0	-3.8	-5.6	3.9	1.91	-0.95	
1,001.0	0.60	32.10	1,001.0	-3.3	-5.5	3.4	0.57	0.32	
1,064.0	0.60	29.70	1,064.0	-2.7	-5.1	2.8	0.04	0.00	
1,128.0	0.80	5.30	1,128.0	-2.0	-4.9	2.0	0.55	0.31	
1,191.0	0.80	357.30	1,190.9	-1.1	-4.9	1.2	0.18	0.00	
1,254.0	0.60	357.80	1,253.9	-0.3	-4.9	0.4	0.32	-0.32	
1,317.0	0.70	359.50	1,316.9	0.4	-5.0	-0.3	0.16	0.16	
1,379.0	0.60	359.90	1,378.9	1.1	-5.0	-1.0	0.16	-0.16	
1,440.0	0.40	1.50	1,439.9	1.6	-5.0	-1.6	0.33	-0.33	
1,502.0	0.40	321.20	1,501.9	2.0	-5.1	-1.9	0.44	0.00	
1,563.0	0.40	330.00	1,562.9	2.3	-5.3	-2.3	0.10	0.00	
1,625.0	0.70	315.80	1,624.9	2.8	-5.7	-2.7	0.53	0.48	
1,686.0	0.50	319.80	1,685.9	3.3	-6.1	-3.2	0.33	-0.33	
1,747.0	0.60	308.70	1,746.9	3.7	-6.6	-3.6	0.24	0.16	
1,809.0	0.40	329.90	1,808.9	4.1	-6.9	-4.0	0.43	-0.32	
1,870.0	0.40	117.80	1,869.9	4.2	-6.8	-4.1	1.26	0.00	
1,932.0	0.60	125.30	1,931.9	3.9	-6.4	-3.8	0.34	0.32	
1,993.0	0.60	110.20	1,992.9	3.6	-5.8	-3.5	0.26	0.00	
2,054.0	0.30	96.60	2,053.9	3.4	-5.4	-3.4	0.52	-0.49	
2,116.0	0.40	104.70	2,115.9	3.4	-5.0	-3.3	0.18	0.16	
2,177.0	0.60	99.40	2,176.9	3.3	-4.5	-3.2	0.34	0.33	
2,239.0	0.60	99.40	2,238.9	3.2	-3.8	-3.1	0.00	0.00	
2,300.0	0.70	84.90	2,299.9	3.1	-3.1	-3.1	0.31	0.16	
2,362.0	0.40	80.70	2,361.9	3.2	-2.6	-3.2	0.49	-0.48	
2,423.0	0.60	112.50	2,422.9	3.1	-2.0	-3.1	0.55	0.33	
2,485.0	0.60	118.20	2,484.9	2.8	-1.5	-2.8	0.10	0.00	
2,546.0	0.60	107.30	2,545.9	2.6	-0.9	-2.6	0.19	0.00	
2,608.0	0.50	108.80	2,607.9	2.4	-0.3	-2.4	0.16	-0.16	
2,669.0	0.60	93.00	2,668.9	2.3	0.3	-2.3	0.30	0.16	
2,730.0	0.60	102.70	2,729.9	2.2	0.9	-2.2	0.17	0.00	
2,794.0	0.70	147.90	2,793.9	1.8	1.4	-1.8	0.79	0.16	
2,857.0	0.80	156.80	2,856.9	1.1	1.8	-1.1	0.24	0.16	
2,920.0	0.80	170.50	2,919.9	0.3	2.1	-0.3	0.30	0.00	
2,983.0	0.80	151.30	2,982.9	-0.6	2.3	0.5	0.42	0.00	
3,046.0	0.90	164.80	3,045.9	-1.4	2.7	1.4	0.35	0.16	
3,109.0	0.80	165.20	3,108.8	-2.3	2.9	2.3	0.16	-0.16	
3,172.0	0.60	92.10	3,171.8	-2.8	3.4	2.7	1.35	-0.32	
3,236.0	0.60	73.20	3,235.8	-2.7	4.0	2.6	0.31	0.00	
3,299.0	0.60	94.00	3,298.8	-2.6	4.7	2.6	0.34	0.00	
3,362.0	0.60	75.70	3,361.8	-2.6	5.3	2.5	0.30	0.00	
3,425.0	1.00	335.40	3,424.8	-2.0	5.4	1.9	1.99	0.63	
3,488.0	1.40	329.40	3,487.8	-0.8	4.8	0.8	0.66	0.63	
3,551.0	0.70	268.60	3,550.8	-0.2	4.0	0.1	1.94	-1.11	
3,615.0	0.70	274.10	3,614.8	-0.1	3.2	0.1	0.10	0.00	
3,678.0	0.60	258.50	3,677.8	-0.2	2.5	0.1	0.32	-0.16	
3,741.0	0.50	266.30	3,740.8	-0.3	1.9	0.2	0.20	-0.16	
3,804.0	0.60	286.80	3,803.8	-0.2	1.3	0.2	0.35	0.16	
3,836.0	0.80	284.60	3,835.8	-0.1	0.9	0.1	0.63	0.62	
3,867.0	2.20	298.80	3,866.8	0.3	0.2	-0.3	4.64	4.52	
3,899.0	4.20	310.90	3,898.7	1.3	-1.2	-1.3	6.56	6.25	
3,931.0	6.90	315.60	3,930.6	3.5	-3.4	-3.4	8.55	8.44	
3,962.0	9.10	310.80	3,961.3	6.4	-6.6	-6.3	7.41	7.10	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
3,994.0	11.00	304.10	3,992.8	9.8	-11.0	-9.6	6.96	5.94	
4,026.0	12.80	305.00	4,024.1	13.5	-16.5	-13.3	5.65	5.62	
4,057.0	15.00	303.60	4,054.2	17.7	-22.6	-17.4	7.18	7.10	
4,089.0	17.10	303.50	4,084.9	22.6	-30.0	-22.2	6.56	6.56	
4,121.0	18.90	304.20	4,115.4	28.1	-38.2	-27.6	5.67	5.62	
4,152.0	20.90	303.90	4,144.5	34.0	-47.0	-33.4	6.46	6.45	
4,184.0	21.20	298.70	4,174.4	40.0	-56.8	-39.3	5.91	0.94	
4,215.0	20.50	288.20	4,203.4	44.4	-66.8	-43.5	12.25	-2.26	
4,247.0	21.10	277.70	4,233.3	46.9	-77.9	-45.9	11.79	1.87	
4,279.0	21.80	268.10	4,263.1	47.5	-89.5	-46.4	11.17	2.19	
4,310.0	21.90	258.40	4,291.9	46.1	-100.9	-44.9	11.64	0.32	
4,342.0	22.80	252.00	4,321.5	43.0	-112.7	-41.6	8.10	2.81	
4,373.0	23.40	246.90	4,350.0	38.7	-124.1	-37.2	6.74	1.94	
4,405.0	24.80	240.50	4,379.2	32.9	-135.8	-31.3	9.26	4.37	
4,437.0	26.40	235.00	4,408.1	25.5	-147.4	-23.7	8.95	5.00	
4,468.0	27.80	230.20	4,435.6	16.9	-158.6	-15.0	8.37	4.52	
4,500.0	29.50	227.50	4,463.7	6.8	-170.2	-4.8	6.68	5.31	
4,532.0	30.80	225.20	4,491.4	-4.3	-181.8	6.4	5.43	4.06	
4,563.0	32.00	221.70	4,517.9	-16.0	-192.9	18.3	7.04	3.87	
4,595.0	33.40	217.80	4,544.8	-29.3	-203.9	31.7	7.90	4.37	
4,626.0	34.90	213.70	4,570.5	-43.4	-214.1	46.0	8.86	4.84	
4,658.0	36.80	212.00	4,596.4	-59.1	-224.2	61.8	6.70	5.94	
4,690.0	38.40	211.30	4,621.7	-75.8	-234.5	78.6	5.18	5.00	
4,721.0	40.60	208.50	4,645.7	-92.9	-244.3	95.8	9.13	7.10	
4,753.0	42.90	206.10	4,669.5	-111.8	-254.1	114.8	8.75	7.19	
4,785.0	45.70	203.40	4,692.4	-132.1	-263.4	135.3	10.55	8.75	
4,816.0	48.60	201.50	4,713.5	-153.1	-272.1	156.4	10.38	9.35	
4,848.0	51.90	199.70	4,734.0	-176.1	-280.7	179.5	11.18	10.31	
4,879.0	55.60	198.40	4,752.3	-199.7	-288.9	203.2	12.40	11.94	
4,911.0	59.40	196.80	4,769.5	-225.5	-297.0	229.0	12.60	11.87	
4,943.0	62.80	195.20	4,785.0	-252.4	-304.7	256.0	11.49	10.62	
4,974.0	65.70	192.90	4,798.4	-279.5	-311.5	283.2	11.50	9.35	
5,005.0	68.80	189.70	4,810.4	-307.5	-317.1	311.3	13.81	10.00	
5,043.0	69.70	188.30	4,823.9	-342.6	-322.7	346.5	4.18	2.37	
5,075.0	70.60	187.80	4,834.7	-372.4	-326.9	376.3	3.17	2.81	
5,106.0	74.10	186.60	4,844.1	-401.7	-330.6	405.7	11.88	11.29	
5,138.0	77.00	186.60	4,852.1	-432.5	-334.1	436.5	9.06	9.06	
5,170.0	81.00	186.30	4,858.2	-463.7	-337.7	467.7	12.53	12.50	
5,201.0	83.60	185.70	4,862.4	-494.2	-340.9	498.3	8.60	8.39	
5,233.0	85.40	185.20	4,865.5	-526.0	-343.9	530.1	5.84	5.62	
5,264.0	87.90	184.30	4,867.3	-556.8	-346.5	560.9	8.57	8.06	
5,328.0	91.40	183.10	4,867.7	-620.6	-350.6	624.8	5.78	5.47	
5,391.0	91.80	182.30	4,865.9	-683.5	-353.6	687.8	1.42	0.63	
5,454.0	91.20	181.90	4,864.3	-746.5	-355.9	750.7	1.14	-0.95	
5,517.0	90.10	180.80	4,863.5	-809.5	-357.3	813.7	2.47	-1.75	
5,580.0	90.10	179.60	4,863.4	-872.5	-357.6	876.7	1.90	0.00	
5,643.0	89.50	179.50	4,863.6	-935.5	-357.1	939.7	0.97	-0.95	
5,707.0	89.10	178.50	4,864.4	-999.4	-356.0	1,003.7	1.68	-0.62	
5,770.0	89.90	180.30	4,865.0	-1,062.4	-355.3	1,066.6	3.13	1.27	
5,833.0	90.50	180.50	4,864.8	-1,125.4	-355.7	1,129.6	1.00	0.95	
5,896.0	90.90	180.70	4,864.0	-1,188.4	-356.4	1,192.6	0.71	0.63	
5,959.0	91.10	180.10	4,862.9	-1,251.4	-356.8	1,255.6	1.00	0.32	
6,023.0	91.60	180.10	4,861.4	-1,315.4	-356.9	1,319.6	0.78	0.78	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,086.0	90.40	180.00	4,860.3	-1,378.4	-357.0	1,382.6	1.91	-1.90	
6,147.0	90.80	179.30	4,859.6	-1,439.4	-356.6	1,443.6	1.32	0.66	
6,209.0	91.60	180.50	4,858.3	-1,501.4	-356.5	1,505.5	2.33	1.29	
6,271.0	90.50	179.80	4,857.2	-1,563.3	-356.7	1,567.5	2.10	-1.77	
6,332.0	90.80	179.70	4,856.5	-1,624.3	-356.4	1,628.5	0.52	0.49	
6,393.0	89.90	180.80	4,856.1	-1,685.3	-356.7	1,689.5	2.33	-1.48	
6,454.0	90.30	180.70	4,856.0	-1,746.3	-357.5	1,750.5	0.68	0.66	
6,516.0	90.40	180.40	4,855.7	-1,808.3	-358.1	1,812.5	0.51	0.16	
6,577.0	90.80	180.10	4,855.0	-1,869.3	-358.3	1,873.5	0.82	0.66	
6,639.0	91.30	180.70	4,853.9	-1,931.3	-358.8	1,935.5	1.26	0.81	
6,700.0	91.50	180.10	4,852.4	-1,992.3	-359.2	1,996.5	1.04	0.33	
6,761.0	91.80	180.80	4,850.6	-2,053.3	-359.7	2,057.4	1.25	0.49	
6,823.0	90.70	180.00	4,849.3	-2,115.2	-360.1	2,119.4	2.19	-1.77	
6,884.0	91.30	181.10	4,848.2	-2,176.2	-360.7	2,180.4	2.05	0.98	
6,946.0	92.20	181.40	4,846.3	-2,238.2	-362.1	2,242.4	1.53	1.45	
7,007.0	91.10	181.20	4,844.6	-2,299.1	-363.4	2,303.4	1.83	-1.80	
7,069.0	90.20	180.00	4,843.9	-2,361.1	-364.1	2,365.4	2.42	-1.45	
7,130.0	90.20	179.80	4,843.7	-2,422.1	-364.0	2,426.3	0.33	0.00	
7,192.0	90.10	179.90	4,843.5	-2,484.1	-363.8	2,488.3	0.23	-0.16	
7,253.0	90.80	179.40	4,843.0	-2,545.1	-363.4	2,549.3	1.41	1.15	
7,315.0	90.80	179.00	4,842.1	-2,607.1	-362.6	2,611.3	0.65	0.00	
7,376.0	90.90	179.40	4,841.2	-2,668.1	-361.7	2,672.3	0.68	0.16	
7,437.0	91.60	179.20	4,839.9	-2,729.1	-361.0	2,733.2	1.19	1.15	
7,499.0	92.30	180.50	4,837.8	-2,791.1	-360.8	2,795.2	2.38	1.13	
7,562.0	91.90	181.90	4,835.5	-2,854.0	-362.1	2,858.1	2.31	-0.63	
7,625.0	91.90	181.40	4,833.4	-2,916.9	-363.9	2,921.1	0.79	0.00	
7,689.0	91.00	181.10	4,831.8	-2,980.9	-365.3	2,985.1	1.48	-1.41	
7,752.0	90.00	181.00	4,831.2	-3,043.9	-366.5	3,048.1	1.60	-1.59	
7,815.0	91.00	181.10	4,830.7	-3,106.9	-367.7	3,111.1	1.60	1.59	
7,878.0	91.50	181.10	4,829.3	-3,169.8	-368.9	3,174.1	0.79	0.79	
7,942.0	89.70	181.00	4,828.6	-3,233.8	-370.0	3,238.0	2.82	-2.81	
8,005.0	90.40	179.20	4,828.6	-3,296.8	-370.1	3,301.0	3.07	1.11	
8,068.0	91.20	180.10	4,827.7	-3,359.8	-369.8	3,364.0	1.91	1.27	
8,131.0	91.10	177.20	4,826.4	-3,422.8	-368.3	3,427.0	4.60	-0.16	
8,194.0	91.40	179.00	4,825.1	-3,485.7	-366.2	3,489.9	2.90	0.48	
8,258.0	91.70	178.30	4,823.3	-3,549.7	-364.7	3,553.8	1.19	0.47	
8,321.0	92.40	178.30	4,821.1	-3,612.6	-362.8	3,616.7	1.11	1.11	
8,384.0	91.60	180.60	4,818.9	-3,675.6	-362.2	3,679.7	3.86	-1.27	
8,447.0	90.40	183.00	4,817.8	-3,738.5	-364.2	3,742.6	4.26	-1.90	
8,510.0	89.40	180.70	4,817.9	-3,801.5	-366.2	3,805.6	3.98	-1.59	
8,574.0	89.90	182.10	4,818.3	-3,865.5	-367.8	3,869.6	2.32	0.78	
8,637.0	90.40	182.00	4,818.1	-3,928.4	-370.0	3,932.6	0.81	0.79	
8,700.0	91.30	180.60	4,817.2	-3,991.4	-371.5	3,995.6	2.64	1.43	
8,763.0	90.30	182.50	4,816.3	-4,054.3	-373.2	4,058.5	3.41	-1.59	
8,827.0	90.60	181.80	4,815.8	-4,118.3	-375.6	4,122.5	1.19	0.47	
8,890.0	91.10	180.20	4,814.9	-4,181.3	-376.7	4,185.5	2.66	0.79	
8,953.0	91.50	180.30	4,813.4	-4,244.3	-376.9	4,248.5	0.65	0.63	
9,016.0	91.70	180.30	4,811.7	-4,307.2	-377.3	4,311.5	0.32	0.32	
9,079.0	92.10	181.90	4,809.6	-4,370.2	-378.5	4,374.4	2.62	0.63	
9,143.0	90.80	181.50	4,808.0	-4,434.1	-380.4	4,438.4	2.13	-2.03	
9,206.0	91.00	180.80	4,807.0	-4,497.1	-381.6	4,501.4	1.16	0.32	
9,269.0	91.60	180.10	4,805.6	-4,560.1	-382.1	4,564.4	1.46	0.95	
9,332.0	91.80	179.60	4,803.7	-4,623.1	-382.0	4,627.3	0.85	0.32	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
9,395.0	92.60	181.50	4,801.3	-4,686.0	-382.6	4,690.3	3.27	1.27	
9,459.0	91.40	179.80	4,799.0	-4,750.0	-383.3	4,754.2	3.25	-1.88	
9,522.0	91.90	179.80	4,797.2	-4,812.9	-383.1	4,817.2	0.79	0.79	
9,585.0	90.70	181.30	4,795.8	-4,875.9	-383.7	4,880.2	3.05	-1.90	
9,648.0	91.10	180.00	4,794.8	-4,938.9	-384.4	4,943.2	2.16	0.63	
9,711.0	91.50	181.40	4,793.4	-5,001.9	-385.2	5,006.2	2.31	0.63	
9,775.0	90.90	179.80	4,792.0	-5,065.9	-385.8	5,070.1	2.67	-0.94	
9,838.0	90.30	177.60	4,791.4	-5,128.8	-384.4	5,133.1	3.62	-0.95	
9,901.0	91.70	177.90	4,790.3	-5,191.8	-381.9	5,196.0	2.27	2.22	
9,930.0	92.00	178.00	4,789.3	-5,220.8	-380.9	5,225.0	1.09	1.03	Last CES Survey @ 9,930' MD
9,980.0	92.00	178.00	4,787.6	-5,270.7	-379.2	5,274.9	0.00	0.00	PTB @ 9,980'

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lybrook O35-2308 01H I - hit/miss target - Shape - Point	0.00	0.00	4,869.5	-600.6	-336.5	1,883,136.56	2,777,795.32	36.175240	-107.647980
- survey misses target center by 13.1usft at 5307.1usft MD (4868.0 TVD, -599.8 N, -349.4 E)									
Lybrook O35-2308 01H I - survey misses target center by 26.0usft at 9980.0usft MD (4787.6 TVD, -5270.7 N, -379.2 E)	0.00	0.00	4,804.1	-5,285.6	-392.6	1,878,451.54	2,777,748.18	36.162370	-107.648170
- Point									
Lybrook O35-2308 01H I - survey misses target center by 13.1usft at 5307.1usft MD (4868.0 TVD, -599.8 N, -349.4 E)	0.00	0.00	4,869.5	-600.6	-336.5	1,883,136.56	2,777,795.32	36.175240	-107.647980
- Point									
Lybrook O35-2308 01H I - survey misses target center by 26.0usft at 9980.0usft MD (4787.6 TVD, -5270.7 N, -379.2 E)	0.00	0.00	4,804.1	-5,285.6	-392.6	1,878,451.54	2,777,748.18	36.162370	-107.648170
- Point									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,930.0	4,789.3	-5,220.8	-380.9	Last CES Survey @ 9,930' MD
9,980.0	4,787.6	-5,270.7	-379.2	PTB @ 9,980'

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S35-T23N-R8W

Lybrook O35-2308 01H

HZ

Survey: Survey #1

Survey Report - Geographic

03 November, 2014

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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

Site	S35-T23N-R8W				
Site Position:		Northing:	1,883,780.33 usft	Latitude:	36.177020
From:	Lat/Long	Easting:	2,775,554.08 usft	Longitude:	-107.655570
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	Lybrook O35-2308 01H					
Well Position	+N/-S	0.0 usft	Northing:	1,883,737.84 usft	Latitude:	36.176890
	+E/-W	0.0 usft	Easting:	2,778,130.62 usft	Longitude:	-107.646840
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,860.0 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/4/2014	9.45	62.93	50,155

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	180.69	

Survey Program		Date	11/3/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
136.0	9,980.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,883,737.84	2,778,130.62	36.176890	-107.646840
136.0	0.20	236.30	136.0	-0.1	-0.2	1,883,737.71	2,778,130.42	36.176890	-107.646841
166.0	0.20	324.60	166.0	-0.1	-0.3	1,883,737.72	2,778,130.35	36.176890	-107.646841
229.0	0.30	243.30	229.0	-0.1	-0.5	1,883,737.74	2,778,130.14	36.176890	-107.646842
292.0	0.50	221.60	292.0	-0.4	-0.8	1,883,737.46	2,778,129.81	36.176889	-107.646843
354.0	0.60	226.40	354.0	-0.8	-1.2	1,883,737.03	2,778,129.40	36.176888	-107.646844
418.0	0.60	224.90	418.0	-1.3	-1.7	1,883,736.56	2,778,128.92	36.176887	-107.646846
466.0	0.40	202.60	466.0	-1.6	-1.9	1,883,736.23	2,778,128.68	36.176886	-107.646847
558.0	0.40	238.20	558.0	-2.1	-2.3	1,883,735.76	2,778,128.28	36.176884	-107.646848
621.0	0.40	215.40	621.0	-2.4	-2.7	1,883,735.46	2,778,127.97	36.176884	-107.646849
685.0	0.40	239.40	685.0	-2.7	-3.0	1,883,735.17	2,778,127.65	36.176883	-107.646850
748.0	0.70	233.90	748.0	-3.0	-3.5	1,883,734.83	2,778,127.15	36.176882	-107.646852

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
811.0	0.80	248.90	811.0	-3.4	-4.2	1,883,734.44	2,778,126.43	36.176881	-107.646855
875.0	1.00	245.90	875.0	-3.8	-5.1	1,883,734.05	2,778,125.50	36.176880	-107.646858
938.0	0.40	356.70	938.0	-3.8	-5.6	1,883,734.04	2,778,124.98	36.176880	-107.646859
1,001.0	0.60	32.10	1,001.0	-3.3	-5.5	1,883,734.54	2,778,125.15	36.176881	-107.646859
1,064.0	0.60	29.70	1,064.0	-2.7	-5.1	1,883,735.11	2,778,125.48	36.176883	-107.646858
1,128.0	0.80	5.30	1,128.0	-2.0	-4.9	1,883,735.85	2,778,125.69	36.176885	-107.646857
1,191.0	0.80	357.30	1,190.9	-1.1	-4.9	1,883,736.72	2,778,125.71	36.176887	-107.646857
1,254.0	0.60	357.80	1,253.9	-0.3	-4.9	1,883,737.49	2,778,125.67	36.176889	-107.646857
1,317.0	0.70	359.50	1,316.9	0.4	-5.0	1,883,738.21	2,778,125.66	36.176891	-107.646857
1,379.0	0.60	359.90	1,378.9	1.1	-5.0	1,883,738.91	2,778,125.65	36.176893	-107.646857
1,440.0	0.40	1.50	1,439.9	1.6	-5.0	1,883,739.44	2,778,125.65	36.176895	-107.646857
1,502.0	0.40	321.20	1,501.9	2.0	-5.1	1,883,739.83	2,778,125.52	36.176896	-107.646858
1,563.0	0.40	330.00	1,562.9	2.3	-5.3	1,883,740.18	2,778,125.28	36.176897	-107.646858
1,625.0	0.70	315.80	1,624.9	2.8	-5.7	1,883,740.64	2,778,124.91	36.176898	-107.646860
1,686.0	0.50	319.80	1,685.9	3.3	-6.1	1,883,741.11	2,778,124.48	36.176899	-107.646861
1,747.0	0.60	308.70	1,746.9	3.7	-6.6	1,883,741.51	2,778,124.06	36.176900	-107.646862
1,809.0	0.40	329.90	1,808.9	4.1	-6.9	1,883,741.90	2,778,123.69	36.176901	-107.646864
1,870.0	0.40	117.80	1,869.9	4.2	-6.8	1,883,741.98	2,778,123.77	36.176902	-107.646863
1,932.0	0.60	125.30	1,931.9	3.9	-6.4	1,883,741.69	2,778,124.23	36.176901	-107.646862
1,993.0	0.60	110.20	1,992.9	3.6	-5.8	1,883,741.40	2,778,124.79	36.176900	-107.646860
2,054.0	0.30	96.60	2,053.9	3.4	-5.4	1,883,741.27	2,778,125.25	36.176900	-107.646858
2,116.0	0.40	104.70	2,115.9	3.4	-5.0	1,883,741.20	2,778,125.62	36.176899	-107.646857
2,177.0	0.60	99.40	2,176.9	3.3	-4.5	1,883,741.09	2,778,126.14	36.176899	-107.646855
2,239.0	0.60	99.40	2,238.9	3.2	-3.8	1,883,740.99	2,778,126.78	36.176899	-107.646853
2,300.0	0.70	84.90	2,299.9	3.1	-3.1	1,883,740.97	2,778,127.47	36.176899	-107.646851
2,362.0	0.40	80.70	2,361.9	3.2	-2.6	1,883,741.04	2,778,128.06	36.176899	-107.646849
2,423.0	0.60	112.50	2,422.9	3.1	-2.0	1,883,740.96	2,778,128.57	36.176899	-107.646847
2,485.0	0.60	118.20	2,484.9	2.8	-1.5	1,883,740.68	2,778,129.15	36.176898	-107.646845
2,546.0	0.60	107.30	2,545.9	2.6	-0.9	1,883,740.43	2,778,129.74	36.176897	-107.646843
2,608.0	0.50	108.80	2,607.9	2.4	-0.3	1,883,740.25	2,778,130.31	36.176897	-107.646841
2,669.0	0.60	93.00	2,668.9	2.3	0.3	1,883,740.15	2,778,130.88	36.176896	-107.646839
2,730.0	0.60	102.70	2,729.9	2.2	0.9	1,883,740.06	2,778,131.51	36.176896	-107.646837
2,794.0	0.70	147.90	2,793.9	1.8	1.4	1,883,739.66	2,778,132.04	36.176895	-107.646835
2,857.0	0.80	156.80	2,856.9	1.1	1.8	1,883,738.93	2,778,132.42	36.176893	-107.646834
2,920.0	0.80	170.50	2,919.9	0.3	2.1	1,883,738.09	2,778,132.67	36.176891	-107.646833
2,983.0	0.80	151.30	2,982.9	-0.6	2.3	1,883,737.27	2,778,132.96	36.176889	-107.646832
3,046.0	0.90	164.80	3,045.9	-1.4	2.7	1,883,736.41	2,778,133.30	36.176886	-107.646831
3,109.0	0.80	165.20	3,108.8	-2.3	2.9	1,883,735.51	2,778,133.54	36.176884	-107.646830
3,172.0	0.60	92.10	3,171.8	-2.8	3.4	1,883,735.07	2,778,133.98	36.176882	-107.646829
3,236.0	0.60	73.20	3,235.8	-2.7	4.0	1,883,735.16	2,778,134.64	36.176883	-107.646827
3,299.0	0.60	94.00	3,298.8	-2.6	4.7	1,883,735.23	2,778,135.28	36.176883	-107.646824
3,362.0	0.60	75.70	3,361.8	-2.6	5.3	1,883,735.29	2,778,135.93	36.176883	-107.646822
3,425.0	1.00	335.40	3,424.8	-2.0	5.4	1,883,735.87	2,778,136.02	36.176885	-107.646822
3,488.0	1.40	329.40	3,487.8	-0.8	4.8	1,883,737.03	2,778,135.40	36.176888	-107.646824
3,551.0	0.70	268.60	3,550.8	-0.2	4.0	1,883,737.69	2,778,134.62	36.176890	-107.646827
3,615.0	0.70	274.10	3,614.8	-0.1	3.2	1,883,737.70	2,778,133.84	36.176890	-107.646829
3,678.0	0.60	258.50	3,677.8	-0.2	2.5	1,883,737.66	2,778,133.13	36.176890	-107.646832
3,741.0	0.50	266.30	3,740.8	-0.3	1.9	1,883,737.58	2,778,132.54	36.176889	-107.646834
3,804.0	0.60	286.80	3,803.8	-0.2	1.3	1,883,737.66	2,778,131.95	36.176890	-107.646836
3,836.0	0.80	284.60	3,835.8	-0.1	0.9	1,883,737.76	2,778,131.57	36.176890	-107.646837
3,867.0	2.20	298.80	3,866.8	0.3	0.2	1,883,738.10	2,778,130.84	36.176891	-107.646840
3,899.0	4.20	310.90	3,898.7	1.3	-1.2	1,883,739.16	2,778,129.41	36.176894	-107.646844
3,931.0	6.90	315.60	3,930.6	3.5	-3.4	1,883,741.30	2,778,127.18	36.176900	-107.646852
3,962.0	9.10	310.80	3,961.3	6.4	-6.6	1,883,744.22	2,778,124.01	36.176908	-107.646863
3,994.0	11.00	304.10	3,992.8	9.8	-11.0	1,883,747.58	2,778,119.56	36.176917	-107.646878

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,026.0	12.80	305.00	4,024.1	13.5	-16.5	1,883,751.31	2,778,114.12	36.176927	-107.646896
4,057.0	15.00	303.60	4,054.2	17.7	-22.6	1,883,755.49	2,778,107.96	36.176939	-107.646917
4,089.0	17.10	303.50	4,084.9	22.6	-30.0	1,883,760.37	2,778,100.58	36.176952	-107.646942
4,121.0	18.90	304.20	4,115.4	28.1	-38.2	1,883,765.86	2,778,092.36	36.176967	-107.646970
4,152.0	20.90	303.90	4,144.5	34.0	-47.0	1,883,771.75	2,778,083.60	36.176984	-107.646999
4,184.0	21.20	298.70	4,174.4	40.0	-56.8	1,883,777.70	2,778,073.78	36.177000	-107.647033
4,215.0	20.50	288.20	4,203.4	44.4	-66.8	1,883,782.07	2,778,063.69	36.177012	-107.647067
4,247.0	21.10	277.70	4,233.3	46.9	-77.9	1,883,784.57	2,778,052.65	36.177019	-107.647104
4,279.0	21.80	268.10	4,263.1	47.5	-89.5	1,883,785.12	2,778,041.00	36.177020	-107.647144
4,310.0	21.90	258.40	4,291.9	46.1	-100.9	1,883,783.74	2,778,029.58	36.177017	-107.647182
4,342.0	22.80	252.00	4,321.5	43.0	-112.7	1,883,780.60	2,778,017.84	36.177008	-107.647222
4,373.0	23.40	246.90	4,350.0	38.7	-124.1	1,883,776.31	2,778,006.48	36.176996	-107.647261
4,405.0	24.80	240.50	4,379.2	32.9	-135.8	1,883,770.49	2,777,994.80	36.176981	-107.647300
4,437.0	26.40	235.00	4,408.0	25.5	-147.4	1,883,763.08	2,777,983.14	36.176960	-107.647340
4,468.0	27.80	230.20	4,435.6	16.9	-158.6	1,883,754.48	2,777,971.96	36.176937	-107.647378
4,500.0	29.50	227.50	4,463.7	6.8	-170.2	1,883,744.35	2,777,960.43	36.176909	-107.647417
4,532.0	30.80	225.20	4,491.4	-4.3	-181.8	1,883,733.24	2,777,948.83	36.176878	-107.647456
4,563.0	32.00	221.70	4,517.9	-16.0	-192.9	1,883,721.49	2,777,937.76	36.176846	-107.647494
4,595.0	33.40	217.80	4,544.8	-29.3	-203.9	1,883,708.17	2,777,926.74	36.176810	-107.647531
4,626.0	34.90	213.70	4,570.5	-43.4	-214.1	1,883,694.03	2,777,916.62	36.176771	-107.647566
4,658.0	36.80	212.00	4,596.4	-59.1	-224.2	1,883,678.27	2,777,906.49	36.176728	-107.647600
4,690.0	38.40	211.30	4,621.7	-75.8	-234.5	1,883,661.63	2,777,896.28	36.176682	-107.647635
4,721.0	40.60	208.50	4,645.7	-92.9	-244.3	1,883,644.51	2,777,886.49	36.176635	-107.647668
4,753.0	42.90	206.10	4,669.5	-111.8	-254.1	1,883,625.56	2,777,876.77	36.176583	-107.647701
4,785.0	45.70	203.40	4,692.4	-132.1	-263.4	1,883,605.24	2,777,867.46	36.176527	-107.647733
4,816.0	48.60	201.50	4,713.5	-153.1	-272.1	1,883,584.22	2,777,858.84	36.176470	-107.647762
4,848.0	51.90	199.70	4,734.0	-176.1	-280.7	1,883,561.18	2,777,850.23	36.176406	-107.647791
4,879.0	55.60	198.40	4,752.3	-199.7	-288.9	1,883,537.54	2,777,842.13	36.176341	-107.647819
4,911.0	59.40	196.80	4,769.5	-225.5	-297.0	1,883,511.80	2,777,834.03	36.176271	-107.647847
4,943.0	62.80	195.20	4,785.0	-252.4	-304.7	1,883,484.86	2,777,826.36	36.176197	-107.647873
4,974.0	65.70	192.90	4,798.4	-279.5	-311.5	1,883,457.76	2,777,819.65	36.176122	-107.647896
5,005.0	68.80	189.70	4,810.4	-307.5	-317.1	1,883,429.72	2,777,814.11	36.176045	-107.647915
5,043.0	69.70	188.30	4,823.9	-342.6	-322.7	1,883,394.62	2,777,808.62	36.175949	-107.647934
5,075.0	70.60	187.80	4,834.7	-372.4	-326.9	1,883,364.81	2,777,804.46	36.175867	-107.647948
5,106.0	74.10	186.60	4,844.1	-401.7	-330.6	1,883,335.50	2,777,800.82	36.175787	-107.647960
5,138.0	77.00	186.60	4,852.1	-432.5	-334.1	1,883,304.71	2,777,797.32	36.175702	-107.647972
5,170.0	81.00	186.30	4,858.2	-463.7	-337.7	1,883,273.50	2,777,793.85	36.175616	-107.647984
5,201.0	83.60	185.70	4,862.4	-494.2	-340.9	1,883,242.94	2,777,790.70	36.175532	-107.647995
5,233.0	85.40	185.20	4,865.5	-526.0	-343.9	1,883,211.23	2,777,787.73	36.175445	-107.648006
5,264.0	87.90	184.30	4,867.3	-556.8	-346.5	1,883,180.39	2,777,785.23	36.175361	-107.648014
5,328.0	91.40	183.10	4,867.7	-620.6	-350.6	1,883,116.52	2,777,781.22	36.175185	-107.648028
5,391.0	91.80	182.30	4,865.9	-683.5	-353.6	1,883,053.61	2,777,778.38	36.175012	-107.648038
5,454.0	91.20	181.90	4,864.3	-746.5	-355.9	1,882,990.67	2,777,776.19	36.174839	-107.648046
5,517.0	90.10	180.80	4,863.5	-809.5	-357.3	1,882,927.69	2,777,774.83	36.174666	-107.648051
5,580.0	90.10	179.60	4,863.4	-872.5	-357.6	1,882,864.70	2,777,774.73	36.174493	-107.648052
5,643.0	89.50	179.50	4,863.6	-935.5	-357.1	1,882,801.70	2,777,775.35	36.174320	-107.648050
5,707.0	89.10	178.50	4,864.4	-999.4	-356.0	1,882,737.72	2,777,776.59	36.174145	-107.648046
5,770.0	89.90	180.30	4,865.0	-1,062.4	-355.3	1,882,674.73	2,777,777.37	36.173971	-107.648044
5,833.0	90.50	180.50	4,864.8	-1,125.4	-355.7	1,882,611.73	2,777,777.05	36.173798	-107.648046
5,896.0	90.90	180.70	4,864.0	-1,188.4	-356.4	1,882,548.74	2,777,776.51	36.173625	-107.648048
5,959.0	91.10	180.10	4,862.9	-1,251.4	-356.8	1,882,485.75	2,777,776.19	36.173452	-107.648049
6,023.0	91.60	180.10	4,861.4	-1,315.4	-356.9	1,882,421.76	2,777,776.20	36.173277	-107.648050
6,086.0	90.40	180.00	4,860.3	-1,378.4	-357.0	1,882,358.77	2,777,776.27	36.173104	-107.648050
6,147.0	90.80	179.30	4,859.6	-1,439.4	-356.6	1,882,297.78	2,777,776.76	36.172936	-107.648049
6,209.0	91.60	180.50	4,858.3	-1,501.4	-356.5	1,882,235.80	2,777,776.98	36.172766	-107.648048

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,271.0	90.50	179.80	4,857.2	-1,563.3	-356.7	1,882,173.81	2,777,776.94	36.172595	-107.648049
6,332.0	90.80	179.70	4,856.5	-1,624.3	-356.4	1,882,112.81	2,777,777.32	36.172428	-107.648048
6,393.0	89.90	180.80	4,856.1	-1,685.3	-356.7	1,882,051.82	2,777,777.18	36.172260	-107.648049
6,454.0	90.30	180.70	4,856.0	-1,746.3	-357.5	1,881,990.82	2,777,776.49	36.172093	-107.648051
6,516.0	90.40	180.40	4,855.7	-1,808.3	-358.1	1,881,928.82	2,777,776.02	36.171922	-107.648053
6,577.0	90.80	180.10	4,855.0	-1,869.3	-358.3	1,881,867.83	2,777,775.87	36.171755	-107.648054
6,639.0	91.30	180.70	4,853.9	-1,931.3	-358.8	1,881,805.84	2,777,775.56	36.171585	-107.648056
6,700.0	91.50	180.10	4,852.4	-1,992.3	-359.2	1,881,744.86	2,777,775.25	36.171417	-107.648057
6,761.0	91.80	180.80	4,850.6	-2,053.3	-359.7	1,881,683.88	2,777,774.89	36.171250	-107.648059
6,823.0	90.70	180.00	4,849.3	-2,115.2	-360.1	1,881,621.90	2,777,774.57	36.171079	-107.648060
6,884.0	91.30	181.10	4,848.2	-2,176.2	-360.7	1,881,560.91	2,777,774.10	36.170912	-107.648062
6,946.0	92.20	181.40	4,846.3	-2,238.2	-362.1	1,881,498.96	2,777,772.87	36.170742	-107.648067
7,007.0	91.10	181.20	4,844.6	-2,299.1	-363.4	1,881,438.00	2,777,771.60	36.170574	-107.648072
7,069.0	90.20	180.00	4,843.9	-2,361.1	-364.1	1,881,376.00	2,777,771.07	36.170404	-107.648074
7,130.0	90.20	179.80	4,843.7	-2,422.1	-364.0	1,881,315.00	2,777,771.30	36.170236	-107.648073
7,192.0	90.10	179.90	4,843.5	-2,484.1	-363.8	1,881,253.01	2,777,771.58	36.170066	-107.648073
7,253.0	90.80	179.40	4,843.0	-2,545.1	-363.4	1,881,192.01	2,777,772.07	36.169898	-107.648072
7,315.0	90.80	179.00	4,842.1	-2,607.1	-362.6	1,881,130.02	2,777,773.05	36.169728	-107.648069
7,376.0	90.90	179.40	4,841.2	-2,668.1	-361.7	1,881,069.04	2,777,774.02	36.169561	-107.648066
7,437.0	91.60	179.20	4,839.9	-2,729.1	-361.0	1,881,008.06	2,777,774.89	36.169393	-107.648063
7,499.0	92.30	180.50	4,837.8	-2,791.1	-360.8	1,880,946.10	2,777,775.17	36.169223	-107.648063
7,562.0	91.90	181.90	4,835.5	-2,854.0	-362.1	1,880,883.15	2,777,773.97	36.169050	-107.648067
7,625.0	91.90	181.40	4,833.4	-2,916.9	-363.9	1,880,820.21	2,777,772.28	36.168877	-107.648073
7,689.0	91.00	181.10	4,831.8	-2,980.9	-365.3	1,880,756.24	2,777,771.00	36.168701	-107.648078
7,752.0	90.00	181.00	4,831.2	-3,043.9	-366.5	1,880,693.26	2,777,769.97	36.168528	-107.648082
7,815.0	91.00	181.10	4,830.7	-3,106.9	-367.7	1,880,630.27	2,777,768.94	36.168355	-107.648086
7,878.0	91.50	181.10	4,829.3	-3,169.8	-368.9	1,880,567.29	2,777,767.85	36.168182	-107.648090
7,942.0	89.70	181.00	4,828.6	-3,233.8	-370.0	1,880,503.31	2,777,766.80	36.168006	-107.648094
8,005.0	90.40	179.20	4,828.6	-3,296.8	-370.1	1,880,440.31	2,777,766.81	36.167833	-107.648094
8,068.0	91.20	180.10	4,827.7	-3,359.8	-369.8	1,880,377.32	2,777,767.32	36.167660	-107.648093
8,131.0	91.10	177.20	4,826.4	-3,422.8	-368.3	1,880,314.36	2,777,768.92	36.167487	-107.648088
8,194.0	91.40	179.00	4,825.1	-3,485.7	-366.2	1,880,251.42	2,777,771.13	36.167314	-107.648081
8,258.0	91.70	178.30	4,823.3	-3,549.7	-364.7	1,880,187.46	2,777,772.76	36.167139	-107.648076
8,321.0	92.40	178.30	4,821.1	-3,612.6	-362.8	1,880,124.53	2,777,774.75	36.166966	-107.648069
8,384.0	91.60	180.60	4,818.9	-3,675.6	-362.2	1,880,061.58	2,777,775.47	36.166793	-107.648067
8,447.0	90.40	183.00	4,817.8	-3,738.5	-364.2	1,879,998.62	2,777,773.62	36.166620	-107.648074
8,510.0	89.40	180.70	4,817.9	-3,801.5	-366.2	1,879,935.66	2,777,771.70	36.166447	-107.648081
8,574.0	89.90	182.10	4,818.3	-3,865.5	-367.8	1,879,871.68	2,777,770.26	36.166271	-107.648086
8,637.0	90.40	182.00	4,818.1	-3,928.4	-370.0	1,879,808.71	2,777,768.13	36.166098	-107.648094
8,700.0	91.30	180.60	4,817.2	-3,991.4	-371.5	1,879,745.74	2,777,766.82	36.165925	-107.648099
8,763.0	90.30	182.50	4,816.3	-4,054.3	-373.2	1,879,682.78	2,777,765.24	36.165752	-107.648105
8,827.0	90.60	181.80	4,815.8	-4,118.3	-375.6	1,879,618.83	2,777,762.96	36.165577	-107.648113
8,890.0	91.10	180.20	4,814.9	-4,181.3	-376.7	1,879,555.84	2,777,761.98	36.165404	-107.648116
8,953.0	91.50	180.30	4,813.4	-4,244.3	-376.9	1,879,492.86	2,777,761.83	36.165231	-107.648117
9,016.0	91.70	180.30	4,811.7	-4,307.2	-377.3	1,879,429.88	2,777,761.62	36.165058	-107.648118
9,079.0	92.10	181.90	4,809.6	-4,370.2	-378.5	1,879,366.93	2,777,760.53	36.164885	-107.648123
9,143.0	90.80	181.50	4,808.0	-4,434.1	-380.4	1,879,302.98	2,777,758.76	36.164709	-107.648129
9,206.0	91.00	180.80	4,807.0	-4,497.1	-381.6	1,879,240.00	2,777,757.62	36.164536	-107.648133
9,269.0	91.60	180.10	4,805.6	-4,560.1	-382.1	1,879,177.01	2,777,757.24	36.164363	-107.648135
9,332.0	91.80	179.60	4,803.7	-4,623.1	-382.0	1,879,114.04	2,777,757.53	36.164190	-107.648134
9,395.0	92.60	181.50	4,801.3	-4,686.0	-382.6	1,879,051.09	2,777,757.04	36.164017	-107.648136
9,459.0	91.40	179.80	4,799.0	-4,750.0	-383.3	1,878,987.14	2,777,756.44	36.163841	-107.648139
9,522.0	91.90	179.80	4,797.2	-4,812.9	-383.1	1,878,924.17	2,777,756.78	36.163668	-107.648138
9,585.0	90.70	181.30	4,795.8	-4,875.9	-383.7	1,878,861.19	2,777,756.30	36.163495	-107.648140
9,648.0	91.10	180.00	4,794.8	-4,938.9	-384.4	1,878,798.20	2,777,755.71	36.163322	-107.648143

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook O35-2308 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6876.0usft (Aztec)
Site:	S35-T23N-R8W	MD Reference:	WELL @ 6876.0usft (Aztec)
Well:	Lybrook O35-2308 01H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,711.0	91.50	181.40	4,793.4	-5,001.9	-385.2	1,878,735.22	2,777,755.06	36.163149	-107.648145
9,775.0	90.90	179.80	4,792.0	-5,065.9	-385.8	1,878,671.24	2,777,754.51	36.162974	-107.648147
9,838.0	90.30	177.60	4,791.4	-5,128.8	-384.4	1,878,608.27	2,777,756.06	36.162801	-107.648143
9,901.0	91.70	177.90	4,790.3	-5,191.8	-381.9	1,878,545.33	2,777,758.65	36.162628	-107.648134
9,930.0	92.00	178.00	4,789.3	-5,220.8	-380.9	1,878,516.35	2,777,759.75	36.162548	-107.648131
Last CES Survey @ 9,930' MD									
9,980.0	92.00	178.00	4,787.6	-5,270.7	-379.2	1,878,466.41	2,777,761.59	36.162411	-107.648125
PTB @ 9,980'									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Lybrook O35-2308 01H	0.00	0.00	4,804.1	-5,285.6	-392.6	1,878,451.54	2,777,748.18	36.162370	-107.648170
- survey misses target center by 26.0usft at 9980.0usft MD (4787.6 TVD, -5270.7 N, -379.2 E)									
- Point									
Lybrook O35-2308 01H	0.00	0.00	4,869.5	-600.6	-336.5	1,883,136.56	2,777,795.32	36.175240	-107.647980
- survey misses target center by 13.1usft at 5307.1usft MD (4868.0 TVD, -599.8 N, -349.4 E)									
- Point									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,930.0	4,789.3	-5,220.8	-380.9	Last CES Survey @ 9,930' MD
9,980.0	4,787.6	-5,270.7	-379.2	PTB @ 9,980'

Checked By: _____	Approved By: _____	Date: _____
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