

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) 334-6179 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 30-043-21137		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 39971	*Property Name LYBROOK A01-2206		*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 6880'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
A	1	22N	6W	1	1126	NORTH	546	EAST	SANDOVAL

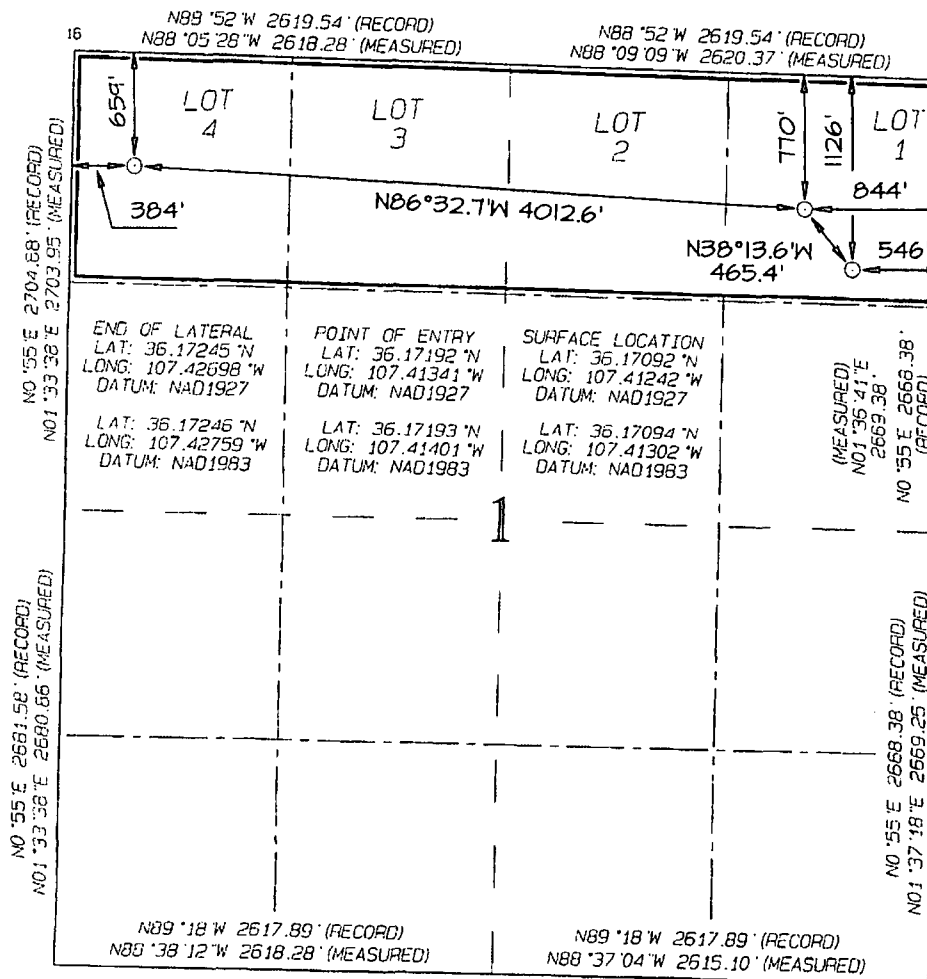
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
D	1	22N	6W	4	659	NORTH	384	WEST	SANDOVAL

*Dedicated Acres 161.40 Acres - (N/2 N/2)	*Joint or Infill	*Consolidation Code	*Order No. RCVD APR 1 2014 OIL CONS. DIV.
--	------------------	---------------------	---

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: Vy Nguyen
Date: 03/31/2014
Printed Name: vy.nguyen@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: MARCH 31, 2014
Date of Survey: AUGUST 24, 2012

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

Jason C. Edwards
Certificate Number 15269

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 30-043-21137		Pool Code 42289	Pool Name LYBROOK GALLUP
Property Code 39971	Property Name LYBROOK A01-2206		Well Number 01H
GRID No. 282327	Operator Name ENCANA OIL & GAS (USA) INC.		Elevation 6880'

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
A	1	22N	6W	1	1126	NORTH	546	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
D	1	22N					384	WEST	SANDOVAL

12 Dedicated Acres
161.40 Acres -

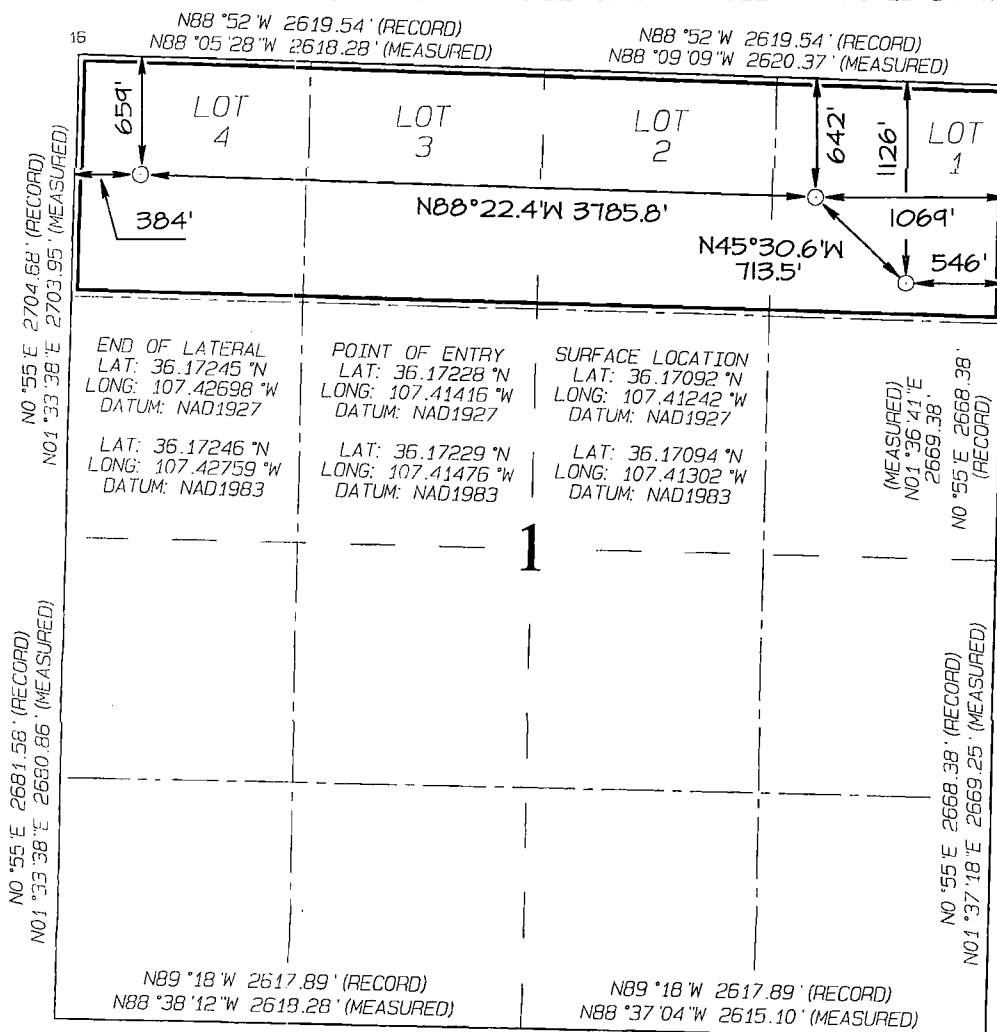
DENIED

13 Order No.
RCVD MAR 24 '14
OIL CONS. DIV.

NO ALLOWABLE WILL BE ASS
OR A N.

INTERESTS HAVE BEEN CONSOLIDATED
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.

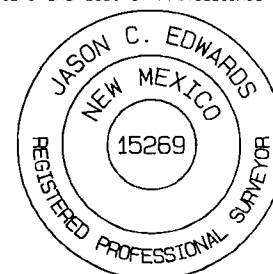
Signature Vy Nguyen Date 03/19/2014
Printed Name vy.nguyen@encana.com
E-mail Address

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: MARCH 18, 2014
Date of Survey: AUGUST 24, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

CONFIDENTIAL

Amended

Lybrook A01-2206 OIH

DEVIATION SURVEYS

MD (Feet)	Inclination (Degree)
738	.4
1045	.6
1350	.8
1661	.9
1976	.3
2291	.3
2607	.2
2921	.4
3237	.7
3552	.2
3867	1.1
4182	1.1
4497	.4
4764	3
4921	16.8

RCVD MAR 26 '14

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.



Vy Nguyen, Engineering Technologist

03/18/2014

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 26th day of March, 2014 by Vy Nguyen as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said corporation.

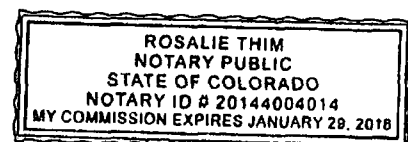
In witness whereof, I hereunto set my hand and official seal.

Notary Public:



My Commission Expires:

1.29.18



DEVIATION SURVEYS

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
738	.4
1045	.6
1350	.8
1661	.9
1976	.3
2291	.3
2607	.2
2921	.4
3237	.7
3552	.2
3867	1.1

RCVD MAR 24 '14
OIL CONS. DIV.
DIST. 3

DENIED

OPERATOR CERTIFICATION

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



Vy Nguyen, Engineering Technologist

03/18/2014

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 19th day of February, 2014 by Vy Nguyen 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: _____

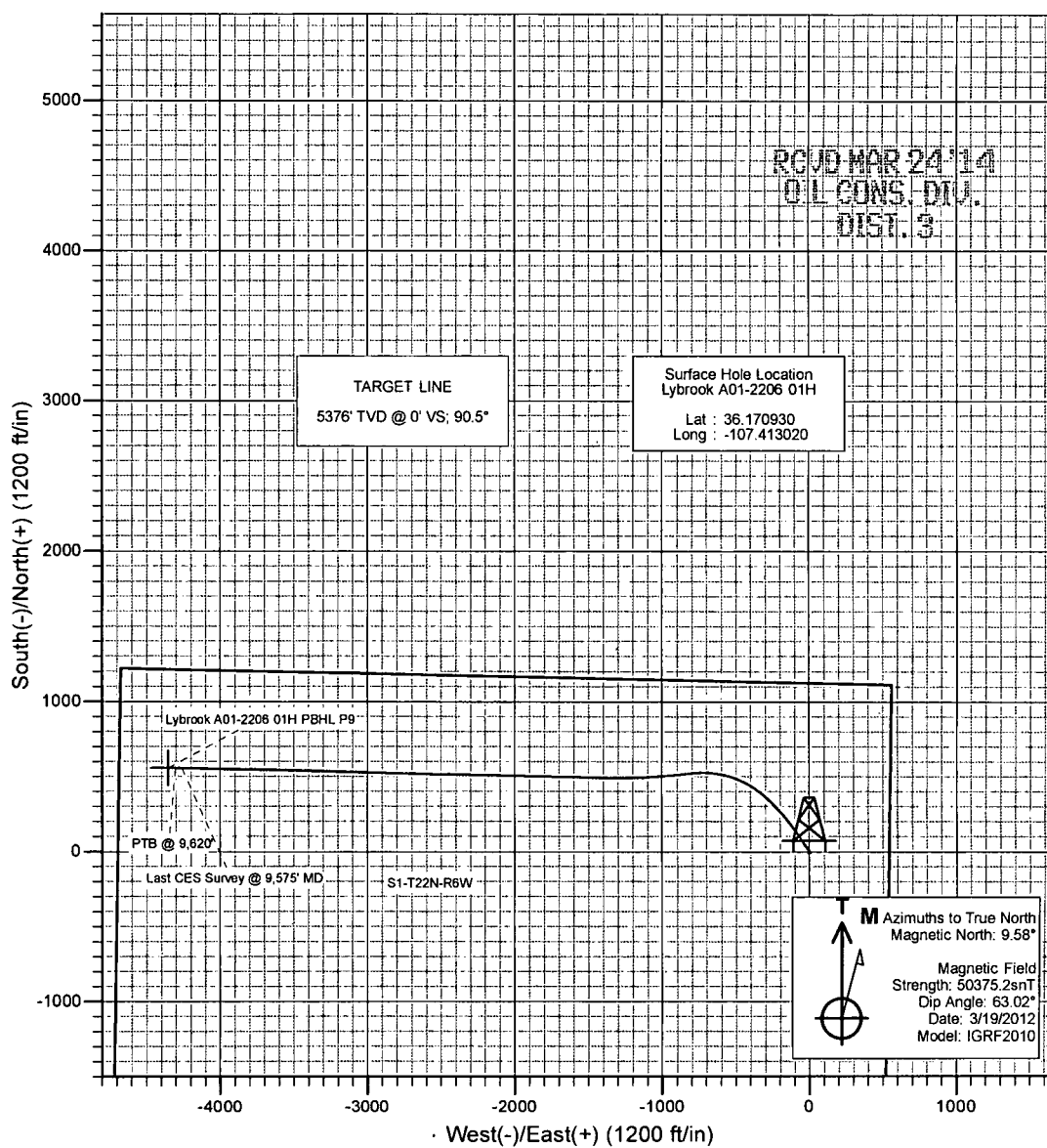
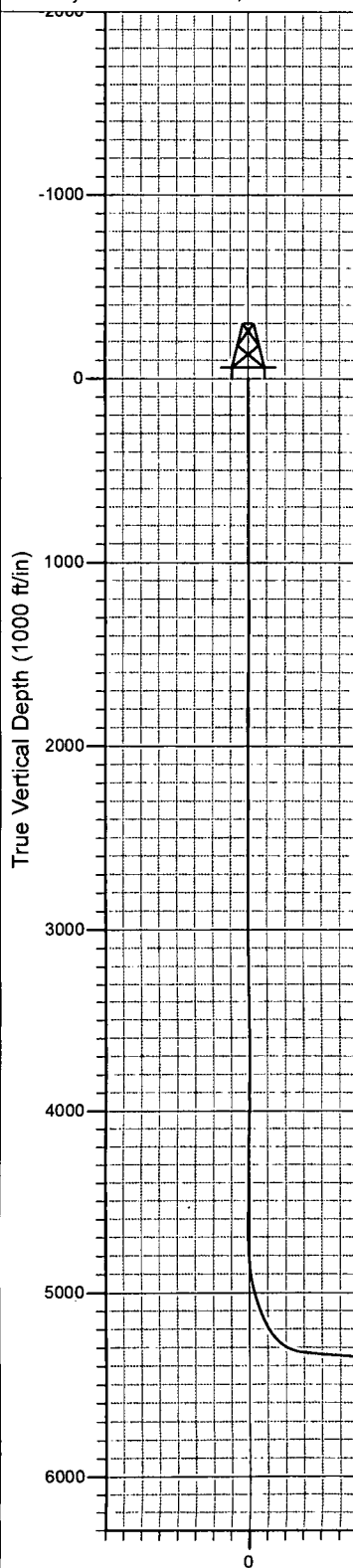
My Commission Expires: _____



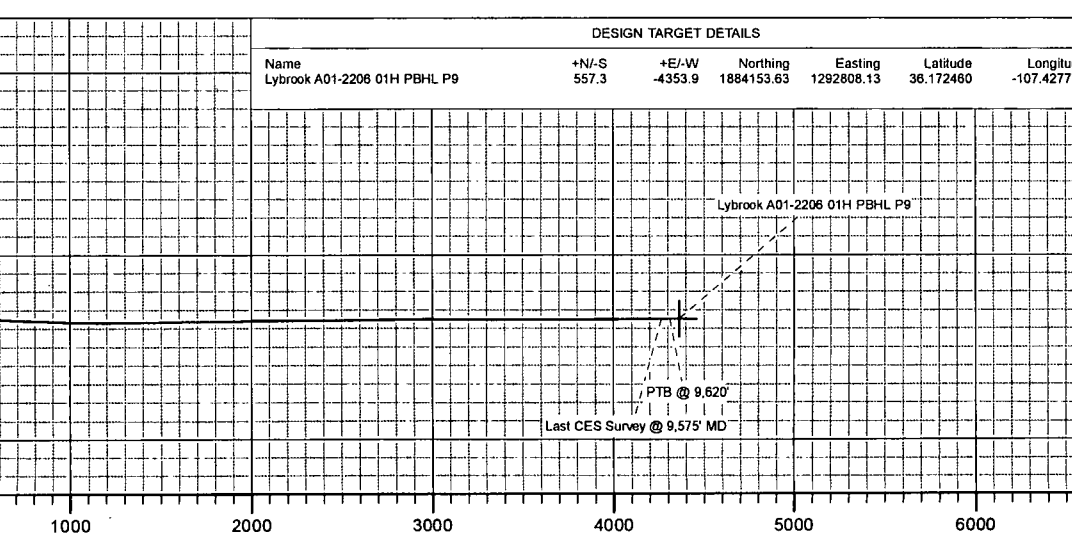
Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook A01-2206 01H
 Wellbore: HZ
 Design: FINAL



FINAL
 Lybrook A01-2206 01H
 145044/300455; LR
 KB=16' @ 6896.0R (Original Well Elev)
 Ground Elevation @ 6880.0
 North American Datum 1983
 Well Lybrook A01-2206 01H, True North



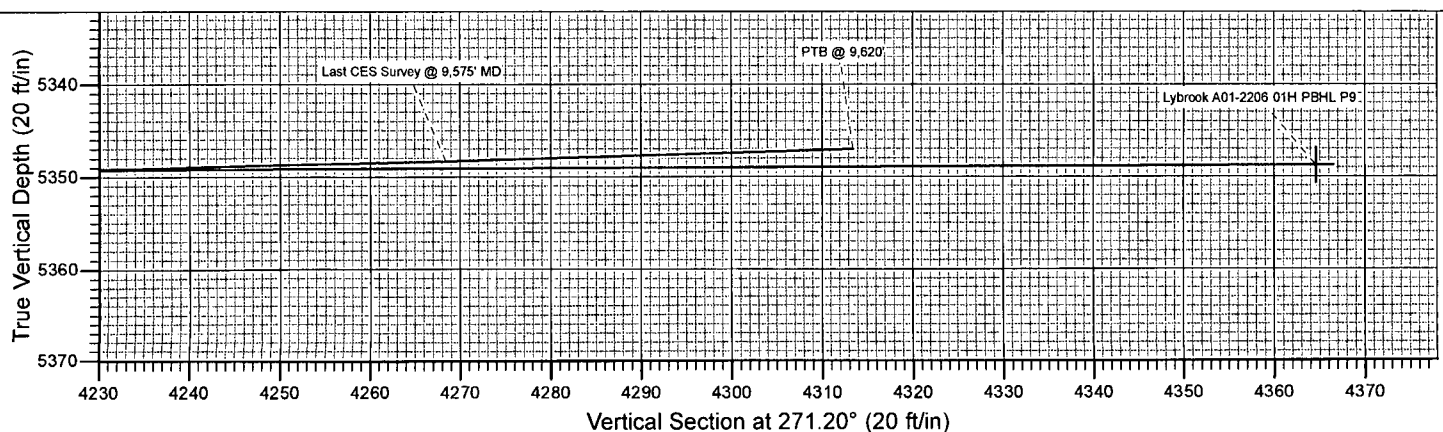
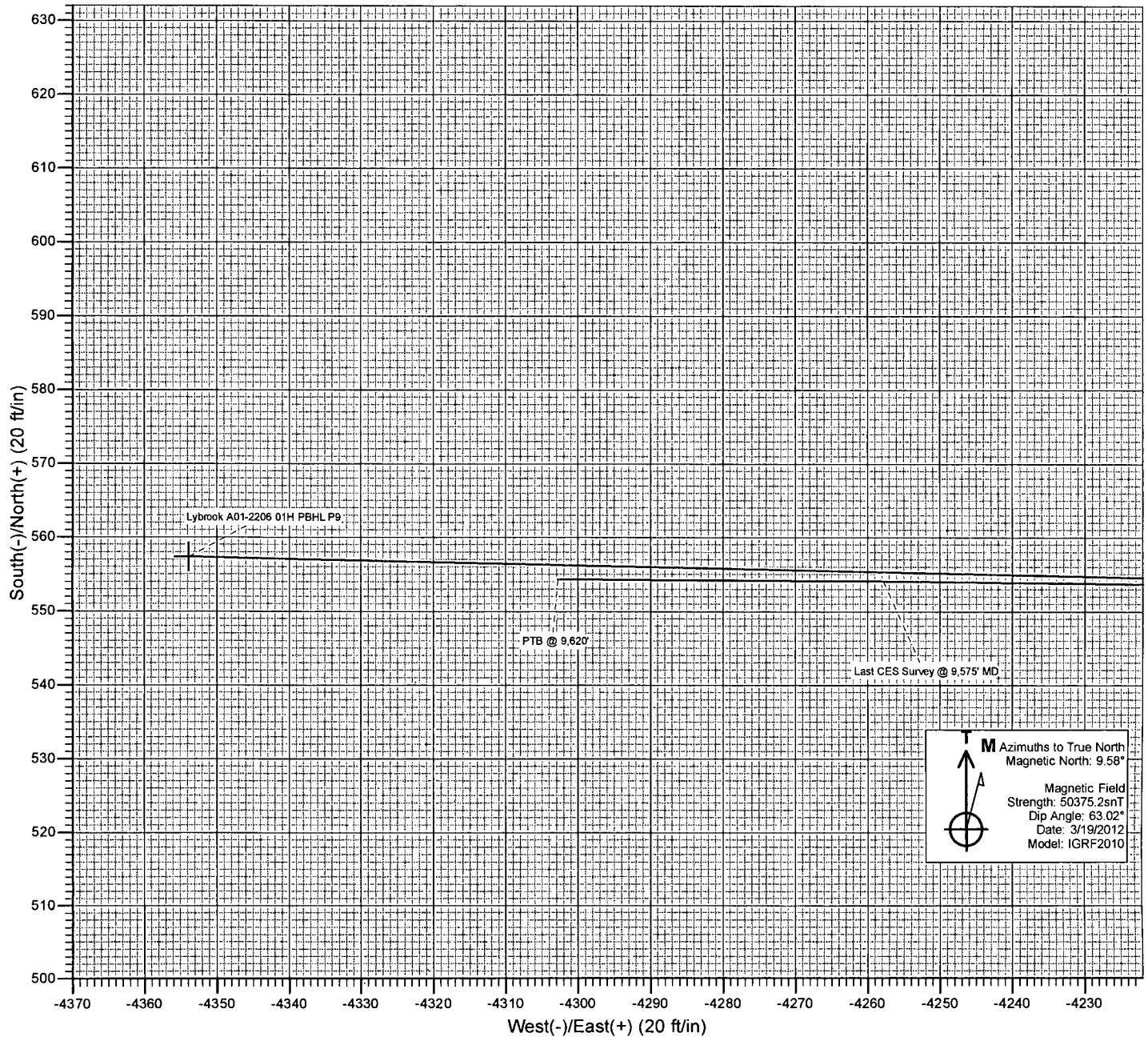
DESIGN TARGET DETAILS					
Name	+N/-S	+E/-W	Northing	Easting	Latitude
Lybrook A01-2206 01H PBHL P9	557.3	-4353.9	1884153.63	1292808.13	36.172460
					Longitude
					-107.427770



Vertical Section at 271.20° (1000 ft/in)



Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook A01-2206 01H
Wellbore: HZ
Design: FINAL



Cathedral Energy Services

Survey Report

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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 A01-2206 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,883,544.16 ft	Latitude:	36.170930
	+E/-W	0.0 ft	Easting:	1,297,155.01 ft	Longitude:	-107.413020
Position Uncertainty	0.0 ft		Wellhead Elevation:	ft	Ground Level:	6,880.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2012	9.58	63.02	50,375

Design	FINAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	271.20

Survey Program		Date 2/24/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
555.0	9,620.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
555.0	0.20	308.60	555.0	0.6	-0.8	0.8	0.04	0.04	
616.0	0.40	311.10	616.0	0.8	-1.0	1.0	0.33	0.33	
677.0	0.50	308.40	677.0	1.1	-1.4	1.4	0.17	0.16	
738.0	0.40	308.30	738.0	1.4	-1.7	1.8	0.16	-0.16	
800.0	0.20	261.00	800.0	1.5	-2.0	2.1	0.49	-0.32	
861.0	0.20	257.90	861.0	1.5	-2.2	2.3	0.02	0.00	
922.0	0.30	230.10	922.0	1.4	-2.5	2.5	0.25	0.16	
984.0	0.40	252.80	984.0	1.2	-2.8	2.8	0.27	0.16	
1,045.0	0.60	241.60	1,045.0	1.0	-3.3	3.3	0.36	0.33	
1,106.0	0.60	255.40	1,106.0	0.8	-3.9	3.9	0.24	0.00	
1,167.0	1.00	234.40	1,167.0	0.4	-4.6	4.6	0.80	0.66	
1,228.0	1.10	226.10	1,228.0	-0.4	-5.5	5.5	0.30	0.16	

Cathedral Energy Services

Survey Report

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
1,289.0	0.60	162.90	1,289.0	-1.1	-5.8	5.8	1.62	-0.82	
1,350.0	0.80	125.30	1,350.0	-1.6	-5.3	5.3	0.80	0.33	
1,411.0	0.90	123.10	1,411.0	-2.1	-4.6	4.6	0.17	0.16	
1,472.0	0.80	119.70	1,471.9	-2.6	-3.8	3.8	0.18	-0.16	
1,535.0	0.90	121.70	1,534.9	-3.1	-3.0	3.0	0.17	0.16	
1,598.0	0.80	123.70	1,597.9	-3.6	-2.2	2.2	0.17	-0.16	
1,661.0	0.90	121.90	1,660.9	-4.1	-1.5	1.4	0.16	0.16	
1,724.0	1.10	115.00	1,723.9	-4.6	-0.5	0.4	0.37	0.32	
1,787.0	0.90	156.40	1,786.9	-5.3	0.3	-0.4	1.16	-0.32	
1,850.0	1.10	167.60	1,849.9	-6.4	0.6	-0.7	0.44	0.32	
1,913.0	1.30	173.10	1,912.9	-7.7	0.8	-1.0	0.37	0.32	
1,976.0	0.30	241.60	1,975.9	-8.4	0.7	-0.9	1.94	-1.59	
2,039.0	0.30	179.60	2,038.9	-8.7	0.6	-0.8	0.49	0.00	
2,102.0	0.50	200.00	2,101.9	-9.1	0.5	-0.7	0.38	0.32	
2,165.0	0.50	239.10	2,164.9	-9.5	0.2	-0.4	0.53	0.00	
2,228.0	0.10	324.00	2,227.9	-9.6	-0.1	-0.1	0.80	-0.63	
2,291.0	0.30	25.40	2,290.9	-9.4	0.0	-0.1	0.42	0.32	
2,355.0	0.60	39.30	2,354.9	-9.0	0.2	-0.4	0.50	0.47	
2,418.0	0.70	43.40	2,417.9	-8.5	0.7	-0.9	0.17	0.16	
2,481.0	0.60	28.30	2,480.9	-7.9	1.1	-1.3	0.31	-0.16	
2,544.0	0.40	358.30	2,543.9	-7.4	1.3	-1.4	0.51	-0.32	
2,607.0	0.20	50.30	2,606.9	-7.1	1.4	-1.5	0.51	-0.32	
2,670.0	0.20	343.30	2,669.9	-6.9	1.4	-1.6	0.35	0.00	
2,732.0	0.20	310.30	2,731.9	-6.7	1.3	-1.4	0.18	0.00	
2,795.0	0.30	314.50	2,794.9	-6.6	1.1	-1.2	0.16	0.16	
2,858.0	0.40	315.40	2,857.9	-6.3	0.8	-1.0	0.16	0.16	
2,921.0	0.40	322.40	2,920.9	-6.0	0.5	-0.7	0.08	0.00	
2,984.0	0.70	292.90	2,983.9	-5.6	0.0	-0.2	0.64	0.48	
3,048.0	0.60	289.80	3,047.8	-5.4	-0.6	0.5	0.17	-0.16	
3,111.0	0.60	249.30	3,110.8	-5.4	-1.2	1.1	0.66	0.00	
3,174.0	0.50	246.00	3,173.8	-5.6	-1.8	1.7	0.17	-0.16	
3,237.0	0.70	231.70	3,236.8	-6.0	-2.4	2.2	0.39	0.32	
3,300.0	0.80	234.10	3,299.8	-6.4	-3.0	2.9	0.17	0.16	
3,363.0	1.10	237.00	3,362.8	-7.0	-3.9	3.7	0.48	0.48	
3,426.0	1.10	213.90	3,425.8	-7.9	-4.7	4.6	0.70	0.00	
3,489.0	0.10	147.50	3,488.8	-8.4	-5.0	4.9	1.69	-1.59	
3,552.0	0.20	116.60	3,551.8	-8.5	-4.9	4.7	0.20	0.16	
3,616.0	0.30	166.50	3,615.8	-8.7	-4.8	4.6	0.36	0.16	
3,678.0	0.40	151.70	3,677.8	-9.1	-4.6	4.4	0.22	0.16	
3,741.0	0.70	172.60	3,740.8	-9.6	-4.5	4.3	0.57	0.48	
3,804.0	0.80	54.10	3,803.8	-9.8	-4.1	3.9	2.05	0.16	
3,867.0	1.10	16.60	3,866.8	-8.9	-3.5	3.4	1.07	0.48	
3,930.0	1.30	43.70	3,929.8	-7.8	-2.9	2.7	0.94	0.32	
3,993.0	1.10	52.70	3,992.8	-7.0	-1.9	1.8	0.44	-0.32	
4,056.0	1.10	62.90	4,055.8	-6.3	-0.9	0.7	0.31	0.00	
4,119.0	1.10	65.20	4,118.7	-5.8	0.2	-0.3	0.07	0.00	
4,182.0	1.10	70.30	4,181.7	-5.3	1.3	-1.4	0.16	0.00	
4,245.0	1.10	76.60	4,244.7	-5.0	2.5	-2.6	0.19	0.00	
4,308.0	1.10	75.10	4,307.7	-4.7	3.7	-3.8	0.05	0.00	
4,371.0	0.40	91.40	4,370.7	-4.5	4.5	-4.6	1.15	-1.11	
4,434.0	0.60	126.40	4,433.7	-4.7	4.9	-5.0	0.57	0.32	
4,497.0	0.40	123.70	4,496.7	-5.1	5.4	-5.5	0.32	-0.32	
4,560.0	0.10	232.60	4,559.7	-5.2	5.5	-5.6	0.70	-0.48	

Cathedral Energy Services
Survey Report

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
4,623.0	0.20	265.20	4,622.7	-5.3	5.4	-5.5	0.20	0.16	
4,680.0	0.30	263.80	4,679.7	-5.3	5.1	-5.2	0.18	0.18	
4,733.0	0.90	299.40	4,732.7	-5.1	4.6	-4.7	1.28	1.13	
4,764.0	3.00	326.00	4,763.7	-4.3	4.0	-4.1	7.20	6.77	
4,795.0	5.50	326.60	4,794.6	-2.4	2.7	-2.7	8.07	8.06	
4,827.0	7.90	324.40	4,826.4	0.7	0.6	-0.6	7.54	7.50	
4,858.0	10.90	325.00	4,857.0	4.8	-2.4	2.5	9.68	9.68	
4,890.0	13.90	325.20	4,888.2	10.5	-6.3	6.5	9.38	9.37	
4,921.0	16.80	325.20	4,918.1	17.2	-11.0	11.3	9.35	9.35	
4,953.0	19.60	324.30	4,948.5	25.4	-16.7	17.3	8.79	8.75	
4,984.0	21.90	323.40	4,977.5	34.2	-23.2	23.9	7.49	7.42	
5,016.0	24.40	324.40	5,006.9	44.4	-30.6	31.5	7.91	7.81	
5,047.0	26.90	324.60	5,034.8	55.3	-38.4	39.6	8.07	8.06	
5,079.0	29.60	325.10	5,063.0	67.7	-47.1	48.5	8.47	8.44	
5,111.0	32.00	324.30	5,090.5	81.1	-56.6	58.3	7.61	7.50	
5,142.0	34.70	324.80	5,116.4	94.9	-66.5	68.5	8.76	8.71	
5,174.0	37.30	325.30	5,142.3	110.4	-77.3	79.5	8.18	8.12	
5,205.0	40.30	326.10	5,166.4	126.4	-88.2	90.8	9.81	9.68	
5,237.0	44.20	325.60	5,190.1	144.2	-100.3	103.3	12.23	12.19	
5,268.0	48.10	324.00	5,211.6	162.5	-113.2	116.5	13.12	12.58	
5,300.0	51.40	322.50	5,232.3	182.0	-127.8	131.6	10.91	10.31	
5,331.0	55.00	321.30	5,250.8	201.5	-143.1	147.3	12.02	11.61	
5,363.0	59.00	319.20	5,268.3	222.2	-160.3	164.9	13.66	12.50	
5,395.0	63.30	318.10	5,283.7	243.2	-178.8	183.8	13.77	13.44	
5,426.0	67.80	317.70	5,296.5	264.1	-197.7	203.2	14.56	14.52	
5,458.0	72.30	315.80	5,307.4	286.0	-218.3	224.2	15.13	14.06	
5,489.0	76.30	315.10	5,315.8	307.3	-239.2	245.6	13.08	12.90	
5,521.0	80.80	314.80	5,322.2	329.4	-261.4	268.3	14.09	14.06	
5,530.0	82.00	313.90	5,323.5	335.7	-267.8	274.8	16.60	13.33	
5,557.0	83.90	312.40	5,326.8	354.0	-287.3	294.7	8.94	7.03	
5,588.0	86.20	309.90	5,329.5	374.3	-310.6	318.4	10.94	7.42	
5,618.0	86.10	307.80	5,331.5	393.1	-333.9	342.1	6.99	-0.33	
5,649.0	86.10	304.80	5,333.6	411.4	-358.8	367.4	9.65	0.00	
5,679.0	86.40	302.50	5,335.6	428.0	-383.8	392.6	7.72	1.00	
5,710.0	86.70	299.50	5,337.5	443.9	-410.3	419.5	9.71	0.97	
5,742.0	86.90	296.90	5,339.3	459.0	-438.4	447.9	8.14	0.62	
5,773.0	86.40	293.90	5,341.1	472.3	-466.4	476.2	9.79	-1.61	
5,805.0	86.30	291.00	5,343.1	484.5	-495.9	505.9	9.05	-0.31	
5,836.0	86.00	288.40	5,345.2	494.9	-525.0	535.3	8.42	-0.97	
5,868.0	85.70	285.40	5,347.5	504.2	-555.5	566.0	9.40	-0.94	
5,899.0	86.00	282.50	5,349.7	511.6	-585.5	596.1	9.38	0.97	
5,931.0	86.40	279.50	5,351.9	517.7	-616.9	627.6	9.44	1.25	
5,962.0	86.40	276.20	5,353.8	522.0	-647.5	658.3	10.62	0.00	
5,994.0	86.70	273.00	5,355.7	524.5	-679.4	690.2	10.03	0.94	
6,025.0	87.70	269.80	5,357.3	525.3	-710.3	721.2	10.80	3.23	
6,057.0	88.80	267.60	5,358.2	524.5	-742.3	753.1	7.68	3.44	
6,088.0	89.30	267.50	5,358.8	523.2	-773.3	784.0	1.64	1.61	
6,119.0	88.00	265.50	5,359.5	521.3	-804.2	814.9	7.69	-4.19	
6,183.0	88.00	264.70	5,361.7	515.9	-867.9	878.5	1.25	0.00	
6,246.0	87.40	264.60	5,364.2	510.0	-930.6	941.1	0.97	-0.95	
6,308.0	88.40	264.20	5,366.5	504.0	-992.3	1,002.6	1.74	1.61	
6,371.0	89.20	265.30	5,367.8	498.2	-1,055.0	1,065.2	2.16	1.27	
6,434.0	90.80	267.30	5,367.8	494.1	-1,117.8	1,127.9	4.07	2.54	

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
6,497.0	89.80	269.10	5,367.5	492.1	-1,180.8	1,190.9	3.27	-1.59	
6,560.0	90.40	268.90	5,367.4	491.0	-1,243.8	1,253.8	1.00	0.95	
6,623.0	90.10	270.50	5,367.1	490.7	-1,306.8	1,316.8	2.58	-0.48	
6,686.0	90.70	270.80	5,366.7	491.4	-1,369.8	1,379.8	1.06	0.95	
6,749.0	91.10	270.40	5,365.7	492.1	-1,432.8	1,442.8	0.90	0.63	
6,812.0	90.80	272.00	5,364.6	493.4	-1,495.7	1,505.8	2.58	-0.48	
6,875.0	91.40	271.50	5,363.4	495.3	-1,558.7	1,568.7	1.24	0.95	
6,938.0	90.40	271.40	5,362.4	496.9	-1,621.7	1,631.7	1.60	-1.59	
7,001.0	91.10	271.30	5,361.6	498.4	-1,684.7	1,694.7	1.12	1.11	
7,064.0	89.70	271.20	5,361.2	499.8	-1,747.6	1,757.7	2.23	-2.22	
7,127.0	90.40	271.10	5,361.1	501.0	-1,810.6	1,820.7	1.12	1.11	
7,190.0	91.10	271.20	5,360.3	502.3	-1,873.6	1,883.7	1.12	1.11	
7,253.0	90.30	271.60	5,359.5	503.9	-1,936.6	1,946.7	1.42	-1.27	
7,316.0	90.80	271.60	5,358.9	505.6	-1,999.6	2,009.7	0.79	0.79	
7,379.0	90.60	271.70	5,358.2	507.4	-2,062.5	2,072.7	0.35	-0.32	
7,442.0	89.90	271.10	5,357.9	509.0	-2,125.5	2,135.7	1.46	-1.11	
7,505.0	90.50	271.20	5,357.7	510.2	-2,188.5	2,198.7	0.97	0.95	
7,567.0	91.10	270.80	5,356.8	511.3	-2,250.5	2,260.7	1.16	0.97	
7,630.0	90.00	270.90	5,356.2	512.2	-2,313.5	2,323.7	1.75	-1.75	
7,693.0	90.60	270.60	5,355.9	513.1	-2,376.5	2,386.7	1.06	0.95	
7,756.0	89.70	271.30	5,355.7	514.1	-2,439.4	2,449.7	1.81	-1.43	
7,819.0	90.20	271.00	5,355.8	515.4	-2,502.4	2,512.7	0.93	0.79	
7,882.0	90.80	270.50	5,355.2	516.2	-2,565.4	2,575.7	1.24	0.95	
7,946.0	91.40	270.60	5,354.0	516.8	-2,629.4	2,639.7	0.95	0.94	
8,009.0	91.10	271.40	5,352.6	517.9	-2,692.4	2,702.6	1.36	-0.48	
8,072.0	90.40	271.90	5,351.8	519.7	-2,755.4	2,765.6	1.37	-1.11	
8,135.0	91.40	271.80	5,350.8	521.8	-2,818.3	2,828.6	1.60	1.59	
8,197.0	90.40	272.10	5,349.8	523.9	-2,880.3	2,890.6	1.68	-1.61	
8,260.0	89.50	272.10	5,349.9	526.2	-2,943.2	2,953.6	1.43	-1.43	
8,323.0	90.30	272.30	5,350.0	528.6	-3,006.2	3,016.6	1.31	1.27	
8,386.0	89.70	271.50	5,350.0	530.7	-3,069.1	3,079.6	1.59	-0.95	
8,449.0	90.00	271.90	5,350.1	532.6	-3,132.1	3,142.6	0.79	0.48	
8,512.0	89.60	272.40	5,350.4	534.9	-3,195.1	3,205.6	1.02	-0.63	
8,575.0	89.70	272.20	5,350.7	537.5	-3,258.0	3,268.6	0.35	0.16	
8,638.0	90.20	271.10	5,350.8	539.3	-3,321.0	3,331.6	1.92	0.79	
8,701.0	89.70	271.00	5,350.9	540.4	-3,384.0	3,394.6	0.81	-0.79	
8,764.0	89.30	271.70	5,351.4	541.9	-3,447.0	3,457.6	1.28	-0.63	
8,827.0	90.30	271.40	5,351.6	543.6	-3,509.9	3,520.6	1.66	1.59	
8,890.0	90.00	271.60	5,351.5	545.3	-3,572.9	3,583.5	0.57	-0.48	
8,953.0	89.70	271.30	5,351.6	546.9	-3,635.9	3,646.5	0.67	-0.48	
9,016.0	90.00	271.40	5,351.8	548.3	-3,698.9	3,709.5	0.50	0.48	
9,080.0	89.80	270.60	5,351.9	549.5	-3,762.9	3,773.5	1.29	-0.31	
9,143.0	89.70	270.40	5,352.2	550.0	-3,825.9	3,836.5	0.35	-0.16	
9,206.0	91.20	271.10	5,351.7	550.8	-3,888.9	3,899.5	2.63	2.38	
9,269.0	90.50	270.30	5,350.7	551.6	-3,951.8	3,962.5	1.69	-1.11	
9,332.0	90.40	270.90	5,350.3	552.3	-4,014.8	4,025.5	0.97	-0.16	
9,395.0	89.90	269.80	5,350.1	552.6	-4,077.8	4,088.5	1.92	-0.79	
9,458.0	90.10	270.50	5,350.1	552.8	-4,140.8	4,151.5	1.16	0.32	
9,521.0	91.00	270.80	5,349.5	553.5	-4,203.8	4,214.5	1.51	1.43	
9,575.0	91.50	270.40	5,348.3	554.1	-4,257.8	4,268.5	1.19	0.93	Last CES Survey @ 9,575' MD
9,620.0	91.80	270.20	5,347.0	554.3	-4,302.8	4,313.4	0.80	0.67	PTB @ 9,620'

CONFIDENTIAL

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Lybrook A01-2206 01H F	0.00	359.30	4,963.5	554.6	-4,356.2	1,884,150.89	1,292,805.77	36.172452	-107.427778
- actual wellpath misses target center by 387.2ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Polygon									
Point 1			4,963.5	-300.0	-330.0	1,883,850.84	1,292,475.82		
Point 2			4,963.5	660.0	-330.0	1,884,810.84	1,292,475.67		
Point 3			4,963.5	660.0	500.0	1,884,810.96	1,293,305.67		
Point 4			4,963.5	660.0	-330.0	1,884,810.84	1,292,475.67		
Lybrook A01-2206 01H F	0.00	359.30	5,345.4	557.3	-4,353.9	1,884,153.63	1,292,808.13	36.172460	-107.427770
- actual wellpath misses target center by 51.2ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Point									
Lybrook A01-2206 01H F	0.00	359.30	5,348.8	557.3	-4,353.9	1,884,153.63	1,292,808.13	36.172460	-107.427770
- actual wellpath misses target center by 51.2ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Point									
Lybrook A01-2206 01H F	0.00	359.30	5,337.9	557.3	-4,353.9	1,884,153.63	1,292,808.13	36.172460	-107.427770
- actual wellpath misses target center by 52.0ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Point									
Lybrook A01-2206 01H F	0.00	359.30	5,374.4	476.9	-513.6	1,884,027.20	1,296,647.16	36.172240	-107.414760
- actual wellpath misses target center by 33.1ft at 5821.2ft MD (5344.2 TVD, 490.1 N, -511.1 E)									
- Point									
Plan @ 5337.9 (Lybrook	0.00	0.00	5,364.0	557.3	-4,353.9	1,884,153.63	1,292,808.13	36.172460	-107.427770
- actual wellpath misses target center by 53.9ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Point									
Lybrook A01-2206 01H F	0.00	359.30	4,990.3	474.3	-516.0	1,884,024.60	1,296,644.76	36.172233	-107.414768
- actual wellpath misses target center by 353.4ft at 5797.2ft MD (5342.6 TVD, 481.6 N, -488.6 E)									
- Point									
Lybrook A01-2206 01H F	0.00	359.30	5,371.1	476.9	-513.6	1,884,027.20	1,296,647.16	36.172240	-107.414760
- actual wellpath misses target center by 30.1ft at 5821.0ft MD (5344.2 TVD, 490.0 N, -510.8 E)									
- Point									

Design Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	
9,575.0	5,348.3	554.1	-4,257.8	Last CES Survey @ 9,575' MD
9,620.0	5,347.0	554.3	-4,302.8	PTB @ 9,620'

Checked By: _____ Approved By: _____ Date: _____

CONFIDENTIAL

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook A01-2206 01H

Hz

Design: FINAL

Survey Report - Geographic

24 February, 2014

RCVD MAR 24 '14
OIL CONS. DIV.
DIST. 3

Cathedral Energy Services
Survey Report - Geographic

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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 A01-2206 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,883,544.16 ft	Latitude:	36.170930
	+E/-W	0.0 ft	Easting:	1,297,155.01 ft	Longitude:	-107.413020
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,880.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2012	9.58	63.02	50,375

Design		FINAL			
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	271.20	

Survey Program		Date 2/24/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
555.0	9,620.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting		
(ft)			(ft)			(ft)	(ft)		
0.0	0.00	0.00	0.0	0.0	0.0	1,883,544.16	1,297,155.01	36.170930	-107.413020
555.0	0.20	308.60	555.0	0.6	-0.8	1,883,544.77	1,297,154.26	36.170932	-107.413023
616.0	0.40	311.10	616.0	0.8	-1.0	1,883,544.98	1,297,154.02	36.170932	-107.413024
677.0	0.50	308.40	677.0	1.1	-1.4	1,883,545.29	1,297,153.66	36.170933	-107.413025
738.0	0.40	308.30	738.0	1.4	-1.7	1,883,545.59	1,297,153.29	36.170934	-107.413026
800.0	0.20	261.00	800.0	1.5	-2.0	1,883,545.71	1,297,153.01	36.170934	-107.413027
861.0	0.20	257.90	861.0	1.5	-2.2	1,883,545.68	1,297,152.80	36.170934	-107.413028
922.0	0.30	230.10	922.0	1.4	-2.5	1,883,545.55	1,297,152.57	36.170934	-107.413029
984.0	0.40	252.80	984.0	1.2	-2.8	1,883,545.39	1,297,152.24	36.170933	-107.413030
1,045.0	0.60	241.60	1,045.0	1.0	-3.3	1,883,545.18	1,297,151.75	36.170933	-107.413031
1,106.0	0.60	255.40	1,106.0	0.8	-3.9	1,883,544.96	1,297,151.16	36.170932	-107.413033
1,167.0	1.00	234.40	1,167.0	0.4	-4.6	1,883,544.57	1,297,150.41	36.170931	-107.413036

Cathedral Energy Services

Survey Report - Geographic

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,228.0	1.10	226.10	1,228.0	-0.4	-5.5	1,883,543.87	1,297,149.55	36.170929	-107.413039
1,289.0	0.60	162.90	1,289.0	-1.1	-5.8	1,883,543.16	1,297,149.21	36.170927	-107.413040
1,350.0	0.80	125.30	1,350.0	-1.6	-5.3	1,883,542.61	1,297,149.65	36.170926	-107.413038
1,411.0	0.90	123.10	1,411.0	-2.1	-4.6	1,883,542.09	1,297,150.39	36.170924	-107.413036
1,472.0	0.80	119.70	1,471.9	-2.6	-3.8	1,883,541.61	1,297,151.16	36.170923	-107.413033
1,535.0	0.90	121.70	1,534.9	-3.1	-3.0	1,883,541.12	1,297,151.95	36.170922	-107.413031
1,598.0	0.80	123.70	1,597.9	-3.6	-2.2	1,883,540.61	1,297,152.73	36.170920	-107.413028
1,661.0	0.90	121.90	1,660.9	-4.1	-1.5	1,883,540.09	1,297,153.51	36.170919	-107.413025
1,724.0	1.10	115.00	1,723.9	-4.6	-0.5	1,883,539.56	1,297,154.48	36.170917	-107.413022
1,787.0	0.90	156.40	1,786.9	-5.3	0.3	1,883,538.84	1,297,155.21	36.170916	-107.413019
1,850.0	1.10	167.60	1,849.9	-6.4	0.6	1,883,537.80	1,297,155.53	36.170913	-107.413018
1,913.0	1.30	173.10	1,912.9	-7.7	0.8	1,883,536.49	1,297,155.73	36.170909	-107.413018
1,976.0	0.30	241.60	1,975.9	-8.4	0.7	1,883,535.71	1,297,155.66	36.170907	-107.413018
2,039.0	0.30	179.60	2,038.9	-8.7	0.6	1,883,535.47	1,297,155.51	36.170906	-107.413018
2,102.0	0.50	200.00	2,101.9	-9.1	0.5	1,883,535.04	1,297,155.42	36.170905	-107.413019
2,165.0	0.50	239.10	2,164.9	-9.5	0.2	1,883,534.65	1,297,155.08	36.170904	-107.413020
2,228.0	0.10	324.00	2,227.9	-9.6	-0.1	1,883,534.55	1,297,154.81	36.170904	-107.413021
2,291.0	0.30	25.40	2,290.9	-9.4	0.0	1,883,534.75	1,297,154.85	36.170904	-107.413020
2,355.0	0.60	39.30	2,354.9	-9.0	0.2	1,883,535.15	1,297,155.14	36.170905	-107.413019
2,418.0	0.70	43.40	2,417.9	-8.5	0.7	1,883,535.68	1,297,155.62	36.170907	-107.413018
2,481.0	0.60	28.30	2,480.9	-7.9	1.1	1,883,536.25	1,297,156.05	36.170908	-107.413016
2,544.0	0.40	358.30	2,543.9	-7.4	1.3	1,883,536.76	1,297,156.20	36.170910	-107.413016
2,607.0	0.20	50.30	2,606.9	-7.1	1.4	1,883,537.05	1,297,156.29	36.170911	-107.413016
2,670.0	0.20	343.30	2,669.9	-6.9	1.4	1,883,537.22	1,297,156.34	36.170911	-107.413015
2,732.0	0.20	310.30	2,731.9	-6.7	1.3	1,883,537.40	1,297,156.23	36.170912	-107.413016
2,795.0	0.30	314.50	2,794.9	-6.6	1.1	1,883,537.59	1,297,156.03	36.170912	-107.413017
2,858.0	0.40	315.40	2,857.9	-6.3	0.8	1,883,537.86	1,297,155.76	36.170913	-107.413017
2,921.0	0.40	322.40	2,920.9	-6.0	0.5	1,883,538.20	1,297,155.48	36.170914	-107.413018
2,984.0	0.70	292.90	2,983.9	-5.6	0.0	1,883,538.52	1,297,154.99	36.170915	-107.413020
3,048.0	0.60	289.80	3,047.8	-5.4	-0.6	1,883,538.80	1,297,154.32	36.170915	-107.413022
3,111.0	0.60	249.30	3,110.8	-5.4	-1.2	1,883,538.80	1,297,153.70	36.170915	-107.413024
3,174.0	0.50	246.00	3,173.8	-5.6	-1.8	1,883,538.58	1,297,153.14	36.170915	-107.413026
3,237.0	0.70	231.70	3,236.8	-6.0	-2.4	1,883,538.24	1,297,152.58	36.170914	-107.413028
3,300.0	0.80	234.10	3,299.8	-6.4	-3.0	1,883,537.75	1,297,151.92	36.170912	-107.413030
3,363.0	1.10	237.00	3,362.8	-7.0	-3.9	1,883,537.17	1,297,151.05	36.170911	-107.413033
3,426.0	1.10	213.90	3,425.8	-7.9	-4.7	1,883,536.35	1,297,150.19	36.170908	-107.413036
3,489.0	0.10	147.50	3,488.8	-8.4	-5.0	1,883,535.80	1,297,149.88	36.170907	-107.413037
3,552.0	0.20	116.60	3,551.8	-8.5	-4.9	1,883,535.71	1,297,150.00	36.170907	-107.413037
3,616.0	0.30	166.50	3,615.8	-8.7	-4.8	1,883,535.49	1,297,150.14	36.170906	-107.413036
3,678.0	0.40	151.70	3,677.8	-9.1	-4.6	1,883,535.14	1,297,150.28	36.170905	-107.413036
3,741.0	0.70	172.60	3,740.8	-9.6	-4.5	1,883,534.57	1,297,150.42	36.170904	-107.413035
3,804.0	0.80	54.10	3,803.8	-9.8	-4.1	1,883,534.44	1,297,150.83	36.170903	-107.413034
3,867.0	1.10	16.60	3,866.8	-8.9	-3.5	1,883,535.27	1,297,151.37	36.170906	-107.413032
3,930.0	1.30	43.70	3,929.8	-7.8	-2.9	1,883,536.36	1,297,152.05	36.170909	-107.413030
3,993.0	1.10	52.70	3,992.8	-7.0	-1.9	1,883,537.23	1,297,153.03	36.170911	-107.413027
4,056.0	1.10	62.90	4,055.8	-6.3	-0.9	1,883,537.86	1,297,154.06	36.170913	-107.413023
4,119.0	1.10	65.20	4,118.7	-5.8	0.2	1,883,538.37	1,297,155.15	36.170914	-107.413020
4,182.0	1.10	70.30	4,181.7	-5.3	1.3	1,883,538.82	1,297,156.28	36.170915	-107.413016
4,245.0	1.10	76.60	4,244.7	-5.0	2.5	1,883,539.15	1,297,157.44	36.170916	-107.413012
4,308.0	1.10	75.10	4,307.7	-4.7	3.7	1,883,539.43	1,297,158.61	36.170917	-107.413008
4,371.0	0.40	91.40	4,370.7	-4.5	4.5	1,883,539.57	1,297,159.42	36.170918	-107.413005
4,434.0	0.60	126.40	4,433.7	-4.7	4.9	1,883,539.36	1,297,159.90	36.170917	-107.413004
4,497.0	0.40	123.70	4,496.7	-5.1	5.4	1,883,539.04	1,297,160.35	36.170916	-107.413002
4,560.0	0.10	232.60	4,559.7	-5.2	5.5	1,883,538.88	1,297,160.49	36.170916	-107.413002
4,623.0	0.20	265.20	4,622.7	-5.3	5.4	1,883,538.84	1,297,160.33	36.170916	-107.413002

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,680.0	0.30	263.80	4,679.7	-5.3	5.1	1,883,538.82	1,297,160.08	36.170916	-107.413003
4,733.0	0.90	299.40	4,732.7	-5.1	4.6	1,883,539.02	1,297,159.59	36.170916	-107.413005
4,764.0	3.00	326.00	4,763.7	-4.3	4.0	1,883,539.82	1,297,158.93	36.170918	-107.413007
4,795.0	5.50	326.60	4,794.6	-2.4	2.7	1,883,541.74	1,297,157.68	36.170924	-107.413011
4,827.0	7.90	324.40	4,826.4	0.7	0.6	1,883,544.84	1,297,155.59	36.170932	-107.413018
4,858.0	10.90	325.00	4,857.0	4.8	-2.4	1,883,549.01	1,297,152.72	36.170943	-107.413028
4,890.0	13.90	325.20	4,888.2	10.5	-6.3	1,883,554.69	1,297,148.86	36.170959	-107.413042
4,921.0	16.80	325.20	4,918.1	17.2	-11.0	1,883,561.48	1,297,144.26	36.170977	-107.413057
4,953.0	19.60	324.30	4,948.5	25.4	-16.7	1,883,569.71	1,297,138.58	36.171000	-107.413077
4,984.0	21.90	323.40	4,977.5	34.2	-23.2	1,883,578.65	1,297,132.21	36.171024	-107.413099
5,016.0	24.40	324.40	5,006.9	44.4	-30.6	1,883,588.91	1,297,124.92	36.171052	-107.413124
5,047.0	26.90	324.60	5,034.8	55.3	-38.4	1,883,599.92	1,297,117.26	36.171082	-107.413150
5,079.0	29.60	325.10	5,063.0	67.7	-47.1	1,883,612.41	1,297,108.70	36.171116	-107.413180
5,111.0	32.00	324.30	5,090.5	81.1	-56.6	1,883,625.89	1,297,099.39	36.171153	-107.413212
5,142.0	34.70	324.80	5,116.4	94.9	-66.5	1,883,639.89	1,297,089.67	36.171191	-107.413245
5,174.0	37.30	325.30	5,142.3	110.4	-77.3	1,883,655.43	1,297,079.09	36.171233	-107.413282
5,205.0	40.30	326.10	5,166.4	126.4	-88.2	1,883,671.61	1,297,068.34	36.171277	-107.413319
5,237.0	44.20	325.60	5,190.1	144.2	-100.3	1,883,689.55	1,297,056.48	36.171326	-107.413360
5,268.0	48.10	324.00	5,211.6	162.5	-113.2	1,883,707.97	1,297,043.80	36.171376	-107.413404
5,300.0	51.40	322.50	5,232.3	182.0	-127.8	1,883,727.70	1,297,029.42	36.171430	-107.413453
5,331.0	55.00	321.30	5,250.8	201.5	-143.1	1,883,747.41	1,297,014.34	36.171484	-107.413505
5,363.0	59.00	319.20	5,268.3	222.2	-160.3	1,883,768.23	1,296,997.42	36.171540	-107.413563
5,395.0	63.30	318.10	5,283.7	243.2	-178.8	1,883,789.49	1,296,979.16	36.171598	-107.413626
5,426.0	67.80	317.70	5,296.5	264.1	-197.7	1,883,810.64	1,296,960.50	36.171656	-107.413690
5,458.0	72.30	315.80	5,307.4	286.0	-218.3	1,883,832.78	1,296,940.15	36.171716	-107.413760
5,489.0	76.30	315.10	5,315.8	307.3	-239.2	1,883,854.30	1,296,919.47	36.171774	-107.413831
5,521.0	80.80	314.80	5,322.2	329.4	-261.4	1,883,876.71	1,296,897.55	36.171835	-107.413906
5,530.0	82.00	313.90	5,323.5	335.7	-267.8	1,883,883.01	1,296,891.26	36.171852	-107.413927
5,557.0	83.90	312.40	5,326.8	354.0	-287.3	1,883,901.57	1,296,871.93	36.171902	-107.413994
5,588.0	86.20	309.90	5,329.5	374.3	-310.6	1,883,922.17	1,296,848.92	36.171958	-107.414073
5,618.0	86.10	307.80	5,331.5	393.1	-333.9	1,883,941.22	1,296,825.84	36.172010	-107.414151
5,649.0	86.10	304.80	5,333.6	411.4	-358.8	1,883,959.83	1,296,801.13	36.172060	-107.414236
5,679.0	86.40	302.50	5,335.6	428.0	-383.8	1,883,976.71	1,296,776.42	36.172106	-107.414320
5,710.0	86.70	299.50	5,337.5	443.9	-410.3	1,883,992.96	1,296,750.09	36.172149	-107.414410
5,742.0	86.90	296.90	5,339.3	459.0	-438.4	1,884,008.40	1,296,722.12	36.172191	-107.414506
5,773.0	86.40	293.90	5,341.1	472.3	-466.4	1,884,022.00	1,296,694.32	36.172227	-107.414600
5,805.0	86.30	291.00	5,343.1	484.5	-495.9	1,884,034.55	1,296,664.96	36.172261	-107.414700
5,836.0	86.00	288.40	5,345.2	494.9	-525.0	1,884,045.32	1,296,635.97	36.172289	-107.414799
5,868.0	85.70	285.40	5,347.5	504.2	-555.5	1,884,054.97	1,296,605.55	36.172315	-107.414902
5,899.0	86.00	282.50	5,349.7	511.6	-585.5	1,884,062.78	1,296,575.64	36.172335	-107.415004
5,931.0	86.40	279.50	5,351.9	517.7	-616.9	1,884,069.24	1,296,544.37	36.172352	-107.415110
5,962.0	86.40	276.20	5,353.8	522.0	-647.5	1,884,073.84	1,296,513.78	36.172364	-107.415214
5,994.0	86.70	273.00	5,355.7	524.5	-679.4	1,884,076.78	1,296,481.98	36.172371	-107.415322
6,025.0	87.70	269.80	5,357.3	525.3	-710.3	1,884,077.91	1,296,451.04	36.172373	-107.415427
6,057.0	88.80	267.60	5,358.2	524.5	-742.3	1,884,077.56	1,296,419.06	36.172371	-107.415535
6,088.0	89.30	267.50	5,358.8	523.2	-773.3	1,884,076.61	1,296,388.08	36.172367	-107.415640
6,119.0	88.00	265.50	5,359.5	521.3	-804.2	1,884,075.09	1,296,357.13	36.172362	-107.415745
6,183.0	88.00	264.70	5,361.7	515.9	-867.9	1,884,070.39	1,296,293.34	36.172347	-107.415961
6,246.0	87.40	264.60	5,364.2	510.0	-930.6	1,884,065.27	1,296,230.60	36.172331	-107.416173
6,308.0	88.40	264.20	5,366.5	504.0	-992.3	1,884,059.96	1,296,168.87	36.172314	-107.416382
6,371.0	89.20	265.30	5,367.8	498.2	-1,055.0	1,884,054.95	1,296,106.08	36.172298	-107.416594
6,434.0	90.80	267.30	5,367.8	494.1	-1,117.8	1,884,051.64	1,296,043.18	36.172287	-107.416807
6,497.0	89.80	269.10	5,367.5	492.1	-1,180.8	1,884,050.42	1,295,980.19	36.172282	-107.417021
6,560.0	90.40	268.90	5,367.4	491.0	-1,243.8	1,884,050.07	1,295,917.19	36.172279	-107.417234
6,623.0	90.10	270.50	5,367.1	490.7	-1,306.8	1,884,050.50	1,295,854.20	36.172278	-107.417447

Cathedral Energy Services

Survey Report - Geographic

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map, Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,686.0	90.70	270.80	5,366.7	491.4	-1,369.8	1,884,051.97	1,295,791.22	36.172280	-107.417661
6,749.0	91.10	270.40	5,365.7	492.1	-1,432.8	1,884,053.38	1,295,728.24	36.172282	-107.417874
6,812.0	90.80	272.00	5,364.6	493.4	-1,495.7	1,884,055.45	1,295,665.29	36.172285	-107.418088
6,875.0	91.40	271.50	5,363.4	495.3	-1,558.7	1,884,058.13	1,295,602.35	36.172291	-107.418301
6,938.0	90.40	271.40	5,362.4	496.9	-1,621.7	1,884,060.48	1,295,539.41	36.172295	-107.418514
7,001.0	91.10	271.30	5,361.6	498.4	-1,684.7	1,884,062.72	1,295,476.45	36.172299	-107.418728
7,064.0	89.70	271.20	5,361.2	499.8	-1,747.6	1,884,064.85	1,295,413.49	36.172303	-107.418941
7,127.0	90.40	271.10	5,361.1	501.0	-1,810.6	1,884,066.87	1,295,350.52	36.172306	-107.419154
7,190.0	91.10	271.20	5,360.3	502.3	-1,873.6	1,884,068.89	1,295,287.56	36.172310	-107.419368
7,253.0	90.30	271.60	5,359.5	503.9	-1,936.6	1,884,071.18	1,295,224.61	36.172314	-107.419581
7,316.0	90.80	271.60	5,358.9	505.6	-1,999.6	1,884,073.69	1,295,161.66	36.172319	-107.419794
7,379.0	90.60	271.70	5,358.2	507.4	-2,062.5	1,884,076.26	1,295,098.72	36.172324	-107.420008
7,442.0	89.90	271.10	5,357.9	509.0	-2,125.5	1,884,078.55	1,295,035.76	36.172328	-107.420221
7,505.0	90.50	271.20	5,357.7	510.2	-2,188.5	1,884,080.57	1,294,972.79	36.172331	-107.420434
7,567.0	91.10	270.80	5,356.8	511.3	-2,250.5	1,884,082.40	1,294,910.83	36.172334	-107.420644
7,630.0	90.00	270.90	5,356.2	512.2	-2,313.5	1,884,084.09	1,294,847.85	36.172337	-107.420858
7,693.0	90.60	270.60	5,355.9	513.1	-2,376.5	1,884,085.67	1,294,784.87	36.172339	-107.421071
7,756.0	89.70	271.30	5,355.7	514.1	-2,439.4	1,884,087.47	1,294,721.90	36.172342	-107.421285
7,819.0	90.20	271.00	5,355.8	515.4	-2,502.4	1,884,089.49	1,294,658.93	36.172345	-107.421498
7,882.0	90.80	270.50	5,355.2	516.2	-2,565.4	1,884,091.06	1,294,595.96	36.172348	-107.421711
7,946.0	91.40	270.60	5,354.0	516.8	-2,629.4	1,884,092.45	1,294,531.98	36.172349	-107.421928
8,009.0	91.10	271.40	5,352.6	517.9	-2,692.4	1,884,094.30	1,294,469.03	36.172352	-107.422141
8,072.0	90.40	271.90	5,351.8	519.7	-2,755.4	1,884,096.87	1,294,406.08	36.172357	-107.422355
8,135.0	91.40	271.80	5,350.8	521.8	-2,818.3	1,884,099.65	1,294,343.15	36.172363	-107.422568
8,197.0	90.40	272.10	5,349.8	523.9	-2,880.3	1,884,102.51	1,294,281.23	36.172369	-107.422778
8,260.0	89.50	272.10	5,349.9	526.2	-2,943.2	1,884,105.57	1,294,218.30	36.172375	-107.422991
8,323.0	90.30	272.30	5,350.0	528.6	-3,006.2	1,884,108.74	1,294,155.38	36.172382	-107.423205
8,386.0	89.70	271.50	5,350.0	530.7	-3,069.1	1,884,111.58	1,294,092.45	36.172387	-107.423418
8,449.0	90.00	271.90	5,350.1	532.6	-3,132.1	1,884,114.21	1,294,029.50	36.172392	-107.423631
8,512.0	89.60	272.40	5,350.4	534.9	-3,195.1	1,884,117.33	1,293,966.58	36.172399	-107.423844
8,575.0	89.70	272.20	5,350.7	537.5	-3,258.0	1,884,120.61	1,293,903.67	36.172406	-107.424058
8,638.0	90.20	271.10	5,350.8	539.3	-3,321.0	1,884,123.18	1,293,840.72	36.172411	-107.424271
8,701.0	89.70	271.00	5,350.9	540.4	-3,384.0	1,884,125.09	1,293,777.75	36.172414	-107.424484
8,764.0	89.30	271.70	5,351.4	541.9	-3,447.0	1,884,127.32	1,293,714.79	36.172418	-107.424698
8,827.0	90.30	271.40	5,351.6	543.6	-3,509.9	1,884,129.78	1,293,651.84	36.172423	-107.424911
8,890.0	90.00	271.60	5,351.5	545.3	-3,572.9	1,884,132.19	1,293,588.89	36.172427	-107.425125
8,953.0	89.70	271.30	5,351.6	546.9	-3,635.9	1,884,134.54	1,293,525.93	36.172432	-107.425338
9,016.0	90.00	271.40	5,351.8	548.3	-3,698.9	1,884,136.77	1,293,462.97	36.172436	-107.425551
9,080.0	89.80	270.60	5,351.9	549.5	-3,762.9	1,884,138.66	1,293,399.00	36.172439	-107.425768
9,143.0	89.70	270.40	5,352.2	550.0	-3,825.9	1,884,139.96	1,293,336.01	36.172440	-107.425981
9,206.0	91.20	271.10	5,351.7	550.8	-3,888.9	1,884,141.54	1,293,273.04	36.172442	-107.426195
9,269.0	90.50	270.30	5,350.7	551.6	-3,951.8	1,884,143.07	1,293,210.06	36.172444	-107.426408
9,332.0	90.40	270.90	5,350.3	552.3	-4,014.8	1,884,144.48	1,293,147.08	36.172446	-107.426622
9,395.0	89.90	269.80	5,350.1	552.6	-4,077.8	1,884,145.62	1,293,084.09	36.172447	-107.426835
9,458.0	90.10	270.50	5,350.1	552.8	-4,140.8	1,884,146.54	1,293,021.10	36.172448	-107.427049
9,521.0	91.00	270.80	5,349.5	553.5	-4,203.8	1,884,148.01	1,292,958.12	36.172450	-107.427262
9,575.0	91.50	270.40	5,348.3	554.1	-4,257.8	1,884,149.22	1,292,904.17	36.172451	-107.427475
Last CES Survey @ 9,575' MD									
9,620.0	91.80	270.20	5,347.0	554.3	-4,302.8	1,884,149.99	1,292,859.19	36.172452	-107.427597
PTB @ 9,620'									

Cathedral Energy Services
Survey Report - Geographic

CONFIDENTIAL

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook A01-2206 01H
Project:	Sandoval County, NM	TVD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Site:	Lybrook	MD Reference:	KB=16' @ 6896.0ft (Original Well Elev)
Well:	Lybrook A01-2206 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Lybrook A01-2206 01H F	0.00	359.30	5,348.8	557.3	-4,353.9	1,884,153.63	1,292,808.13	36.172460	-107.427770
- actual wellpath misses target center by 51.2ft at 9620.0ft MD (5347.0 TVD, 554.3 N, -4302.8 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
9,575.0	5,348.3	554.1	-4,257.8	Last CES Survey @ 9,575' MD
9,620.0	5,347.0	554.3	-4,302.8	PTB @ 9,620'

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------