

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6181 Fax: (575) 393-0720

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate
District Office

CONFIDENTIAL

☐ AMENDED REPORT
☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-35533		2 Pool Code 19859		3 Pool Name DUFER'S POINT GALLUP DAKOTA	
4 Property Code 313514		5 Property Name ESCRITO L14-2408			6 Well Number 03H
7 OGRID No. 282327		8 Operator Name ENCANA OIL & GAS (USA) INC.			9 Elevation 6893'

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
L	14	24N	8W		1393'	SOUTH	29'	WEST	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
M	15	24N	8W		424'	SOUTH	347'	WEST	SAN JUAN

12 Dedicated Acres 320.00 ACRES - S/2 SEC. 15	13 Joint or Infill PROJECT AREA	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

16

ALL CORNERS FND 2.5" BC GLO 1947 OIL CONS. DIV DIST. 3 NOV 17 2014		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. <i>Jessica Gregg</i> 11/14/14 Signature Date Jessica Gregg Printed Name Jessica.Gregg@encana.com E-mail Address	
15 WELL HEAD LAT. 36.310648° N (NAD83) LONG. 107.660466° W (NAD83) LAT. 36.310636° N (NAD27) LONG. 107.659856° W (NAD27) BASIS OF BEARING N 0°32'51" E 2604.12' (M) HORIZONTAL DRILL ASB - BOTTOM HOLE LAT. 36.308209° N (NAD83) LONG. 107.677177° W (NAD83) LAT. 36.308197° N (NAD27) LONG. 107.676566° W (NAD27) ASB - ENTRY POINT LAT. 36.308055° N (NAD83) LONG. 107.661896° W (NAD83) LAT. 36.308043° N (NAD27) LONG. 107.661286° W (NAD27)		14 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 of Asbuilt Survey - OCTOBER 31, 2014 Date of Survey - DECEMBER 3, 2013 Signature and Seal of Professional Surveyor: <i>David R. Russell</i> DAVID R. RUSSELL 10201 REGISTERED PROFESSIONAL LAND SURVEYOR NEW MEXICO DAVID RUSSELL Certificate Number 10201	

AV

15

DEVIATION SURVEYS
Escrito L14-2408 03H
30-045-35533

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
779.0	0.20
1,087.0	1.00
1,395.0	0.20
1,703.0	0.80
2,020.0	1.10
2,336.0	0.50
2,652.0	0.50
2,969.0	0.30
3,243.0	5.90

OIL CONS. DIV DIST. 3

NOV 17 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

11/14/14
Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 14th day of November, 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.

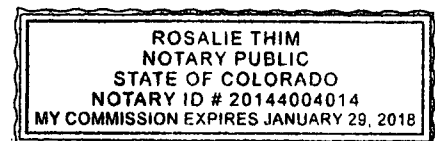
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

My Commission Expires:

1/29/18

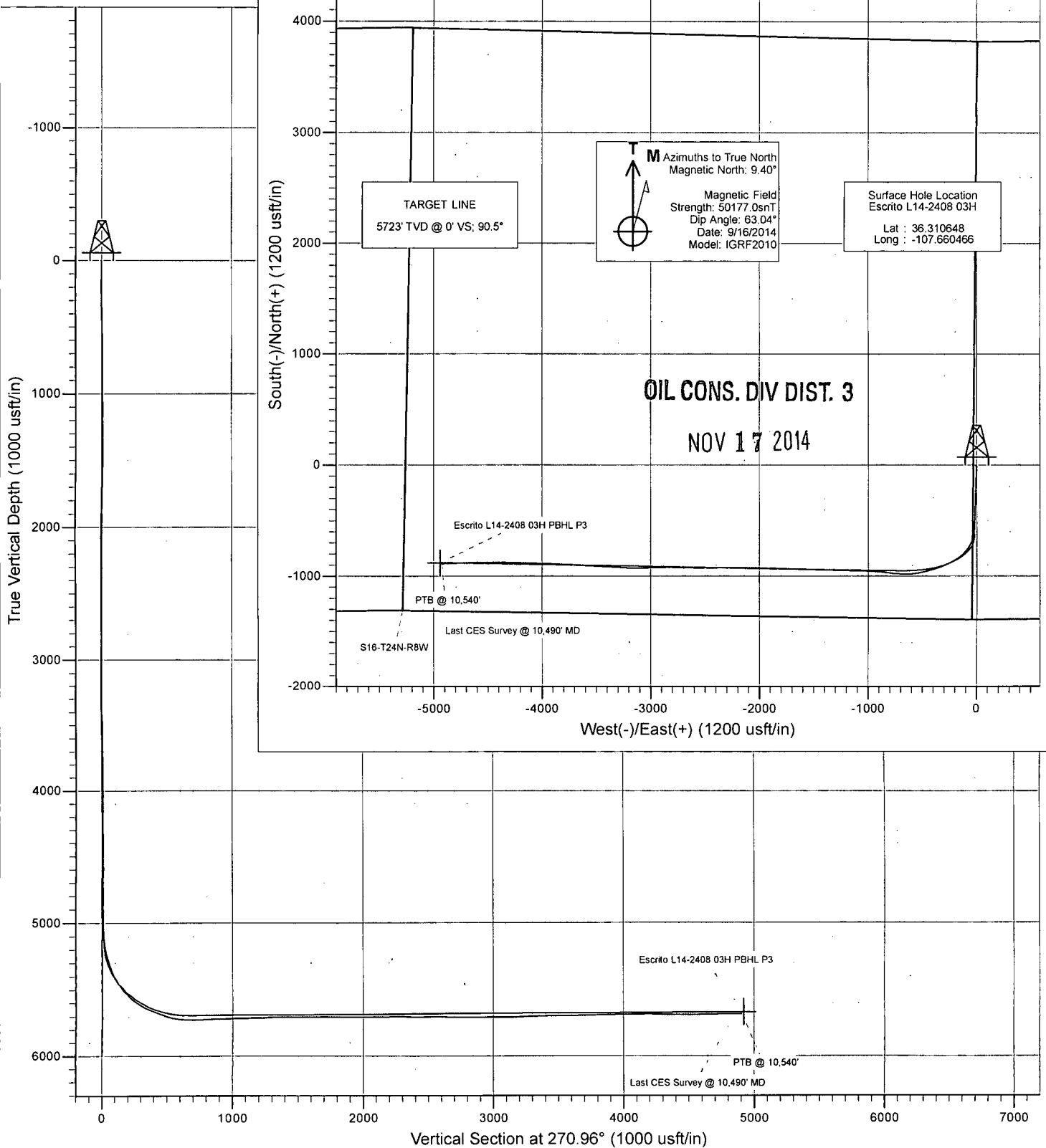




Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

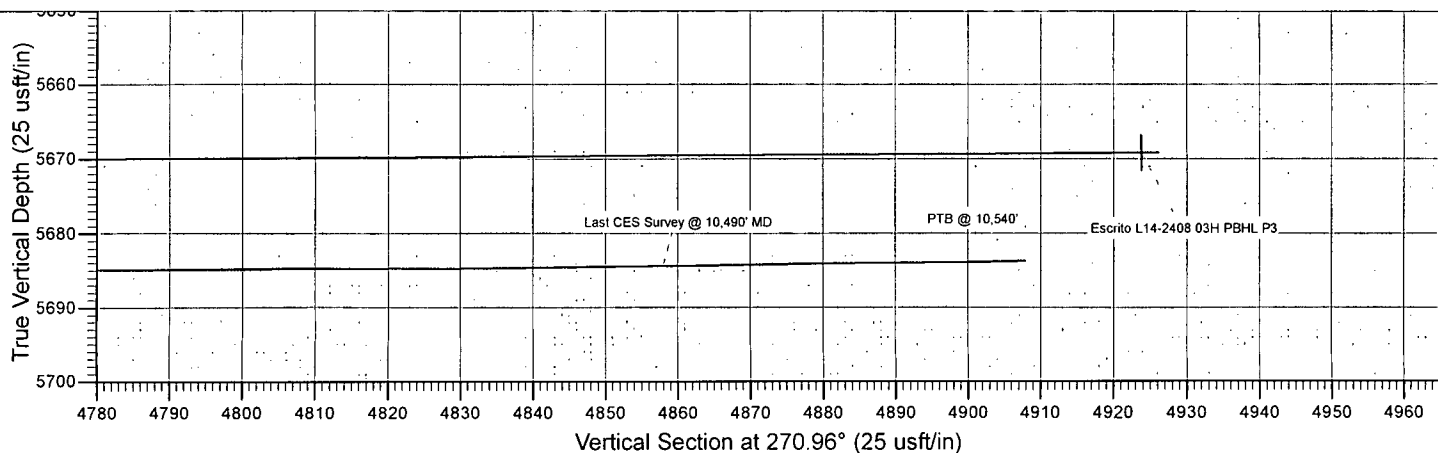
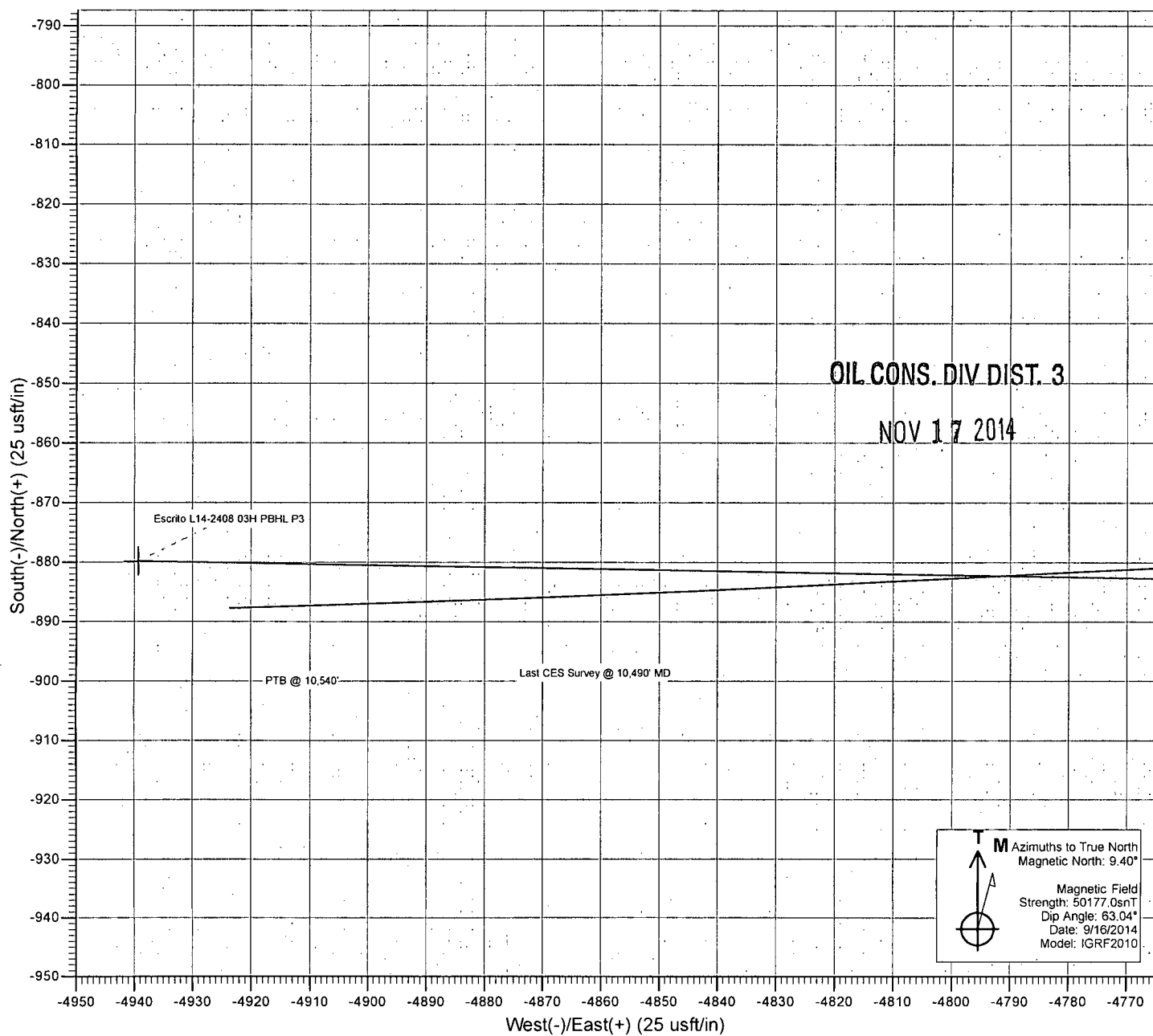


FINAL
Escrito L14-2408 03H
327155 145309; LR
WELL @ 6912.0usft (Aztec 950)
Ground Elevation @ 6896.0
North American Datum 1983
Well Escrito L14-2408 03H, True North





Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL



Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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	S14-T24N-R8W		
Site Position:		Northing:	1,932,458.55 usft
From:	Lat/Long	Easting:	2,774,044.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36.310750
		Longitude:	-107.660390
		Grid Convergence:	0.10 °

Well	Escrito L14-2408 03H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	36.310648
		Longitude:	-107.660466
		Ground Level:	6,896.0 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	9/16/2014	9.40	63.04	50,177

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	2,969.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	270.96	

Survey Program	Date	9/30/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
595.0	2,969.0	Survey #1 (Pilot Hole)	Geolink MWD	Geolink MWD
3,029.0	10,540.0	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	
595.0	1.40	244.10	594.9	-3.2	-6.5	6.5	0.24	0.24	
656.0	0.40	268.80	655.9	-3.5	-7.4	7.4	1.72	-1.64	
718.0	0.20	128.00	717.9	-3.6	-7.6	7.5	0.92	-0.32	
779.0	0.20	129.80	778.9	-3.7	-7.4	7.3	0.01	0.00	
841.0	0.10	54.00	840.9	-3.7	-7.3	7.2	0.32	-0.16	
902.0	0.40	5.70	901.9	-3.5	-7.2	7.1	0.56	0.49	
964.0	0.20	38.80	963.9	-3.2	-7.1	7.1	0.41	-0.32	
1,025.0	0.60	358.10	1,024.9	-2.8	-7.1	7.0	0.77	0.66	
1,087.0	1.00	293.70	1,086.9	-2.3	-7.6	7.5	1.48	0.65	
1,148.0	1.10	295.70	1,147.9	-1.8	-8.6	8.5	0.17	0.16	
1,210.0	0.30	347.60	1,209.9	-1.4	-9.1	9.1	1.52	-1.29	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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 (°/100usft)	Build Rate (°/100u)	Formations / Comments
1,272.0	0.40	273.70	1,271.9	-1.2	-9.4	9.4	0.69	0.16	
1,333.0	0.40	265.80	1,332.9	-1.2	-9.8	9.8	0.09	0.00	
1,395.0	0.20	322.60	1,394.9	-1.1	-10.1	10.1	0.54	-0.32	
1,456.0	0.10	311.30	1,455.9	-1.0	-10.2	10.2	0.17	-0.16	
1,518.0	0.40	104.50	1,517.9	-1.0	-10.0	10.0	0.79	0.48	
1,579.0	0.90	128.80	1,578.9	-1.4	-9.5	9.4	0.92	0.82	
1,640.0	0.90	115.20	1,639.9	-1.9	-8.6	8.6	0.35	0.00	
1,703.0	0.80	114.10	1,702.9	-2.3	-7.8	7.8	0.16	-0.16	
1,767.0	0.80	99.40	1,766.9	-2.5	-7.0	6.9	0.32	0.00	
1,830.0	0.50	71.70	1,829.9	-2.5	-6.3	6.2	0.68	-0.48	
1,893.0	0.70	99.40	1,892.9	-2.5	-5.6	5.6	0.55	0.32	
1,957.0	0.50	99.40	1,956.9	-2.6	-5.0	4.9	0.31	-0.31	
2,020.0	1.10	93.30	2,019.9	-2.7	-4.1	4.0	0.96	0.95	
2,083.0	0.50	129.50	2,082.9	-2.9	-3.3	3.2	1.20	-0.95	
2,146.0	0.40	143.90	2,145.9	-3.3	-2.9	2.9	0.24	-0.16	
2,209.0	0.60	110.00	2,208.9	-3.5	-2.5	2.4	0.55	0.32	
2,273.0	0.70	95.40	2,272.8	-3.7	-1.8	1.7	0.30	0.16	
2,336.0	0.50	178.80	2,335.8	-4.0	-1.4	1.3	1.29	-0.32	
2,399.0	0.40	135.30	2,398.8	-4.4	-1.2	1.2	0.55	-0.16	
2,462.0	0.40	203.70	2,461.8	-4.8	-1.2	1.1	0.71	0.00	
2,526.0	0.20	221.00	2,525.8	-5.1	-1.3	1.2	0.34	-0.31	
2,589.0	0.50	199.20	2,588.8	-5.4	-1.5	1.4	0.51	0.48	
2,652.0	0.50	185.00	2,651.8	-6.0	-1.6	1.5	0.20	0.00	
2,715.0	0.40	29.90	2,714.8	-6.0	-1.5	1.4	1.40	-0.16	
2,779.0	0.60	45.40	2,778.8	-5.6	-1.2	1.1	0.37	0.31	
2,842.0	0.40	76.70	2,841.8	-5.3	-0.7	0.6	0.53	-0.32	
2,905.0	0.50	79.00	2,904.8	-5.2	-0.2	0.1	0.16	0.16	
2,969.0	0.30	32.40	2,968.8	-5.0	0.1	-0.2	0.57	-0.31	
3,029.0	0.30	130.30	3,028.8	-5.0	0.3	-0.4	0.75	0.00	
3,059.0	1.40	176.80	3,058.8	-5.4	0.4	-0.5	4.04	3.67	
3,120.0	3.50	180.70	3,119.8	-8.0	0.4	-0.6	3.45	3.44	
3,182.0	4.70	182.60	3,181.6	-12.5	0.3	-0.5	1.95	1.94	
3,243.0	5.90	183.40	3,242.3	-18.1	0.0	-0.3	1.97	1.97	
3,305.0	5.80	184.00	3,304.0	-24.4	-0.4	0.0	0.19	-0.16	
3,366.0	5.50	181.60	3,364.7	-30.4	-0.7	0.2	0.63	-0.49	
3,428.0	6.30	176.00	3,426.4	-36.7	-0.6	-0.1	1.59	1.29	
3,491.0	7.10	181.30	3,489.0	-44.1	-0.4	-0.3	1.60	1.27	
3,554.0	7.80	182.40	3,551.4	-52.3	-0.7	-0.2	1.13	1.11	
3,617.0	8.50	179.10	3,613.8	-61.2	-0.8	-0.2	1.34	1.11	
3,680.0	9.80	183.30	3,676.0	-71.2	-1.0	-0.2	2.32	2.06	
3,744.0	10.50	183.60	3,739.0	-82.4	-1.7	0.3	1.10	1.09	
3,807.0	11.80	182.80	3,800.8	-94.6	-2.4	0.8	2.08	2.06	
3,870.0	13.40	182.10	3,862.3	-108.3	-2.9	1.1	2.55	2.54	
3,933.0	14.60	179.10	3,923.4	-123.6	-3.1	1.0	2.23	1.90	
3,996.0	15.90	178.10	3,984.2	-140.1	-2.7	0.3	2.11	2.06	
4,060.0	16.00	182.50	4,045.7	-157.7	-2.8	0.1	1.90	0.16	
4,123.0	16.40	183.40	4,106.2	-175.3	-3.7	0.7	0.75	0.63	
4,186.0	17.20	183.30	4,166.5	-193.4	-4.7	1.5	1.27	1.27	
4,249.0	18.20	183.30	4,226.6	-212.6	-5.8	2.3	1.59	1.59	
4,312.0	18.30	184.10	4,286.4	-232.3	-7.1	3.2	0.43	0.16	
4,375.0	18.90	181.90	4,346.1	-252.3	-8.2	3.9	1.47	0.95	
4,439.0	20.60	181.10	4,406.3	-273.9	-8.7	4.1	2.69	2.66	
4,502.0	21.80	181.70	4,465.1	-296.7	-9.3	4.3	1.94	1.90	

Cathedral Energy Services

Survey Report

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Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

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MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
4,565.0	22.60	182.70	4,523.4	-320.5	-10.2	4.8	1.40	1.27	
4,629.0	23.50	183.50	4,582.3	-345.5	-11.6	5.8	1.49	1.41	
4,692.0	24.60	182.60	4,639.8	-371.2	-12.9	6.7	1.84	1.75	
4,755.0	26.70	182.70	4,696.6	-398.4	-14.2	7.5	3.33	3.33	
4,818.0	28.70	182.60	4,752.4	-427.6	-15.5	8.4	3.18	3.17	
4,881.0	29.30	182.80	4,807.5	-458.2	-17.0	9.3	0.96	0.95	
4,945.0	29.30	182.80	4,863.3	-489.4	-18.5	10.3	0.00	0.00	
5,008.0	29.70	183.10	4,918.1	-520.4	-20.1	11.4	0.68	0.63	
5,071.0	28.10	181.80	4,973.3	-550.8	-21.4	12.2	2.73	-2.54	
5,134.0	29.90	182.20	5,028.4	-581.4	-22.5	12.7	2.87	2.86	
5,198.0	28.60	184.70	5,084.2	-612.6	-24.4	14.1	2.79	-2.03	
5,229.0	28.30	189.20	5,111.5	-627.2	-26.1	15.6	6.98	-0.97	
5,261.0	28.60	192.70	5,139.6	-642.2	-29.0	18.3	5.29	0.94	
5,294.0	29.20	197.20	5,168.5	-657.6	-33.1	22.1	6.83	1.82	
5,326.0	30.20	200.20	5,196.3	-672.6	-38.2	27.0	5.60	3.12	
5,358.0	31.40	202.40	5,223.8	-687.8	-44.2	32.7	5.14	3.75	
5,389.0	32.00	205.50	5,250.2	-702.7	-50.8	39.0	5.60	1.94	
5,421.0	32.70	208.00	5,277.2	-718.0	-58.5	46.5	4.72	2.19	
5,453.0	33.40	211.00	5,304.0	-733.2	-67.1	54.8	5.56	2.19	
5,484.0	33.60	214.60	5,329.9	-747.6	-76.4	63.8	6.44	0.65	
5,516.0	34.50	217.20	5,356.4	-762.1	-86.9	74.1	5.35	2.81	
5,547.0	35.60	221.00	5,381.8	-775.9	-98.1	85.1	7.88	3.55	
5,579.0	37.70	224.60	5,407.4	-789.9	-111.1	97.8	9.39	6.56	
5,611.0	39.60	228.10	5,432.4	-803.7	-125.6	112.1	9.05	5.94	
5,642.0	41.50	231.60	5,456.0	-816.6	-141.0	127.3	9.56	6.13	
5,674.0	43.50	234.30	5,479.6	-829.7	-158.2	144.3	8.46	6.25	
5,706.0	45.30	237.00	5,502.5	-842.3	-176.7	162.6	8.15	5.63	
5,737.0	47.00	239.70	5,523.9	-854.0	-195.7	181.4	8.33	5.48	
5,769.0	49.70	241.70	5,545.2	-865.7	-216.6	202.1	9.64	8.44	
5,801.0	53.10	243.30	5,565.2	-877.2	-238.8	224.0	11.32	10.62	
5,832.0	56.00	245.00	5,583.1	-888.2	-261.5	246.6	10.37	9.35	
5,864.0	58.50	246.80	5,600.5	-899.2	-286.1	271.0	9.13	7.81	
5,895.0	61.00	248.80	5,616.1	-909.3	-310.9	295.6	9.80	8.06	
5,927.0	63.30	250.90	5,631.0	-919.1	-337.4	322.0	9.24	7.19	
5,959.0	66.10	252.60	5,644.7	-928.1	-364.9	349.3	9.98	8.75	
5,990.0	68.50	254.30	5,656.7	-936.3	-392.3	376.6	9.25	7.74	
6,022.0	70.90	255.90	5,667.8	-944.0	-421.3	405.4	8.85	7.50	
6,065.0	71.30	257.10	5,681.7	-953.5	-460.9	444.8	2.80	0.93	
6,098.0	71.40	257.00	5,692.2	-960.5	-491.3	475.2	0.42	0.30	
6,129.0	72.60	258.00	5,701.8	-966.9	-520.1	503.8	4.94	3.87	
6,161.0	76.00	261.20	5,710.5	-972.4	-550.4	534.0	14.34	10.62	
6,191.0	79.50	263.40	5,716.8	-976.3	-579.5	563.0	13.69	11.67	
6,223.0	83.30	265.40	5,721.6	-979.4	-610.9	594.4	13.39	11.87	
6,255.0	86.40	267.90	5,724.5	-981.3	-642.7	626.2	12.42	9.69	
6,286.0	89.30	271.40	5,725.7	-981.5	-673.7	657.2	14.66	9.35	
6,350.0	91.30	276.40	5,725.3	-977.1	-737.5	721.1	8.41	3.12	
6,413.0	91.50	276.40	5,723.8	-970.1	-800.1	783.8	0.32	0.32	
6,476.0	91.90	276.70	5,721.9	-962.9	-862.7	846.4	0.79	0.63	
6,539.0	92.50	274.00	5,719.5	-957.0	-925.4	909.2	4.39	0.95	
6,602.0	92.20	272.70	5,716.9	-953.4	-988.2	972.1	2.12	-0.48	
6,666.0	91.40	272.00	5,714.9	-950.7	-1,052.1	1,036.0	1.66	-1.25	
6,729.0	90.90	271.50	5,713.6	-948.8	-1,115.1	1,099.0	1.12	-0.79	
6,792.0	91.20	271.50	5,712.5	-947.2	-1,178.0	1,162.0	0.48	0.48	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
6,855.0	91.50	270.60	5,711.0	-946.0	-1,241.0	1,225.0	1.51	0.48	
6,918.0	91.80	270.30	5,709.2	-945.5	-1,304.0	1,288.0	0.67	0.48	
6,981.0	91.60	271.80	5,707.3	-944.4	-1,366.9	1,350.9	2.40	-0.32	
7,045.0	91.90	271.50	5,705.4	-942.5	-1,430.9	1,414.9	0.66	0.47	
7,108.0	90.40	271.20	5,704.1	-941.0	-1,493.9	1,477.9	2.43	-2.38	
7,171.0	88.90	272.50	5,704.5	-939.0	-1,556.8	1,540.9	3.15	-2.38	
7,234.0	89.40	271.80	5,705.4	-936.6	-1,619.8	1,603.9	1.37	0.79	
7,297.0	89.50	271.60	5,706.0	-934.8	-1,682.7	1,666.8	0.35	0.16	
7,361.0	89.70	271.70	5,706.5	-932.9	-1,746.7	1,730.8	0.35	0.31	
7,424.0	91.00	272.30	5,706.1	-930.7	-1,809.7	1,793.8	2.27	2.06	
7,487.0	89.30	272.00	5,705.9	-928.4	-1,872.6	1,856.8	2.74	-2.70	
7,550.0	90.00	271.70	5,706.3	-926.3	-1,935.6	1,919.8	1.21	1.11	
7,614.0	90.80	272.50	5,705.9	-924.0	-1,999.5	1,983.8	1.77	1.25	
7,677.0	90.30	270.40	5,705.3	-922.4	-2,062.5	2,046.8	3.43	-0.79	
7,740.0	90.90	270.40	5,704.6	-922.0	-2,125.5	2,109.8	0.95	0.95	
7,803.0	89.90	270.00	5,704.2	-921.7	-2,188.5	2,172.8	1.71	-1.59	
7,867.0	90.60	268.90	5,703.9	-922.4	-2,252.5	2,236.7	2.04	1.09	
7,930.0	89.20	269.00	5,704.0	-923.5	-2,315.5	2,299.7	2.23	-2.22	
7,993.0	89.00	268.80	5,705.0	-924.7	-2,378.5	2,362.6	0.45	-0.32	
8,056.0	90.00	268.90	5,705.5	-926.0	-2,441.5	2,425.6	1.60	1.59	
8,120.0	91.80	270.70	5,704.5	-926.2	-2,505.4	2,489.6	3.98	2.81	
8,183.0	90.00	271.10	5,703.5	-925.2	-2,568.4	2,552.6	2.93	-2.86	
8,246.0	88.20	270.40	5,704.5	-924.4	-2,631.4	2,615.6	3.07	-2.86	
8,309.0	88.90	271.00	5,706.1	-923.6	-2,694.4	2,678.5	1.46	1.11	
8,373.0	89.50	271.10	5,707.0	-922.5	-2,758.4	2,742.5	0.95	0.94	
8,436.0	90.10	270.20	5,707.2	-921.7	-2,821.4	2,805.5	1.72	0.95	
8,499.0	89.90	269.40	5,707.2	-922.0	-2,884.4	2,868.5	1.31	-0.32	
8,562.0	90.20	268.60	5,707.2	-923.1	-2,947.3	2,931.5	1.36	0.48	
8,626.0	90.20	268.40	5,707.0	-924.7	-3,011.3	2,995.4	0.31	0.00	
8,689.0	89.60	268.00	5,707.1	-926.7	-3,074.3	3,058.3	1.14	-0.95	
8,752.0	90.30	270.80	5,707.1	-927.4	-3,137.3	3,121.3	4.58	1.11	
8,815.0	91.80	273.30	5,706.0	-925.1	-3,200.2	3,184.3	4.63	2.38	
8,879.0	91.90	273.20	5,703.9	-921.5	-3,264.1	3,248.2	0.22	0.16	
8,942.0	92.70	273.10	5,701.4	-918.0	-3,326.9	3,311.1	1.28	1.27	
9,005.0	91.00	272.80	5,699.3	-914.8	-3,389.8	3,374.0	2.74	-2.70	
9,068.0	90.60	271.60	5,698.5	-912.4	-3,452.8	3,437.0	2.01	-0.63	
9,131.0	89.60	272.40	5,698.3	-910.2	-3,515.7	3,500.0	2.03	-1.59	
9,195.0	91.30	273.70	5,697.8	-906.8	-3,579.6	3,563.9	3.34	2.66	
9,258.0	91.60	273.30	5,696.3	-902.9	-3,642.5	3,626.9	0.79	0.48	
9,321.0	91.50	273.40	5,694.5	-899.2	-3,705.4	3,689.8	0.22	-0.16	
9,384.0	92.10	272.80	5,692.6	-895.8	-3,768.2	3,752.7	1.35	0.95	
9,447.0	91.30	273.20	5,690.7	-892.5	-3,831.1	3,815.6	1.42	-1.27	
9,511.0	91.30	272.10	5,689.2	-889.6	-3,895.0	3,879.6	1.72	0.00	
9,574.0	90.60	271.90	5,688.2	-887.4	-3,958.0	3,942.6	1.16	-1.11	
9,637.0	91.40	271.40	5,687.1	-885.6	-4,021.0	4,005.6	1.50	1.27	
9,700.0	90.60	272.90	5,686.0	-883.2	-4,083.9	4,068.5	2.70	-1.27	
9,763.0	91.10	271.90	5,685.1	-880.6	-4,146.8	4,131.5	1.77	0.79	
9,827.0	89.40	271.90	5,684.8	-878.5	-4,210.8	4,195.5	2.66	-2.66	
9,890.0	88.70	271.10	5,685.8	-876.8	-4,273.8	4,258.5	1.69	-1.11	
9,953.0	89.00	270.20	5,687.1	-876.1	-4,336.8	4,321.5	1.51	0.48	
10,017.0	89.40	270.10	5,688.0	-875.9	-4,400.7	4,385.5	0.64	0.62	
10,080.0	90.10	269.40	5,688.3	-876.2	-4,463.7	4,448.4	1.57	1.11	
10,143.0	90.40	269.40	5,688.0	-876.9	-4,526.7	4,511.4	0.48	0.48	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
10,207.0	91.30	269.00	5,687.0	-877.7	-4,590.7	4,575.4	1.54	1.41	
10,270.0	90.90	269.60	5,685.8	-878.5	-4,653.7	4,638.3	1.14	-0.63	
10,333.0	90.50	268.90	5,685.1	-879.3	-4,716.7	4,701.3	1.28	-0.63	
10,396.0	89.80	267.00	5,684.9	-881.6	-4,779.7	4,764.2	3.21	-1.11	
10,460.0	90.50	267.30	5,684.7	-884.8	-4,843.6	4,828.1	1.19	1.09	
10,490.0	90.80	268.10	5,684.4	-886.0	-4,873.5	4,858.0	2.85	1.00	Last CES Survey @ 10,490' MD
10,540.0	90.80	268.10	5,683.7	-887.6	-4,923.5	4,908.0	0.00	0.00	PTB @ 10,540'

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Escrito L14-2408 03H PI - actual wellpath misses target center by 17.9usft at 10540.0usft MD (5683.7 TVD, -887.6 N, -4923.5 E) - Point	0.00	0.00	5,680.0	-879.8	-4,939.2	1,931,532.77	2,769,084.73	36.308230	-107.677230
Escrito L14-2408 03H PI - actual wellpath misses target center by 22.8usft at 10540.0usft MD (5683.7 TVD, -887.6 N, -4923.5 E) - Point	0.00	0.00	5,669.2	-879.8	-4,939.2	1,931,532.77	2,769,084.73	36.308230	-107.677230
Escrito L14-2407 03H PI - actual wellpath misses target center by 65.2usft at 5994.3usft MD (5658.2 TVD, -937.3 N, -396.1 E) - Point	0.00	0.00	5,714.5	-956.7	-369.5	1,931,464.06	2,773,654.62	36.308020	-107.661720
Escrito L14-2408 03H PI - actual wellpath misses target center by 17.6usft at 10540.0usft MD (5683.7 TVD, -887.6 N, -4923.5 E) - Point	0.00	0.00	5,682.6	-879.8	-4,939.2	1,931,532.77	2,769,084.73	36.308230	-107.677230

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,490.0	5,684.4	-886.0	-4,873.5	Last CES Survey @ 10,490' MD
10,540.0	5,683.7	-887.6	-4,923.5	PTB @ 10,540'

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R8W

Escrito L14-2408 03H

HZ

Design: FINAL

Survey Report - Geographic

30 September, 2014

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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	S14-T24N-R8W		
Site Position:		Northing:	1,932,458.56 usft
From:	Lat/Long	Easting:	2,774,044.71 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	36.310750
		Longitude:	-107.660390
		Grid Convergence:	0.10 °

Well	Escrito L14-2408 03H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	36.310648
		Longitude:	-107.660466
		Ground Level:	6,896.0 usft

Wellbore	HZ		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	9/16/2014	9.40
			Dip Angle
			63.04
			Field Strength
			50,177

Design	FINAL		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			270.96

Survey Program	Date	9/30/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
595.0	2,969.0	Survey #1 (Pilot Hole)	Geolink MWD	Geolink MWD
3,029.0	10,540.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map		
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude
(usft)			(usft)			(usft)	(usft)		
0.0	0.00	0.00	0.0	0.0	0.0	1,932,421.38	2,774,022.38	36.310648	-107.660466
595.0	1.40	244.10	594.9	-3.2	-6.5	1,932,418.20	2,774,015.85	36.310639	-107.660488
656.0	0.40	268.80	655.9	-3.5	-7.4	1,932,417.87	2,774,014.97	36.310638	-107.660491
718.0	0.20	128.00	717.9	-3.6	-7.6	1,932,417.79	2,774,014.83	36.310638	-107.660492
779.0	0.20	129.80	778.9	-3.7	-7.4	1,932,417.66	2,774,015.00	36.310638	-107.660491
841.0	0.10	54.00	840.9	-3.7	-7.3	1,932,417.62	2,774,015.13	36.310638	-107.660491
902.0	0.40	5.70	901.9	-3.5	-7.2	1,932,417.87	2,774,015.19	36.310638	-107.660491
964.0	0.20	38.80	963.9	-3.2	-7.1	1,932,418.17	2,774,015.28	36.310639	-107.660490
1,025.0	0.60	358.10	1,024.9	-2.8	-7.1	1,932,418.57	2,774,015.34	36.310640	-107.660490
1,087.0	1.00	293.70	1,086.9	-2.3	-7.6	1,932,419.11	2,774,014.83	36.310642	-107.660492
1,148.0	1.10	295.70	1,147.9	-1.8	-8.6	1,932,419.58	2,774,013.81	36.310643	-107.660495

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
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Design: FINAL

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TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
1,210.0	0.30	347.60	1,209.9	-1.4	-9.1	1,932,419.99	2,774,013.24	36.310644	-107.660497
1,272.0	0.40	273.70	1,271.9	-1.2	-9.4	1,932,420.16	2,774,012.99	36.310645	-107.660498
1,333.0	0.40	265.80	1,332.9	-1.2	-9.8	1,932,420.16	2,774,012.56	36.310645	-107.660500
1,395.0	0.20	322.60	1,394.9	-1.1	-10.1	1,932,420.23	2,774,012.28	36.310645	-107.660501
1,456.0	0.10	311.30	1,455.9	-1.0	-10.2	1,932,420.35	2,774,012.18	36.310645	-107.660501
1,518.0	0.40	104.50	1,517.9	-1.0	-10.0	1,932,420.33	2,774,012.35	36.310645	-107.660500
1,579.0	0.90	128.80	1,578.9	-1.4	-9.5	1,932,419.98	2,774,012.93	36.310644	-107.660498
1,640.0	0.90	115.20	1,639.9	-1.9	-8.6	1,932,419.48	2,774,013.73	36.310643	-107.660496
1,703.0	0.80	114.10	1,702.9	-2.3	-7.8	1,932,419.09	2,774,014.58	36.310642	-107.660493
1,767.0	0.80	99.40	1,766.9	-2.5	-7.0	1,932,418.83	2,774,015.43	36.310641	-107.660490
1,830.0	0.50	71.70	1,829.9	-2.5	-6.3	1,932,418.85	2,774,016.13	36.310641	-107.660488
1,893.0	0.70	99.40	1,892.9	-2.5	-5.6	1,932,418.88	2,774,016.77	36.310641	-107.660485
1,957.0	0.50	99.40	1,956.9	-2.6	-5.0	1,932,418.77	2,774,017.43	36.310641	-107.660483
2,020.0	1.10	93.30	2,019.9	-2.7	-4.1	1,932,418.69	2,774,018.31	36.310641	-107.660480
2,083.0	0.50	129.50	2,082.9	-2.9	-3.3	1,932,418.48	2,774,019.12	36.310640	-107.660477
2,146.0	0.40	143.90	2,145.9	-3.3	-2.9	1,932,418.13	2,774,019.46	36.310639	-107.660476
2,209.0	0.60	110.00	2,208.9	-3.5	-2.5	1,932,417.84	2,774,019.90	36.310638	-107.660475
2,273.0	0.70	95.40	2,272.8	-3.7	-1.8	1,932,417.69	2,774,020.61	36.310638	-107.660472
2,336.0	0.50	178.80	2,335.8	-4.0	-1.4	1,932,417.38	2,774,021.00	36.310637	-107.660471
2,399.0	0.40	135.30	2,398.8	-4.4	-1.2	1,932,416.95	2,774,021.16	36.310636	-107.660470
2,462.0	0.40	203.70	2,461.8	-4.8	-1.2	1,932,416.59	2,774,021.23	36.310635	-107.660470
2,526.0	0.20	221.00	2,525.8	-5.1	-1.3	1,932,416.30	2,774,021.06	36.310634	-107.660471
2,589.0	0.50	199.20	2,588.8	-5.4	-1.5	1,932,415.96	2,774,020.90	36.310633	-107.660471
2,652.0	0.50	185.00	2,651.8	-6.0	-1.6	1,932,415.42	2,774,020.79	36.310632	-107.660472
2,715.0	0.40	29.90	2,714.8	-6.0	-1.5	1,932,415.34	2,774,020.87	36.310631	-107.660471
2,779.0	0.60	45.40	2,778.8	-5.6	-1.2	1,932,415.77	2,774,021.22	36.310633	-107.660470
2,842.0	0.40	76.70	2,841.8	-5.3	-0.7	1,932,416.05	2,774,021.67	36.310633	-107.660469
2,905.0	0.50	79.00	2,904.8	-5.2	-0.2	1,932,416.16	2,774,022.16	36.310634	-107.660467
2,969.0	0.30	32.40	2,968.8	-5.0	0.1	1,932,416.35	2,774,022.52	36.310634	-107.660466
3,029.0	0.30	130.30	3,028.8	-5.0	0.3	1,932,416.38	2,774,022.72	36.310634	-107.660465
3,059.0	1.40	176.80	3,058.8	-5.4	0.4	1,932,415.97	2,774,022.80	36.310633	-107.660465
3,120.0	3.50	180.70	3,119.8	-8.0	0.4	1,932,413.36	2,774,022.83	36.310626	-107.660465
3,182.0	4.70	182.60	3,181.6	-12.5	0.3	1,932,408.93	2,774,022.70	36.310614	-107.660465
3,243.0	5.90	183.40	3,242.3	-18.1	0.0	1,932,403.30	2,774,022.41	36.310598	-107.660466
3,305.0	5.80	184.00	3,304.0	-24.4	-0.4	1,932,397.00	2,774,022.01	36.310581	-107.660468
3,366.0	5.50	181.60	3,364.7	-30.4	-0.7	1,932,391.00	2,774,021.73	36.310565	-107.660469
3,428.0	6.30	176.00	3,426.4	-36.7	-0.6	1,932,384.64	2,774,021.89	36.310547	-107.660468
3,491.0	7.10	181.30	3,489.0	-44.1	-0.4	1,932,377.30	2,774,022.06	36.310527	-107.660468
3,554.0	7.80	182.40	3,551.4	-52.3	-0.7	1,932,369.13	2,774,021.80	36.310505	-107.660469
3,617.0	8.50	179.10	3,613.8	-61.2	-0.8	1,932,360.21	2,774,021.71	36.310480	-107.660469
3,680.0	9.80	183.30	3,676.0	-71.2	-1.0	1,932,350.20	2,774,021.50	36.310453	-107.660470
3,744.0	10.50	183.60	3,739.0	-82.4	-1.7	1,932,338.94	2,774,020.84	36.310422	-107.660472
3,807.0	11.80	182.80	3,800.8	-94.6	-2.4	1,932,326.77	2,774,020.18	36.310388	-107.660474
3,870.0	13.40	182.10	3,862.3	-108.3	-2.9	1,932,313.04	2,774,019.63	36.310350	-107.660476
3,933.0	14.60	179.10	3,923.4	-123.6	-3.1	1,932,297.81	2,774,019.51	36.310309	-107.660477
3,996.0	15.90	178.10	3,984.2	-140.1	-2.7	1,932,281.24	2,774,019.95	36.310263	-107.660475
4,060.0	16.00	182.50	4,045.7	-157.7	-2.8	1,932,263.67	2,774,019.89	36.310215	-107.660476
4,123.0	16.40	183.40	4,106.2	-175.3	-3.7	1,932,246.11	2,774,019.01	36.310167	-107.660479
4,186.0	17.20	183.30	4,166.5	-193.4	-4.7	1,932,227.93	2,774,017.98	36.310117	-107.660482
4,249.0	18.20	183.30	4,226.6	-212.6	-5.8	1,932,208.81	2,774,016.91	36.310064	-107.660486
4,312.0	18.30	184.10	4,286.4	-232.3	-7.1	1,932,189.12	2,774,015.68	36.310010	-107.660490
4,375.0	18.90	181.90	4,346.1	-252.3	-8.2	1,932,169.05	2,774,014.67	36.309955	-107.660494
4,439.0	20.60	181.10	4,406.3	-273.9	-8.7	1,932,147.43	2,774,014.14	36.309896	-107.660496
4,502.0	21.80	181.70	4,465.1	-296.7	-9.3	1,932,124.66	2,774,013.63	36.309833	-107.660498
4,565.0	22.60	182.70	4,523.4	-320.5	-10.2	1,932,100.87	2,774,012.75	36.309768	-107.660501

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
4,629.0	23.50	183.50	4,582.3	-345.5	-11.6	1,932,075.85	2,774,011.44	36.309699	-107.660506
4,692.0	24.60	182.60	4,639.8	-371.2	-12.9	1,932,050.21	2,774,010.12	36.309629	-107.660510
4,755.0	26.70	182.70	4,696.6	-398.4	-14.2	1,932,022.97	2,774,008.91	36.309554	-107.660514
4,818.0	28.70	182.60	4,752.4	-427.6	-15.5	1,931,993.71	2,774,007.61	36.309473	-107.660519
4,881.0	29.30	182.80	4,807.5	-458.2	-17.0	1,931,963.20	2,774,006.22	36.309390	-107.660524
4,945.0	29.30	182.80	4,863.3	-489.4	-18.5	1,931,931.92	2,774,004.75	36.309304	-107.660529
5,008.0	29.70	183.10	4,918.1	-520.4	-20.1	1,931,900.93	2,774,003.21	36.309218	-107.660535
5,071.0	28.10	181.80	4,973.3	-550.8	-21.4	1,931,870.51	2,774,001.95	36.309135	-107.660539
5,134.0	29.90	182.20	5,028.4	-581.4	-22.5	1,931,839.99	2,774,000.94	36.309051	-107.660543
5,198.0	28.60	184.70	5,084.2	-612.6	-24.4	1,931,808.78	2,773,999.12	36.308965	-107.660549
5,229.0	28.30	189.20	5,111.5	-627.2	-26.1	1,931,794.12	2,773,997.37	36.308925	-107.660555
5,261.0	28.60	192.70	5,139.6	-642.2	-29.0	1,931,779.16	2,773,994.50	36.308884	-107.660565
5,294.0	29.20	197.20	5,168.5	-657.6	-33.1	1,931,763.75	2,773,990.41	36.308842	-107.660579
5,326.0	30.20	200.20	5,196.3	-672.6	-38.2	1,931,748.73	2,773,985.35	36.308800	-107.660596
5,358.0	31.40	202.40	5,223.8	-687.8	-44.2	1,931,733.46	2,773,979.42	36.308759	-107.660616
5,389.0	32.00	205.50	5,250.2	-702.7	-50.8	1,931,718.57	2,773,972.83	36.308718	-107.660639
5,421.0	32.70	208.00	5,277.2	-718.0	-58.5	1,931,703.27	2,773,965.15	36.308676	-107.660665
5,453.0	33.40	211.00	5,304.0	-733.2	-67.1	1,931,688.07	2,773,956.58	36.308634	-107.660694
5,484.0	33.60	214.60	5,329.9	-747.6	-76.4	1,931,673.68	2,773,947.34	36.308594	-107.660725
5,516.0	34.50	217.20	5,356.4	-762.1	-86.9	1,931,659.16	2,773,936.86	36.308555	-107.660761
5,547.0	35.60	221.00	5,381.8	-775.9	-98.1	1,931,645.33	2,773,925.66	36.308517	-107.660799
5,579.0	37.70	224.60	5,407.4	-789.9	-111.1	1,931,631.31	2,773,912.70	36.308478	-107.660843
5,611.0	39.60	228.10	5,432.4	-803.7	-125.6	1,931,617.50	2,773,898.26	36.308440	-107.660892
5,642.0	41.50	231.60	5,456.0	-816.6	-141.0	1,931,604.49	2,773,882.88	36.308405	-107.660945
5,674.0	43.50	234.30	5,479.6	-829.7	-158.2	1,931,591.45	2,773,865.64	36.308369	-107.661003
5,706.0	45.30	237.00	5,502.5	-842.3	-176.7	1,931,578.79	2,773,847.18	36.308334	-107.661066
5,737.0	47.00	239.70	5,523.9	-854.0	-195.7	1,931,567.03	2,773,828.16	36.308302	-107.661131
5,769.0	49.70	241.70	5,545.2	-865.7	-216.6	1,931,555.30	2,773,807.33	36.308270	-107.661201
5,801.0	53.10	243.30	5,565.2	-877.2	-238.8	1,931,543.73	2,773,785.17	36.308238	-107.661277
5,832.0	56.00	245.00	5,583.1	-888.2	-261.5	1,931,532.68	2,773,762.47	36.308208	-107.661354
5,864.0	58.50	246.80	5,600.5	-899.2	-286.1	1,931,521.66	2,773,737.92	36.308178	-107.661437
5,895.0	61.00	248.80	5,616.1	-909.3	-310.9	1,931,511.50	2,773,713.15	36.308150	-107.661521
5,927.0	63.30	250.90	5,631.0	-919.1	-337.4	1,931,501.71	2,773,686.60	36.308123	-107.661611
5,959.0	66.10	252.60	5,644.7	-928.1	-364.9	1,931,492.61	2,773,659.15	36.308098	-107.661705
5,990.0	68.50	254.30	5,656.7	-936.3	-392.3	1,931,484.42	2,773,631.75	36.308076	-107.661798
6,022.0	70.90	255.90	5,667.8	-944.0	-421.3	1,931,476.65	2,773,602.76	36.308055	-107.661896
6,065.0	71.30	257.10	5,681.7	-953.5	-460.9	1,931,467.09	2,773,563.22	36.308029	-107.662030
6,098.0	71.40	257.00	5,692.2	-960.5	-491.3	1,931,460.03	2,773,532.76	36.308010	-107.662134
6,129.0	72.60	258.00	5,701.8	-966.9	-520.1	1,931,453.59	2,773,503.99	36.307992	-107.662232
6,161.0	76.00	261.20	5,710.5	-972.4	-550.4	1,931,447.99	2,773,473.71	36.307977	-107.662334
6,191.0	79.50	263.40	5,716.8	-976.3	-579.5	1,931,444.01	2,773,444.67	36.307966	-107.662433
6,223.0	83.30	265.40	5,721.6	-979.4	-610.9	1,931,440.87	2,773,413.19	36.307958	-107.662540
6,255.0	86.40	267.90	5,724.5	-981.3	-642.7	1,931,438.95	2,773,381.39	36.307952	-107.662648
6,286.0	89.30	271.40	5,725.7	-981.5	-673.7	1,931,438.71	2,773,350.42	36.307952	-107.662753
6,350.0	91.30	276.40	5,725.3	-977.1	-737.5	1,931,442.95	2,773,286.58	36.307964	-107.662970
6,413.0	91.50	276.40	5,723.8	-970.1	-800.1	1,931,449.86	2,773,223.98	36.307983	-107.663182
6,476.0	91.90	276.70	5,721.9	-962.9	-862.7	1,931,456.93	2,773,161.41	36.308003	-107.663394
6,539.0	92.50	274.00	5,719.5	-957.0	-925.4	1,931,462.69	2,773,098.72	36.308019	-107.663607
6,602.0	92.20	272.70	5,716.9	-953.4	-988.2	1,931,466.25	2,773,035.88	36.308029	-107.663820
6,666.0	91.40	272.00	5,714.9	-950.7	-1,052.1	1,931,468.76	2,772,971.96	36.308036	-107.664037
6,729.0	90.90	271.50	5,713.6	-948.8	-1,115.1	1,931,470.57	2,772,909.00	36.308042	-107.664251
6,792.0	91.20	271.50	5,712.5	-947.2	-1,178.0	1,931,472.11	2,772,846.03	36.308046	-107.664465
6,855.0	91.50	270.60	5,711.0	-946.0	-1,241.0	1,931,473.15	2,772,783.06	36.308049	-107.664678
6,918.0	91.80	270.30	5,709.2	-945.5	-1,304.0	1,931,473.53	2,772,720.08	36.308051	-107.664892
6,981.0	91.60	271.80	5,707.3	-944.4	-1,366.9	1,931,474.57	2,772,657.12	36.308054	-107.665106

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
7,045.0	91.90	271.50	5,705.4	-942.5	-1,430.9	1,931,476.30	2,772,593.18	36.308059	-107.665323
7,108.0	90.40	271.20	5,704.1	-941.0	-1,493.9	1,931,477.67	2,772,530.20	36.308063	-107.665537
7,171.0	88.90	272.50	5,704.5	-939.0	-1,556.8	1,931,479.59	2,772,467.24	36.308068	-107.665750
7,234.0	89.40	271.80	5,705.4	-936.6	-1,619.8	1,931,481.84	2,772,404.29	36.308075	-107.665964
7,297.0	89.50	271.60	5,706.0	-934.8	-1,682.7	1,931,483.60	2,772,341.31	36.308080	-107.666178
7,361.0	89.70	271.70	5,706.5	-932.9	-1,746.7	1,931,485.33	2,772,277.34	36.308085	-107.666395
7,424.0	91.00	272.30	5,706.1	-930.7	-1,809.7	1,931,487.41	2,772,214.38	36.308091	-107.666608
7,487.0	89.30	272.00	5,705.9	-928.4	-1,872.6	1,931,489.67	2,772,151.42	36.308098	-107.666822
7,550.0	90.00	271.70	5,706.3	-926.3	-1,935.6	1,931,491.59	2,772,088.45	36.308103	-107.667036
7,614.0	90.80	272.50	5,705.9	-924.0	-1,999.5	1,931,493.82	2,772,024.49	36.308110	-107.667253
7,677.0	90.30	270.40	5,705.3	-922.4	-2,062.5	1,931,495.30	2,771,961.52	36.308114	-107.667467
7,740.0	90.90	270.40	5,704.6	-922.0	-2,125.5	1,931,495.63	2,771,898.52	36.308115	-107.667680
7,803.0	89.90	270.00	5,704.2	-921.7	-2,188.5	1,931,495.73	2,771,835.52	36.308116	-107.667894
7,867.0	90.60	268.90	5,703.9	-922.4	-2,252.5	1,931,495.00	2,771,771.53	36.308114	-107.668111
7,930.0	89.20	269.00	5,704.0	-923.5	-2,315.5	1,931,493.74	2,771,708.54	36.308111	-107.668325
7,993.0	89.00	268.80	5,705.0	-924.7	-2,378.5	1,931,492.42	2,771,645.56	36.308108	-107.668539
8,056.0	90.00	268.90	5,705.5	-926.0	-2,441.5	1,931,491.04	2,771,582.58	36.308104	-107.668753
8,120.0	91.80	270.70	5,704.5	-926.2	-2,505.4	1,931,490.70	2,771,518.60	36.308103	-107.668970
8,183.0	90.00	271.10	5,703.5	-925.2	-2,568.4	1,931,491.58	2,771,455.61	36.308106	-107.669184
8,246.0	88.20	270.40	5,704.5	-924.4	-2,631.4	1,931,492.29	2,771,392.63	36.308108	-107.669397
8,309.0	88.90	271.00	5,706.1	-923.6	-2,694.4	1,931,492.95	2,771,329.65	36.308111	-107.669611
8,373.0	89.50	271.10	5,707.0	-922.5	-2,758.4	1,931,494.01	2,771,265.67	36.308114	-107.669828
8,436.0	90.10	270.20	5,707.2	-921.7	-2,821.4	1,931,494.61	2,771,202.67	36.308116	-107.670042
8,499.0	89.90	269.40	5,707.2	-922.0	-2,884.4	1,931,494.28	2,771,139.67	36.308115	-107.670256
8,562.0	90.20	268.60	5,707.2	-923.1	-2,947.3	1,931,493.06	2,771,076.69	36.308112	-107.670470
8,626.0	90.20	268.40	5,707.0	-924.7	-3,011.3	1,931,491.27	2,771,012.71	36.308107	-107.670687
8,689.0	89.60	268.00	5,707.1	-926.7	-3,074.3	1,931,489.18	2,770,949.75	36.308102	-107.670901
8,752.0	90.30	270.80	5,707.1	-927.4	-3,137.3	1,931,488.41	2,770,886.76	36.308100	-107.671114
8,815.0	91.80	273.30	5,706.0	-925.1	-3,200.2	1,931,490.55	2,770,823.81	36.308106	-107.671328
8,879.0	91.90	273.20	5,703.9	-921.5	-3,264.1	1,931,494.06	2,770,759.94	36.308116	-107.671545
8,942.0	92.70	273.10	5,701.4	-918.0	-3,326.9	1,931,497.41	2,770,697.08	36.308126	-107.671758
9,005.0	91.00	272.80	5,699.3	-914.8	-3,389.8	1,931,500.54	2,770,634.19	36.308135	-107.671972
9,068.0	90.60	271.60	5,698.5	-912.4	-3,452.8	1,931,502.84	2,770,571.24	36.308141	-107.672185
9,131.0	89.60	272.40	5,698.3	-910.2	-3,515.7	1,931,504.93	2,770,508.28	36.308147	-107.672399
9,195.0	91.30	273.70	5,697.8	-906.8	-3,579.6	1,931,508.22	2,770,444.37	36.308157	-107.672616
9,258.0	91.60	273.30	5,696.3	-902.9	-3,642.5	1,931,511.95	2,770,381.50	36.308167	-107.672829
9,321.0	91.50	273.40	5,694.5	-899.2	-3,705.4	1,931,515.52	2,770,318.63	36.308177	-107.673042
9,384.0	92.10	272.80	5,692.6	-895.8	-3,768.2	1,931,518.81	2,770,255.74	36.308186	-107.673256
9,447.0	91.30	273.20	5,690.7	-892.5	-3,831.1	1,931,522.00	2,770,192.85	36.308196	-107.673469
9,511.0	91.30	272.10	5,689.2	-889.6	-3,895.0	1,931,524.84	2,770,128.93	36.308204	-107.673686
9,574.0	90.60	271.90	5,688.2	-887.4	-3,958.0	1,931,526.93	2,770,065.98	36.308210	-107.673900
9,637.0	91.40	271.40	5,687.1	-885.6	-4,021.0	1,931,528.63	2,770,003.01	36.308215	-107.674114
9,700.0	90.60	272.90	5,686.0	-883.2	-4,083.9	1,931,530.88	2,769,940.06	36.308221	-107.674327
9,763.0	91.10	271.90	5,685.1	-880.6	-4,146.8	1,931,533.40	2,769,877.12	36.308228	-107.674541
9,827.0	89.40	271.90	5,684.8	-878.5	-4,210.8	1,931,535.41	2,769,813.16	36.308234	-107.674758
9,890.0	88.70	271.10	5,685.8	-876.8	-4,273.8	1,931,536.95	2,769,750.18	36.308239	-107.674972
9,953.0	89.00	270.20	5,687.1	-876.1	-4,336.8	1,931,537.55	2,769,687.20	36.308241	-107.675185
10,017.0	89.40	270.10	5,688.0	-875.9	-4,400.7	1,931,537.60	2,769,623.21	36.308241	-107.675403
10,080.0	90.10	269.40	5,688.3	-876.2	-4,463.7	1,931,537.22	2,769,560.21	36.308240	-107.675616
10,143.0	90.40	269.40	5,688.0	-876.9	-4,526.7	1,931,536.44	2,769,497.21	36.308238	-107.675830
10,207.0	91.30	269.00	5,687.0	-877.7	-4,590.7	1,931,535.43	2,769,433.23	36.308236	-107.676047
10,270.0	90.90	269.60	5,685.8	-878.5	-4,653.7	1,931,534.55	2,769,370.25	36.308234	-107.676261
10,333.0	90.50	268.90	5,685.1	-879.3	-4,716.7	1,931,533.62	2,769,307.26	36.308231	-107.676475
10,396.0	89.80	267.00	5,684.9	-881.6	-4,779.7	1,931,531.25	2,769,244.31	36.308225	-107.676689
10,460.0	90.50	267.30	5,684.7	-884.8	-4,843.6	1,931,527.95	2,769,180.39	36.308216	-107.676906

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 03H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 03H
TVD Reference: WELL @ 6912.0usft (Aztec 950)
MD Reference: WELL @ 6912.0usft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
10,490.0	90.80	268.10	5,684.4	-886.0	-4,873.5	1,931,526.70	2,769,150.42	36.308213	-107.677007
Last CES Survey @ 10,490' MD									
10,540.0	90.80	268.10	5,683.7	-887.6	-4,923.5	1,931,524.95	2,769,100.46	36.308209	-107.677177
PTB @ 10,540'									

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
Escrito L14-2408 03H PI	0.00	0.00	5,669.2	-879.8	-4,939.2	1,931,532.77	2,769,084.74	36.308230	-107.677230
- actual wellpath misses target center by 22.8usft at 10540.0usft MD (5683.7 TVD, -887.6 N, -4923.5 E)									
- Point									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,490.0	5,684.4	-886.0	-4,873.5	Last CES Survey @ 10,490' MD
10,540.0	5,683.7	-887.6	-4,923.5	PTB @ 10,540'

Checked By: _____ Approved By: _____ Date: _____