

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

CONFIDENTIAL

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 30-045-35432	*Pool Code 5890	*Pool Name BISTI LOWER - GALLUP
*Property Code 39809	*Property Name ESCRITO E07-2409	*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 6876'

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
E	7	24N	9W	2	1640	NORTH	262	WEST	SAN JUAN

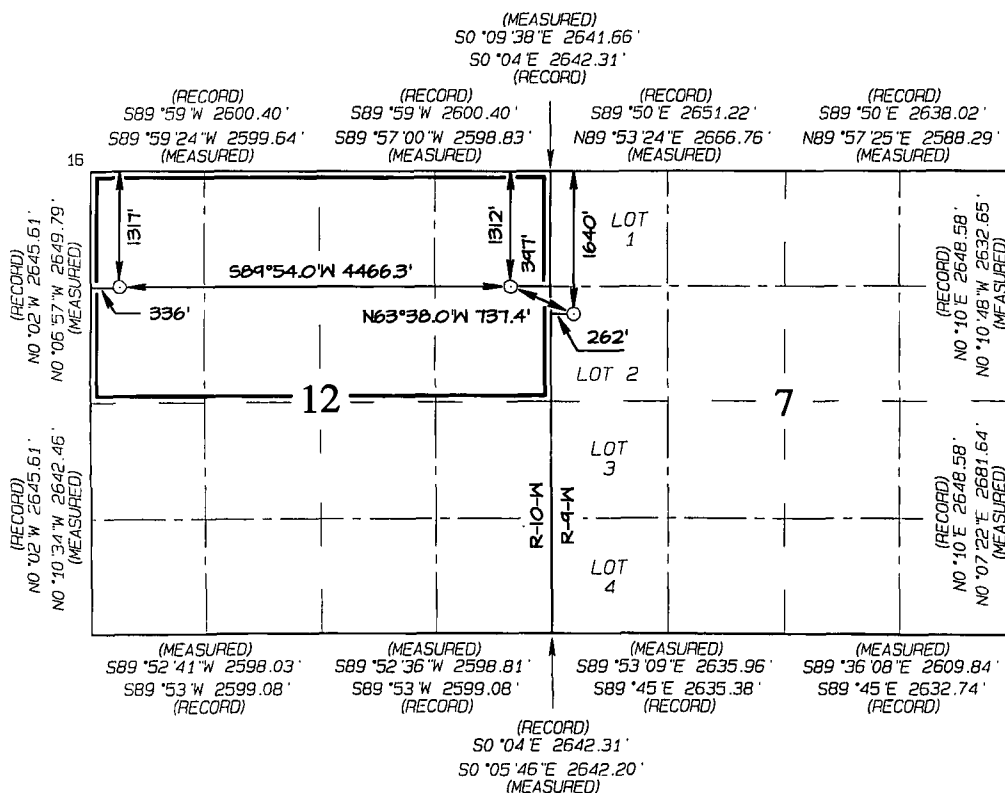
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	24N	10W		1317	NORTH	336	WEST	SAN JUAN

12 Dedicated Acres 320.0 Acres N/2 - Section 12	13 Joint or Infill	14 Consolidation Code	15 Order No. RCVD APR 10 '14 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



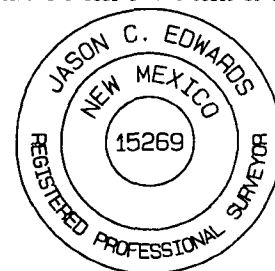
17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to 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 _____ Date 03/27/2014
Vy Nguyen
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: JULY 9, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

END-OF-LATERAL
1317' FNL 336' FWL
SECTION 12, T24N, R10W
LAT: 36.33218°N
LONG: 107.85518°W
DATUM: NAD1927
LAT: 36.33219°N
LONG: 107.85580°W
DATUM: NAD1983

POINT-OF-ENTRY
1312' FNL 397' FEL
SECTION 12, T24N, R10W
LAT: 36.33221°N
LONG: 107.84002°W
DATUM: NAD1927
LAT: 36.33222°N
LONG: 107.84063°W
DATUM: NAD1983

SURFACE LOCATION
1640' FNL 262' FWL
SECTION 7, T24N, R9W
LAT: 36.33131°N
LONG: 107.83777°W
DATUM: NAD1927
LAT: 36.33132°N
LONG: 107.83839°W
DATUM: NAD1983

PV

15

DEVIATION SURVEYS

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
739	.8
1045	.7
1352	.7
1667	.4
1982	.8
2297	.6
2612	.9
2927	.8
3243	.5
3559	.4
3872	.6
4187	.4
4502	.2
4765	.4
4935	15.4

RCVD APR 10 '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

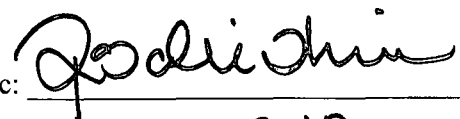
04/01/2014

ACKNOWLEDGMENT

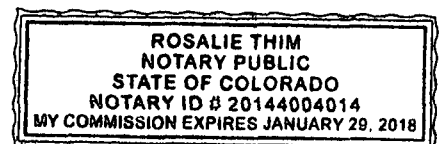
State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 1st day of April, 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



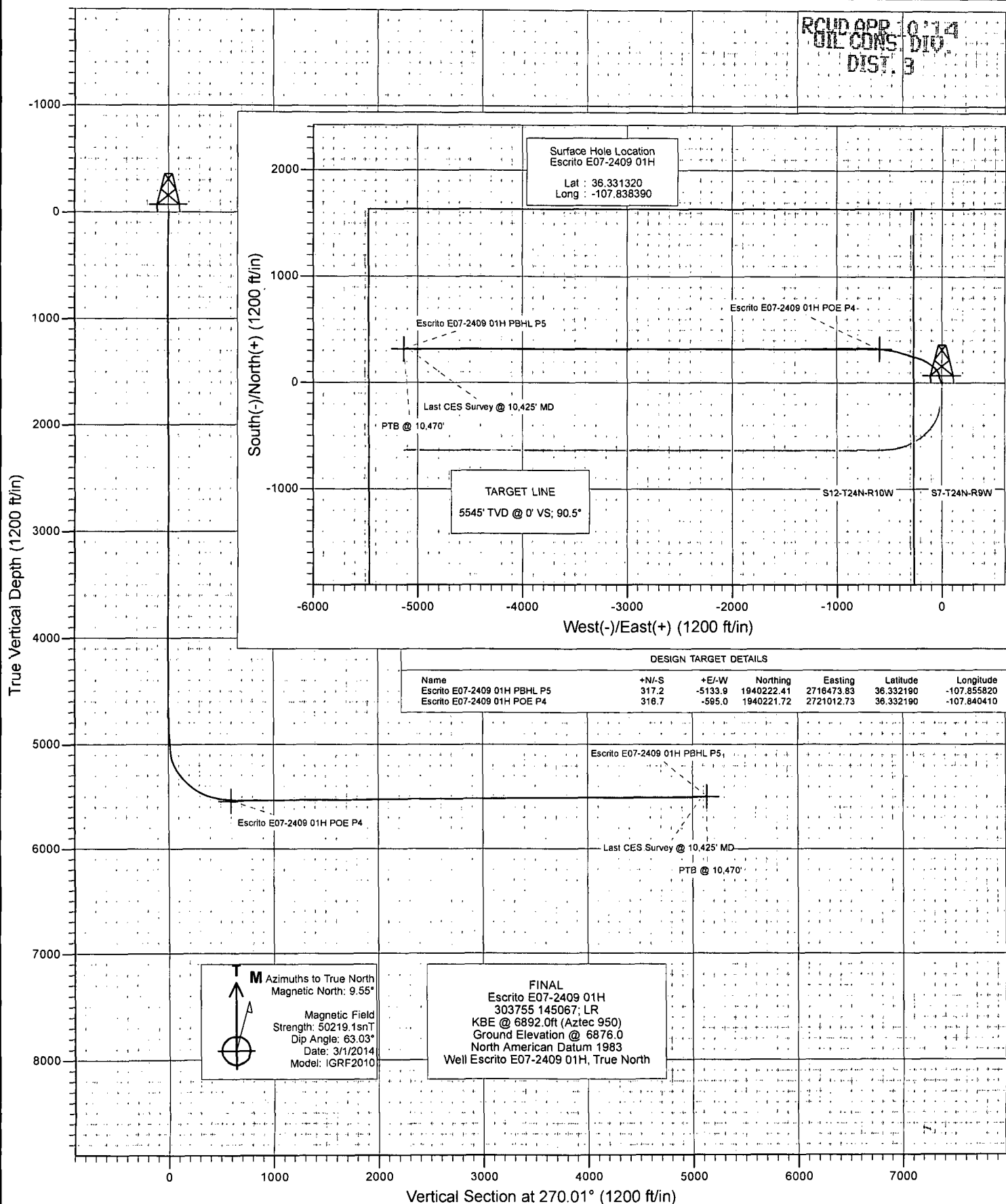
encana
natural gas

CONFIDENTIAL

Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

CATHEDRAL

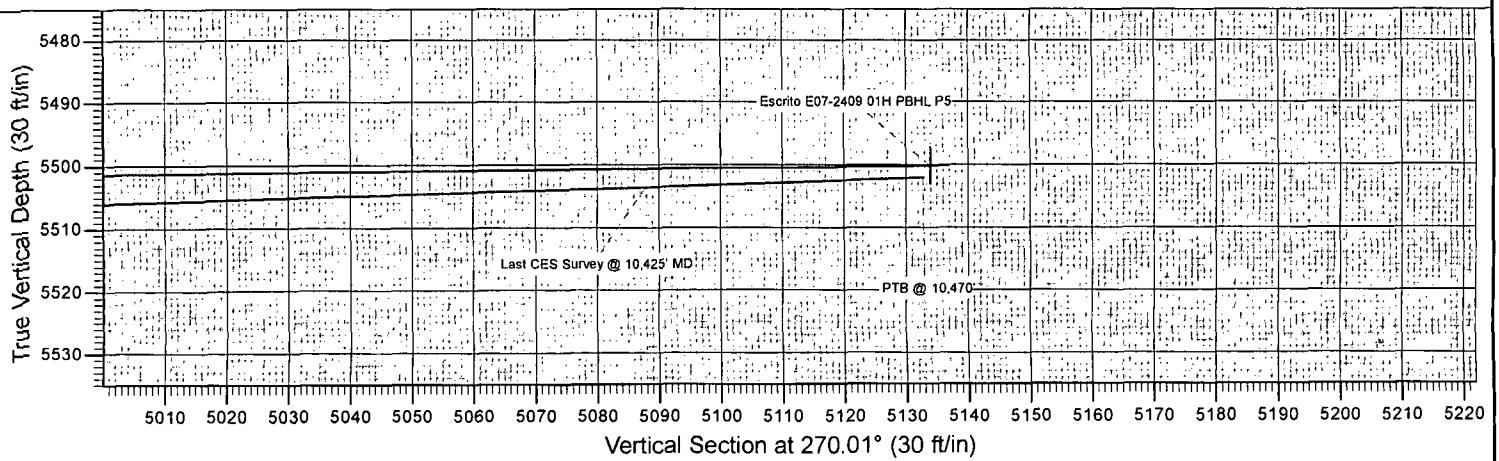
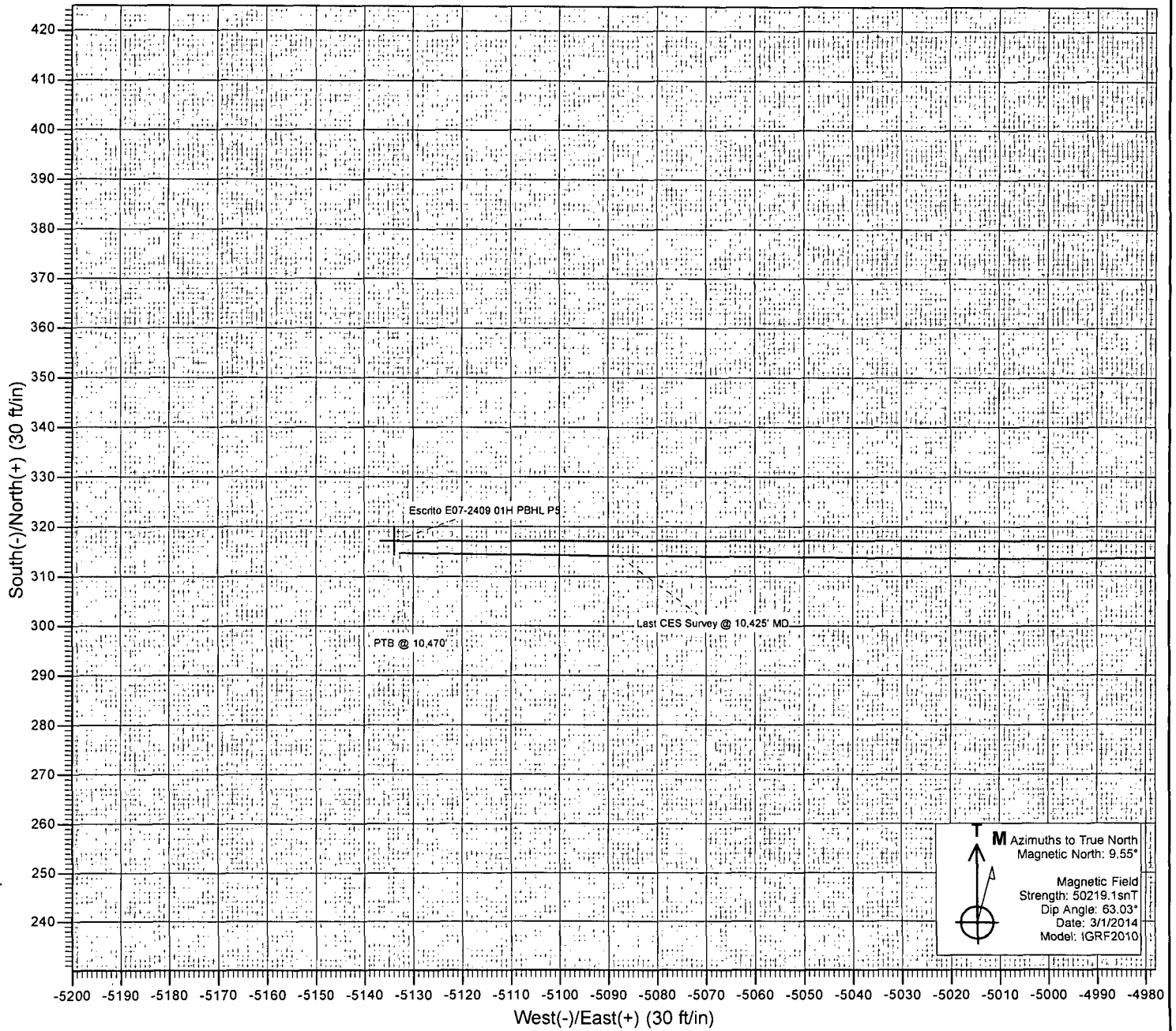
RCUD APP 10/14
OIL CONS DIV
DIST. 3





CONFIDENTIAL

Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL



CONFIDENTIAL

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (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	S7- T24N-R9W			
Site Position:		Northing:	1,939,904.96 ft	Latitude: 36.331320
From:	Lat/Long	Easting:	2,721,607.69 ft	Longitude: -107.838390
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: 0.00 °

Well	Escrito E07-2409 01H			
Well Position	+N/-S	0.0 ft	Northing:	1,939,904.96 ft
	+E/-W	0.0 ft	Easting:	2,721,607.69 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level: 6,876.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/1/2014	9.55	63.03	50,219

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	270.01

Survey Program	Date 3/10/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
556.0	10,470.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

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	
556.0	1.20	67.60	556.0	2.2	5.4	-5.4	0.22	0.22	
618.0	0.60	349.90	618.0	2.8	5.9	-5.9	1.97	-0.97	
678.0	1.00	329.20	677.9	3.5	5.6	-5.6	0.81	0.67	
739.0	0.80	338.00	738.9	4.4	5.2	-5.2	0.40	-0.33	
800.0	0.70	321.30	799.9	5.1	4.8	-4.8	0.39	-0.16	
861.0	0.70	308.70	860.9	5.6	4.3	-4.3	0.25	0.00	
923.0	0.70	289.50	922.9	6.0	3.6	-3.6	0.38	0.00	
984.0	0.70	304.10	983.9	6.3	2.9	-2.9	0.29	0.00	
1,045.0	0.70	283.80	1,044.9	6.6	2.3	-2.3	0.40	0.00	
1,106.0	0.30	24.40	1,105.9	6.8	2.0	-2.0	1.33	-0.66	
1,167.0	0.30	63.60	1,166.9	7.1	2.2	-2.2	0.33	0.00	
1,228.0	0.40	84.20	1,227.9	7.1	2.5	-2.5	0.26	0.16	

CONFIDENTIAL

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,289.0	0.70	32.80	1,288.9	7.5	3.0	-3.0	0.90	0.49	
1,352.0	0.70	229.80	1,351.9	7.6	2.9	-2.9	2.20	0.00	
1,415.0	0.40	250.60	1,414.9	7.2	2.4	-2.4	0.56	-0.48	
1,478.0	0.60	241.80	1,477.9	7.0	1.9	-1.9	0.34	0.32	
1,541.0	0.40	232.00	1,540.9	6.7	1.4	-1.4	0.34	-0.32	
1,604.0	0.40	198.00	1,603.9	6.4	1.2	-1.2	0.37	0.00	
1,667.0	0.40	141.00	1,666.9	6.0	1.2	-1.2	0.61	0.00	
1,730.0	0.30	166.40	1,729.9	5.7	1.4	-1.4	0.29	-0.16	
1,793.0	0.60	260.20	1,792.9	5.4	1.1	-1.1	1.09	0.48	
1,856.0	0.90	281.20	1,855.9	5.5	0.3	-0.3	0.64	0.48	
1,919.0	1.10	288.30	1,918.9	5.8	-0.7	0.7	0.37	0.32	
1,982.0	0.80	275.70	1,981.9	6.0	-1.8	1.8	0.58	-0.48	
2,045.0	0.70	281.90	2,044.9	6.1	-2.6	2.6	0.20	-0.16	
2,108.0	0.70	277.30	2,107.9	6.3	-3.3	3.3	0.09	0.00	
2,171.0	0.90	289.90	2,170.9	6.5	-4.2	4.2	0.42	0.32	
2,234.0	0.50	211.10	2,233.9	6.4	-4.8	4.8	1.49	-0.63	
2,297.0	0.60	207.70	2,296.9	5.9	-5.1	5.1	0.17	0.16	
2,360.0	0.70	155.60	2,359.9	5.2	-5.1	5.1	0.92	0.16	
2,423.0	0.50	141.60	2,422.8	4.7	-4.7	4.7	0.39	-0.32	
2,486.0	0.50	147.60	2,485.8	4.2	-4.4	4.4	0.08	0.00	
2,549.0	0.70	154.60	2,548.8	3.6	-4.1	4.1	0.34	0.32	
2,612.0	0.90	165.30	2,611.8	2.8	-3.8	3.8	0.39	0.32	
2,675.0	0.90	162.00	2,674.8	1.9	-3.5	3.5	0.08	0.00	
2,738.0	0.90	172.40	2,737.8	0.9	-3.3	3.3	0.26	0.00	
2,801.0	0.90	171.80	2,800.8	-0.1	-3.2	3.2	0.01	0.00	
2,864.0	1.00	162.00	2,863.8	-1.1	-2.9	2.9	0.30	0.16	
2,927.0	0.80	178.50	2,926.8	-2.1	-2.8	2.8	0.52	-0.32	
2,991.0	0.90	179.10	2,990.8	-3.0	-2.7	2.7	0.16	0.16	
3,054.0	1.10	190.70	3,053.8	-4.1	-2.9	2.9	0.45	0.32	
3,117.0	1.10	180.10	3,116.8	-5.3	-3.0	3.0	0.32	0.00	
3,180.0	0.80	176.80	3,179.8	-6.3	-2.9	2.9	0.48	-0.48	
3,243.0	0.50	99.60	3,242.8	-6.8	-2.6	2.6	1.34	-0.48	
3,306.0	0.50	112.30	3,305.8	-7.0	-2.1	2.1	0.18	0.00	
3,370.0	0.70	68.40	3,369.8	-6.9	-1.5	1.5	0.76	0.31	
3,433.0	0.40	49.40	3,432.7	-6.6	-1.0	1.0	0.55	-0.48	
3,496.0	0.50	56.80	3,495.7	-6.4	-0.6	0.6	0.18	0.16	
3,559.0	0.40	65.10	3,558.7	-6.1	-0.1	0.1	0.19	-0.16	
3,622.0	0.30	78.20	3,621.7	-6.0	0.2	-0.2	0.20	-0.16	
3,685.0	0.40	57.80	3,684.7	-5.8	0.6	-0.6	0.25	0.16	
3,748.0	0.40	23.00	3,747.7	-5.5	0.8	-0.8	0.38	0.00	
3,809.0	0.60	20.60	3,808.7	-5.0	1.0	-1.0	0.33	0.33	
3,872.0	0.60	26.20	3,871.7	-4.4	1.3	-1.3	0.09	0.00	
3,935.0	0.50	359.50	3,934.7	-3.8	1.4	-1.4	0.43	-0.16	
3,998.0	0.30	355.80	3,997.7	-3.4	1.4	-1.4	0.32	-0.32	
4,061.0	0.40	288.30	4,060.7	-3.2	1.2	-1.2	0.63	0.16	
4,124.0	0.40	292.20	4,123.7	-3.0	0.8	-0.8	0.04	0.00	
4,187.0	0.40	259.20	4,186.7	-3.0	0.4	-0.4	0.36	0.00	
4,250.0	0.40	254.40	4,249.7	-3.1	-0.1	0.1	0.05	0.00	
4,313.0	0.30	329.10	4,312.7	-3.0	-0.4	0.4	0.69	-0.16	
4,376.0	0.40	30.60	4,375.7	-2.7	-0.3	0.3	0.58	0.16	
4,440.0	0.50	65.80	4,439.7	-2.4	0.0	0.0	0.45	0.16	
4,502.0	0.20	345.90	4,501.7	-2.1	0.3	-0.3	0.81	-0.48	
4,565.0	0.20	343.20	4,564.7	-1.9	0.2	-0.2	0.01	0.00	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
4,628.0	0.20	243.30	4,627.7	-1.9	0.1	-0.1	0.49	0.00	
4,691.0	0.60	290.90	4,690.7	-1.8	-0.3	0.3	0.77	0.63	
4,754.0	0.40	239.00	4,753.7	-1.8	-0.8	0.8	0.75	-0.32	
4,765.0	0.40	248.20	4,764.7	-1.8	-0.9	0.9	0.58	0.00	
4,809.0	0.90	295.20	4,808.7	-1.7	-1.4	1.4	1.57	1.14	
4,841.0	4.60	325.20	4,840.7	-0.6	-2.3	2.3	12.02	11.56	
4,872.0	9.00	330.80	4,871.4	2.6	-4.2	4.2	14.34	14.19	
4,904.0	12.20	332.10	4,902.9	7.7	-7.0	7.0	10.03	10.00	
4,935.0	15.40	335.70	4,933.0	14.4	-10.2	10.2	10.68	10.32	
4,967.0	18.90	340.10	4,963.6	23.1	-13.8	13.8	11.66	10.94	
4,998.0	22.20	345.20	4,992.6	33.5	-17.0	17.0	12.10	10.65	
5,030.0	24.20	350.30	5,022.0	45.8	-19.6	19.6	8.85	6.25	
5,061.0	26.00	353.80	5,050.1	58.8	-21.4	21.4	7.52	5.81	
5,092.0	26.00	349.30	5,077.9	72.3	-23.4	23.4	6.36	0.00	
5,124.0	26.10	341.00	5,106.7	85.8	-27.0	27.0	11.39	0.31	
5,155.0	27.90	332.10	5,134.3	98.7	-32.6	32.6	14.25	5.81	
5,187.0	30.70	323.80	5,162.2	111.9	-41.0	41.0	15.40	8.75	
5,219.0	32.80	319.00	5,189.5	125.0	-51.5	51.5	10.26	6.56	
5,251.0	34.70	313.90	5,216.1	137.9	-63.7	63.7	10.66	5.94	
5,282.0	36.50	309.00	5,241.3	149.8	-77.3	77.3	10.88	5.81	
5,314.0	38.20	304.90	5,266.7	161.5	-92.8	92.8	9.41	5.31	
5,345.0	40.00	305.50	5,290.8	172.8	-108.7	108.8	5.93	5.81	
5,377.0	42.30	304.20	5,314.9	184.8	-126.0	126.1	7.67	7.19	
5,408.0	44.10	300.80	5,337.5	196.2	-143.9	144.0	9.49	5.81	
5,440.0	46.70	297.30	5,359.9	207.2	-163.8	163.9	11.25	8.12	
5,471.0	49.30	293.00	5,380.7	217.0	-184.7	184.7	13.29	8.39	
5,503.0	52.40	289.70	5,400.9	226.0	-207.8	207.8	12.56	9.69	
5,535.0	55.60	288.40	5,419.7	234.4	-232.3	232.3	10.53	10.00	
5,566.0	58.30	287.60	5,436.6	242.5	-257.0	257.0	8.97	8.71	
5,598.0	61.00	287.10	5,452.8	250.7	-283.3	283.4	8.54	8.44	
5,629.0	63.90	287.20	5,467.1	258.8	-309.6	309.6	9.36	9.35	
5,661.0	66.80	287.20	5,480.5	267.4	-337.4	337.4	9.06	9.06	
5,692.0	69.80	286.30	5,491.9	275.7	-365.0	365.0	10.05	9.68	
5,723.0	72.60	285.70	5,501.9	283.8	-393.2	393.2	9.22	9.03	
5,755.0	75.50	284.50	5,510.7	291.8	-422.9	422.9	9.75	9.06	
5,786.0	78.10	282.40	5,517.8	298.8	-452.2	452.3	10.67	8.39	
5,816.0	80.60	280.70	5,523.3	304.7	-481.1	481.1	10.02	8.33	
5,855.0	83.80	277.50	5,528.6	310.8	-519.2	519.3	11.55	8.21	
5,886.0	85.60	275.60	5,531.5	314.3	-549.9	550.0	8.42	5.81	
5,916.0	86.10	274.70	5,533.7	317.0	-579.7	579.8	3.42	1.67	
5,947.0	86.90	274.10	5,535.5	319.4	-610.6	610.6	3.22	2.58	
5,977.0	88.10	273.20	5,536.9	321.3	-640.5	640.5	5.00	4.00	
6,007.0	89.20	273.10	5,537.6	323.0	-670.4	670.5	3.68	3.67	
6,068.0	90.50	271.60	5,537.7	325.5	-731.4	731.4	3.25	2.13	
6,129.0	90.90	270.20	5,537.0	326.4	-792.3	792.4	2.39	0.66	
6,190.0	90.30	270.20	5,536.3	326.6	-853.3	853.4	0.98	-0.98	
6,250.0	90.80	268.90	5,535.8	326.2	-913.3	913.4	2.32	0.83	
6,311.0	90.70	268.70	5,535.0	324.9	-974.3	974.4	0.37	-0.16	
6,372.0	90.50	268.30	5,534.3	323.3	-1,035.3	1,035.3	0.73	-0.33	
6,433.0	90.70	268.50	5,533.7	321.6	-1,096.3	1,096.3	0.46	0.33	
6,494.0	91.20	269.60	5,532.7	320.6	-1,157.2	1,157.3	1.98	0.82	
6,557.0	90.90	269.80	5,531.5	320.2	-1,220.2	1,220.3	0.57	-0.48	
6,620.0	89.60	269.40	5,531.2	319.8	-1,283.2	1,283.3	2.16	-2.06	

CONFIDENTIAL

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
 Project: San Juan County, NM
 Site: S7- T24N-R9W
 Well: Escrito E07-2409 01H
 Wellbore: Hz
 Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
 TVD Reference: KBE @ 6892.0ft (Aztec 950)
 MD Reference: KBE @ 6892.0ft (Aztec 950)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,683.0	90.20	268.70	5,531.4	318.8	-1,346.2	1,346.3	1.46	0.95	
6,746.0	90.40	269.80	5,531.0	317.9	-1,409.2	1,409.3	1.77	0.32	
6,809.0	89.90	269.10	5,530.9	317.3	-1,472.2	1,472.3	1.37	-0.79	
6,872.0	90.20	269.40	5,530.8	316.5	-1,535.2	1,535.3	0.67	0.48	
6,935.0	90.10	269.90	5,530.6	316.1	-1,598.2	1,598.3	0.81	-0.16	
6,998.0	90.30	270.70	5,530.4	316.5	-1,661.2	1,661.3	1.31	0.32	
7,060.0	90.10	270.60	5,530.2	317.2	-1,723.2	1,723.2	0.36	-0.32	
7,124.0	90.00	270.60	5,530.1	317.8	-1,787.2	1,787.2	0.16	-0.16	
7,187.0	90.40	270.10	5,529.9	318.2	-1,850.2	1,850.2	1.02	0.63	
7,249.0	91.50	270.20	5,528.9	318.4	-1,912.2	1,912.2	1.78	1.77	
7,313.0	91.10	270.70	5,527.4	318.9	-1,976.2	1,976.2	1.00	-0.62	
7,376.0	90.40	270.80	5,526.6	319.7	-2,039.1	2,039.2	1.12	-1.11	
7,439.0	90.70	269.90	5,526.0	320.1	-2,102.1	2,102.2	1.51	0.48	
7,502.0	90.40	269.60	5,525.4	319.8	-2,165.1	2,165.2	0.67	-0.48	
7,565.0	90.60	268.70	5,524.9	318.9	-2,228.1	2,228.2	1.46	0.32	
7,628.0	90.90	268.70	5,524.0	317.4	-2,291.1	2,291.2	0.48	0.48	
7,691.0	90.70	269.30	5,523.2	316.3	-2,354.1	2,354.1	1.00	-0.32	
7,754.0	90.90	270.40	5,522.3	316.2	-2,417.1	2,417.1	1.77	0.32	
7,817.0	89.80	270.40	5,521.9	316.6	-2,480.1	2,480.1	1.75	-1.75	
7,879.0	90.40	270.20	5,521.8	316.9	-2,542.1	2,542.1	1.02	0.97	
7,942.0	90.30	270.40	5,521.4	317.3	-2,605.1	2,605.1	0.35	-0.16	
8,005.0	89.80	270.40	5,521.3	317.7	-2,668.1	2,668.1	0.79	-0.79	
8,068.0	90.70	270.40	5,521.1	318.2	-2,731.1	2,731.1	1.43	1.43	
8,131.0	89.70	270.20	5,520.9	318.5	-2,794.1	2,794.1	1.62	-1.59	
8,194.0	90.10	269.00	5,521.0	318.0	-2,857.1	2,857.1	2.01	0.63	
8,257.0	90.80	270.30	5,520.5	317.7	-2,920.1	2,920.1	2.34	1.11	
8,320.0	88.60	269.50	5,520.8	317.6	-2,983.1	2,983.1	3.72	-3.49	
8,384.0	90.00	270.20	5,521.6	317.4	-3,047.0	3,047.1	2.45	2.19	
8,447.0	90.00	269.40	5,521.6	317.2	-3,110.0	3,110.1	1.27	0.00	
8,510.0	91.60	269.40	5,520.7	316.5	-3,173.0	3,173.1	2.54	2.54	
8,573.0	91.60	270.70	5,518.9	316.6	-3,236.0	3,236.1	2.06	0.00	
8,636.0	90.50	270.20	5,517.8	317.1	-3,299.0	3,299.1	1.92	-1.75	
8,699.0	90.60	270.40	5,517.2	317.4	-3,362.0	3,362.0	0.35	0.16	
8,762.0	91.00	270.00	5,516.3	317.6	-3,425.0	3,425.0	0.90	0.63	
8,825.0	91.50	270.90	5,514.9	318.1	-3,488.0	3,488.0	1.63	0.79	
8,887.0	90.60	270.80	5,513.8	319.0	-3,550.0	3,550.0	1.46	-1.45	
8,951.0	89.20	270.60	5,513.9	319.8	-3,613.9	3,614.0	2.21	-2.19	
9,014.0	89.90	270.20	5,514.4	320.2	-3,676.9	3,677.0	1.28	1.11	
9,077.0	91.00	269.70	5,513.9	320.2	-3,739.9	3,740.0	1.92	1.75	
9,140.0	90.00	269.40	5,513.4	319.7	-3,802.9	3,803.0	1.66	-1.59	
9,203.0	89.20	269.00	5,513.8	318.8	-3,865.9	3,866.0	1.42	-1.27	
9,266.0	89.80	268.70	5,514.3	317.5	-3,928.9	3,929.0	1.06	0.95	
9,329.0	90.10	270.60	5,514.4	317.2	-3,991.9	3,992.0	3.05	0.48	
9,392.0	90.30	269.70	5,514.2	317.3	-4,054.9	4,055.0	1.46	0.32	
9,455.0	90.60	270.40	5,513.7	317.4	-4,117.9	4,118.0	1.21	0.48	
9,518.0	90.00	270.90	5,513.4	318.1	-4,180.9	4,181.0	1.24	-0.95	
9,581.0	90.00	270.60	5,513.4	318.9	-4,243.9	4,244.0	0.48	0.00	
9,644.0	89.30	269.90	5,513.7	319.2	-4,306.9	4,307.0	1.57	-1.11	
9,707.0	90.70	270.00	5,513.7	319.1	-4,369.9	4,370.0	2.23	2.22	
9,770.0	90.80	270.20	5,512.9	319.3	-4,432.9	4,433.0	0.35	0.16	
9,833.0	89.90	269.90	5,512.5	319.3	-4,495.9	4,496.0	1.51	-1.43	
9,896.0	91.00	269.70	5,512.0	319.1	-4,558.9	4,558.9	1.77	1.75	
9,959.0	90.40	269.00	5,511.3	318.4	-4,621.9	4,621.9	1.46	-0.95	

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
10,021.0	90.10	269.50	5,511.0	317.6	-4,683.9	4,683.9	0.94	-0.48	
10,084.0	91.40	269.70	5,510.2	317.1	-4,746.9	4,746.9	2.09	2.06	
10,147.0	91.10	268.90	5,508.8	316.4	-4,809.8	4,809.9	1.36	-0.48	
10,211.0	91.00	269.10	5,507.6	315.2	-4,873.8	4,873.9	0.35	-0.16	
10,274.0	90.40	268.70	5,506.9	314.0	-4,936.8	4,936.9	1.14	-0.95	
10,337.0	91.20	270.20	5,506.0	313.4	-4,999.8	4,999.9	2.70	1.27	
10,425.0	91.90	270.70	5,503.6	314.1	-5,087.7	5,087.8	0.98	0.80	Last CES Survey @ 10,425' MD
10,470.0	91.90	270.70	5,502.1	314.7	-5,132.7	5,132.8	0.00	0.00	PTB @ 10,470'

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Escrito E07-2409 01H P - actual wellpath misses target center by 2632.0ft at 10470.0ft MD (5502.1 TVD, 314.7 N, -5132.7 E) - Point	0.00	0.00	5,416.5	740.0	-7,728.7	1,940,645.40	2,713,879.05	36.333350	-107.864630
Escrito E07-2409 01H P - actual wellpath misses target center by 4.2ft at 10470.0ft MD (5502.1 TVD, 314.7 N, -5132.7 E) - Point	0.00	0.00	5,505.2	317.2	-5,133.9	1,940,222.41	2,716,473.83	36.332190	-107.855820
Escrito E07-2409 01H P - actual wellpath misses target center by 10.3ft at 5931.9ft MD (5534.7 TVD, 318.3 N, -595.5 E) - Point	0.00	0.00	5,544.8	316.7	-595.0	1,940,221.72	2,721,012.73	36.332190	-107.840410
Escrito E07-2409 01H P - actual wellpath misses target center by 3.4ft at 10470.0ft MD (5502.1 TVD, 314.7 N, -5132.7 E) - Point	0.00	0.00	5,500.2	317.2	-5,133.9	1,940,222.41	2,716,473.83	36.332190	-107.855820
Escrito E07-2409 01H P - actual wellpath misses target center by 430.8ft at 5956.1ft MD (5536.0 TVD, 320.0 N, -619.7 E) - Point	0.00	0.00	5,478.8	746.3	-595.0	1,940,651.27	2,721,012.77	36.333370	-107.840410

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
10,425.0	5,503.6	314.1	-5,087.7	Last CES Survey @ 10,425' MD
10,470.0	5,502.1	314.7	-5,132.7	PTB @ 10,470'

Checked By: _____ Approved By: _____ Date: _____

CONFIDENTIAL

RECEIVED 10/12
OIL & GAS DIV.
MARCH 10, 2014

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S7- T24N-R9W

Escrito E07-2409 01H

Hz

Design: FINAL

Survey Report - Geographic

10 March, 2014

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (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	S7- T24N-R9W		
Site Position:		Northing:	1,939,904.97 ft
From:	Lat/Long	Easting:	2,721,607.69 ft
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in
		Latitude:	36.331320
		Longitude:	-107.838390
		Grid Convergence:	0.00 °

Well	Escrito E07-2409 01H		
Well Position	+N/-S	0.0 ft	Northing: 1,939,904.97 ft
	+E/-W	0.0 ft	Easting: 2,721,607.69 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	36.331320
		Longitude:	-107.838390
		Ground Level:	6,876.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	3/1/2014	9.55	63.03	50,219

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	270.01	

Survey Program	Date 3/10/2014				
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
556.0	10,470.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD	

Survey										
Measured	Vertical					Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.0	0.00	0.00	0.0	0.0	0.0	1,939,904.97	2,721,607.69	36.331320	-107.838390	
556.0	1.20	67.60	556.0	2.2	5.4	1,939,907.18	2,721,613.08	36.331326	-107.838372	
618.0	0.60	349.90	618.0	2.8	5.9	1,939,907.75	2,721,613.62	36.331328	-107.838370	
678.0	1.00	329.20	677.9	3.5	5.6	1,939,908.51	2,721,613.30	36.331330	-107.838371	
739.0	0.80	338.00	738.9	4.4	5.2	1,939,909.36	2,721,612.87	36.331332	-107.838373	
800.0	0.70	321.30	799.9	5.1	4.8	1,939,910.05	2,721,612.47	36.331334	-107.838374	
861.0	0.70	308.70	860.9	5.6	4.3	1,939,910.57	2,721,611.95	36.331335	-107.838376	
923.0	0.70	289.50	922.9	6.0	3.6	1,939,910.94	2,721,611.30	36.331336	-107.838378	
984.0	0.70	304.10	983.9	6.3	2.9	1,939,911.27	2,721,610.64	36.331337	-107.838380	
1,045.0	0.70	283.80	1,044.9	6.6	2.3	1,939,911.57	2,721,609.97	36.331338	-107.838383	
1,106.0	0.30	24.40	1,105.9	6.8	2.0	1,939,911.80	2,721,609.67	36.331339	-107.838384	
1,167.0	0.30	63.60	1,166.9	7.1	2.2	1,939,912.02	2,721,609.88	36.331339	-107.838383	

CONFIDENTIAL

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,228.0	0.40	84.20	1,227.9	7.1	2.5	1,939,912.11	2,721,610.23	36.331340	-107.838382
1,289.0	0.70	32.80	1,288.9	7.5	3.0	1,939,912.44	2,721,610.65	36.331341	-107.838380
1,352.0	0.70	229.80	1,351.9	7.6	2.9	1,939,912.52	2,721,610.56	36.331341	-107.838381
1,415.0	0.40	250.60	1,414.9	7.2	2.4	1,939,912.20	2,721,610.06	36.331340	-107.838382
1,478.0	0.60	241.80	1,477.9	7.0	1.9	1,939,911.97	2,721,609.56	36.331339	-107.838384
1,541.0	0.40	232.00	1,540.9	6.7	1.4	1,939,911.68	2,721,609.10	36.331338	-107.838386
1,604.0	0.40	198.00	1,603.9	6.4	1.2	1,939,911.33	2,721,608.86	36.331338	-107.838386
1,667.0	0.40	141.00	1,666.9	6.0	1.2	1,939,910.95	2,721,608.93	36.331337	-107.838386
1,730.0	0.30	166.40	1,729.9	5.7	1.4	1,939,910.62	2,721,609.11	36.331336	-107.838385
1,793.0	0.60	260.20	1,792.9	5.4	1.1	1,939,910.41	2,721,608.82	36.331335	-107.838386
1,856.0	0.90	281.20	1,855.9	5.5	0.3	1,939,910.45	2,721,608.01	36.331335	-107.838389
1,919.0	1.10	288.30	1,918.9	5.8	-0.7	1,939,910.73	2,721,606.95	36.331336	-107.838393
1,982.0	0.80	275.70	1,981.9	6.0	-1.8	1,939,910.97	2,721,605.94	36.331337	-107.838396
2,045.0	0.70	281.90	2,044.9	6.1	-2.6	1,939,911.09	2,721,605.12	36.331337	-107.838399
2,108.0	0.70	277.30	2,107.9	6.3	-3.3	1,939,911.22	2,721,604.36	36.331337	-107.838402
2,171.0	0.90	289.90	2,170.9	6.5	-4.2	1,939,911.43	2,721,603.52	36.331338	-107.838404
2,234.0	0.50	211.10	2,233.9	6.4	-4.8	1,939,911.37	2,721,602.91	36.331338	-107.838407
2,297.0	0.60	207.70	2,296.9	5.9	-5.1	1,939,910.84	2,721,602.62	36.331336	-107.838408
2,360.0	0.70	155.60	2,359.9	5.2	-5.1	1,939,910.20	2,721,602.62	36.331334	-107.838407
2,423.0	0.50	141.60	2,422.8	4.7	-4.7	1,939,909.63	2,721,602.95	36.331333	-107.838406
2,486.0	0.50	147.60	2,485.8	4.2	-4.4	1,939,909.18	2,721,603.27	36.331332	-107.838405
2,549.0	0.70	154.60	2,548.8	3.6	-4.1	1,939,908.60	2,721,603.58	36.331330	-107.838404
2,612.0	0.90	165.30	2,611.8	2.8	-3.8	1,939,907.78	2,721,603.87	36.331328	-107.838403
2,675.0	0.90	162.00	2,674.8	1.9	-3.5	1,939,906.83	2,721,604.15	36.331325	-107.838402
2,738.0	0.90	172.40	2,737.8	0.9	-3.3	1,939,905.87	2,721,604.37	36.331323	-107.838402
2,801.0	0.90	171.80	2,800.8	-0.1	-3.2	1,939,904.89	2,721,604.50	36.331320	-107.838401
2,864.0	1.00	162.00	2,863.8	-1.1	-2.9	1,939,903.87	2,721,604.74	36.331317	-107.838400
2,927.0	0.80	178.50	2,926.8	-2.1	-2.8	1,939,902.91	2,721,604.93	36.331314	-107.838400
2,991.0	0.90	179.10	2,990.8	-3.0	-2.7	1,939,901.96	2,721,604.95	36.331312	-107.838400
3,054.0	1.10	190.70	3,053.8	-4.1	-2.9	1,939,900.87	2,721,604.84	36.331309	-107.838400
3,117.0	1.10	180.10	3,116.8	-5.3	-3.0	1,939,899.68	2,721,604.73	36.331306	-107.838400
3,180.0	0.80	176.80	3,179.8	-6.3	-2.9	1,939,898.63	2,721,604.75	36.331303	-107.838400
3,243.0	0.50	99.60	3,242.8	-6.8	-2.6	1,939,898.15	2,721,605.05	36.331301	-107.838399
3,306.0	0.50	112.30	3,305.8	-7.0	-2.1	1,939,898.00	2,721,605.57	36.331301	-107.838397
3,370.0	0.70	68.40	3,369.8	-6.9	-1.5	1,939,898.03	2,721,606.19	36.331301	-107.838395
3,433.0	0.40	49.40	3,432.7	-6.6	-1.0	1,939,898.32	2,721,606.72	36.331302	-107.838394
3,496.0	0.50	56.80	3,495.7	-6.4	-0.6	1,939,898.61	2,721,607.12	36.331303	-107.838392
3,559.0	0.40	65.10	3,558.7	-6.1	-0.1	1,939,898.86	2,721,607.54	36.331303	-107.838391
3,622.0	0.30	78.20	3,621.7	-6.0	0.2	1,939,898.98	2,721,607.91	36.331304	-107.838390
3,685.0	0.40	57.80	3,684.7	-5.8	0.6	1,939,899.13	2,721,608.25	36.331304	-107.838388
3,748.0	0.40	23.00	3,747.7	-5.5	0.8	1,939,899.45	2,721,608.53	36.331305	-107.838387
3,809.0	0.60	20.60	3,808.7	-5.0	1.0	1,939,899.95	2,721,608.72	36.331306	-107.838387
3,872.0	0.60	26.20	3,871.7	-4.4	1.3	1,939,900.55	2,721,608.98	36.331308	-107.838386
3,935.0	0.50	359.50	3,934.7	-3.8	1.4	1,939,901.12	2,721,609.13	36.331310	-107.838385
3,998.0	0.30	355.80	3,997.7	-3.4	1.4	1,939,901.56	2,721,609.11	36.331311	-107.838385
4,061.0	0.40	288.30	4,060.7	-3.2	1.2	1,939,901.80	2,721,608.89	36.331311	-107.838386
4,124.0	0.40	292.20	4,123.7	-3.0	0.8	1,939,901.95	2,721,608.48	36.331312	-107.838388
4,187.0	0.40	259.20	4,186.7	-3.0	0.4	1,939,901.99	2,721,608.06	36.331312	-107.838389
4,250.0	0.40	254.40	4,249.7	-3.1	-0.1	1,939,901.89	2,721,607.63	36.331312	-107.838390
4,313.0	0.30	329.10	4,312.7	-3.0	-0.4	1,939,901.97	2,721,607.33	36.331312	-107.838391
4,376.0	0.40	30.60	4,375.7	-2.7	-0.3	1,939,902.30	2,721,607.36	36.331313	-107.838391
4,440.0	0.50	65.80	4,439.7	-2.4	0.0	1,939,902.61	2,721,607.73	36.331314	-107.838390
4,502.0	0.20	345.90	4,501.7	-2.1	0.3	1,939,902.83	2,721,607.95	36.331314	-107.838389
4,565.0	0.20	343.20	4,564.7	-1.9	0.2	1,939,903.04	2,721,607.89	36.331315	-107.838390
4,628.0	0.20	243.30	4,627.7	-1.9	0.1	1,939,903.09	2,721,607.76	36.331315	-107.838390

CONFIDENTIAL

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,691.0	0.60	290.90	4,690.7	-1.8	-0.3	1,939,903.16	2,721,607.36	36.331315	-107.838391
4,754.0	0.40	239.00	4,753.7	-1.8	-0.8	1,939,903.17	2,721,606.86	36.331315	-107.838393
4,765.0	0.40	248.20	4,764.7	-1.8	-0.9	1,939,903.13	2,721,606.79	36.331315	-107.838393
4,809.0	0.90	295.20	4,808.7	-1.7	-1.4	1,939,903.22	2,721,606.34	36.331315	-107.838395
4,841.0	4.60	325.20	4,840.7	-0.6	-2.3	1,939,904.38	2,721,605.38	36.331318	-107.838398
4,872.0	9.00	330.80	4,871.4	2.6	-4.2	1,939,907.52	2,721,603.48	36.331327	-107.838405
4,904.0	12.20	332.10	4,902.9	7.7	-7.0	1,939,912.70	2,721,600.68	36.331341	-107.838414
4,935.0	15.40	335.70	4,933.0	14.4	-10.2	1,939,919.34	2,721,597.45	36.331360	-107.838425
4,967.0	18.90	340.10	4,963.6	23.1	-13.8	1,939,928.09	2,721,593.94	36.331384	-107.838437
4,998.0	22.20	345.20	4,992.6	33.5	-17.0	1,939,938.48	2,721,590.73	36.331412	-107.838448
5,030.0	24.20	350.30	5,022.0	45.8	-19.6	1,939,950.79	2,721,588.08	36.331446	-107.838457
5,061.0	26.00	353.80	5,050.1	58.8	-21.4	1,939,963.81	2,721,586.28	36.331482	-107.838463
5,092.0	26.00	349.30	5,077.9	72.3	-23.4	1,939,977.25	2,721,584.28	36.331519	-107.838470
5,124.0	26.10	341.00	5,106.7	85.8	-27.0	1,939,990.80	2,721,580.69	36.331556	-107.838482
5,155.0	27.90	332.10	5,134.3	98.7	-32.6	1,940,003.66	2,721,575.07	36.331591	-107.838501
5,187.0	30.70	323.80	5,162.2	111.9	-41.0	1,940,016.88	2,721,566.74	36.331627	-107.838529
5,219.0	32.80	319.00	5,189.5	125.0	-51.5	1,940,030.02	2,721,556.23	36.331664	-107.838565
5,251.0	34.70	313.90	5,216.1	137.9	-63.7	1,940,042.88	2,721,543.98	36.331699	-107.838607
5,282.0	36.50	309.00	5,241.3	149.8	-77.3	1,940,054.80	2,721,530.45	36.331732	-107.838653
5,314.0	38.20	304.90	5,266.7	161.5	-92.8	1,940,066.46	2,721,514.94	36.331764	-107.838705
5,345.0	40.00	305.50	5,290.8	172.8	-108.7	1,940,077.73	2,721,498.96	36.331795	-107.838759
5,377.0	42.30	304.20	5,314.9	184.8	-126.0	1,940,089.76	2,721,481.68	36.331828	-107.838818
5,408.0	44.10	300.80	5,337.5	196.2	-143.9	1,940,101.15	2,721,463.78	36.331859	-107.838879
5,440.0	46.70	297.30	5,359.9	207.2	-163.8	1,940,112.19	2,721,443.87	36.331889	-107.838947
5,471.0	49.30	293.00	5,380.7	217.0	-184.7	1,940,121.96	2,721,423.02	36.331916	-107.839017
5,503.0	52.40	289.70	5,400.9	226.0	-207.8	1,940,130.98	2,721,399.91	36.331941	-107.839096
5,535.0	55.60	288.40	5,419.7	234.4	-232.3	1,940,139.43	2,721,375.44	36.331964	-107.839179
5,566.0	58.30	287.60	5,436.6	242.5	-257.0	1,940,147.45	2,721,350.73	36.331986	-107.839263
5,598.0	61.00	287.10	5,452.8	250.7	-283.3	1,940,155.69	2,721,324.37	36.332009	-107.839352
5,629.0	63.90	287.20	5,467.1	258.8	-309.6	1,940,163.79	2,721,298.11	36.332031	-107.839441
5,661.0	66.80	287.20	5,480.5	267.4	-337.4	1,940,172.39	2,721,270.33	36.332055	-107.839536
5,692.0	69.80	286.30	5,491.9	275.7	-365.0	1,940,180.69	2,721,242.76	36.332077	-107.839629
5,723.0	72.60	285.70	5,501.9	283.8	-393.2	1,940,188.78	2,721,214.55	36.332100	-107.839725
5,755.0	75.50	284.50	5,510.7	291.8	-422.9	1,940,196.79	2,721,184.85	36.332122	-107.839826
5,786.0	78.10	282.40	5,517.8	298.8	-452.2	1,940,203.81	2,721,155.50	36.332141	-107.839926
5,816.0	80.60	280.70	5,523.3	304.7	-481.1	1,940,209.71	2,721,126.62	36.332157	-107.840024
5,855.0	83.80	277.50	5,528.6	310.8	-519.2	1,940,215.82	2,721,088.47	36.332174	-107.840153
5,886.0	85.60	275.60	5,531.5	314.3	-549.9	1,940,219.34	2,721,057.81	36.332184	-107.840257
5,916.0	86.10	274.70	5,533.7	317.0	-579.7	1,940,222.03	2,721,028.01	36.332191	-107.840358
5,947.0	86.90	274.10	5,535.5	319.4	-610.6	1,940,224.41	2,720,997.16	36.332197	-107.840463
5,977.0	88.10	273.20	5,536.9	321.3	-640.5	1,940,226.32	2,720,967.25	36.332203	-107.840565
6,007.0	89.20	273.10	5,537.6	323.0	-670.4	1,940,227.96	2,720,937.30	36.332207	-107.840666
6,068.0	90.50	271.60	5,537.7	325.5	-731.4	1,940,230.47	2,720,876.36	36.332214	-107.840873
6,129.0	90.90	270.20	5,537.0	326.4	-792.3	1,940,231.43	2,720,815.37	36.332217	-107.841080
6,190.0	90.30	270.20	5,536.3	326.6	-853.3	1,940,231.65	2,720,754.38	36.332217	-107.841287
6,250.0	90.80	268.90	5,535.8	326.2	-913.3	1,940,231.18	2,720,694.38	36.332216	-107.841491
6,311.0	90.70	268.70	5,535.0	324.9	-974.3	1,940,229.90	2,720,633.40	36.332212	-107.841698
6,372.0	90.50	268.30	5,534.3	323.3	-1,035.3	1,940,228.31	2,720,572.43	36.332208	-107.841905
6,433.0	90.70	268.50	5,533.7	321.6	-1,096.3	1,940,226.61	2,720,511.45	36.332203	-107.842112
6,494.0	91.20	269.60	5,532.7	320.6	-1,157.2	1,940,225.60	2,720,450.47	36.332201	-107.842319
6,557.0	90.90	269.80	5,531.5	320.2	-1,220.2	1,940,225.28	2,720,387.48	36.332200	-107.842533
6,620.0	89.60	269.40	5,531.2	319.8	-1,283.2	1,940,224.84	2,720,324.49	36.332199	-107.842747
6,683.0	90.20	268.70	5,531.4	318.8	-1,346.2	1,940,223.80	2,720,261.50	36.332196	-107.842961
6,746.0	90.40	269.80	5,531.0	317.9	-1,409.2	1,940,222.98	2,720,198.50	36.332193	-107.843175
6,809.0	89.90	269.10	5,530.9	317.3	-1,472.2	1,940,222.38	2,720,135.51	36.332192	-107.843389

CONFIDENTIAL

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,872.0	90.20	269.40	5,530.8	316.5	-1,535.2	1,940,221.55	2,720,072.51	36.332189	-107.843602
6,935.0	90.10	269.90	5,530.6	316.1	-1,598.2	1,940,221.17	2,720,009.51	36.332188	-107.843816
6,998.0	90.30	270.70	5,530.4	316.5	-1,661.2	1,940,221.51	2,719,946.52	36.332189	-107.844030
7,060.0	90.10	270.60	5,530.2	317.2	-1,723.2	1,940,222.21	2,719,884.52	36.332191	-107.844241
7,124.0	90.00	270.60	5,530.1	317.8	-1,787.2	1,940,222.89	2,719,820.52	36.332193	-107.844458
7,187.0	90.40	270.10	5,529.9	318.2	-1,850.2	1,940,223.27	2,719,757.52	36.332194	-107.844672
7,249.0	91.50	270.20	5,528.9	318.4	-1,912.2	1,940,223.44	2,719,695.53	36.332194	-107.844882
7,313.0	91.10	270.70	5,527.4	318.9	-1,976.2	1,940,223.95	2,719,631.55	36.332196	-107.845100
7,376.0	90.40	270.80	5,526.6	319.7	-2,039.1	1,940,224.77	2,719,568.56	36.332198	-107.845313
7,439.0	90.70	269.90	5,526.0	320.1	-2,102.1	1,940,225.16	2,719,505.57	36.332199	-107.845527
7,502.0	90.40	269.60	5,525.4	319.8	-2,165.1	1,940,224.89	2,719,442.57	36.332198	-107.845741
7,565.0	90.60	268.70	5,524.9	318.9	-2,228.1	1,940,223.96	2,719,379.58	36.332196	-107.845955
7,628.0	90.90	268.70	5,524.0	317.4	-2,291.1	1,940,222.53	2,719,316.60	36.332192	-107.846169
7,691.0	90.70	269.30	5,523.2	316.3	-2,354.1	1,940,221.44	2,719,253.62	36.332189	-107.846383
7,754.0	90.90	270.40	5,522.3	316.2	-2,417.1	1,940,221.28	2,719,190.63	36.332188	-107.846596
7,817.0	89.80	270.40	5,521.9	316.6	-2,480.1	1,940,221.72	2,719,127.63	36.332190	-107.846810
7,879.0	90.40	270.20	5,521.8	316.9	-2,542.1	1,940,222.05	2,719,065.63	36.332190	-107.847021
7,942.0	90.30	270.40	5,521.4	317.3	-2,605.1	1,940,222.38	2,719,002.64	36.332191	-107.847235
8,005.0	89.80	270.40	5,521.3	317.7	-2,668.1	1,940,222.82	2,718,939.64	36.332192	-107.847449
8,068.0	90.70	270.40	5,521.1	318.2	-2,731.1	1,940,223.27	2,718,876.64	36.332194	-107.847663
8,131.0	89.70	270.20	5,520.9	318.5	-2,794.1	1,940,223.60	2,718,813.64	36.332195	-107.847876
8,194.0	90.10	269.00	5,521.0	318.0	-2,857.1	1,940,223.16	2,718,750.64	36.332193	-107.848090
8,257.0	90.80	270.30	5,520.5	317.7	-2,920.1	1,940,222.78	2,718,687.65	36.332192	-107.848304
8,320.0	88.60	269.50	5,520.8	317.6	-2,983.1	1,940,222.67	2,718,624.65	36.332192	-107.848518
8,384.0	90.00	270.20	5,521.6	317.4	-3,047.0	1,940,222.51	2,718,560.66	36.332191	-107.848735
8,447.0	90.00	269.40	5,521.6	317.2	-3,110.0	1,940,222.29	2,718,497.66	36.332191	-107.848949
8,510.0	91.60	269.40	5,520.7	316.5	-3,173.0	1,940,221.64	2,718,434.67	36.332189	-107.849163
8,573.0	91.60	270.70	5,518.9	316.6	-3,236.0	1,940,221.70	2,718,371.70	36.332189	-107.849377
8,636.0	90.50	270.20	5,517.8	317.1	-3,299.0	1,940,222.19	2,718,308.71	36.332190	-107.849591
8,699.0	90.60	270.40	5,517.2	317.4	-3,362.0	1,940,222.53	2,718,245.72	36.332191	-107.849805
8,762.0	91.00	270.00	5,516.3	317.6	-3,425.0	1,940,222.75	2,718,182.72	36.332192	-107.850018
8,825.0	91.50	270.90	5,514.9	318.1	-3,488.0	1,940,223.25	2,718,119.74	36.332193	-107.850232
8,887.0	90.60	270.80	5,513.8	319.0	-3,550.0	1,940,224.17	2,718,057.76	36.332196	-107.850443
8,951.0	89.20	270.60	5,513.9	319.8	-3,613.9	1,940,224.96	2,717,993.77	36.332198	-107.850660
9,014.0	89.90	270.20	5,514.4	320.2	-3,676.9	1,940,225.40	2,717,930.77	36.332199	-107.850874
9,077.0	91.00	269.70	5,513.9	320.2	-3,739.9	1,940,225.35	2,717,867.77	36.332199	-107.851088
9,140.0	90.00	269.40	5,513.4	319.7	-3,802.9	1,940,224.86	2,717,804.78	36.332198	-107.851302
9,203.0	89.20	269.00	5,513.8	318.8	-3,865.9	1,940,223.98	2,717,741.79	36.332195	-107.851515
9,266.0	89.80	268.70	5,514.3	317.5	-3,928.9	1,940,222.72	2,717,678.80	36.332192	-107.851729
9,329.0	90.10	270.60	5,514.4	317.2	-3,991.9	1,940,222.34	2,717,615.81	36.332191	-107.851943
9,392.0	90.30	269.70	5,514.2	317.3	-4,054.9	1,940,222.50	2,717,552.79	36.332191	-107.852157
9,455.0	90.60	270.40	5,513.7	317.4	-4,117.9	1,940,222.56	2,717,489.79	36.332191	-107.852371
9,518.0	90.00	270.90	5,513.4	318.1	-4,180.9	1,940,223.28	2,717,426.80	36.332193	-107.852585
9,581.0	90.00	270.60	5,513.4	318.9	-4,243.9	1,940,224.11	2,717,363.80	36.332195	-107.852799
9,644.0	89.30	269.90	5,513.7	319.2	-4,306.9	1,940,224.39	2,717,300.80	36.332196	-107.853013
9,707.0	90.70	270.00	5,513.7	319.1	-4,369.9	1,940,224.34	2,717,237.81	36.332196	-107.853227
9,770.0	90.80	270.20	5,512.9	319.3	-4,432.9	1,940,224.45	2,717,174.81	36.332196	-107.853440
9,833.0	89.90	269.90	5,512.5	319.3	-4,495.9	1,940,224.51	2,717,111.81	36.332196	-107.853654
9,896.0	91.00	269.70	5,512.0	319.1	-4,558.9	1,940,224.29	2,717,048.82	36.332196	-107.853868
9,959.0	90.40	269.00	5,511.3	318.4	-4,621.9	1,940,223.58	2,716,985.83	36.332194	-107.854082
10,021.0	90.10	269.50	5,511.0	317.6	-4,683.9	1,940,222.77	2,716,923.83	36.332191	-107.854292
10,084.0	91.40	269.70	5,510.2	317.1	-4,746.9	1,940,222.33	2,716,860.84	36.332190	-107.854506
10,147.0	91.10	268.90	5,508.8	316.4	-4,809.8	1,940,221.57	2,716,797.86	36.332188	-107.854720
10,211.0	91.00	269.10	5,507.6	315.2	-4,873.8	1,940,220.45	2,716,733.88	36.332185	-107.854937
10,274.0	90.40	268.70	5,506.9	314.0	-4,936.8	1,940,219.25	2,716,670.90	36.332182	-107.855151

Cathedral Energy Services
Survey Report - Geographic

CONFIDENTIAL

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S7- T24N-R9W
Well: Escrito E07-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito E07-2409 01H
TVD Reference: KBE @ 6892.0ft (Aztec 950)
MD Reference: KBE @ 6892.0ft (Aztec 950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10,337.0	91.20	270.20	5,506.0	313.4	-4,999.8	1,940,218.65	2,716,607.91	36.332180	-107.855365
10,425.0	91.90	270.70	5,503.6	314.1	-5,087.7	1,940,219.34	2,716,519.96	36.332182	-107.855664
Last CES Survey @ 10,425' MD									
10,470.0	91.90	270.70	5,502.1	314.7	-5,132.7	1,940,219.89	2,716,474.99	36.332183	-107.855816
PTB @ 10,470'									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Escrito E07-2409 01H P	0.00	0.00	5,500.2	317.2	-5,133.9	1,940,222.41	2,716,473.83	36.332190	-107.855820
- actual wellpath misses target center by 3.4ft at 10470.0ft MD (5502.1 TVD, 314.7 N, -5132.7 E)									
- Point									
Escrito E07-2409 01H P	0.00	0.00	5,544.8	316.7	-595.0	1,940,221.72	2,721,012.73	36.332190	-107.840410
- actual wellpath misses target center by 10.3ft at 5931.9ft MD (5534.7 TVD, 318.3 N, -595.5 E)									
- Point									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,425.0	5,503.6	314.1	-5,087.7	Last CES Survey @ 10,425' MD
10,470.0	5,502.1	314.7	-5,132.7	PTB @ 10,470'

Checked By: _____ Approved By: _____ Date: _____