

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

CONFIDENTIAL

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35583	² Pool Code 98080	³ Pool Name NAGEEZI UNIT HZ (OIL)
⁴ Property Code 313584	⁵ Property Name NAGEEZI UNIT D34-2409Y	⁶ Well Number 03H
⁷ GRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 6857'

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
D	34	24N	9W		1136	NORTH	523	WEST	SAN JUAN

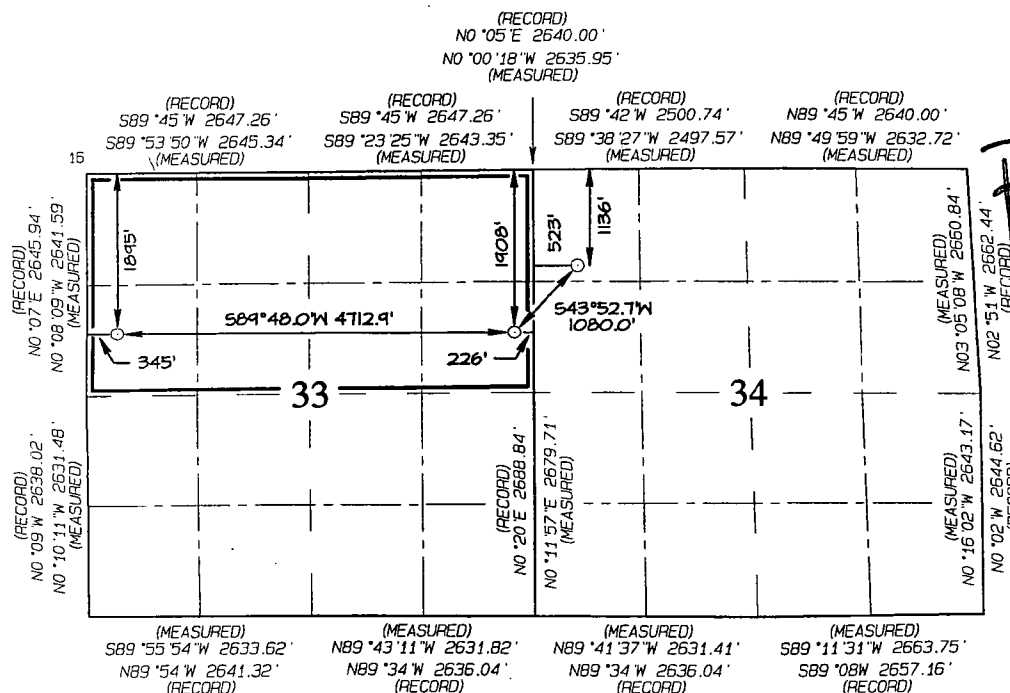
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	33	24N	9W		1895	NORTH	345	WEST	SAN JUAN

¹² Dedicated Acres 320.0 Acres N/2 Section 33	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13856 9,135.51 Acres
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RCVD OCT 15 '14

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
OIL CON. DIV.
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 10/13/14

Brenda R. Linster

Printed Name

Brenda.Linster@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: OCTOBER 1, 2014

Date of Survey: JULY 23, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

END-OF-LATERAL
1895' FNL 345' FWL
SECTION 33, T24N, R9W
LAT: 36.272532°N
LONG: 107.801498°W
DATUM: NAD1927

POINT-OF-ENTRY
1908' FNL 226' FEL
SECTION 33, T24N, R9W
LAT: 36.272572°N
LONG: 107.785510°W
DATUM: NAD1927

SURFACE LOCATION
1136' FNL 523' FWL
SECTION 34, T24N, R9W
LAT: 36.274709°N
LONG: 107.782969°W
DATUM: NAD1927

LAT: 36.272544°N
LONG: 107.802113°W
DATUM: NAD1983

LAT: 36.272584°N
LONG: 107.786124°W
DATUM: NAD1983

LAT: 36.274721°N
LONG: 107.783583°W
DATUM: NAD1983

fv

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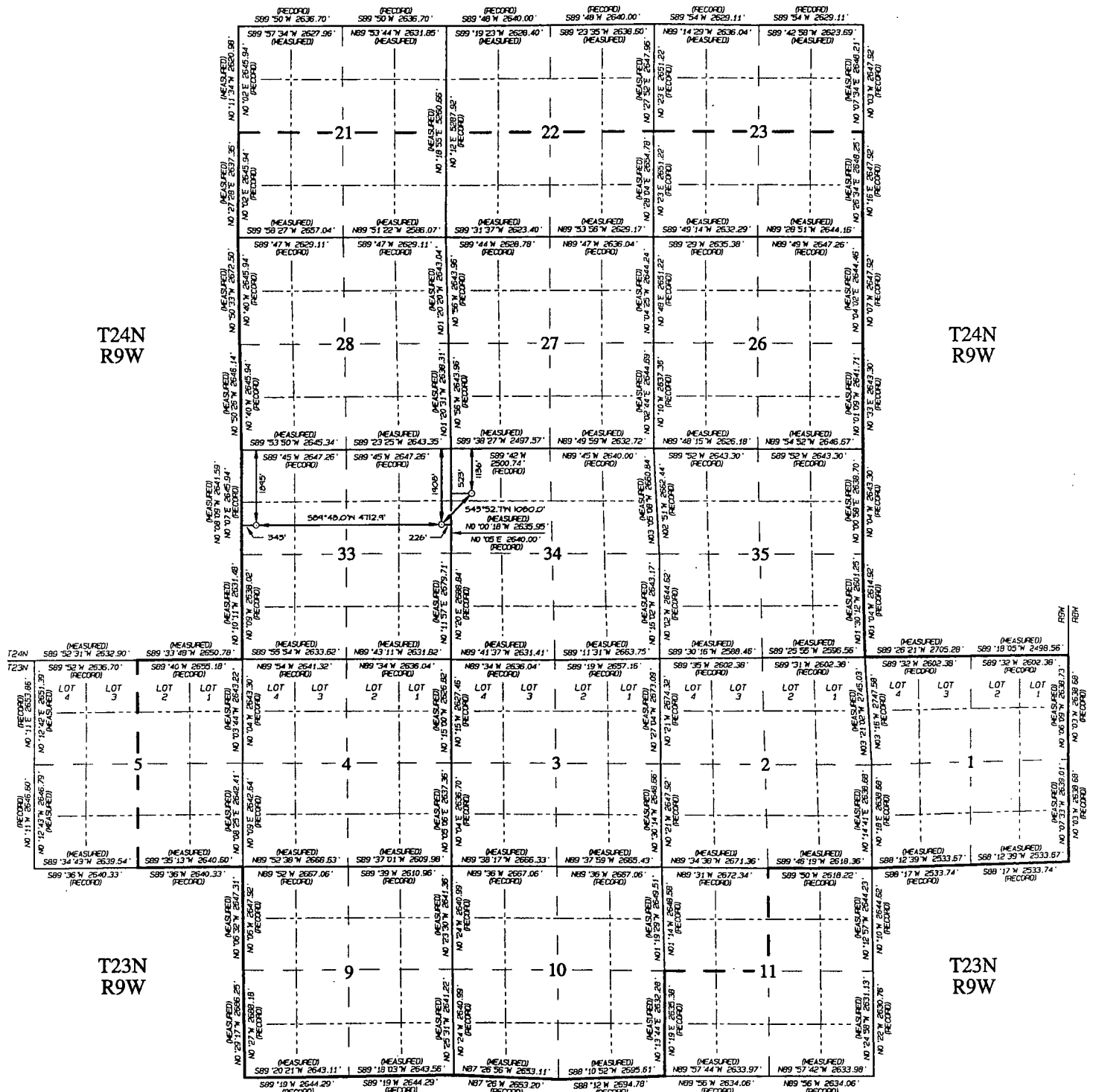
State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
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OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT



END-OF-LATERAL
1895' FNL 345' FNL
SECTION 33, T24N, R9W
LAT: 36.272532° N
LONG: 107.801498° W
DATUM: NAD1983

POINT-OF-ENTRY
1895' FNL 225' FNL
SECTION 33, T24N, R9W
LAT: 36.272572° N
LONG: 107.783510° W
DATUM: NAD1983

SURFACE LOCATION
1136' FNL 523' FNL
SECTION 34, T24N, R9W
LAT: 36.274709° N
LONG: 107.782969° W
DATUM: NAD1983

DEVIATION SURVEYS
Well Name: Nageezi Unit D34-2409Y 03H
API: 30-045-35583

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
306'	0.90
598'	0.10
913'	0.20
1229'	0.20
1545'	0.10
1861'	0.10
2177'	0.10
2493'	0.20
2809'	1.20
3125'	5.20

DIST. 3
RCVD OCT 15 '14

OIL CONS. DIV.

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

10/13/14
Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 13th day of October, 2014
by Cristi Bauer as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said
corporation.

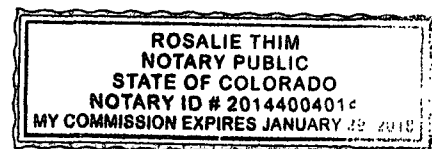
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

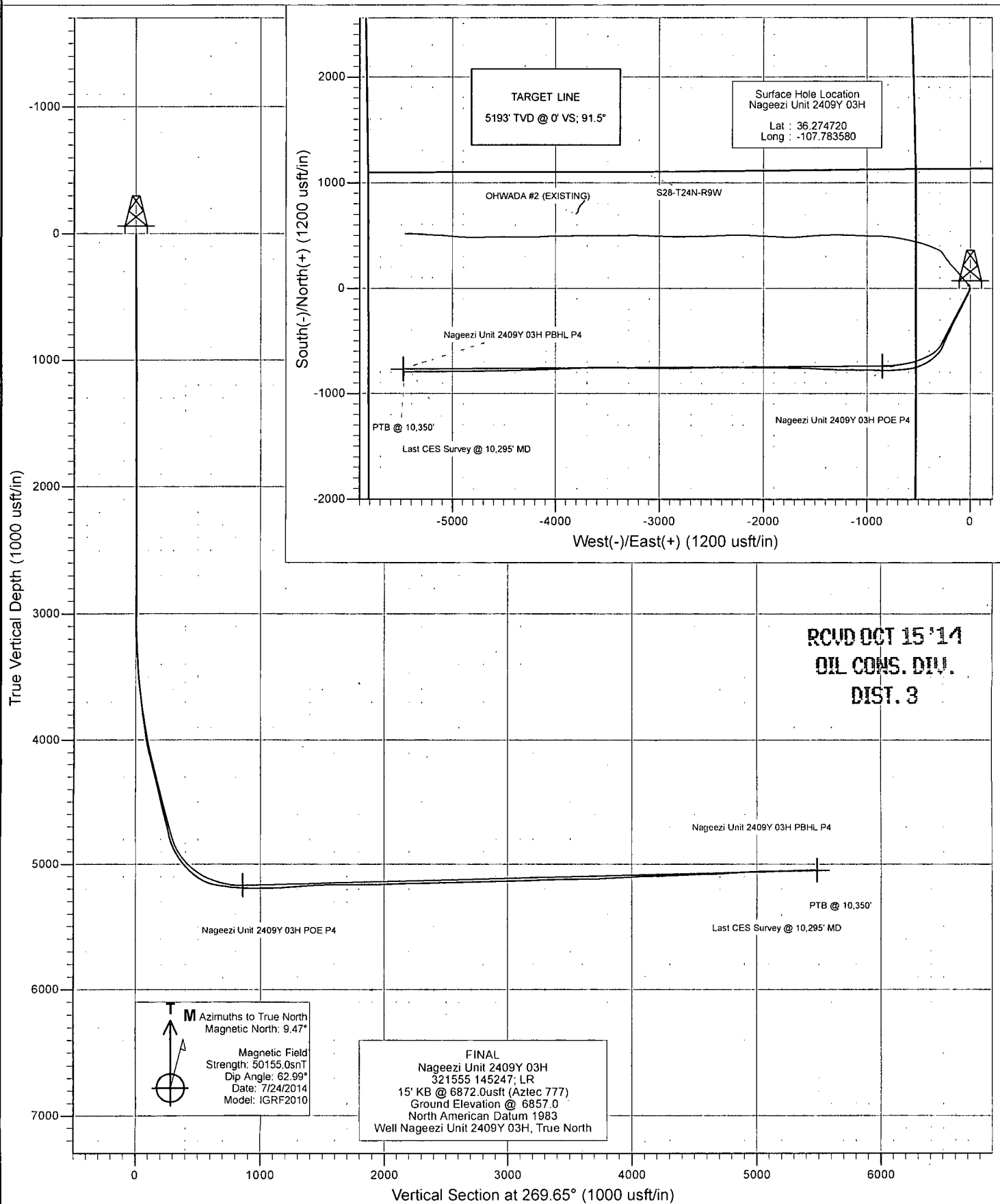
My Commission Expires:

1/29/18



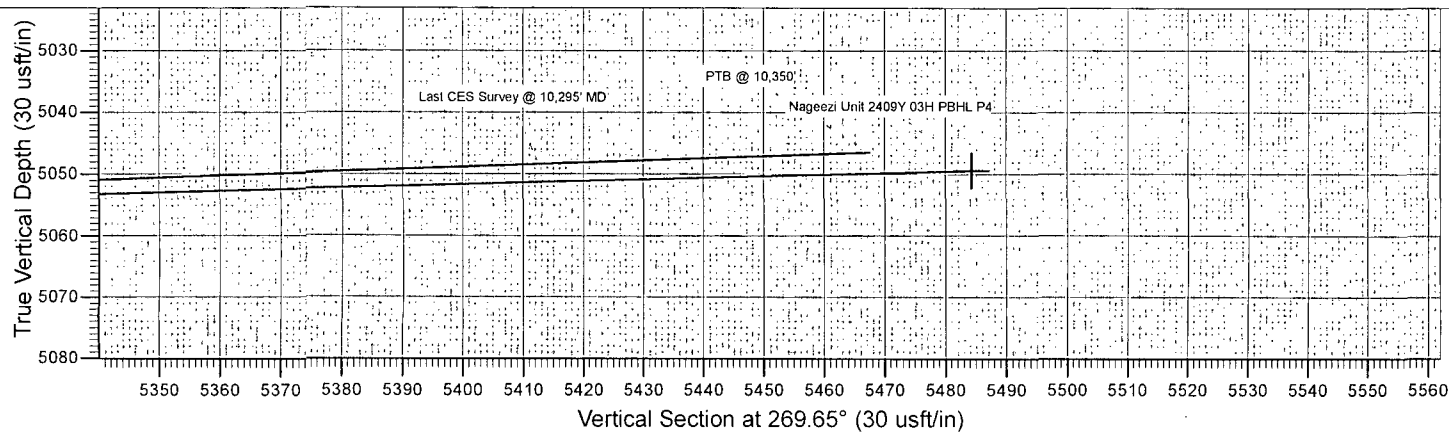
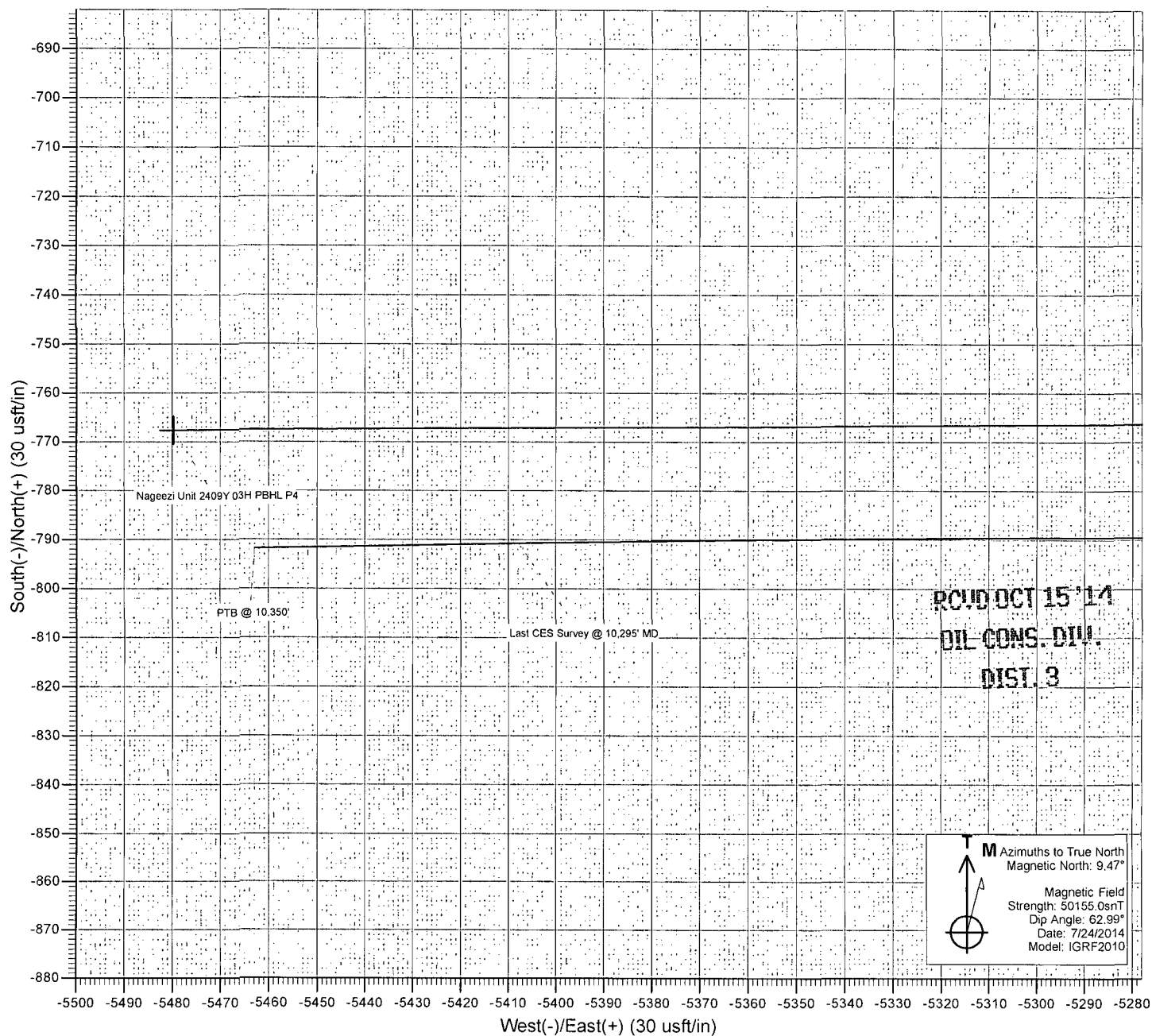
encana

Project: San Juan County, NM
Site: S34-T24N-R9W (Escrito)
Well: Nageezi Unit 2409Y 03H
Wellbore: Hz
Design: FINAL





Project: San Juan County, NM
Site: S34-T24N-R9W (Escrito)
Well: Nageezi Unit 2409Y 03H
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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

Site		S34-T24N-R9W (Escrito)			
Site Position:		Northing:	1,919,326.42 usft	Latitude:	36.274790
From:	Lat/Long	Easting:	2,737,742.11 usft	Longitude:	-107.783630
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.03 °

Well	Nageezi Unit 2409Y 03H					
Well Position	+N/-S	0.0 usft	Northing:	1,919,300.94 usft	Latitude:	36.274720
	+E/-W	0.0 usft	Easting:	2,737,756.87 usft	Longitude:	-107.783580
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,857.0 usft	

Wellbore		Hz			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/24/2014	9.47	62.99	50,155

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	269.65	

Survey Program		Date 8/26/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
116.0	10,350.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
116.0	0.40	272.40	116.0	0.0	-0.4	0.4	0.34	0.34	
180.0	0.90	283.80	180.0	0.1	-1.1	1.1	0.80	0.78	
243.0	0.80	270.10	243.0	0.3	-2.0	2.0	0.36	-0.16	
306.0	0.90	289.70	306.0	0.4	-2.9	2.9	0.49	0.16	
369.0	1.00	252.30	369.0	0.4	-3.9	3.9	0.98	0.16	
432.0	1.00	213.00	432.0	-0.2	-4.8	4.8	1.07	0.00	
461.0	1.10	216.30	461.0	-0.6	-5.1	5.1	0.40	0.34	
534.0	1.20	204.80	533.9	-1.9	-5.8	5.8	0.34	0.14	
598.0	0.10	101.10	597.9	-2.5	-6.0	6.0	1.92	-1.72	
661.0	0.10	318.00	660.9	-2.5	-6.0	6.0	0.30	0.00	
724.0	0.20	264.30	723.9	-2.5	-6.1	6.2	0.26	0.16	
787.0	0.30	248.80	786.9	-2.5	-6.4	6.4	0.19	0.16	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
850.0	0.30	302.90	849.9	-2.5	-6.7	6.7	0.43	0.00	
913.0	0.20	315.20	912.9	-2.3	-6.9	6.9	0.18	-0.16	
977.0	0.20	358.50	976.9	-2.1	-7.0	7.0	0.23	0.00	
1,040.0	0.20	12.90	1,039.9	-1.9	-7.0	7.0	0.08	0.00	
1,103.0	0.10	279.50	1,102.9	-1.8	-7.0	7.0	0.36	-0.16	
1,166.0	0.30	259.70	1,165.9	-1.8	-7.2	7.2	0.33	0.32	
1,229.0	0.20	270.70	1,228.9	-1.8	-7.5	7.5	0.18	-0.16	
1,293.0	0.40	94.70	1,292.9	-1.9	-7.4	7.4	0.94	0.31	
1,356.0	0.40	90.70	1,355.9	-1.9	-6.9	7.0	0.04	0.00	
1,419.0	0.50	81.40	1,418.9	-1.8	-6.5	6.5	0.20	0.16	
1,482.0	0.20	45.30	1,481.9	-1.7	-6.1	6.1	0.57	-0.48	
1,545.0	0.10	7.80	1,544.9	-1.6	-6.0	6.0	0.21	-0.16	
1,608.0	0.10	10.10	1,607.9	-1.5	-6.0	6.0	0.01	0.00	
1,671.0	0.20	45.50	1,670.9	-1.4	-5.9	5.9	0.21	0.16	
1,735.0	0.10	49.00	1,734.9	-1.2	-5.8	5.8	0.16	-0.16	
1,798.0	0.10	152.70	1,797.9	-1.3	-5.7	5.7	0.25	0.00	
1,861.0	0.10	227.20	1,860.9	-1.3	-5.7	5.7	0.19	0.00	
1,924.0	0.40	183.80	1,923.9	-1.6	-5.8	5.8	0.53	0.48	
1,987.0	0.50	207.00	1,986.9	-2.1	-5.9	5.9	0.33	0.16	
2,050.0	0.40	195.00	2,049.9	-2.5	-6.1	6.1	0.22	-0.16	
2,114.0	0.40	222.40	2,113.9	-2.9	-6.3	6.3	0.30	0.00	
2,177.0	0.10	273.80	2,176.9	-3.1	-6.5	6.5	0.55	-0.48	
2,240.0	0.50	5.10	2,239.9	-2.8	-6.6	6.6	0.81	0.63	
2,303.0	0.20	351.50	2,302.9	-2.4	-6.6	6.6	0.49	-0.48	
2,366.0	0.30	338.20	2,365.9	-2.1	-6.6	6.6	0.18	0.16	
2,430.0	0.30	343.30	2,429.9	-1.8	-6.7	6.8	0.04	0.00	
2,493.0	0.20	308.90	2,492.9	-1.6	-6.9	6.9	0.28	-0.16	
2,556.0	0.30	307.40	2,555.9	-1.4	-7.1	7.1	0.16	0.16	
2,619.0	0.30	287.90	2,618.9	-1.3	-7.4	7.4	0.16	0.00	
2,682.0	1.00	8.10	2,681.9	-0.7	-7.5	7.5	1.58	1.11	
2,745.0	1.20	30.30	2,744.9	0.4	-7.0	7.0	0.74	0.32	
2,809.0	1.20	29.00	2,808.9	1.6	-6.4	6.4	0.04	0.00	
2,872.0	1.10	24.20	2,871.9	2.7	-5.8	5.8	0.22	-0.16	
2,935.0	0.70	9.50	2,934.9	3.7	-5.5	5.5	0.73	-0.63	
2,998.0	0.50	140.60	2,997.9	3.8	-5.3	5.2	1.74	-0.32	
3,062.0	3.60	179.10	3,061.8	1.6	-5.1	5.0	5.04	4.84	
3,125.0	5.20	198.20	3,124.6	-3.1	-5.9	5.9	3.41	2.54	
3,188.0	5.80	203.00	3,187.3	-8.7	-8.1	8.1	1.20	0.95	
3,251.0	7.10	195.20	3,249.9	-15.4	-10.3	10.4	2.48	2.06	
3,315.0	8.80	194.20	3,313.3	-24.0	-12.6	12.7	2.66	2.66	
3,378.0	10.20	194.10	3,375.5	-34.1	-15.1	15.3	2.22	2.22	
3,441.0	10.80	198.30	3,437.4	-45.1	-18.3	18.6	1.54	0.95	
3,504.0	11.80	205.80	3,499.2	-56.5	-23.0	23.3	2.82	1.59	
3,568.0	12.60	211.60	3,561.7	-68.3	-29.5	29.9	2.29	1.25	
3,631.0	12.60	212.20	3,623.2	-80.0	-36.7	37.2	0.21	0.00	
3,694.0	13.40	207.20	3,684.6	-92.3	-43.7	44.3	2.19	1.27	
3,757.0	14.50	205.60	3,745.8	-105.9	-50.5	51.1	1.85	1.75	
3,820.0	16.30	205.80	3,806.5	-121.0	-57.7	58.5	2.86	2.86	
3,884.0	16.90	207.80	3,867.8	-137.3	-66.0	66.8	1.29	0.94	
3,947.0	17.30	206.50	3,928.0	-153.8	-74.4	75.4	0.88	0.63	
4,010.0	20.20	205.60	3,987.7	-172.0	-83.3	84.4	4.63	4.60	
4,073.0	24.80	207.70	4,045.9	-193.5	-94.2	95.3	7.41	7.30	
4,136.0	26.80	207.70	4,102.6	-217.8	-106.9	108.2	3.17	3.17	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
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Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
4,200.0	28.20	204.40	4,159.4	-244.3	-119.9	121.4	3.23	2.19	
4,263.0	28.10	207.60	4,214.9	-271.0	-132.9	134.5	2.40	-0.16	
4,326.0	27.50	208.20	4,270.6	-297.0	-146.6	148.4	1.05	-0.95	
4,389.0	28.00	206.60	4,326.4	-323.0	-160.1	162.1	1.42	0.79	
4,453.0	29.00	205.10	4,382.6	-350.5	-173.4	175.6	1.92	1.56	
4,516.0	28.80	207.00	4,437.8	-377.9	-186.8	189.1	1.49	-0.32	
4,579.0	26.60	205.90	4,493.6	-404.1	-199.9	202.3	3.59	-3.49	
4,642.0	27.00	205.80	4,549.8	-429.6	-212.2	214.9	0.64	0.63	
4,705.0	28.90	207.50	4,605.5	-456.0	-225.5	228.3	3.27	3.02	
4,768.0	30.40	207.30	4,660.2	-483.7	-239.8	242.8	2.39	2.38	
4,832.0	29.20	204.60	4,715.8	-512.3	-253.8	256.9	2.81	-1.87	
4,863.0	29.50	199.40	4,742.8	-526.4	-259.4	262.7	8.28	0.97	
4,895.0	30.80	200.10	4,770.4	-541.5	-264.9	268.2	4.21	4.06	
4,926.0	32.60	204.60	4,796.8	-556.5	-271.1	274.5	9.58	5.81	
4,958.0	34.90	208.00	4,823.4	-572.5	-279.0	282.5	9.30	7.19	
4,990.0	36.00	214.90	4,849.5	-588.3	-288.7	292.2	12.96	3.44	
5,021.0	37.60	217.20	4,874.3	-603.3	-299.6	303.3	6.81	5.16	
5,053.0	39.00	221.20	4,899.4	-618.6	-312.1	315.9	8.90	4.37	
5,084.0	39.80	226.00	4,923.4	-632.9	-325.7	329.6	10.16	2.58	
5,117.0	40.10	229.90	4,948.7	-647.0	-341.4	345.4	7.64	0.91	
5,149.0	42.20	232.50	4,972.8	-660.2	-357.8	361.9	8.46	6.56	
5,180.0	44.70	231.80	4,995.3	-673.3	-374.7	378.8	8.21	8.06	
5,212.0	47.10	235.20	5,017.6	-687.0	-393.1	397.3	10.70	7.50	
5,244.0	48.80	238.40	5,039.0	-700.0	-413.0	417.3	9.13	5.31	
5,275.0	50.60	241.20	5,059.1	-711.8	-433.5	437.8	9.01	5.81	
5,306.0	52.00	243.30	5,078.5	-723.1	-454.9	459.3	6.95	4.52	
5,338.0	54.50	247.50	5,097.6	-733.8	-478.2	482.6	13.10	7.81	
5,370.0	58.50	250.40	5,115.3	-743.3	-503.1	507.6	14.60	12.50	
5,401.0	62.80	254.70	5,130.5	-751.4	-528.8	533.4	18.40	13.87	
5,433.0	67.10	259.30	5,144.0	-757.9	-557.1	561.7	18.71	13.44	
5,464.0	71.60	262.80	5,154.9	-762.4	-585.7	590.4	17.96	14.52	
5,494.0	76.20	263.40	5,163.3	-765.9	-614.3	619.0	15.45	15.33	
5,525.0	79.30	264.30	5,169.8	-769.1	-644.4	649.1	10.39	10.00	
5,555.0	81.70	264.30	5,174.8	-772.0	-673.9	678.6	8.00	8.00	
5,585.0	82.10	265.40	5,179.0	-774.7	-703.5	708.2	3.87	1.33	
5,615.0	82.60	266.50	5,183.0	-776.8	-733.1	737.8	4.00	1.67	
5,646.0	84.20	267.70	5,186.6	-778.4	-763.9	768.6	6.44	5.16	
5,676.0	85.50	269.40	5,189.3	-779.1	-793.7	798.5	7.12	4.33	
5,706.0	86.20	270.00	5,191.4	-779.3	-823.7	828.4	3.07	2.33	
5,736.0	87.30	270.80	5,193.1	-779.1	-853.6	858.3	4.53	3.67	
5,737.9	87.42	270.86	5,193.2	-779.0	-855.5	860.2	6.93	6.13	Nageezi Unit 2409Y 03H POE P5
5,767.0	89.20	271.80	5,194.1	-778.4	-884.6	889.3	6.93	6.13	
5,797.0	88.40	271.20	5,194.7	-777.6	-914.6	919.3	3.33	-2.67	
5,828.0	90.20	271.30	5,195.1	-776.9	-945.6	950.3	5.82	5.81	
5,858.0	92.10	271.50	5,194.5	-776.2	-975.5	980.3	6.37	6.33	
5,918.0	91.20	270.80	5,192.8	-775.0	-1,035.5	1,040.2	1.90	-1.50	
5,979.0	90.50	269.50	5,191.9	-774.8	-1,096.5	1,101.2	2.42	-1.15	
6,039.0	92.80	269.50	5,190.1	-775.3	-1,156.5	1,161.2	3.83	3.83	
6,101.0	93.40	270.80	5,186.8	-775.2	-1,216.4	1,223.1	2.31	0.97	
6,162.0	94.30	273.10	5,182.7	-773.1	-1,279.2	1,283.9	4.04	1.48	
6,223.0	94.50	273.20	5,178.0	-769.8	-1,339.9	1,344.6	0.37	0.33	
6,284.0	93.70	272.60	5,173.6	-766.7	-1,400.7	1,405.3	1.64	-1.31	
6,345.0	92.30	272.00	5,170.4	-764.2	-1,461.5	1,466.2	2.50	-2.30	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,406.0	91.00	272.30	5,168.7	-761.9	-1,522.5	1,527.1	2.19	-2.13	
6,466.0	91.20	272.30	5,167.5	-759.5	-1,582.4	1,587.0	0.33	0.33	
6,526.0	90.30	272.30	5,166.7	-757.1	-1,642.4	1,647.0	1.50	-1.50	
6,586.0	89.60	271.70	5,166.8	-755.0	-1,702.3	1,706.9	1.54	-1.17	
6,647.0	90.30	270.60	5,166.9	-753.8	-1,763.3	1,767.9	2.14	1.15	
6,710.0	90.80	270.20	5,166.2	-753.4	-1,826.3	1,830.9	1.02	0.79	
6,773.0	90.60	269.70	5,165.5	-753.4	-1,889.3	1,893.9	0.85	-0.32	
6,837.0	91.90	270.20	5,164.1	-753.5	-1,953.3	1,957.9	2.18	2.03	
6,900.0	91.50	270.80	5,162.2	-752.9	-2,016.3	2,020.8	1.14	-0.63	
6,963.0	91.60	271.00	5,160.5	-751.9	-2,079.2	2,083.8	0.35	0.16	
7,026.0	92.00	271.00	5,158.5	-750.8	-2,142.2	2,146.7	0.63	0.63	
7,089.0	91.00	269.80	5,156.9	-750.4	-2,205.2	2,209.7	2.48	-1.59	
7,152.0	91.30	269.70	5,155.6	-750.7	-2,268.1	2,272.7	0.50	0.48	
7,215.0	92.00	270.10	5,153.8	-750.8	-2,331.1	2,335.7	1.28	1.11	
7,278.0	91.40	270.50	5,151.9	-750.5	-2,394.1	2,398.6	1.14	-0.95	
7,342.0	90.70	270.00	5,150.8	-750.2	-2,458.1	2,462.6	1.34	-1.09	
7,405.0	90.60	270.00	5,150.0	-750.2	-2,521.1	2,525.6	0.16	-0.16	
7,468.0	91.00	268.60	5,149.2	-750.9	-2,584.1	2,588.6	2.31	0.63	
7,531.0	91.20	267.70	5,148.0	-753.0	-2,647.0	2,651.6	1.46	0.32	
7,595.0	92.20	267.90	5,146.1	-755.4	-2,710.9	2,715.5	1.59	1.56	
7,658.0	91.40	269.20	5,144.1	-757.0	-2,773.9	2,778.5	2.42	-1.27	
7,721.0	91.30	269.40	5,142.6	-757.8	-2,836.9	2,841.4	0.35	-0.16	
7,784.0	92.20	269.80	5,140.7	-758.2	-2,899.8	2,904.4	1.56	1.43	
7,847.0	90.30	270.00	5,139.3	-758.3	-2,962.8	2,967.4	3.03	-3.02	
7,911.0	92.90	270.60	5,137.5	-758.0	-3,026.8	3,031.4	4.17	4.06	
7,974.0	92.00	270.30	5,134.8	-757.5	-3,089.7	3,094.3	1.51	-1.43	
8,037.0	91.60	270.80	5,132.8	-756.9	-3,152.7	3,157.2	1.02	-0.63	
8,100.0	91.80	271.00	5,131.0	-755.9	-3,215.6	3,220.2	0.45	0.32	
8,163.0	93.30	272.70	5,128.2	-753.9	-3,278.5	3,283.1	3.60	2.38	
8,227.0	91.30	271.40	5,125.6	-751.6	-3,342.5	3,347.0	3.73	-3.13	
8,290.0	91.60	271.20	5,124.0	-750.2	-3,405.4	3,409.9	0.57	0.48	
8,353.0	90.90	270.70	5,122.6	-749.1	-3,468.4	3,472.9	1.37	-1.11	
8,416.0	89.80	269.60	5,122.2	-749.0	-3,531.4	3,535.9	2.47	-1.75	
8,479.0	90.70	268.90	5,122.0	-749.8	-3,594.4	3,598.9	1.81	1.43	
8,542.0	90.70	268.10	5,121.2	-751.4	-3,657.4	3,661.9	1.27	0.00	
8,605.0	92.80	267.70	5,119.3	-753.8	-3,720.3	3,724.8	3.39	3.33	
8,668.0	94.00	267.90	5,115.5	-756.2	-3,783.1	3,787.7	1.93	1.90	
8,732.0	93.20	267.70	5,111.5	-758.6	-3,846.9	3,851.5	1.29	-1.25	
8,795.0	92.70	267.10	5,108.3	-761.5	-3,909.8	3,914.4	1.24	-0.79	
8,858.0	93.20	267.00	5,105.0	-764.7	-3,972.6	3,977.2	0.81	0.79	
8,921.0	93.80	267.70	5,101.2	-767.6	-4,035.4	4,040.1	1.46	0.95	
8,984.0	91.60	267.90	5,098.2	-770.0	-4,098.3	4,103.0	3.51	-3.49	
9,048.0	90.20	267.80	5,097.2	-772.4	-4,162.3	4,166.9	2.19	-2.19	
9,111.0	91.70	268.40	5,096.2	-774.5	-4,225.2	4,229.9	2.56	2.38	
9,174.0	92.90	269.30	5,093.6	-775.8	-4,288.2	4,292.8	2.38	1.90	
9,237.0	92.40	268.80	5,090.7	-776.8	-4,351.1	4,355.7	1.12	-0.79	
9,301.0	92.20	268.30	5,088.2	-778.4	-4,415.0	4,419.7	0.84	-0.31	
9,364.0	92.20	268.70	5,085.7	-780.1	-4,477.9	4,482.6	0.63	0.00	
9,427.0	91.10	267.20	5,083.9	-782.3	-4,540.9	4,545.6	2.95	-1.75	
9,490.0	92.20	268.00	5,082.1	-785.0	-4,603.8	4,608.5	2.16	1.75	
9,553.0	92.50	268.70	5,079.5	-786.8	-4,666.7	4,671.4	1.21	0.48	
9,616.0	93.80	269.30	5,076.1	-787.9	-4,729.6	4,734.3	2.27	2.06	
9,680.0	94.20	269.50	5,071.6	-788.6	-4,793.5	4,798.2	0.70	0.62	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
9,743.0	93.40	270.10	5,067.4	-788.8	-4,856.3	4,861.1	1.59	-1.27	
9,806.0	93.50	270.10	5,063.6	-788.7	-4,919.2	4,923.9	0.16	0.16	
9,869.0	93.20	269.70	5,060.0	-788.8	-4,982.1	4,986.8	0.79	-0.48	
9,933.0	91.60	270.40	5,057.3	-788.7	-5,046.0	5,050.8	2.73	-2.50	
9,996.0	90.40	269.70	5,056.2	-788.7	-5,109.0	5,113.8	2.21	-1.90	
10,059.0	90.50	269.30	5,055.7	-789.2	-5,172.0	5,176.8	0.65	0.16	
10,122.0	92.00	270.20	5,054.3	-789.5	-5,235.0	5,239.7	2.78	2.38	
10,185.0	91.90	269.90	5,052.2	-789.4	-5,298.0	5,302.7	0.50	-0.16	
10,249.0	92.00	269.20	5,050.0	-789.9	-5,361.9	5,366.7	1.10	0.16	
10,295.0	92.00	268.90	5,048.4	-790.7	-5,407.9	5,412.6	0.65	0.00	Last CES Survey @ 10,295' MD
10,350.0	92.00	268.90	5,046.5	-791.8	-5,462.9	5,467.6	0.00	0.00	PTB @ 10,350' - Nageezi Unit 2409Y 03H PBHL I

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude Longitude
Nageezi Unit 2409Y 03H		0.00	0.00	5,153.0	-739.0	-854.8	1,918,561.55	2,736,902.42	36.272690 -107.786480
- actual wellpath misses target center by 56.7usft at 5735.2usft MD (5193.1 TVD, -779.1 N, -852.8 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,104.6	-767.6	-5,479.7	1,918,530.56	2,732,277.56	36.272610 -107.802170
- actual wellpath misses target center by 65.2usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,149.9	-739.0	-854.8	1,918,561.55	2,736,902.42	36.272690 -107.786480
- actual wellpath misses target center by 59.0usft at 5735.0usft MD (5193.1 TVD, -779.1 N, -852.6 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,049.4	-767.6	-5,479.7	1,918,530.56	2,732,277.56	36.272610 -107.802170
- actual wellpath misses target center by 29.6usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,072.4	-767.6	-5,479.7	1,918,530.56	2,732,277.56	36.272610 -107.802170
- actual wellpath misses target center by 39.3usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,064.4	-767.6	-5,479.7	1,918,530.56	2,732,277.56	36.272610 -107.802170
- actual wellpath misses target center by 34.5usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,170.5	-739.0	-854.8	1,918,561.55	2,736,902.42	36.272690 -107.786480
- actual wellpath misses target center by 46.1usft at 5736.7usft MD (5193.2 TVD, -779.1 N, -854.4 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,101.4	-767.6	-5,479.7	1,918,530.56	2,732,277.56	36.272610 -107.802170
- actual wellpath misses target center by 62.3usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H		0.00	0.00	5,185.5	-739.0	-854.8	1,918,561.55	2,736,902.42	36.272690 -107.786480
- actual wellpath misses target center by 40.8usft at 5737.4usft MD (5193.2 TVD, -779.0 N, -855.0 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(usft)	(usft)	+N/-S	+E/-W	Comment
(usft)	(usft)	(usft)	(usft)	
10,295.0	5,048.4	-790.7	-5,407.9	Last CES Survey @ 10,295' MD
10,350.0	5,046.5	-791.8	-5,462.9	PTB @ 10,350'

Checked By: _____	Approved By: _____	Date: _____
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EnCana Oil & Gas (USA) Inc

San Juan County, NM

S34-T24N-R9W (Escrito)

Nageezi Unit 2409Y 03H

Hz

Design: FINAL

Survey Report - Geographic

26 August, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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

Site		S34-T24N-R9W (Escrito)			
Site Position:		Northing:	1,919,326.42 usft	Latitude:	36.274790
From:	Lat/Long	Easting:	2,737,742.12 usft	Longitude:	-107.783630
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.03 °

Well	Nageezi Unit 2409Y 03H					
Well Position	+N-S	0.0 usft	Northing:	1,919,300.95 usft	Latitude:	36.274720
	+E-W	0.0 usft	Easting:	2,737,756.87 usft	Longitude:	-107.783580
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,857.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/24/2014	9.47	62.99	50,155

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	269.65	

Survey Program	Date 8/26/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
116.0	10,350.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,919,300.95	2,737,756.87	36.274720	-107.783580	
116.0	0.40	272.40	116.0	0.0	-0.4	1,919,300.96	2,737,756.46	36.274720	-107.783582	
180.0	0.90	283.80	180.0	0.1	-1.1	1,919,301.09	2,737,755.75	36.274720	-107.783584	
243.0	0.80	270.10	243.0	0.3	-2.0	1,919,301.21	2,737,754.83	36.274721	-107.783587	
306.0	0.90	289.70	306.0	0.4	-2.9	1,919,301.38	2,737,753.92	36.274721	-107.783590	
369.0	1.00	252.30	369.0	0.4	-3.9	1,919,301.38	2,737,752.93	36.274721	-107.783594	
432.0	1.00	213.00	432.0	-0.2	-4.8	1,919,300.75	2,737,752.11	36.274720	-107.783596	
461.0	1.10	216.30	461.0	-0.6	-5.1	1,919,300.31	2,737,751.81	36.274718	-107.783597	
534.0	1.20	204.80	533.9	-1.9	-5.8	1,919,299.05	2,737,751.07	36.274715	-107.783600	
598.0	0.10	101.10	597.9	-2.5	-6.0	1,919,298.43	2,737,750.85	36.274713	-107.783601	
661.0	0.10	318.00	660.9	-2.5	-6.0	1,919,298.46	2,737,750.87	36.274713	-107.783601	
724.0	0.20	264.30	723.9	-2.5	-6.1	1,919,298.49	2,737,750.72	36.274713	-107.783601	

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
787.0	0.30	248.80	786.9	-2.5	-6.4	1,919,298.42	2,737,750.46	36.274713	-107.783602
850.0	0.30	302.90	849.9	-2.5	-6.7	1,919,298.45	2,737,750.16	36.274713	-107.783603
913.0	0.20	315.20	912.9	-2.3	-6.9	1,919,298.62	2,737,749.95	36.274714	-107.783604
977.0	0.20	358.50	976.9	-2.1	-7.0	1,919,298.81	2,737,749.87	36.274714	-107.783604
1,040.0	0.20	12.90	1,039.9	-1.9	-7.0	1,919,299.03	2,737,749.89	36.274715	-107.783604
1,103.0	0.10	279.50	1,102.9	-1.8	-7.0	1,919,299.14	2,737,749.86	36.274715	-107.783604
1,166.0	0.30	259.70	1,165.9	-1.8	-7.2	1,919,299.12	2,737,749.64	36.274715	-107.783605
1,229.0	0.20	270.70	1,228.9	-1.8	-7.5	1,919,299.10	2,737,749.37	36.274715	-107.783606
1,293.0	0.40	94.70	1,292.9	-1.9	-7.4	1,919,299.08	2,737,749.48	36.274715	-107.783605
1,356.0	0.40	90.70	1,355.9	-1.9	-6.9	1,919,299.06	2,737,749.92	36.274715	-107.783604
1,419.0	0.50	81.40	1,418.9	-1.8	-6.5	1,919,299.10	2,737,750.41	36.274715	-107.783602
1,482.0	0.20	45.30	1,481.9	-1.7	-6.1	1,919,299.22	2,737,750.76	36.274715	-107.783601
1,545.0	0.10	7.80	1,544.9	-1.6	-6.0	1,919,299.35	2,737,750.85	36.274716	-107.783601
1,608.0	0.10	10.10	1,607.9	-1.5	-6.0	1,919,299.46	2,737,750.86	36.274716	-107.783601
1,671.0	0.20	45.50	1,670.9	-1.4	-5.9	1,919,299.59	2,737,750.95	36.274716	-107.783600
1,735.0	0.10	49.00	1,734.9	-1.2	-5.8	1,919,299.70	2,737,751.07	36.274717	-107.783600
1,798.0	0.10	152.70	1,797.9	-1.3	-5.7	1,919,299.69	2,737,751.14	36.274717	-107.783600
1,861.0	0.10	227.20	1,860.9	-1.3	-5.7	1,919,299.60	2,737,751.13	36.274716	-107.783600
1,924.0	0.40	183.80	1,923.9	-1.6	-5.8	1,919,299.35	2,737,751.07	36.274716	-107.783600
1,987.0	0.50	207.00	1,986.9	-2.1	-5.9	1,919,298.88	2,737,750.93	36.274714	-107.783600
2,050.0	0.40	195.00	2,049.9	-2.5	-6.1	1,919,298.42	2,737,750.75	36.274713	-107.783601
2,114.0	0.40	222.40	2,113.9	-2.9	-6.3	1,919,298.04	2,737,750.54	36.274712	-107.783602
2,177.0	0.10	273.80	2,176.9	-3.1	-6.5	1,919,297.89	2,737,750.34	36.274712	-107.783602
2,240.0	0.50	5.10	2,239.9	-2.8	-6.6	1,919,298.16	2,737,750.31	36.274712	-107.783603
2,303.0	0.20	351.50	2,302.9	-2.4	-6.6	1,919,298.55	2,737,750.32	36.274714	-107.783602
2,366.0	0.30	338.20	2,365.9	-2.1	-6.6	1,919,298.81	2,737,750.24	36.274714	-107.783603
2,430.0	0.30	343.30	2,429.9	-1.8	-6.7	1,919,299.12	2,737,750.13	36.274715	-107.783603
2,493.0	0.20	308.90	2,492.9	-1.6	-6.9	1,919,299.35	2,737,749.99	36.274716	-107.783604
2,556.0	0.30	307.40	2,555.9	-1.4	-7.1	1,919,299.52	2,737,749.78	36.274716	-107.783604
2,619.0	0.30	287.90	2,618.9	-1.3	-7.4	1,919,299.67	2,737,749.49	36.274717	-107.783605
2,682.0	1.00	8.10	2,681.9	-0.7	-7.5	1,919,300.26	2,737,749.41	36.274718	-107.783606
2,745.0	1.20	30.30	2,744.9	0.4	-7.0	1,919,301.38	2,737,749.82	36.274721	-107.783604
2,809.0	1.20	29.00	2,808.9	1.6	-6.4	1,919,302.54	2,737,750.48	36.274724	-107.783602
2,872.0	1.10	24.20	2,871.9	2.7	-5.8	1,919,303.67	2,737,751.05	36.274728	-107.783600
2,935.0	0.70	9.50	2,934.9	3.7	-5.5	1,919,304.60	2,737,751.36	36.274730	-107.783599
2,998.0	0.50	140.60	2,997.9	3.8	-5.3	1,919,304.77	2,737,751.60	36.274731	-107.783598
3,062.0	3.60	179.10	3,061.8	1.6	-5.1	1,919,302.55	2,737,751.81	36.274724	-107.783597
3,125.0	5.20	198.20	3,124.6	-3.1	-5.9	1,919,297.86	2,737,750.95	36.274712	-107.783600
3,188.0	5.80	203.00	3,187.3	-8.7	-8.1	1,919,292.21	2,737,748.82	36.274696	-107.783608
3,251.0	7.10	195.20	3,249.9	-15.4	-10.3	1,919,285.52	2,737,746.56	36.274678	-107.783615
3,315.0	8.80	194.20	3,313.3	-24.0	-12.6	1,919,276.96	2,737,744.32	36.274654	-107.783623
3,378.0	10.20	194.10	3,375.5	-34.1	-15.1	1,919,266.87	2,737,741.79	36.274627	-107.783631
3,441.0	10.80	198.30	3,437.4	-45.1	-18.3	1,919,255.86	2,737,738.58	36.274596	-107.783642
3,504.0	11.80	205.80	3,499.2	-56.5	-23.0	1,919,244.45	2,737,733.93	36.274565	-107.783658
3,568.0	12.60	211.60	3,561.7	-68.3	-29.5	1,919,232.61	2,737,727.43	36.274532	-107.783680
3,631.0	12.60	212.20	3,623.2	-80.0	-36.7	1,919,220.94	2,737,720.17	36.274500	-107.783705
3,694.0	13.40	207.20	3,684.6	-92.3	-43.7	1,919,208.63	2,737,713.18	36.274467	-107.783729
3,757.0	14.50	205.60	3,745.8	-105.9	-50.5	1,919,195.02	2,737,706.44	36.274429	-107.783752
3,820.0	16.30	205.80	3,806.5	-121.0	-57.7	1,919,179.94	2,737,699.19	36.274388	-107.783776
3,884.0	16.90	207.80	3,867.8	-137.3	-66.0	1,919,163.62	2,737,690.95	36.274343	-107.783804
3,947.0	17.30	206.50	3,928.0	-153.8	-74.4	1,919,147.13	2,737,682.51	36.274298	-107.783833
4,010.0	20.20	205.60	3,987.7	-172.0	-83.3	1,919,128.93	2,737,673.64	36.274248	-107.783863
4,073.0	24.80	207.70	4,045.9	-193.5	-94.2	1,919,107.41	2,737,662.80	36.274189	-107.783900
4,136.0	26.80	207.70	4,102.6	-217.8	-106.9	1,919,083.13	2,737,650.07	36.274122	-107.783943
4,200.0	28.20	204.40	4,159.4	-244.3	-119.9	1,919,056.57	2,737,637.13	36.274049	-107.783987

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,263.0	28.10	207.60	4,214.9	-271.0	-132.9	1,919,029.86	2,737,624.12	36.273976	-107.784031
4,326.0	27.50	208.20	4,270.6	-297.0	-146.6	1,919,003.88	2,737,610.38	36.273904	-107.784078
4,389.0	28.00	206.60	4,326.4	-323.0	-160.1	1,918,977.83	2,737,596.90	36.273833	-107.784124
4,453.0	29.00	205.10	4,382.6	-350.5	-173.4	1,918,950.34	2,737,583.61	36.273757	-107.784169
4,516.0	28.80	207.00	4,437.8	-377.9	-186.8	1,918,922.99	2,737,570.25	36.273682	-107.784214
4,579.0	26.60	205.90	4,493.6	-404.1	-199.9	1,918,896.77	2,737,557.22	36.273610	-107.784258
4,642.0	27.00	205.80	4,549.8	-429.6	-212.2	1,918,871.20	2,737,544.84	36.273540	-107.784300
4,705.0	28.90	207.50	4,605.5	-456.0	-225.5	1,918,844.81	2,737,531.60	36.273467	-107.784345
4,768.0	30.40	207.30	4,660.2	-483.7	-239.8	1,918,817.13	2,737,517.28	36.273391	-107.784394
4,832.0	29.20	204.60	4,715.8	-512.3	-253.8	1,918,788.54	2,737,503.36	36.273313	-107.784441
4,863.0	29.50	199.40	4,742.8	-526.4	-259.4	1,918,774.46	2,737,497.69	36.273274	-107.784460
4,895.0	30.80	200.10	4,770.4	-541.5	-264.9	1,918,759.33	2,737,492.26	36.273233	-107.784479
4,926.0	32.60	204.60	4,796.8	-556.5	-271.1	1,918,744.28	2,737,486.06	36.273191	-107.784500
4,958.0	34.90	208.00	4,823.4	-572.5	-279.0	1,918,728.35	2,737,478.19	36.273148	-107.784527
4,990.0	36.00	214.90	4,849.5	-588.3	-288.7	1,918,712.54	2,737,468.51	36.273104	-107.784560
5,021.0	37.60	217.20	4,874.3	-603.3	-299.6	1,918,697.53	2,737,457.59	36.273063	-107.784597
5,053.0	39.00	221.20	4,899.4	-618.6	-312.1	1,918,682.17	2,737,445.06	36.273021	-107.784639
5,084.0	39.80	226.00	4,923.4	-632.9	-325.7	1,918,667.93	2,737,431.50	36.272982	-107.784685
5,117.0	40.10	229.90	4,948.7	-647.0	-341.4	1,918,653.73	2,737,415.78	36.272943	-107.784739
5,149.0	42.20	232.50	4,972.8	-660.2	-357.8	1,918,640.54	2,737,399.37	36.272906	-107.784794
5,180.0	44.70	231.80	4,995.3	-673.3	-374.7	1,918,627.45	2,737,382.55	36.272870	-107.784851
5,212.0	47.10	235.20	5,017.6	-687.0	-393.1	1,918,613.79	2,737,364.08	36.272833	-107.784914
5,244.0	48.80	238.40	5,039.0	-700.0	-413.0	1,918,600.78	2,737,344.20	36.272797	-107.784981
5,275.0	50.60	241.20	5,059.1	-711.8	-433.5	1,918,588.88	2,737,323.78	36.272765	-107.785051
5,306.0	52.00	243.30	5,078.5	-723.1	-454.9	1,918,577.61	2,737,302.37	36.272734	-107.785123
5,338.0	54.50	247.50	5,097.6	-733.8	-478.2	1,918,566.95	2,737,279.07	36.272704	-107.785202
5,370.0	58.50	250.40	5,115.3	-743.3	-503.1	1,918,557.37	2,737,254.17	36.272678	-107.785287
5,401.0	62.80	254.70	5,130.5	-751.4	-528.8	1,918,549.28	2,737,228.41	36.272656	-107.785374
5,433.0	67.10	259.30	5,144.0	-757.9	-557.1	1,918,542.76	2,737,200.18	36.272638	-107.785470
5,464.0	71.60	262.80	5,154.9	-762.4	-585.7	1,918,538.25	2,737,171.55	36.272626	-107.785567
5,494.0	76.20	263.40	5,163.3	-765.9	-614.3	1,918,534.78	2,737,142.94	36.272616	-107.785664
5,525.0	79.30	264.30	5,169.8	-769.1	-644.4	1,918,531.52	2,737,112.83	36.272607	-107.785767
5,555.0	81.70	264.30	5,174.8	-772.0	-673.9	1,918,528.56	2,737,083.39	36.272599	-107.785866
5,585.0	82.10	265.40	5,179.0	-774.7	-703.5	1,918,525.88	2,737,053.81	36.272592	-107.785967
5,615.0	82.60	266.50	5,183.0	-776.8	-733.1	1,918,523.77	2,737,024.15	36.272586	-107.786067
5,646.0	84.20	267.70	5,186.6	-778.4	-763.9	1,918,522.20	2,736,993.40	36.272582	-107.786172
5,676.0	85.50	269.40	5,189.3	-779.1	-793.7	1,918,521.42	2,736,963.53	36.272580	-107.786273
5,706.0	86.20	270.00	5,191.4	-779.3	-823.7	1,918,521.25	2,736,933.61	36.272579	-107.786375
5,736.0	87.30	270.80	5,193.1	-779.1	-853.6	1,918,521.45	2,736,903.66	36.272580	-107.786476
5,737.9	87.42	270.86	5,193.2	-779.0	-855.5	1,918,521.47	2,736,901.77	36.272580	-107.786483
Nageezi Unit 2409Y 03H POE P5									
5,767.0	89.20	271.80	5,194.1	-778.4	-884.6	1,918,522.13	2,736,872.69	36.272582	-107.786581
5,797.0	88.40	271.20	5,194.7	-777.6	-914.6	1,918,522.90	2,736,842.70	36.272584	-107.786683
5,828.0	90.20	271.30	5,195.1	-776.9	-945.6	1,918,523.56	2,736,811.71	36.272586	-107.786788
5,858.0	92.10	271.50	5,194.5	-776.2	-975.5	1,918,524.28	2,736,781.73	36.272588	-107.786890
5,918.0	91.20	270.80	5,192.8	-775.0	-1,035.5	1,918,525.45	2,736,721.77	36.272591	-107.787093
5,979.0	90.50	269.50	5,191.9	-774.8	-1,096.5	1,918,525.58	2,736,660.78	36.272592	-107.787300
6,039.0	92.80	269.50	5,190.1	-775.3	-1,156.5	1,918,525.03	2,736,600.81	36.272590	-107.787504
6,101.0	93.40	270.80	5,186.8	-775.2	-1,218.4	1,918,525.16	2,736,538.90	36.272591	-107.787714
6,162.0	94.30	273.10	5,182.7	-773.1	-1,279.2	1,918,525.20	2,736,478.08	36.272596	-107.787920
6,223.0	94.50	273.20	5,178.0	-769.8	-1,339.9	1,918,530.51	2,736,417.35	36.272605	-107.788126
6,284.0	93.70	272.60	5,173.6	-766.7	-1,400.7	1,918,533.55	2,736,356.58	36.272614	-107.788332
6,345.0	92.30	272.00	5,170.4	-764.2	-1,461.5	1,918,535.97	2,736,295.71	36.272621	-107.788539
6,406.0	91.00	272.30	5,168.7	-761.9	-1,522.5	1,918,538.22	2,736,234.78	36.272627	-107.788745
6,466.0	91.20	272.30	5,167.5	-759.5	-1,582.4	1,918,540.60	2,736,174.84	36.272633	-107.788949

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,526.0	90.30	272.30	5,166.7	-757.1	-1,642.4	1,918,542.98	2,736,114.89	36.272640	-107.789152
6,586.0	89.60	271.70	5,166.8	-755.0	-1,702.3	1,918,545.04	2,736,054.93	36.272646	-107.789355
6,647.0	90.30	270.60	5,166.9	-753.8	-1,763.3	1,918,546.23	2,735,993.94	36.272649	-107.789562
6,710.0	90.80	270.20	5,166.2	-753.4	-1,826.3	1,918,546.64	2,735,930.95	36.272650	-107.789776
6,773.0	90.60	269.70	5,165.5	-753.4	-1,889.3	1,918,546.55	2,735,867.95	36.272650	-107.789990
6,837.0	91.90	270.20	5,164.1	-753.5	-1,953.3	1,918,546.46	2,735,803.97	36.272650	-107.790207
6,900.0	91.50	270.80	5,162.2	-752.9	-2,016.3	1,918,546.98	2,735,741.00	36.272652	-107.790420
6,963.0	91.60	271.00	5,160.5	-751.9	-2,079.2	1,918,547.94	2,735,678.03	36.272654	-107.790634
7,026.0	92.00	271.00	5,158.5	-750.8	-2,142.2	1,918,549.01	2,735,615.07	36.272657	-107.790848
7,089.0	91.00	269.80	5,156.9	-750.4	-2,205.2	1,918,549.41	2,735,552.10	36.272658	-107.791061
7,152.0	91.30	269.70	5,155.6	-750.7	-2,268.1	1,918,549.11	2,735,489.11	36.272658	-107.791275
7,215.0	92.00	270.10	5,153.8	-750.8	-2,331.1	1,918,548.96	2,735,426.14	36.272657	-107.791489
7,278.0	91.40	270.50	5,151.9	-750.5	-2,394.1	1,918,549.26	2,735,363.16	36.272658	-107.791702
7,342.0	90.70	270.00	5,150.8	-750.2	-2,458.1	1,918,549.51	2,735,299.18	36.272659	-107.791919
7,405.0	90.60	270.00	5,150.0	-750.2	-2,521.1	1,918,549.47	2,735,236.18	36.272659	-107.792133
7,468.0	91.00	268.60	5,149.2	-750.9	-2,584.1	1,918,548.67	2,735,173.19	36.272657	-107.792347
7,531.0	91.20	267.70	5,148.0	-753.0	-2,647.0	1,918,546.61	2,735,110.24	36.272651	-107.792560
7,595.0	92.20	267.90	5,146.1	-755.4	-2,710.9	1,918,544.12	2,735,046.32	36.272645	-107.792777
7,658.0	91.40	269.20	5,144.1	-757.0	-2,773.9	1,918,542.49	2,734,983.37	36.272640	-107.792991
7,721.0	91.30	269.40	5,142.6	-757.8	-2,836.9	1,918,541.69	2,734,920.39	36.272638	-107.793204
7,784.0	92.20	269.80	5,140.7	-758.2	-2,899.8	1,918,541.22	2,734,857.43	36.272637	-107.793418
7,847.0	90.30	270.00	5,139.3	-758.3	-2,962.8	1,918,541.08	2,734,794.44	36.272636	-107.793632
7,911.0	92.90	270.60	5,137.5	-758.0	-3,026.8	1,918,541.38	2,734,730.48	36.272637	-107.793849
7,974.0	92.00	270.30	5,134.8	-757.5	-3,089.7	1,918,541.84	2,734,667.54	36.272639	-107.794062
8,037.0	91.60	270.80	5,132.8	-756.9	-3,152.7	1,918,542.41	2,734,604.57	36.272640	-107.794276
8,100.0	91.80	271.00	5,131.0	-755.9	-3,215.6	1,918,543.37	2,734,541.61	36.272643	-107.794489
8,163.0	93.30	272.70	5,128.2	-753.9	-3,278.5	1,918,545.37	2,734,478.70	36.272649	-107.794703
8,227.0	91.30	271.40	5,125.6	-751.6	-3,342.5	1,918,547.62	2,734,414.80	36.272655	-107.794920
8,290.0	91.60	271.20	5,124.0	-750.2	-3,405.4	1,918,549.02	2,734,351.84	36.272659	-107.795133
8,353.0	90.90	270.70	5,122.6	-749.1	-3,468.4	1,918,550.03	2,734,288.86	36.272662	-107.795347
8,416.0	89.80	269.60	5,122.2	-749.0	-3,531.4	1,918,550.16	2,734,225.86	36.272662	-107.795561
8,479.0	90.70	268.90	5,122.0	-749.8	-3,594.4	1,918,549.31	2,734,162.87	36.272660	-107.795774
8,542.0	90.70	268.10	5,121.2	-751.4	-3,657.4	1,918,547.62	2,734,099.90	36.272655	-107.795988
8,605.0	92.80	267.70	5,119.3	-753.8	-3,720.3	1,918,545.28	2,734,036.98	36.272649	-107.796201
8,668.0	94.00	267.90	5,115.5	-756.2	-3,783.1	1,918,542.84	2,733,974.14	36.272642	-107.796415
8,732.0	93.20	267.70	5,111.5	-758.6	-3,846.9	1,918,540.35	2,733,910.31	36.272635	-107.796631
8,795.0	92.70	267.10	5,108.3	-761.5	-3,909.8	1,918,537.47	2,733,847.46	36.272628	-107.796844
8,858.0	93.20	267.00	5,105.0	-764.7	-3,972.6	1,918,534.20	2,733,784.63	36.272619	-107.797058
8,921.0	93.80	267.70	5,101.2	-767.6	-4,035.4	1,918,531.26	2,733,721.82	36.272611	-107.797271
8,984.0	91.60	267.90	5,098.2	-770.0	-4,098.3	1,918,528.81	2,733,658.94	36.272604	-107.797484
9,048.0	90.20	267.80	5,097.2	-772.4	-4,162.3	1,918,526.38	2,733,594.99	36.272597	-107.797701
9,111.0	91.70	268.40	5,096.2	-774.5	-4,225.2	1,918,524.26	2,733,532.04	36.272592	-107.797914
9,174.0	92.90	269.30	5,093.6	-775.8	-4,288.2	1,918,522.96	2,733,469.11	36.272588	-107.798128
9,237.0	92.40	268.80	5,090.7	-776.8	-4,351.1	1,918,521.88	2,733,406.18	36.272585	-107.798341
9,301.0	92.20	268.30	5,088.2	-778.4	-4,415.0	1,918,520.23	2,733,342.26	36.272581	-107.798558
9,364.0	92.20	268.70	5,085.7	-780.1	-4,477.9	1,918,518.55	2,733,279.33	36.272576	-107.798772
9,427.0	91.10	267.20	5,083.9	-782.3	-4,540.9	1,918,516.27	2,733,216.38	36.272570	-107.798985
9,490.0	92.20	268.00	5,082.1	-785.0	-4,603.8	1,918,513.60	2,733,153.46	36.272563	-107.799199
9,553.0	92.50	268.70	5,079.5	-786.8	-4,666.7	1,918,511.75	2,733,090.54	36.272558	-107.799412
9,616.0	93.80	269.30	5,076.1	-787.9	-4,729.6	1,918,510.62	2,733,027.65	36.272555	-107.799626
9,680.0	94.20	269.50	5,071.6	-788.6	-4,793.5	1,918,509.92	2,732,963.81	36.272553	-107.799842
9,743.0	93.40	270.10	5,067.4	-788.8	-4,856.3	1,918,509.67	2,732,900.95	36.272552	-107.800055
9,806.0	93.50	270.10	5,063.6	-788.7	-4,919.2	1,918,509.75	2,732,838.06	36.272552	-107.800269
9,869.0	93.20	269.70	5,060.0	-788.8	-4,982.1	1,918,509.60	2,732,775.17	36.272552	-107.800482
9,933.0	91.60	270.40	5,057.3	-788.7	-5,046.0	1,918,509.63	2,732,711.23	36.272552	-107.800699

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Nageezi Unit 2409Y 03H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6872.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	15' KB @ 6872.0usft (Aztec 777)
Well:	Nageezi Unit 2409Y 03H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,996.0	90.40	269.70	5,056.2	-788.7	-5,109.0	1,918,509.65	2,732,648.24	36.272552	-107.800913
10,059.0	90.50	269.30	5,055.7	-789.2	-5,172.0	1,918,509.07	2,732,585.25	36.272551	-107.801126
10,122.0	92.00	270.20	5,054.3	-789.5	-5,235.0	1,918,508.76	2,732,522.26	36.272550	-107.801340
10,185.0	91.90	269.90	5,052.2	-789.4	-5,298.0	1,918,508.78	2,732,459.30	36.272550	-107.801554
10,249.0	92.00	269.20	5,050.0	-789.9	-5,361.9	1,918,508.25	2,732,395.34	36.272549	-107.801771
10,295.0	92.00	268.90	5,048.4	-790.7	-5,407.9	1,918,507.46	2,732,349.38	36.272547	-107.801927
Last CES Survey @ 10,295' MD									
10,350.0	92.00	268.90	5,046.5	-791.8	-5,462.9	1,918,506.38	2,732,294.42	36.272544	-107.802113
PTB @ 10,350' - Nageezi Unit 2409Y 03H PBHL P6									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Nageezi Unit 2409Y 03H	0.00	0.00	5,049.4	-767.6	-5,479.7	1,918,530.57	2,732,277.56	36.272610	-107.802170
- actual wellpath misses target center by 29.6usft at 10350.0usft MD (5046.5 TVD, -791.8 N, -5462.9 E)									
- Point									
Nageezi Unit 2409Y 03H	0.00	0.00	5,170.5	-739.0	-854.8	1,918,561.55	2,736,902.43	36.272690	-107.786480
- actual wellpath misses target center by 46.1usft at 5736.7usft MD (5193.2 TVD, -779.1 N, -854.4 E)									
- Point									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,295.0	5,048.4	-790.7	-5,407.9	Last CES Survey @ 10,295' MD
10,350.0	5,046.5	-791.8	-5,462.9	PTB @ 10,350'

Checked By: _____ Approved By: _____ Date: _____