

CONFIDENTIAL

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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

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 Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT
☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35530		² Pool Code 98102	³ Pool Name Piñon Unit HZ (Oil)
⁴ Property Code 313588	⁵ Property Name PIÑON UNIT D14-2410		⁶ Well Number 02H
⁷ GRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.		⁹ Elevation 6876.9'

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	14	24N	10W		1348'	NORTH	436'	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
B	16	24N	10W		2228'	NORTH	292'	EAST	SAN JUAN

¹² Dedicated Acres - 640 ACRES
8,005.44 ACRES W/2 OF SEC. 4, SEC. 5-10,
15-18, 21, N/2 OF SEC. 22, & N/2 OF
SEC. 28 - UNDIVIDED UNIT, PENETRATED
SPACING UNITS: N/2 SEC. 15, E/2 SEC. 16

¹³ Joint or Infill

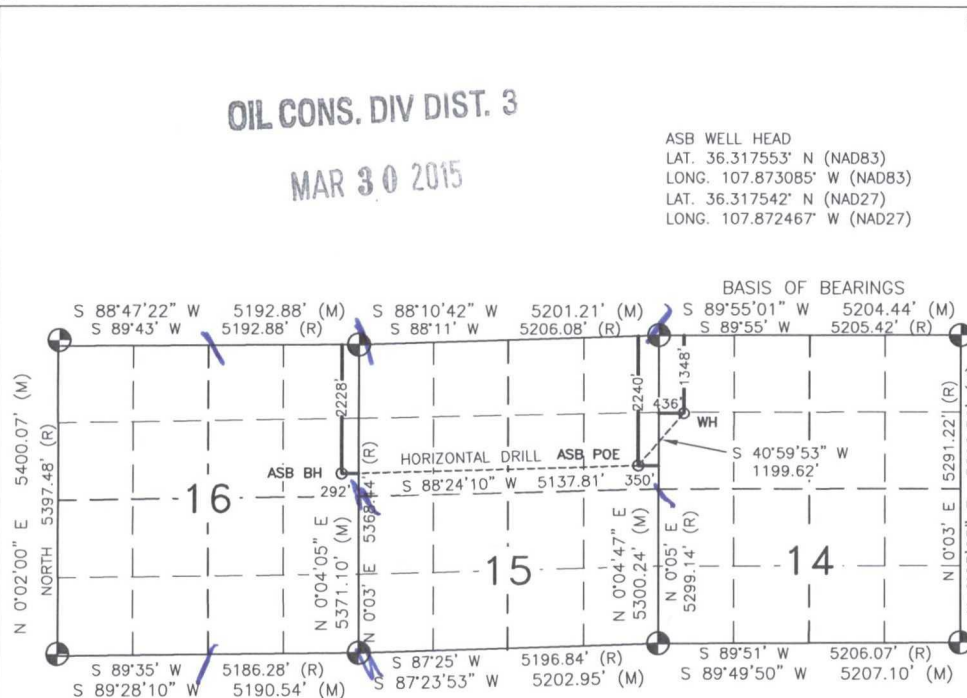
¹⁴ Consolidation Code

¹⁵ Order No.

R - 13857-A (8,005.44 Acres)

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



ASB - BHL
LAT. 36.314669° N (NAD83)
LONG. 107.893180° W (NAD83)
LAT. 36.314658° N (NAD27)
LONG. 107.892561° W (NAD27)

ASB - POE
LAT. 36.315067° N (NAD83)
LONG. 107.875754° W (NAD83)
LAT. 36.315055° N (NAD27)
LONG. 107.875136° W (NAD27)

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

Printed Name

E-mail Address

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.

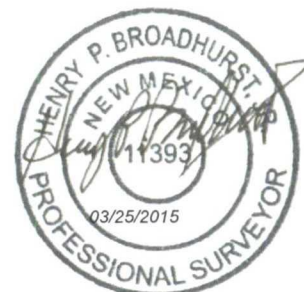
AS-BUILT SURVEY

JANUARY 20, 2015

Date of Survey

JUNE 18, 2013

Signature and Seal of Professional Surveyor:



Certificate Number

11393

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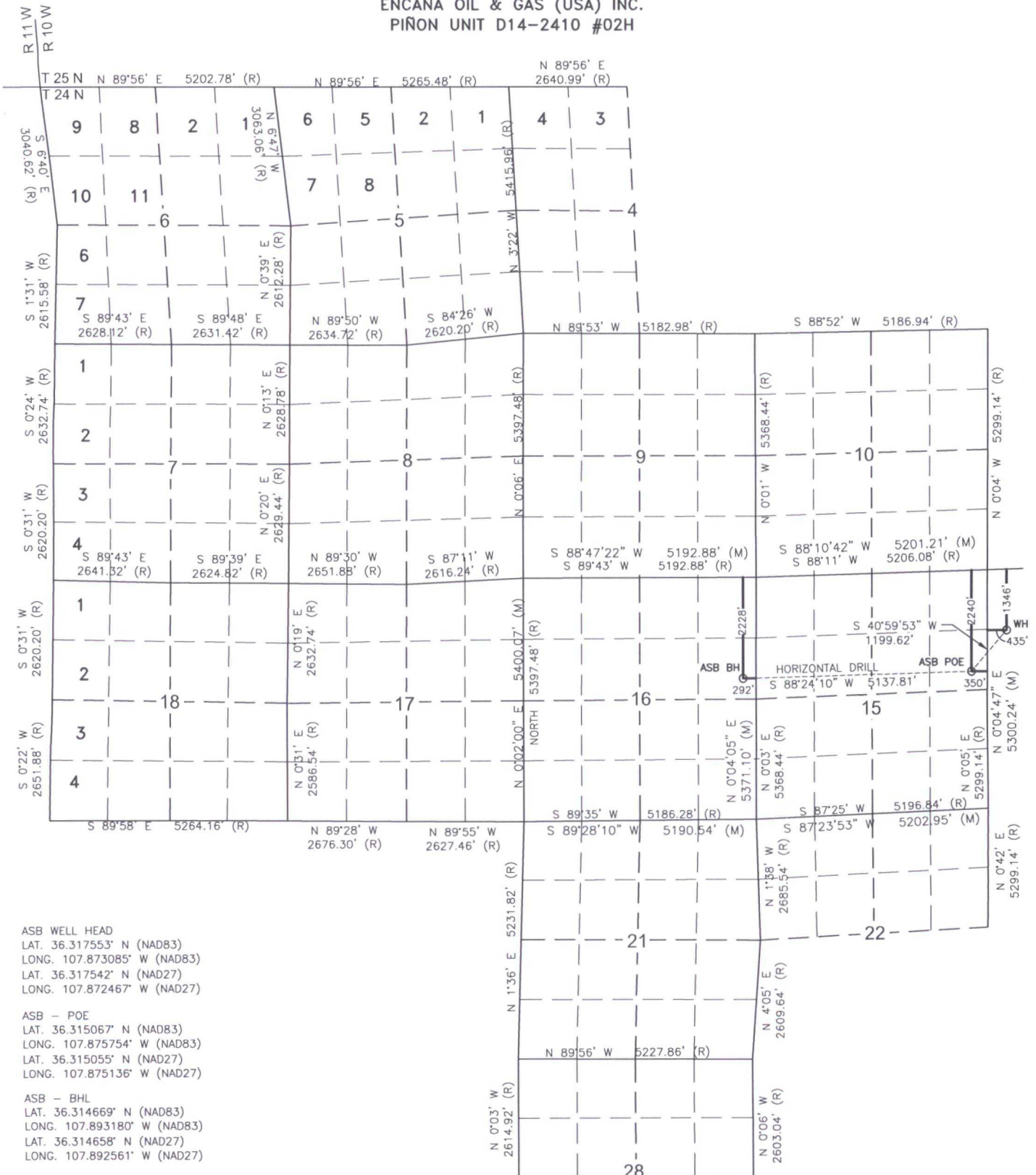
Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

☒ AS-DRILLED

ENCANA OIL & GAS (USA) INC.
PIÑON UNIT D14-2410 #02H



DEVIATION SURVEYS
Pinion Unit D14-2410 02H
30-045-35530

MD (Feet)	Inclination (Degree)
373	0.11
695	0.62
1011	0.09
1327	0.44
1642	0.71
1948	0.68
2251	0.98
2553	0.88
2856	0.68
3170	1.25
3486	0.47
3802	0.60
4118	0.79
4403	3.29

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

3/25/15
Date

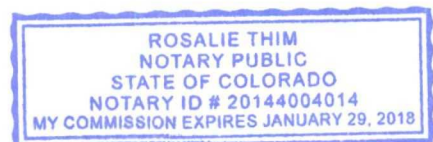
ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 25th day of March, 2015 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





EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R10W

Pinon Unit D14-2410 02H

Hz

Design: Hz

Standard Survey Report

12 December, 2014



www.scientificdrilling.com



Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Pinon Unit D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	15' KB @ 6891.01ft (A920)
Site:	S14-T24N-R10W	MD Reference:	15' KB @ 6891.01ft (A920)
Well:	Pinon Unit D14-2410 02H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Grand Junction District

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-R10W				
Site Position:		Northing:	1,934,890.44 usft	Latitude:	36.3175490
From:	Lat/Long	Easting:	2,711,381.53 usft	Longitude:	-107.8730830
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.02 °

Well	Pinon Unit D14-2410 02H					
Well Position	+N/-S	0.00 ft	Northing:	1,934,890.44 usft	Latitude:	36.3175490
	+E/-W	0.00 ft	Easting:	2,711,381.53 usft	Longitude:	-107.8730830
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,876.00 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	11/3/2014	9.56	63.01	50,051

Design	Hz				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	252.14	

Survey Program		Date	12/12/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
183.00	4,245.00	Survey #1 - Surface MWD Survey (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	
4,308.00	7,225.00	Survey #2 - Curve MWD Survey (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	
7,285.00	11,288.00	Survey #3 - Lateral MWD Survey (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
183.00	0.36	59.88	183.00	0.29	0.50	-0.56	0.20	0.20	0.00
First SDI Surface MWD Survey									
247.00	0.67	59.90	247.00	0.58	0.99	-1.12	0.48	0.48	0.03
310.00	0.41	71.80	309.99	0.83	1.53	-1.71	0.45	-0.41	18.89
373.00	0.11	239.65	372.99	0.87	1.69	-1.88	0.82	-0.48	266.43
436.00	0.57	226.57	435.99	0.63	1.41	-1.53	0.74	0.73	-20.76
468.00	0.53	215.49	467.99	0.40	1.21	-1.27	0.35	-0.13	-34.63
568.00	0.45	240.28	567.99	-0.18	0.60	-0.52	0.22	-0.08	24.79

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Hz

Local Co-ordinate Reference: Well Pinon Unit D14-2410 02H
TVD Reference: 15' KB @ 6891.01ft (A920)
MD Reference: 15' KB @ 6891.01ft (A920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
631.00	0.45	249.60	630.98	-0.38	0.15	-0.03	0.12	0.00	14.79
695.00	0.62	233.24	694.98	-0.68	-0.36	0.55	0.35	0.27	-25.56
758.00	0.27	264.70	757.98	-0.90	-0.78	1.02	0.66	-0.56	49.94
821.00	0.17	169.14	820.98	-1.00	-0.91	1.18	0.53	-0.16	-151.68
884.00	0.03	71.23	883.98	-1.09	-0.88	1.17	0.28	-0.22	-155.41
948.00	0.26	229.46	947.98	-1.18	-0.97	1.29	0.45	0.36	247.23
1,011.00	0.09	273.06	1,010.98	-1.27	-1.13	1.47	0.32	-0.27	69.21
1,074.00	0.36	225.04	1,073.98	-1.41	-1.32	1.69	0.49	0.43	-76.22
1,137.00	0.18	225.33	1,136.98	-1.61	-1.53	1.95	0.29	-0.29	0.46
1,200.00	0.44	250.65	1,199.98	-1.76	-1.83	2.28	0.46	0.41	40.19
1,263.00	0.35	261.72	1,262.98	-1.87	-2.25	2.71	0.19	-0.14	17.57
1,327.00	0.44	243.79	1,326.97	-2.01	-2.66	3.15	0.24	0.14	-28.02
1,390.00	0.35	210.74	1,389.97	-2.28	-2.98	3.53	0.38	-0.14	-52.46
1,453.00	0.44	42.34	1,452.97	-2.27	-2.91	3.47	1.25	0.14	-267.30
1,516.00	0.35	27.49	1,515.97	-1.92	-2.66	3.12	0.22	-0.14	-23.57
1,579.00	0.62	356.06	1,578.97	-1.41	-2.60	2.90	0.59	0.43	-49.89
1,642.00	0.71	0.39	1,641.96	-0.68	-2.62	2.70	0.16	0.14	6.87
1,705.00	0.70	14.83	1,704.96	0.09	-2.52	2.37	0.28	-0.02	22.92
1,766.00	0.64	7.62	1,765.96	0.78	-2.38	2.02	0.17	-0.10	-11.82
1,827.00	0.71	20.85	1,826.95	1.47	-2.20	1.64	0.28	0.11	21.69
1,887.00	0.58	13.05	1,886.95	2.12	-1.99	1.25	0.26	-0.22	-13.00
1,948.00	0.68	1.23	1,947.94	2.78	-1.92	0.97	0.27	0.16	-19.38
2,010.00	0.42	354.07	2,009.94	3.37	-1.93	0.80	0.43	-0.42	-11.55
2,070.00	0.44	15.80	2,069.94	3.81	-1.89	0.63	0.27	0.03	36.22
2,131.00	0.73	141.27	2,130.94	3.74	-1.59	0.36	1.72	0.48	205.69
2,191.00	1.01	151.74	2,190.93	2.97	-1.10	0.13	0.53	0.47	17.45
2,251.00	0.98	162.09	2,250.92	2.02	-0.69	0.04	0.30	-0.05	17.25
2,312.00	1.23	168.11	2,311.91	0.88	-0.39	0.10	0.45	0.41	9.87
2,372.00	1.06	161.35	2,371.90	-0.27	-0.08	0.16	0.36	-0.28	-11.27
2,432.00	0.70	206.87	2,431.89	-1.13	-0.07	0.41	1.26	-0.60	75.87
2,493.00	0.70	213.55	2,492.89	-1.77	-0.45	0.97	0.13	0.00	10.95
2,553.00	0.88	200.90	2,552.88	-2.51	-0.81	1.54	0.42	0.30	-21.08
2,613.00	0.70	209.07	2,612.88	-3.26	-1.15	2.10	0.35	-0.30	13.62
2,674.00	0.62	257.76	2,673.87	-3.65	-1.66	2.70	0.90	-0.13	79.82
2,735.00	0.35	266.38	2,734.87	-3.73	-2.17	3.21	0.46	-0.44	14.13
2,796.00	0.57	294.45	2,795.87	-3.62	-2.63	3.61	0.51	0.36	46.02
2,856.00	0.68	254.55	2,855.86	-3.59	-3.24	4.19	0.73	0.18	-66.50
2,917.00	0.44	314.98	2,916.86	-3.52	-3.76	4.66	0.98	-0.39	99.07
2,980.00	1.22	338.90	2,979.86	-2.73	-4.17	4.81	1.33	1.24	37.97
3,044.00	0.90	308.93	3,043.84	-1.77	-4.81	5.12	0.98	-0.50	-46.83
3,107.00	0.70	318.32	3,106.84	-1.18	-5.45	5.55	0.38	-0.32	14.90
3,170.00	1.25	293.28	3,169.83	-0.62	-6.33	6.22	1.08	0.87	-39.75
3,233.00	1.06	283.25	3,232.82	-0.21	-7.53	7.24	0.44	-0.30	-15.92

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Hz

Local Co-ordinate Reference: Well Pinon Unit D14-2410 02H
TVD Reference: 15' KB @ 6891.01ft (A920)
MD Reference: 15' KB @ 6891.01ft (A920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,297.00	0.42	69.81	3,296.81	0.00	-7.89	7.51	2.23	-1.00	229.00
3,360.00	0.53	80.31	3,359.81	0.13	-7.39	6.99	0.22	0.17	16.67
3,423.00	0.44	115.91	3,422.81	0.08	-6.88	6.53	0.49	-0.14	56.51
3,486.00	0.47	91.81	3,485.81	-0.04	-6.40	6.11	0.31	0.05	-38.25
3,549.00	0.09	71.96	3,548.81	-0.03	-6.10	5.81	0.61	-0.60	-31.51
3,613.00	0.18	185.87	3,612.81	-0.11	-6.06	5.80	0.36	0.14	177.98
3,676.00	0.24	121.32	3,675.81	-0.28	-5.96	5.76	0.36	0.10	-102.46
3,739.00	0.38	199.34	3,738.81	-0.55	-5.92	5.80	0.64	0.22	123.84
3,802.00	0.60	208.44	3,801.80	-1.03	-6.14	6.16	0.37	0.35	14.44
3,866.00	0.53	197.12	3,865.80	-1.61	-6.39	6.58	0.21	-0.11	-17.69
3,929.00	0.85	203.14	3,928.80	-2.32	-6.66	7.05	0.52	0.51	9.56
3,992.00	0.88	218.80	3,991.79	-3.13	-7.14	7.76	0.38	0.05	24.86
4,055.00	0.86	199.05	4,054.78	-3.95	-7.60	8.45	0.47	-0.03	-31.35
4,118.00	0.79	190.09	4,117.77	-4.83	-7.83	8.94	0.23	-0.11	-14.22
4,182.00	0.70	187.19	4,181.77	-5.65	-7.96	9.31	0.15	-0.14	-4.53
4,245.00	0.84	209.62	4,244.76	-6.43	-8.24	9.81	0.52	0.22	35.60
Last SDI Surface MWD Survey									
4,308.00	1.14	197.29	4,307.75	-7.43	-8.65	10.51	0.58	0.48	-19.57
First SDI Curve MWD Survey									
4,371.00	1.28	200.20	4,370.74	-8.69	-9.08	11.31	0.24	0.22	4.62
4,403.00	3.29	195.11	4,402.71	-9.91	-9.44	12.03	6.31	6.28	-15.91
4,435.00	5.62	192.91	4,434.61	-12.33	-10.03	13.33	7.30	7.28	-6.88
4,466.00	7.74	190.18	4,465.40	-15.86	-10.74	15.09	6.91	6.84	-8.81
4,498.00	10.20	191.85	4,497.01	-20.75	-11.70	17.50	7.73	7.69	5.22
4,529.00	12.70	191.70	4,527.39	-26.78	-12.96	20.55	8.07	8.06	-0.48
4,561.00	15.70	192.56	4,558.41	-34.45	-14.61	24.47	9.40	9.38	2.69
4,593.00	18.20	193.08	4,589.02	-43.55	-16.69	29.24	7.83	7.81	1.63
4,624.00	20.36	191.83	4,618.27	-53.54	-18.89	34.40	7.09	6.97	-4.03
4,656.00	22.84	191.51	4,648.03	-65.08	-21.27	40.20	7.76	7.75	-1.00
4,687.00	25.42	191.57	4,676.31	-77.49	-23.80	46.42	8.32	8.32	0.19
4,719.00	28.45	191.70	4,704.84	-91.69	-26.73	53.56	9.47	9.47	0.41
4,751.00	31.21	191.61	4,732.60	-107.28	-29.94	61.40	8.63	8.63	-0.28
4,782.00	33.59	190.69	4,758.77	-123.57	-33.15	69.45	7.84	7.68	-2.97
4,814.00	36.38	188.22	4,784.99	-141.67	-36.15	77.85	9.78	8.72	-7.72
4,845.00	39.47	188.06	4,809.44	-160.53	-38.85	86.20	9.97	9.97	-0.52
4,877.00	41.85	187.44	4,833.71	-181.19	-41.65	95.21	7.54	7.44	-1.94
4,909.00	43.65	187.17	4,857.21	-202.73	-44.42	104.45	5.65	5.63	-0.84
4,940.00	45.78	188.91	4,879.24	-224.32	-47.47	113.98	7.92	6.87	5.61
4,972.00	47.44	190.60	4,901.22	-247.24	-51.42	124.76	6.45	5.19	5.28
5,003.00	48.47	192.85	4,921.98	-269.78	-56.10	136.13	6.33	3.32	7.26
5,035.00	50.43	192.65	4,942.78	-293.49	-61.46	148.51	6.14	6.13	-0.63
5,067.00	52.55	191.66	4,962.71	-317.97	-66.73	161.03	7.05	6.63	-3.09
5,098.00	55.70	190.56	4,980.87	-342.61	-71.57	173.19	10.56	10.16	-3.55
5,130.00	58.26	190.35	4,998.31	-369.00	-76.43	185.91	8.02	8.00	-0.66



Survey Report



Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Hz

Local Co-ordinate Reference: Well Pinon Unit D14-2410 02H
TVD Reference: 15' KB @ 6891.01ft (A920)
MD Reference: 15' KB @ 6891.01ft (A920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,161.00	59.50	191.87	5,014.33	-395.04	-81.55	198.77	5.80	4.00	4.90
5,193.00	60.63	193.85	5,030.30	-422.07	-87.72	212.94	6.42	3.53	6.19
5,225.00	61.98	197.73	5,045.67	-449.07	-95.37	228.49	11.44	4.22	12.13
5,256.00	63.04	201.00	5,059.98	-475.01	-104.49	245.12	9.96	3.42	10.55
5,288.00	63.48	205.05	5,074.38	-501.30	-115.66	263.83	11.39	1.38	12.66
5,319.00	63.54	208.58	5,088.21	-526.06	-128.18	283.33	10.19	0.19	11.39
5,351.00	63.79	211.68	5,102.41	-550.85	-142.57	304.63	8.72	0.78	9.69
5,383.00	64.46	212.85	5,116.38	-575.20	-157.94	326.73	3.90	2.09	3.66
5,414.00	65.13	214.45	5,129.58	-598.55	-173.48	348.68	5.15	2.16	5.16
5,446.00	66.14	216.93	5,142.78	-622.22	-190.49	372.13	7.73	3.16	7.75
5,478.00	67.55	220.35	5,155.37	-645.19	-208.86	396.66	10.77	4.41	10.69
5,509.00	68.55	223.09	5,166.96	-666.65	-227.99	421.45	8.81	3.23	8.84
5,541.00	69.61	225.92	5,178.39	-687.96	-248.95	447.93	8.90	3.31	8.84
5,572.00	70.52	228.23	5,188.96	-707.80	-270.28	474.33	7.60	2.94	7.45
5,604.00	70.96	230.86	5,199.52	-727.40	-293.27	502.21	7.88	1.38	8.22
5,636.00	72.21	232.92	5,209.62	-746.14	-317.16	530.70	7.25	3.91	6.44
5,667.00	73.78	234.91	5,218.69	-763.59	-341.11	558.85	7.96	5.06	6.42
5,699.00	75.18	237.55	5,227.25	-780.73	-366.74	588.50	9.07	4.38	8.25
5,731.00	76.67	239.77	5,235.04	-796.87	-393.25	618.68	8.18	4.66	6.94
5,762.00	77.65	241.83	5,241.93	-811.61	-419.63	648.32	7.21	3.16	6.65
5,794.00	79.98	243.64	5,248.13	-825.99	-447.54	679.28	9.15	7.28	5.66
5,825.00	81.70	245.21	5,253.07	-839.20	-475.14	709.61	7.47	5.55	5.06
5,857.00	83.35	248.08	5,257.23	-851.78	-504.27	741.19	10.28	5.16	8.97
5,889.00	84.49	249.86	5,260.62	-863.19	-533.96	772.96	6.58	3.56	5.56
5,920.00	86.39	252.40	5,263.09	-873.19	-563.20	803.85	10.21	6.13	8.19
5,940.00	86.78	253.82	5,264.28	-878.99	-582.30	823.81	7.35	1.95	7.10
5,972.00	87.74	256.90	5,265.81	-887.06	-613.23	855.72	10.07	3.00	9.63
6,003.00	89.08	260.22	5,266.67	-893.21	-643.59	886.51	11.55	4.32	10.71
6,035.00	91.18	263.02	5,266.60	-897.87	-675.25	918.07	10.94	6.56	8.75
6,067.00	92.51	265.23	5,265.57	-901.14	-707.06	949.35	8.06	4.16	6.91
6,098.00	92.59	266.29	5,264.19	-903.43	-737.94	979.45	3.43	0.26	3.42
6,161.00	92.58	269.14	5,261.35	-905.94	-800.82	1,040.07	4.52	-0.02	4.52
6,225.00	92.45	268.10	5,258.54	-907.48	-864.74	1,101.38	1.64	-0.20	-1.63
6,288.00	92.69	267.99	5,255.71	-909.63	-927.64	1,161.91	0.42	0.38	-0.17
6,351.00	92.15	267.61	5,253.05	-912.05	-990.54	1,222.51	1.05	-0.86	-0.60
6,414.00	91.58	268.57	5,251.00	-914.15	-1,053.47	1,283.05	1.77	-0.90	1.52
6,478.00	91.85	267.97	5,249.09	-916.08	-1,117.41	1,344.51	1.03	0.42	-0.94
6,541.00	92.32	268.75	5,246.79	-917.88	-1,180.34	1,404.96	1.44	0.75	1.24
6,604.00	92.65	268.87	5,244.06	-919.19	-1,243.27	1,465.26	0.56	0.52	0.19
6,667.00	92.04	269.06	5,241.48	-920.32	-1,306.21	1,525.51	1.01	-0.97	0.30
6,731.00	90.71	269.71	5,239.95	-921.01	-1,370.18	1,586.61	2.31	-2.08	1.02
6,794.00	90.47	269.69	5,239.30	-921.34	-1,433.18	1,646.67	0.38	-0.38	-0.03
6,857.00	91.37	269.26	5,238.29	-921.92	-1,496.17	1,706.80	1.58	1.43	-0.68

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Hz

Local Co-ordinate Reference: Well Pinon Unit D14-2410 02H
TVD Reference: 15' KB @ 6891.01ft (A920)
MD Reference: 15' KB @ 6891.01ft (A920)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,921.00	92.24	268.93	5,236.27	-922.93	-1,560.13	1,767.99	1.45	1.36	-0.52
6,981.00	90.40	268.22	5,234.89	-924.42	-1,620.09	1,825.52	3.29	-3.07	-1.18
7,042.00	88.46	267.14	5,235.50	-926.89	-1,681.03	1,884.29	3.64	-3.18	-1.77
7,102.00	88.96	266.48	5,236.85	-930.22	-1,740.92	1,942.31	1.38	0.83	-1.10
7,163.00	89.80	266.12	5,237.51	-934.16	-1,801.79	2,001.46	1.50	1.38	-0.59
7,225.00	90.61	267.62	5,237.29	-937.55	-1,863.70	2,061.42	2.75	1.31	2.42
Last SDI Curve MWD Survey									
7,285.00	91.11	267.77	5,236.39	-939.96	-1,923.64	2,119.21	0.87	0.83	0.25
First SDI Lateral MWD Survey									
7,346.00	91.68	267.61	5,234.90	-942.42	-1,984.57	2,177.96	0.97	0.93	-0.26
7,406.00	92.35	267.26	5,232.79	-945.10	-2,044.48	2,235.80	1.26	1.12	-0.58
7,466.00	92.29	267.32	5,230.36	-947.94	-2,104.36	2,293.67	0.14	-0.10	0.10
7,527.00	91.08	268.05	5,228.57	-950.40	-2,165.28	2,352.41	2.32	-1.98	1.20
7,587.00	90.81	266.92	5,227.58	-953.03	-2,225.22	2,410.26	1.94	-0.45	-1.88
7,647.00	90.91	265.41	5,226.68	-957.04	-2,285.07	2,468.47	2.52	0.17	-2.52
7,708.00	91.28	266.55	5,225.51	-961.32	-2,345.91	2,527.68	1.96	0.61	1.87
7,768.00	90.77	267.02	5,224.44	-964.68	-2,405.81	2,585.73	1.16	-0.85	0.78
7,828.00	91.04	267.05	5,223.49	-967.79	-2,465.72	2,643.70	0.45	0.45	0.05
7,889.00	90.74	265.73	5,222.54	-971.63	-2,526.59	2,702.82	2.22	-0.49	-2.16
7,950.00	90.77	266.08	5,221.74	-975.98	-2,587.43	2,762.06	0.58	0.05	0.57
8,011.00	91.48	267.33	5,220.54	-979.49	-2,648.31	2,821.09	2.36	1.16	2.05
8,071.00	92.19	268.23	5,218.62	-981.81	-2,708.24	2,878.84	1.91	1.18	1.50
8,132.00	89.13	267.39	5,217.92	-984.14	-2,769.18	2,937.56	5.20	-5.02	-1.38
8,193.00	90.74	268.22	5,217.99	-986.48	-2,830.13	2,996.29	2.97	2.64	1.36
8,254.00	91.81	269.52	5,216.63	-987.68	-2,891.10	3,054.69	2.76	1.75	2.13
8,315.00	90.47	269.44	5,215.42	-988.23	-2,952.09	3,112.91	2.20	-2.20	-0.13
8,376.00	89.70	268.72	5,215.33	-989.21	-3,013.08	3,171.26	1.73	-1.26	-1.18
8,437.00	91.68	269.64	5,214.59	-990.09	-3,074.06	3,229.57	3.58	3.25	1.51
8,497.00	92.08	269.87	5,212.62	-990.34	-3,134.03	3,286.73	0.77	0.67	0.38
8,558.00	92.92	271.09	5,209.96	-989.83	-3,194.97	3,344.57	2.43	1.38	2.00
8,619.00	92.33	270.01	5,207.17	-989.25	-3,255.90	3,402.39	2.02	-0.97	-1.77
8,682.00	90.00	269.00	5,205.89	-989.79	-3,318.88	3,462.50	4.03	-3.70	-1.60
8,746.00	90.61	268.98	5,205.55	-990.92	-3,382.87	3,523.75	0.95	0.95	-0.03
8,809.00	90.91	269.65	5,204.71	-991.67	-3,445.86	3,583.94	1.17	0.48	1.06
8,872.00	91.14	271.93	5,203.59	-990.80	-3,508.84	3,643.62	3.64	0.37	3.62
8,935.00	90.67	271.88	5,202.59	-988.71	-3,571.80	3,702.90	0.75	-0.75	-0.08
8,998.00	90.57	269.93	5,201.91	-987.72	-3,634.78	3,762.54	3.10	-0.16	-3.10
9,062.00	91.34	271.34	5,200.84	-987.01	-3,698.77	3,823.23	2.51	1.20	2.20
9,125.00	90.48	270.86	5,199.84	-985.80	-3,761.75	3,882.80	1.56	-1.37	-0.76
9,188.00	91.25	271.39	5,198.89	-984.56	-3,824.73	3,942.37	1.48	1.22	0.84
9,251.00	90.48	269.28	5,197.94	-984.19	-3,887.71	4,002.21	3.56	-1.22	-3.35
9,315.00	91.07	267.79	5,197.07	-985.83	-3,951.69	4,063.60	2.50	0.92	-2.33
9,378.00	90.87	265.87	5,196.01	-989.31	-4,014.58	4,124.53	3.06	-0.32	-3.05
9,441.00	92.78	264.55	5,194.00	-994.57	-4,077.32	4,185.86	3.68	3.03	-2.10



Survey Report



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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,504.00	92.96	265.08	5,190.85	-1,000.26	-4,139.98	4,247.25	0.89	0.29	0.84
9,567.00	92.32	266.25	5,187.94	-1,005.01	-4,202.74	4,308.44	2.12	-1.02	1.86
9,631.00	91.75	267.38	5,185.67	-1,008.57	-4,266.60	4,370.31	1.98	-0.89	1.77
9,694.00	91.35	267.99	5,183.97	-1,011.11	-4,329.52	4,430.98	1.16	-0.63	0.97
9,757.00	90.74	269.37	5,182.82	-1,012.56	-4,392.49	4,491.36	2.39	-0.97	2.19
9,820.00	90.67	269.97	5,182.04	-1,012.92	-4,455.49	4,551.43	0.96	-0.11	0.95
9,884.00	90.07	269.47	5,181.63	-1,013.24	-4,519.48	4,612.44	1.22	-0.94	-0.78
9,947.00	90.27	268.37	5,181.44	-1,014.42	-4,582.47	4,672.76	1.77	0.32	-1.75
10,010.00	90.81	268.97	5,180.85	-1,015.89	-4,645.45	4,733.15	1.28	0.86	0.95
10,073.00	90.64	269.15	5,180.05	-1,016.92	-4,708.44	4,793.42	0.39	-0.27	0.29
10,136.00	91.48	268.92	5,178.89	-1,017.98	-4,771.42	4,853.69	1.38	1.33	-0.37
10,200.00	91.24	270.16	5,177.37	-1,018.49	-4,835.39	4,914.74	1.97	-0.38	1.94
10,263.00	90.13	268.66	5,176.61	-1,019.14	-4,898.38	4,974.90	2.96	-1.76	-2.38
10,326.00	90.07	267.80	5,176.50	-1,021.09	-4,961.35	5,035.43	1.37	-0.10	-1.37
10,389.00	91.74	268.94	5,175.51	-1,022.88	-5,024.32	5,095.91	3.21	2.65	1.81
10,453.00	90.03	269.26	5,174.52	-1,023.88	-5,088.30	5,157.11	2.72	-2.67	0.50
10,516.00	90.47	269.34	5,174.25	-1,024.65	-5,151.29	5,217.31	0.71	0.70	0.13
10,579.00	91.84	269.09	5,172.98	-1,025.52	-5,214.27	5,277.52	2.21	2.17	-0.40
10,643.00	90.13	267.63	5,171.88	-1,027.35	-5,278.23	5,338.96	3.51	-2.67	-2.28
10,706.00	90.81	268.10	5,171.36	-1,029.70	-5,341.19	5,399.60	1.31	1.08	0.75
10,769.00	90.84	269.05	5,170.45	-1,031.26	-5,404.16	5,460.02	1.51	0.05	1.51
10,832.00	90.84	269.10	5,169.53	-1,032.28	-5,467.15	5,520.28	0.08	0.00	0.08
10,895.00	90.50	269.18	5,168.79	-1,033.22	-5,530.13	5,580.52	0.55	-0.54	0.13
10,959.00	90.04	267.96	5,168.49	-1,034.82	-5,594.11	5,641.91	2.04	-0.72	-1.91
11,022.00	90.57	268.31	5,168.15	-1,036.87	-5,657.08	5,702.47	1.01	0.84	0.56
11,085.00	90.64	267.70	5,167.49	-1,039.07	-5,720.04	5,763.06	0.97	0.11	-0.97
11,149.00	90.22	267.26	5,167.01	-1,041.88	-5,783.97	5,824.78	0.95	-0.66	-0.69
11,212.00	90.44	267.32	5,166.65	-1,044.86	-5,846.90	5,885.59	0.36	0.35	0.10
11,229.00	90.92	267.17	5,166.44	-1,045.67	-5,863.88	5,902.00	2.96	2.82	-0.88
11,288.00	90.92	267.17	5,165.50	-1,048.59	-5,922.80	5,958.98	0.00	0.00	0.00

Last SDI Lateral MWD Survey

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
183.00	183.00	0.29	0.50	First SDI Surface MWD Survey
4,245.00	4,244.76	-6.43	-8.24	Last SDI Surface MWD Survey
4,308.00	4,307.75	-7.43	-8.65	First SDI Curve MWD Survey
7,225.00	5,237.29	-937.55	-1,863.70	Last SDI Curve MWD Survey
7,285.00	5,236.39	-939.96	-1,923.64	First SDI Lateral MWD Survey
11,288.00	5,165.50	-1,048.59	-5,922.80	Last SDI Lateral MWD Survey



Survey Report



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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Checked By: _____ Approved By: _____ Date: _____