

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

NOV 04 2014

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM 100807

6. If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Encana Oil & Gas (USA) Inc.

3a. Address
370 17th Street, Suite 1700 Denver, CO 80202

3b. Phone No. (include area code)
720-876-5867

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1348' FNL and 434' FWL Section 14, T24N, R10W
BHL: 1760' FNL and 330' FWL Section 15, T24N, R10W

2240' FNL & 290' FEL: Section 16 T24N R10W

7. If Unit of CA/Agreement, Name and/or No.
Pending

8. Well Name and No.
Pinion Unit D14-2410 02H

9. API Well No.
30-045-35530

10. Field and Pool or Exploratory Area
Basin Mancos

11. County or Parish, State
San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Encana Oil & Gas (USA) Inc. (Encana) wishes to modify the drilling plan for the Pinon Unit D14-2410 02H well to move the 7" ICP from approximately 55 degrees to approximately 90 degrees, which puts the ICP 30' inside the 330' setback. The change is requested due to faults that were encountered when drilling the Pinon Unit D14-2410 01H well that resulted in lost circulation issues. By moving the ICP, Encana intends to put the fault behind the pipe before entering the lateral portion of the well.

Please note, Encana received verbal approval from the BLM and OCD to make this change via phone conversations on October 30, 2014 between David Scadden (Encana drilling engineer) and Jim Lovato (BLM) and Brandon Powell (OCD).

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

OIL CONS. DIV DIST. 3
NOV 10 2014

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Katie Wegner

Title: Regulatory Analyst

Signature

Date 10/31/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Petroleum Engineer

Date

11/05/2014

Office

FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCDF



Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Plan #4

PROJECT DETAILS: San Juan County, NM

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True



Azimuths to True North
Magnetic North: 9.62°

Magnetic Field
Strength: 50252.0 nT
Dip Angle: 63.02°
Date: 9/13/2013
Model: IGRF2010

WELL DETAILS: Pinon Unit D14-2410 02H

Plan: Plan #4 (Pinon Unit D14-2410 02H/Hz)

Created By: Janie Collins Date: 10:20, October 31 2014

15' KB @ 6891.01ft (A920)
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 1934890.44 2711381.53 36.3175490 -107.8730830

SECTION DETAILS

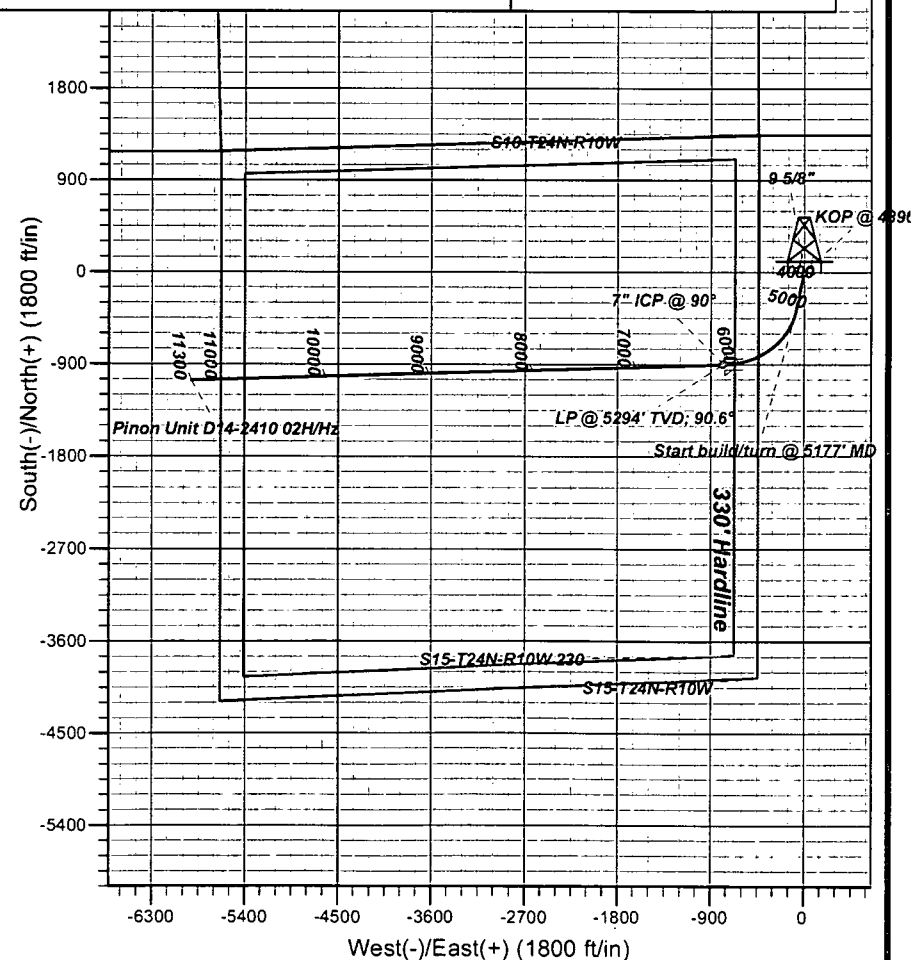
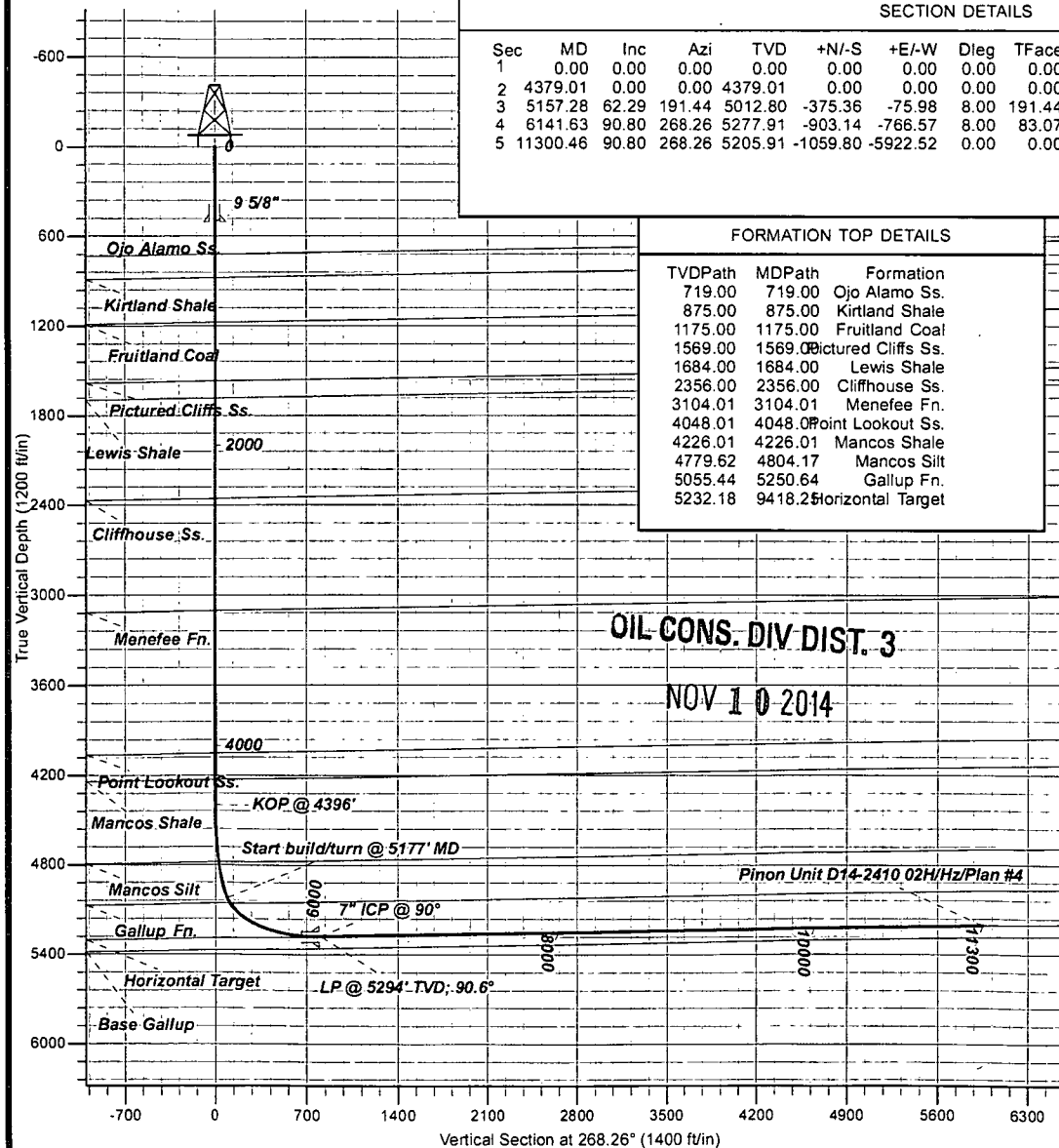
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	4379.01	0.00	0.00	4379.01	0.00	0.00	0.00	0.00	0.00		
3	5157.28	62.29	191.44	5012.80	-375.36	-75.98	8.00	191.44	87.34		
4	6141.63	90.80	268.26	5277.91	-903.14	-766.57	8.00	83.07	793.64	PU D14-2410 02H POE P4	
5	11300.46	90.80	268.26	5205.91	-1059.80	-5922.52	0.00	0.00	5951.97	PU D14-2410 02H PBHL P4	

CASING DETAILS

TVD	MD	Name
500.00	500.00	9 5/8"
5277.91	6141.63	7" ICP @ 90°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
719.00	719.00	Ojo Alamo Ss.
875.00	875.00	Kirtland Shale
1175.00	1175.00	Fruitland Coal
1569.00	1569.00	Pictured Cliffs Ss.
1684.00	1684.00	Lewis Shale
2356.00	2356.00	Cliffhouse Ss.
3104.01	3104.01	Menefee Fn.
4048.01	4048.01	Point Lookout Ss.
4226.01	4226.01	Mancos Shale
4779.62	4804.17	Mancos Silt
5055.44	5250.64	Gallup Fn.
5232.18	9418.25	Horizontal Target





EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R10W

Pinon Unit D14-2410 02H

Hz

Plan: Plan #4

Standard Planning Report

31 October, 2014



www.scientificdrilling.com



Planning Report



Database: Grand Junction District
Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Plan #4

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

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
	+E/-W	0.00 ft	Easting: 2,711,381.53 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	Ground Level: 6,876.00 ft

Wellbore	Hz		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	9/13/2013	9.62
			Dip Angle (°)
			63.02
			Field Strength (nT)
			50,252

Design	Plan #4		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction (°)
			268.26

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,379.01	0.00	0.00	4,379.01	0.00	0.00	0.00	0.00	0.00	0.00	
5,157.28	62.29	191.44	5,012.80	-375.36	-75.98	8.00	8.00	0.00	191.44	
6,141.63	90.80	268.26	5,277.91	-903.14	-766.57	8.00	2.90	7.80	83.07	PU D14-2410 02H PC
11,300.46	90.80	268.26	5,205.91	-1,059.80	-5,922.52	0.00	0.00	0.00	0.00	PU D14-2410 02H PE

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Wellbore: Hz
Design: Plan #4

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MD Reference: 15' KB @ 6891.01ft (A920)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
719.00	0.00	0.00	719.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo Ss.									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
875.00	0.00	0.00	875.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland Shale									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,175.00	0.00	0.00	1,175.00	0.00	0.00	0.00	0.00	0.00	0.00
Fruitland Coal									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,569.00	0.00	0.00	1,569.00	0.00	0.00	0.00	0.00	0.00	0.00
Pictured Cliffs Ss.									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,684.00	0.00	0.00	1,684.00	0.00	0.00	0.00	0.00	0.00	0.00
Lewis Shale									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,356.00	0.00	0.00	2,356.00	0.00	0.00	0.00	0.00	0.00	0.00
Cliffhouse Ss.									
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,104.01	0.00	0.00	3,104.01	0.00	0.00	0.00	0.00	0.00	0.00
Menefee Fn.									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00

Database: Grand Junction District
Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R10W
Well: Pinon Unit D14-2410 02H
Wellbore: Hz
Design: Plan #4

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

Planned 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)
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,048.01	0.00	0.00	4,048.01	0.00	0.00	0.00	0.00	0.00	0.00
Point Lookout Ss.									
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,226.01	0.00	0.00	4,226.01	0.00	0.00	0.00	0.00	0.00	0.00
Mancos Shale									
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,379.01	0.00	0.00	4,379.01	0.00	0.00	0.00	0.00	0.00	0.00
4,396.01	1.36	191.44	4,396.01	-0.20	-0.04	0.05	8.00	8.00	0.00
KOP @ 4396'									
4,400.00	1.68	191.44	4,400.00	-0.30	-0.06	0.07	8.00	8.00	0.00
4,500.00	9.68	191.44	4,499.42	-10.00	-2.02	2.33	8.00	8.00	0.00
4,600.00	17.69	191.44	4,596.51	-33.17	-6.71	7.72	8.00	8.00	0.00
4,700.00	25.69	191.44	4,689.35	-69.36	-14.04	16.14	8.00	8.00	0.00
4,800.00	33.69	191.44	4,776.15	-117.86	-23.86	27.43	8.00	8.00	0.00
4,804.17	34.03	191.44	4,779.62	-120.14	-24.32	27.96	8.00	8.00	0.00
Mancos Silt									
4,900.00	41.70	191.44	4,855.22	-177.74	-35.98	41.36	8.00	8.00	0.00
5,000.00	49.70	191.44	4,925.01	-247.83	-50.16	57.67	8.00	8.00	0.00
5,100.00	57.70	191.44	4,984.16	-326.76	-66.14	76.03	8.00	8.00	0.00
5,157.28	62.29	191.44	5,012.80	-375.36	-75.98	87.34	8.00	8.00	0.00
5,177.42	62.49	193.25	5,022.13	-392.80	-79.80	91.69	8.00	1.02	8.95
Start build/turn @ 5177' MD									
5,200.00	62.75	195.26	5,032.52	-412.23	-84.73	97.21	8.00	1.15	8.91
5,250.64	63.43	199.74	5,055.45	-455.28	-98.31	112.09	8.00	1.35	8.84
Gallup Fn.									
5,300.00	64.23	204.04	5,077.22	-496.37	-114.82	129.84	8.00	1.62	8.73
5,400.00	66.23	212.58	5,119.18	-576.18	-157.88	175.30	8.00	2.00	8.53
5,500.00	68.68	220.82	5,157.57	-650.10	-213.05	232.70	8.00	2.45	8.25
5,600.00	71.51	228.78	5,191.67	-716.71	-279.28	300.91	8.00	2.84	7.96
5,700.00	74.67	236.46	5,220.79	-774.69	-355.26	378.62	8.00	3.16	7.68
5,800.00	78.08	243.91	5,244.37	-822.92	-439.53	464.31	8.00	3.41	7.45
5,900.00	81.68	251.16	5,261.97	-860.47	-530.44	556.32	8.00	3.60	7.26
6,000.00	85.41	258.29	5,273.22	-886.61	-626.22	652.85	8.00	3.73	7.12
6,079.08	88.41	263.86	5,277.48	-898.85	-704.19	731.16	8.00	3.80	7.05
Good Times D14-2410 02H POE P2									
6,100.00	89.21	265.33	5,277.91	-900.82	-725.01	752.03	8.00	3.81	7.03
6,141.63	90.80	268.26	5,277.91	-903.14	-766.57	793.64	8.00	3.82	7.03
7" ICP @ 90° - Good Times D14-2410 02H POE - PU D14-2410 02H POE P4 - PU D14-2410 02H POE P3									
6,157.49	90.80	268.26	5,277.69	-903.62	-782.42	809.50	0.00	0.00	0.00
LP @ 5294' TVD; 90.6°									
6,200.00	90.80	268.26	5,277.10	-904.92	-824.91	852.00	0.00	0.00	0.00
6,300.00	90.80	268.26	5,275.70	-907.95	-924.85	951.99	0.00	0.00	0.00
6,400.00	90.80	268.26	5,274.30	-910.99	-1,024.80	1,051.99	0.00	0.00	0.00
6,500.00	90.80	268.26	5,272.91	-914.03	-1,124.74	1,151.98	0.00	0.00	0.00
6,600.00	90.80	268.26	5,271.51	-917.06	-1,224.68	1,251.97	0.00	0.00	0.00
6,700.00	90.80	268.26	5,270.12	-920.10	-1,324.63	1,351.96	0.00	0.00	0.00
6,800.00	90.80	268.26	5,268.72	-923.13	-1,424.57	1,451.95	0.00	0.00	0.00
6,900.00	90.80	268.26	5,267.33	-926.17	-1,524.52	1,551.94	0.00	0.00	0.00
7,000.00	90.80	268.26	5,265.93	-929.21	-1,624.46	1,651.93	0.00	0.00	0.00

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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

Planned 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)
7,100.00	90.80	268.26	5,264.53	-932.24	-1,724.41	1,751.92	0.00	0.00	0.00
7,200.00	90.80	268.26	5,263.14	-935.28	-1,824.35	1,851.91	0.00	0.00	0.00
7,300.00	90.80	268.26	5,261.74	-938.32	-1,924.29	1,951.90	0.00	0.00	0.00
7,400.00	90.80	268.26	5,260.35	-941.35	-2,024.24	2,051.89	0.00	0.00	0.00
7,500.00	90.80	268.26	5,258.95	-944.39	-2,124.18	2,151.88	0.00	0.00	0.00
7,600.00	90.80	268.26	5,257.56	-947.43	-2,224.13	2,251.87	0.00	0.00	0.00
7,700.00	90.80	268.26	5,256.16	-950.46	-2,324.07	2,351.86	0.00	0.00	0.00
7,800.00	90.80	268.26	5,254.77	-953.50	-2,424.01	2,451.85	0.00	0.00	0.00
7,900.00	90.80	268.26	5,253.37	-956.54	-2,523.96	2,551.84	0.00	0.00	0.00
8,000.00	90.80	268.26	5,251.97	-959.57	-2,623.90	2,651.83	0.00	0.00	0.00
8,100.00	90.80	268.26	5,250.58	-962.61	-2,723.85	2,751.82	0.00	0.00	0.00
8,200.00	90.80	268.26	5,249.18	-965.65	-2,823.79	2,851.81	0.00	0.00	0.00
8,300.00	90.80	268.26	5,247.79	-968.68	-2,923.73	2,951.80	0.00	0.00	0.00
8,400.00	90.80	268.26	5,246.39	-971.72	-3,023.68	3,051.79	0.00	0.00	0.00
8,500.00	90.80	268.26	5,245.00	-974.76	-3,123.62	3,151.78	0.00	0.00	0.00
8,600.00	90.80	268.26	5,243.60	-977.79	-3,223.57	3,251.77	0.00	0.00	0.00
8,700.00	90.80	268.26	5,242.20	-980.83	-3,323.51	3,351.76	0.00	0.00	0.00
8,800.00	90.80	268.26	5,240.81	-983.87	-3,423.46	3,451.75	0.00	0.00	0.00
8,900.00	90.80	268.26	5,239.41	-986.90	-3,523.40	3,551.74	0.00	0.00	0.00
9,000.00	90.80	268.26	5,238.02	-989.94	-3,623.34	3,651.73	0.00	0.00	0.00
9,100.00	90.80	268.26	5,236.62	-992.98	-3,723.29	3,751.72	0.00	0.00	0.00
9,200.00	90.80	268.26	5,235.23	-996.01	-3,823.23	3,851.71	0.00	0.00	0.00
9,300.00	90.80	268.26	5,233.83	-999.05	-3,923.18	3,951.70	0.00	0.00	0.00
9,400.00	90.80	268.26	5,232.43	-1,002.09	-4,023.12	4,051.69	0.00	0.00	0.00
9,418.25	90.80	268.26	5,232.18	-1,002.64	-4,041.36	4,069.95	0.00	0.00	0.00
Horizontal Target									
9,500.00	90.80	268.26	5,231.04	-1,005.12	-4,123.06	4,151.68	0.00	0.00	0.00
9,600.00	90.80	268.26	5,229.64	-1,008.16	-4,223.01	4,251.67	0.00	0.00	0.00
9,700.00	90.80	268.26	5,228.25	-1,011.20	-4,322.95	4,351.66	0.00	0.00	0.00
9,800.00	90.80	268.26	5,226.85	-1,014.23	-4,422.90	4,451.65	0.00	0.00	0.00
9,900.00	90.80	268.26	5,225.46	-1,017.27	-4,522.84	4,551.64	0.00	0.00	0.00
10,000.00	90.80	268.26	5,224.06	-1,020.31	-4,622.79	4,651.63	0.00	0.00	0.00
10,100.00	90.80	268.26	5,222.66	-1,023.34	-4,722.73	4,751.62	0.00	0.00	0.00
10,200.00	90.80	268.26	5,221.27	-1,026.38	-4,822.67	4,851.62	0.00	0.00	0.00
10,300.00	90.80	268.26	5,219.87	-1,029.42	-4,922.62	4,951.61	0.00	0.00	0.00
10,400.00	90.80	268.26	5,218.48	-1,032.45	-5,022.56	5,051.60	0.00	0.00	0.00
10,500.00	90.80	268.26	5,217.08	-1,035.49	-5,122.51	5,151.59	0.00	0.00	0.00
10,600.00	90.80	268.26	5,215.69	-1,038.53	-5,222.45	5,251.58	0.00	0.00	0.00
10,665.95	90.80	268.26	5,214.77	-1,040.53	-5,288.36	5,317.52	0.00	0.00	0.00
Good Times D14-2410 02H PBHL P2									
10,679.63	90.80	268.26	5,214.58	-1,040.95	-5,302.03	5,331.20	0.00	0.00	0.00
Good Times D14-2410 02H PBHL									
10,700.00	90.80	268.26	5,214.29	-1,041.56	-5,322.39	5,351.57	0.00	0.00	0.00
10,800.00	90.80	268.26	5,212.90	-1,044.60	-5,422.34	5,451.56	0.00	0.00	0.00
10,900.00	90.80	268.26	5,211.50	-1,047.64	-5,522.28	5,551.55	0.00	0.00	0.00
11,000.00	90.80	268.26	5,210.10	-1,050.67	-5,622.23	5,651.54	0.00	0.00	0.00
11,100.00	90.80	268.26	5,208.71	-1,053.71	-5,722.17	5,751.53	0.00	0.00	0.00
11,200.00	90.80	268.26	5,207.31	-1,056.75	-5,822.12	5,851.52	0.00	0.00	0.00
11,299.99	90.80	268.26	5,205.92	-1,059.78	-5,922.05	5,951.49	0.00	0.00	0.00
PU D14-2410 02H PBHL P3									
11,300.00	90.80	268.26	5,205.92	-1,059.78	-5,922.06	5,951.51	0.00	0.00	0.00
11,300.46	90.80	268.26	5,205.91	-1,059.80	-5,922.52	5,951.97	0.00	0.00	0.00
PU D14-2410 02H PBHL P4									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Pinon Unit D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 6891.01ft (A920)
Project:	San Juan County, NM	MD Reference:	15' KB @ 6891.01ft (A920)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Pinon Unit D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #4		

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PU D14-2410 02H PBHI - hit/miss target - Shape	0.00	0.00	5,205.91	-1,059.80	-5,922.52	1,933,833.08	2,705,458.59	36.3146360	-107.8931860
Good Times D14-2410 C - plan hits target center - Point	0.00	0.00	5,233.16	-1,048.27	-5,302.07	1,933,844.35	2,706,079.04	36.3146680	-107.8910800
PU D14-2410 02H PBHI - plan misses target center by 19.98ft at 10679.63ft MD (5214.58 TVD, -1040.95 N, -5302.03 E) - Point	0.00	0.00	5,239.71	-1,059.80	-5,922.52	1,933,833.08	2,705,458.59	36.3146360	-107.8931860
Good Times D14-2410 C - plan misses target center by 33.80ft at 11299.99ft MD (5205.92 TVD, -1059.78 N, -5922.05 E) - Point	0.00	0.00	5,247.35	-568.48	-5,303.16	1,934,324.14	2,706,078.15	36.3159860	-107.8910840
PU D14-2410 02H POE - plan misses target center by 473.40ft at 10665.95ft MD (5214.77 TVD, -1040.53 N, -5288.36 E) - Point	0.00	0.00	5,277.91	-903.14	-766.57	1,933,987.62	2,710,614.60	36.3150680	-107.8756850
Good Times D14-2410 C - plan hits target center - Point	0.00	0.00	5,280.68	-903.14	-766.57	1,933,987.62	2,710,614.60	36.3150680	-107.8756850
PU D14-2410 02H POE - plan misses target center by 2.77ft at 6141.63ft MD (5277.91 TVD, -903.14 N, -766.57 E) - Point	0.00	0.00	5,293.71	-903.14	-766.57	1,933,987.62	2,710,614.60	36.3150680	-107.8756850
Good Times D14-2410 C - plan misses target center by 15.80ft at 6141.63ft MD (5277.91 TVD, -903.14 N, -766.57 E) - Point	0.00	0.00	5,294.87	-459.39	-766.56	1,934,431.37	2,710,614.79	36.3162870	-107.8756850

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.00	500.00	9 5/8"	0.000	0.000
6,141.63	5,277.91	7" ICP @ 90°	0.000	0.000

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Pinon Unit D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 6891.01ft (A920)
Project:	San Juan County, NM	MD Reference:	15' KB @ 6891.01ft (A920)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Pinon Unit D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #4		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
719.00	719.00	Ojo Alamo Ss.		-0.80	268.26
875.00	875.00	Kirtland Shale		-0.80	268.26
1,175.00	1,175.00	Fruitland Coal		-0.80	268.26
1,569.00	1,569.00	Pictured Cliffs Ss.		-0.80	268.26
1,684.00	1,684.00	Lewis Shale		-0.80	268.26
2,356.00	2,356.00	Cliffhouse Ss.		-0.80	268.26
3,104.01	3,104.01	Menefee Fn.		-0.80	268.26
4,048.01	4,048.01	Point Lookout Ss.		-0.80	268.26
4,226.01	4,226.01	Mancos Shale		-0.80	268.26
4,804.17	4,779.62	Mancos Silt		-0.80	268.26
5,250.64	5,055.45	Gallup Fn.		-0.80	268.26
9,418.25	5,232.18	Horizontal Target		-0.80	268.26

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,396.01	4,396.01	-0.20	-0.04	KOP @ 4396'
5,177.42	5,022.13	-392.80	-79.80	Start build/turn @ 5177' MD
6,157.49	5,277.69	-903.62	-782.42	LP @ 5294' TVD; 90.6°
11,316.10				TD at 11316.1

LOC: 1348'FNL & 436'FWL Sec 14 24N10W County: San Juan WELL: Pinon Unit D-14-2410 02H			Encana Natural Gas WELL SUMMARY						ENG: David Scadde 10/31/14 RIG: Aztec 920 GLE: 6876.4 RKBE: 6890.9		
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH			HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION		
			TVD	MD							
			60	60'		26	16" 42.09# 100sx Type I Neat 16.0ppg cmt	Fresh wtr 8.3-9.2			
Multi-Well pad take survey every stand and run anti- collision report prior to spud	None	San Jose Fn. Nacimiento Fn. 9 5/8" Csg	0 surface 500	 500.00		12 1/4	9 5/8" 36ppf J55 STC TOC Surface with 100% OH Excess: 228 sks Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water.	Fresh wtr 8.3-10	Vertical <1°		
Survey Every 60'-120', updating anticollision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5	No OH logs	Ojo Alamo Ss. Kirtland Shale Fruitland Coal Pictured Cliffs Ss. Lewis Shale Cliffhouse Ss. Menelee Fn. Point Lookout Ss. Mancos Shale	697 853 1,153 1,547 1,662 2,334 3,082 4,026 4,204			8 3/4	7" 26ppf J55 LTC TOC @ surface (100% OH excess - 70% Lead 30% Tail) Stage 1 Total: 1011sks Stage 1 Lead: 577 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk. Stage 1 Tail: 434 sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk.	Fresh Wtr 8.3-10	Vertical <1°		
Surveys every 30' through the curve	Mud logger onsite	KOP Mancos Silt Gallup Fn. 7" Csg	4,396 4,792 5,035 5,278				4,396 6,158'	6 1/8		100' overlap at liner top 5143' Drilled Lateral	
Surveys every stand to TD unless directed otherwise by Geologist	No OH Logs	Horizontal Target TD Base Gallup	5,292 5,206 5,367				11,300				
MWD Gamma Directional										4 1/2" 11.6ppf SB80 LTC TOC @ hanger (50% OH excess) Stage 1 Total: 297sks Stage 1 Blend: 297 sks Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwow Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL 52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk.	WBM 8.3-10

NOTES:

- 1) Drill with 26" bit to 60', set 16" 42.09ppf conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 4396', 8 3/4 inch holesize
- 5) Start curve at 10deg/100' build rate
- 6) Drill to csg point of 6158' MD
- 7) R&C 7" csg, circ cmt to surface
- 8) Land at ~90 deg, drill lateral to 11300' run 4 1/2 inch cemented liner

OIL CONS. DIV DIST. 3
NOV 10 2014

Pinon Unit D-14-2410 02H
 SHL: 1348'FNL & 436'FWL Sec 14 24N10W
 BHL: 2240'FNL & 290'FEL Sec 16 24N10W
 San Juan, New Mexico

**Encana Oil & Gas (USA) Inc.
 Drilling Plan**

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
San Jose Fn.	n/a
Nacimiento Fn.	surface
Ojo Alamo Ss.	697
Kirtland Shale	853
Fruitland Coal	1,153
Pictured Cliffs Ss.	1,547
Lewis Shale	1,662
Cliffhouse Ss.	2,334
Menefee Fn.	3,082
Point Lookout Ss.	4,026
Mancos Shale	4,204
Mancos Silt	4,792
Gallup Fn.	5,035
Base Gallup	5,367

The referenced surface elevation is 6876', KB 6891'

**2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS,
 & OTHER MINERAL BEARING FORMATIONS**

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,153
Oil/Gas	Pictured Cliffs Ss.	1,547
Oil/Gas	Cliffhouse Ss.	2,334
Gas	Menefee Fn.	3,082
Oil/Gas	Point Lookout Ss.	4,026
Oil/Gas	Mancos Shale	4,204
Oil/Gas	Mancos Silt	4,792
Oil/Gas	Gallup Fn.	5,035

All shows of fresh water and minerals will be reported and protected.

Pinon Unit D-14-2410 02H

SHL: 1348'FNL & 436'FWL Sec 14 24N10W

BHL: 2240'FNL & 290'FEL Sec 16 24N10W

San Juan, New Mexico

3. PRESSURE CONTROL

- a) Pressure control equipment and configuration will be designed to meet 2M standards.
- b) Working pressure on rams and BOPE will be 3,000 psi.
- c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- l) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

- a) The proposed casing design is as follows:

Casing	Depth (MD)	Hole Size	Csg Size	Weight	Grade
Conductor	0'-60'	26"	16"	42.09#	
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-6158'	8 3/4"	7"	26#	J55, LTC New
Production Liner	6058'-11300'	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (ppf)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lbs)	Collapse	Burst	Tension
9 5/8"	36	J55	STC	2020	3520	394	1.125	1.1	1.5
7"	26	J55	LTC	4320	4980	367	1.125	1.1	1.5
4.5"	11.6	B80	LTC	6350	7780	201	1.125	1.1	1.5

*B80 pipe specifications are attached

Casing design is subject to revision based on geologic conditions encountered

Pinon Unit D-14-2410 02H**SHL: 1348'FNL & 436'FWL Sec 14 24N10W****BHL: 2240'FNL & 290'FEL Sec 16 24N10W****San Juan, New Mexico**

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

b) The proposed cementing program is as follows

Casing	Depth (MD)	Cement Volume (sacks)	Cement Type & Yield	Design	Centralizers
Conductor	0'-60'	100 sks	Type I Neat 16 ppg	Surface	None
Surface	0'-500'	228 sks	Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water	Surface	1 per joint on bottom 3 joints
Intermediate	0'-6158'	100% open hole excess Stage 1 Lead: 577 sks Stage 1 Tail: 434 sks	Lead: PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuft/sk Tail: Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuft/sk	Surface	1 every 3 joints through water bearing zones
Production Liner	6058'-11300'	50% OH excess Stage 1 Blend Total: 297sks	Blend: Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwoc Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL- 52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk	Liner Hanger	N/A

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4396'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5206'/11300'	Gallup

Pinon Unit D-14-2410 02H
SHL: 1348'FNL & 436'FWL Sec 14 24N10W
BHL: 2240'FNL & 290'FEL Sec 16 24N10W
San Juan, New Mexico

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60'/60'	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0'-500'/500'	Fresh Water	8.3-10	60-70	NC
8 3/4"	500'/500'-5278'/6158'	Fresh Water LSND	8.3-10	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5278'/6158'- 5206'/11300'	Fresh Water LSND	8.3-10	15-25	<15

- c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

7. TESTING, CORING, & LOGGING

- a) Drill Stem Testing - None anticipated.
- b) Coring - None anticipated.
- c) Mudd Logging - Mud loggers will be on location from kick off point to TD.
- d) Logging - See below

Cased Hole:

CBL/CCL/GR/VDL will be run as needed for perforating control

8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2477 psi based on a 9.0 ppg at 5292' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H₂S is encountered, the guidelines in Onshore Order No. 6 will be followed.

9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on November 5, 2015. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 20 days.