

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 07 2015

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 170096. Indian Allottee or Tribe Name
N/A**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Encana Oil & Gas (USA) Inc.3a. Address
370 17th Street, Suite 1700
Denver, CO 802023b. Phone No. (include area code)
720-876-35337. If Unit of CA/Agreement, Name and/or No.
NMNM 131017X8. Well Name and No.
Gallo Canyon Unit P14-2306 03H9. API Well No.
Pending 30-039-3126610. Field and Pool or Exploratory Area
Counselors Gallup-Dakota4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 50' FSL and 630' FEL, Sec. 14, T23N, R6W
BHL: 2250' FSL and 330' FEL, Sec. 24, T23N, R6W11. County or Parish, State
Rio Arriba, 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 Updated SUPO,
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Reclamation Plan &
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	Survey Plats

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 recompleat 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 recompleat 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. wishes to submit an updated Survey Package, Surface Use Plan of Operation, and Reclamation Plan for the Gallo Canyon Unit P14-2306 03H APD package, which was submitted on 08/15/2014. Encana revised these documents to provide more clarity on culvert locations and to add pullout locations for existing and/or proposed roads. Please note that the length of the proposed Gallo Canyon Unit P14-2306 access road changed slightly from 2,269.8' to 2,243', which is due to using a different survey company to complete the updated survey plats.

*Please note, the SHL location shifted 15' to the west due to a measurement error by the previous surveyor; however, the pad corners and footprint of the pad did NOT change. The BHL was also changed from 2550 FSL to 2250 FSL. Attached are an updated Directional Drilling Plan, an updated 10-Point Drilling Plan and an updated Wellbore Diagram, which reflect the revised SHL and BHL. The plans were also updated to reflect Encana's intent to cement the 4 1/2" production liner, instead of running open hole swell packers, as previously planned. The 7" ICP was also moved from approximately 72 degrees to approximately 55 degrees.

Please replace the documents submitted with the APD with the attached documents.

Accepted for Record

FEB 24 2015 RH

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

Katie Wegner

Title Regulatory Analyst

Signature

Date

1/6/15

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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.

Office

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)

NMCCD

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II

811 S. First St., Artesia, N.M. 88210
Phone: (505) 748-1283 Fax: (505) 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31266	² Pool Code 13379	³ Pool Name COUNSELORS GALLUP-DAKOTA
⁴ Property Code 314241	⁵ Property Name GALLO CANYON UNIT P14-2306	⁶ Well Number 03H
⁷ OGRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 6849.6'

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
P	14	23N	6W		50'	SOUTH	630'	EAST	RIO ARriba

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
I	24	23N	6W		2250'	SOUTH	330'	EAST	SANDOVAL

¹² Dedicated Acres
5120 ACRES SEC. 22-26, 34-36 -
UNDIVIDED UNIT, PENETRATED SPACING UNITS:
ALL OF SEC 24 (640 ACRES)

¹³ Joint or Infill

¹⁴ Consolidation Code

¹⁵ Order No.

R-13718-A 5,120 acres (COMMITTED)

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

EAST QUARTER CORNER SEC 24
LAT. 36.210686° N (NAD83)
LONG. 107.411051° W (NAD83)
LAT. 36.210672° N (NAD27)
LONG. 107.410448° W (NAD27)

NORTHWEST CORNER SEC 24
LAT. 36.217943° N (NAD83)
LONG. 107.428950° W (NAD83)
LAT. 36.217929° N (NAD27)
LONG. 107.428346° W (NAD27)

SOUTHEAST CORNER SEC 24
LAT. 36.203256° N (NAD83)
LONG. 107.411063° W (NAD83)
LAT. 36.203242° N (NAD27)
LONG. 107.410460° W (NAD27)

SOUTHWEST CORNER SEC 24
LAT. 36.203486° N (NAD83)
LONG. 107.428869° W (NAD83)
LAT. 36.203472° N (NAD27)
LONG. 107.428265° 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.

Katie Wegner 3/25/15
Signature Date

Katie Wegner
Printed Name

Katie.wegner@encana.com
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.

JUNE 19, 2014
Date of Survey

Signature and Seal of Professional Surveyor:
David R. Russell

DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
10201

Certificate Number 10201

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
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DISTRICT II

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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) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

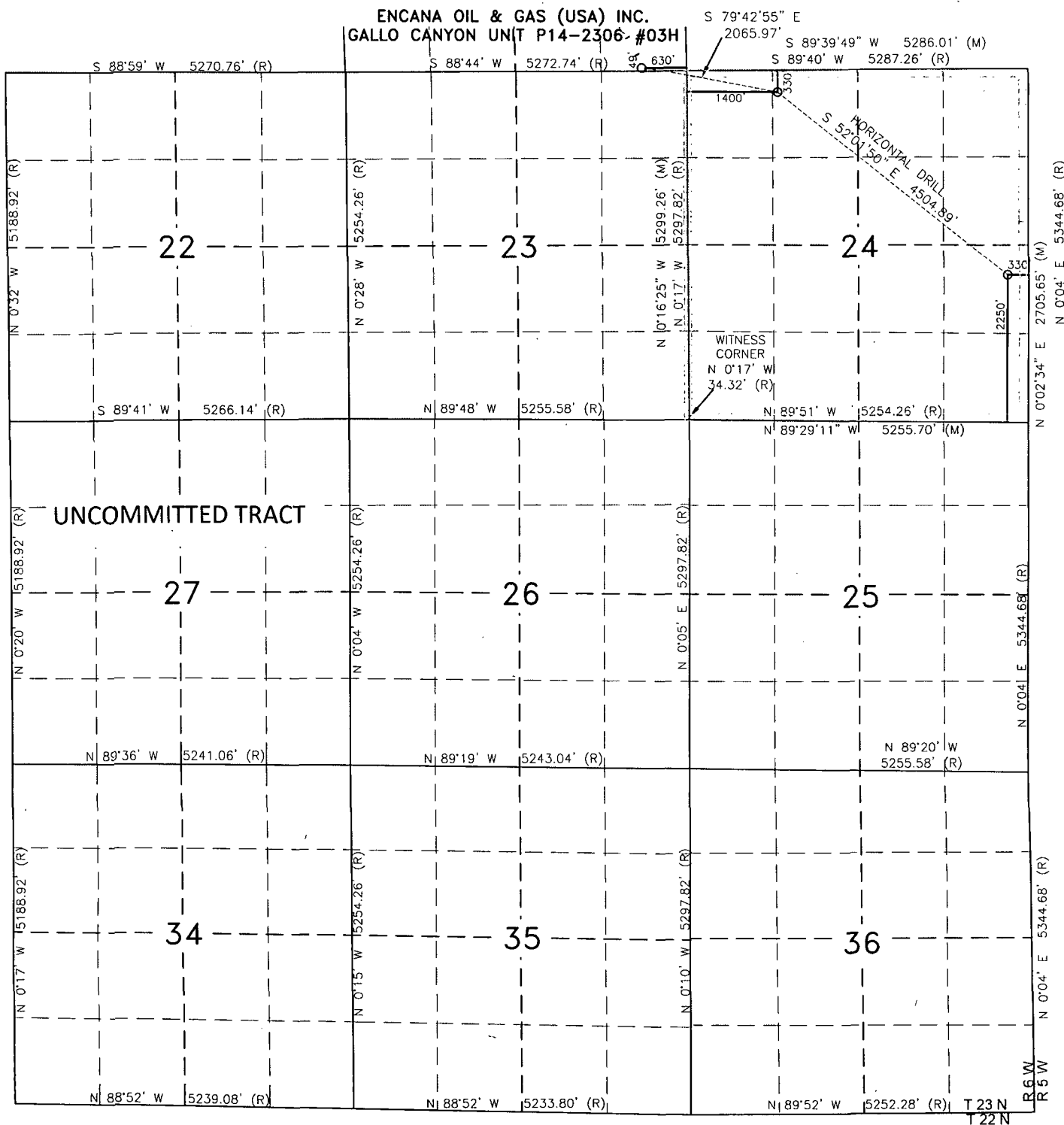
Form C-102
Revised August 1, 2011

Submit one copy to appropriate
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OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

**WELL FLAG**

LAT. 36.218072° N (NAD83)
LONG. 107.431089° W (NAD83)
LAT. 36.218058° N (NAD27)
LONG. 107.430485° W (NAD27)

ENTRY POINT

LAT. 36.217058° N (NAD83)
LONG. 107.424201° W (NAD83)
LAT. 36.217044° N (NAD27)
LONG. 107.423598° W (NAD27)

BOTTOM HOLE

LAT. 36.209441° N (NAD83)
LONG. 107.412171° W (NAD83)
LAT. 36.209427° N (NAD27)
LONG. 107.411568° W (NAD27)

DISTRICT II
 811 S. First St., Artesia, N.M. 88210
 Phone: (505) 748-1883 Fax: (505) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Artes, N.M. 87410
Phone: (505) 834-8178 Fax: (505) 834-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Farmington Field Office
Santa Fe, NM 87505 Bureau of Land Management

Bureau of Land Management AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-312660	*Pool Code 13379	*Pool Name COUNSELORS GALLUP-DAKOTA
*Property Code 314241	*Property Name GALLO CANYON UNIT P14-2306	*Well Number 01H
*OGRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 6849.6'

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
P	14	23N	6W		49'	SOUTH	690'	EAST	RIO ARRIBA

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
H	25	23N	6W		1700'	NORTH	330'	EAST	SANDOVAL

¹² Dedicated Acres 3120 ACRES SEC. 22-28, 34-36 - UNDIVIDED UNIT, PENETRATED SPACING UNITS: N/2 SEC. 23, ALL SEC. 24, N/2 SEC. 25	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-15718-A (5,120.00 ACRES)
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
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Section 25 Data:

- NORTHEAST CORNER SEC 25**
 - LAT. 36.203256° N (NAD83)
 - LONG. 107.411063° W (NAD83)
 - LAT. 36.203242° N (NAD27)
 - LONG. 107.410460° W (NAD27)
- NORTHWEST CORNER SEC 25**
 - LAT. 36.203486° N (NAD83)
 - LONG. 107.428869° W (NAD83)
 - LAT. 36.203472° N (NAD27)
 - LONG. 107.428265° W (NAD27)
- SOUTHEAST CORNER SEC 25**
 - LAT. 36.188669° N (NAD83)
 - LONG. 107.411090° W (NAD83)
 - LAT. 36.188655° N (NAD27)
 - LONG. 107.410487° W (NAD27)
- SOUTHWEST CORNER SEC 25**
 - LAT. 36.188841° N (NAD83)
 - LONG. 107.428900° W (NAD83)
 - LAT. 36.188827° N (NAD27)
 - LONG. 107.428296° W (NAD27)

Well Location:

- WELL FLAG**
 - LAT. 36.218068° N (NAD83)
 - LONG. 107.431292° W (NAD83)
 - LAT. 36.218054° N (NAD27)
 - LONG. 107.430688° W (NAD27)
- BOTTOM HOLE**
 - LAT. 36.198596° N (NAD83)
 - LONG. 107.412189° W (NAD83)
 - LAT. 36.198582° N (NAD27)
 - LONG. 107.411586° W (NAD27)

Entry Point:

- LAT. 36.217015° N (NAD83)
- LONG. 107.434739° W (NAD83)
- LAT. 36.217001° N (NAD27)
- LONG. 107.434135° W (NAD27)

Horizontal Drill Path:

- From Entry Point to Well Flag: N 0°16'25" W 5299.26' (M)
- From Well Flag to Bottom Hole: S 44°42'47" E 9449.03'

Other Features:

- ALL CORNERS** FND 3/4" BC BLM 1964
- WC CALC** (Well Control Calculation)
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State of New Mexico
Energy, Minerals & Natural Resources Department

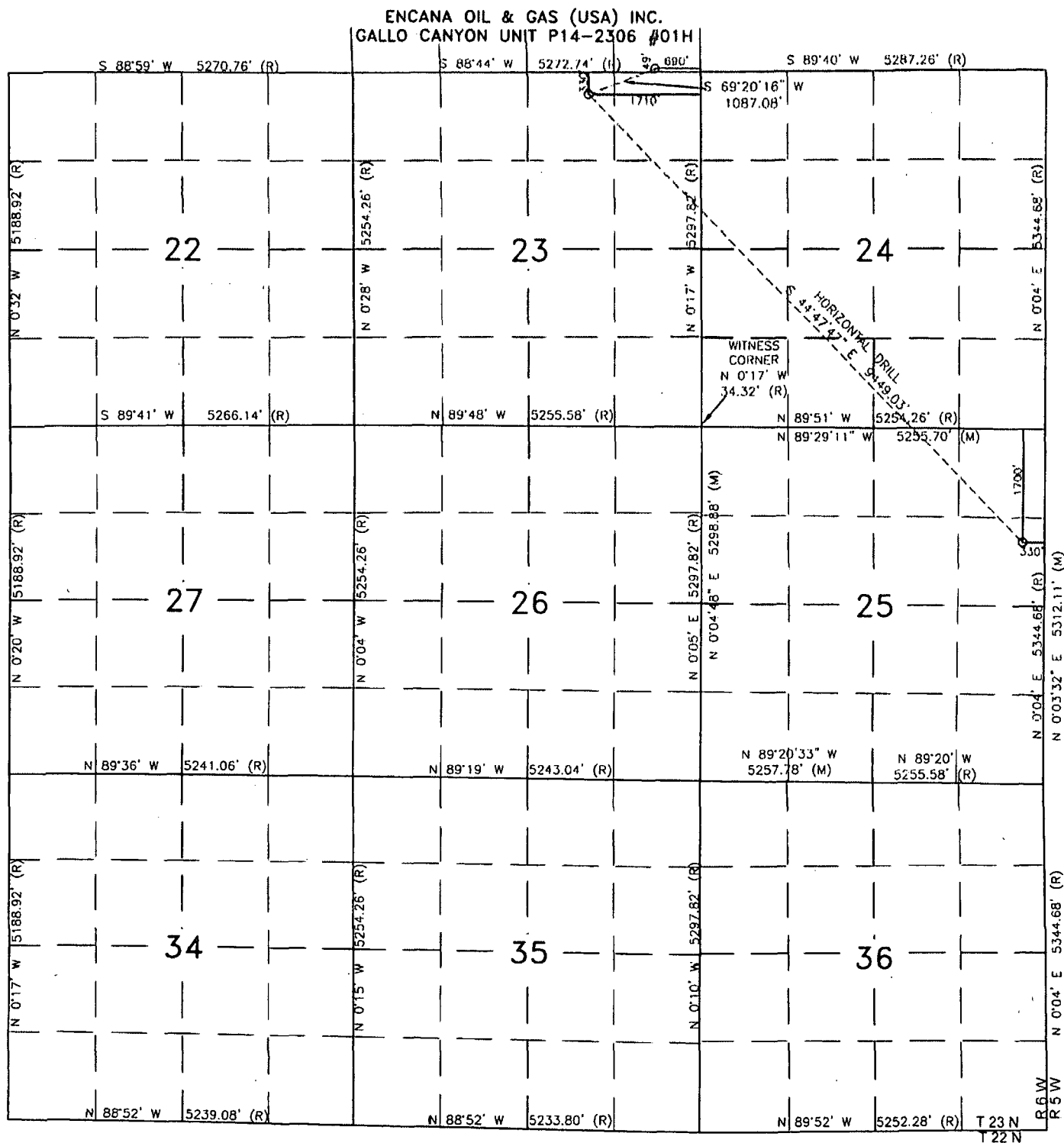
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OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

**WELL FLAG**

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LAT. 36.198582° N (NAD27)
LONG. 107.411586° W (NAD27)

GCU P14-2306 03H

SHL: SE/4 SE/4 Sec 14 T23N R6W, 50' FSL, 630' FEL

BHL: NE/4 SE/4 Sec 25 T23N R6W, 2250' FSL, 330' FEL

Rio Arriba, 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
Nacimiento Fn.	0
Ojo Alamo Ss.	1,467
Kirtland Shale	1,648
Fruitland Coal	1,884
Pictured Cliffs Ss.	2,000
Lewis Shale	2,131
Cliffhouse Ss.	2,839
Menefee Fn.	3,551
Point Lookout Ss.	4,268
Mancos Shale	4,479
Mancos Silt	5,073
Gallup Fn.	5,315
Horizontal Target	5,571

The referenced surface elevation is 6856', KB 6872'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,884
Oil/Gas	Pictured Cliffs Ss.	2,000
Oil/Gas	Cliffhouse Ss.	2,839
Gas	Menefee Fn.	3,551
Oil/Gas	Point Lookout Ss.	4,268
Oil/Gas	Mancos Shale	4,479
Oil/Gas	Mancos Silt	5,073
Oil/Gas	Gallup Fn.	5,315

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

GCU P14-2306 03H

SHL: SE/4 SE/4 Sec 14 T23N R6W, 50' FSL, 630' FEL

BHL: NE/4 SE/4 Sec 25 T23N R6W, 2250' FSL, 330' FEL

Rio Arriba, 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'-5718'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5618'-11232'	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

GCU P14-2306 03H

SHL: SE/4 SE/4 Sec 14 T23N R6W, 50' FSL, 630' FEL

BHL: NE/4 SE/4 Sec 25 T23N R6W, 2250' FSL, 330' FEL

Rio Arriba, 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	Designed TOC	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'-5718'	100% open hole excess Stage 1 Lead: 534 sks Stage 1 Tail: 405 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	5618'- 11232'	50% OH excess Stage 1 Blend Total: 316sks	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 2100'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5527'/11232'	Gallup

GCU P14-2306 03H

SHL: SE/4 SE/4 Sec 14 T23N R6W, 50' FSL, 630' FEL

BHL: NE/4 SE/4 Sec 25 T23N R6W, 2250' FSL, 330' FEL

Rio Arriba, 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'-5441'/5718'	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"	5441'/5718'- 5527'/11232'	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 +/- 2607 psi based on a 9.0 ppg at 5571' 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.

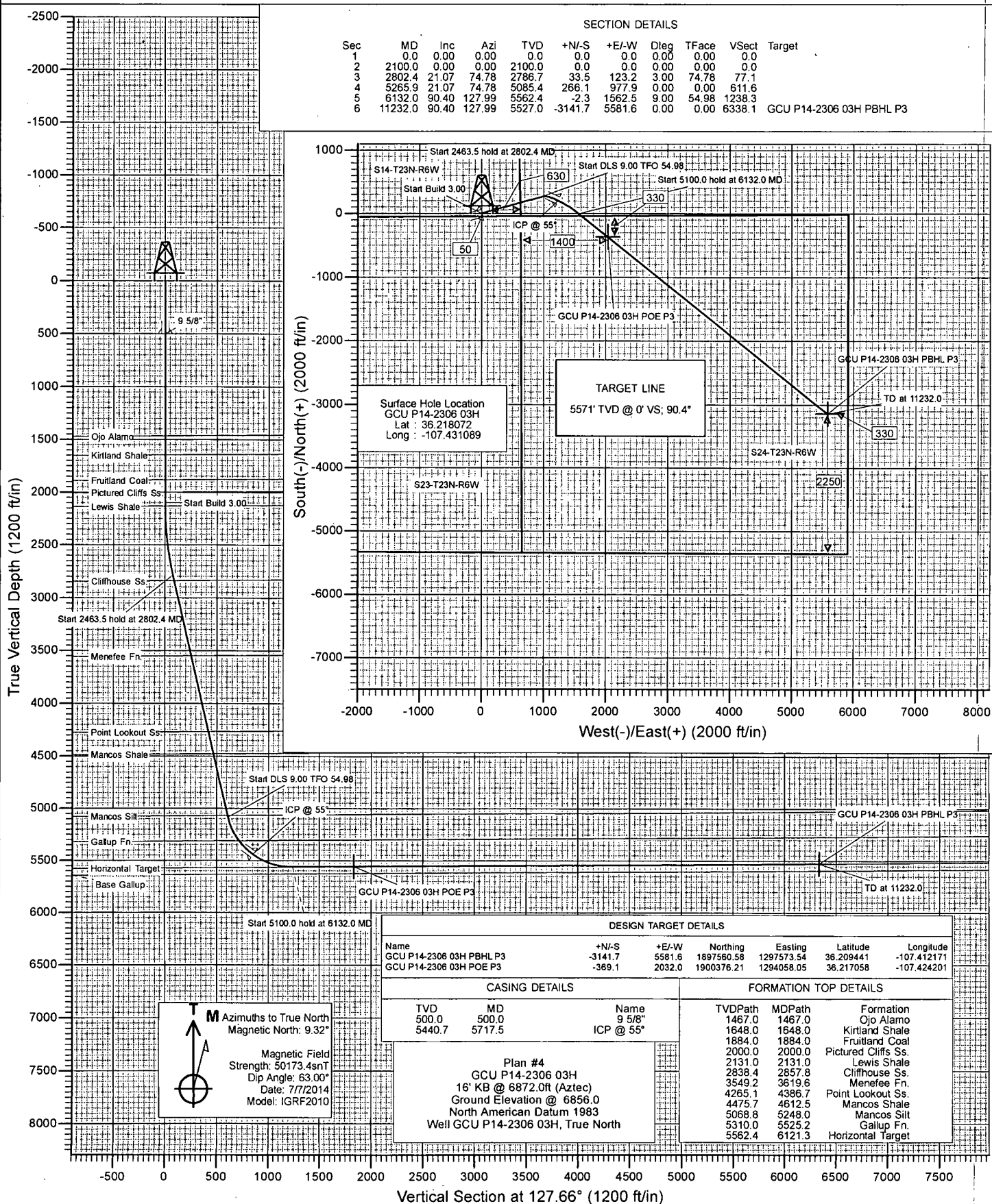
LOC: SE/4 SE/4 Sec 14 T23N R6W, 50' FSL, 6'			Encana Natural Gas			ENG: 0			1-6-15	
County: Rio Arriba			WELL SUMMARY			RIG: Unassigned			GLE: 6856	
WELL: GCU P14-2306 03H						RKBE: 6872				
MWD	OPEN HOLE	FORM	DEPTH			HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION	
LWD	LOGGING		TVD	MD						
			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 0 500	 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. Menefee Fn. Point Lookout Ss. Mancos Shale	1,467 1,648 1,884 2,000 2,131 2,839 3,551 4,268 4,479			8 3/4	7" 26ppf J55 LTC TOC @ surface (100% OH excess - 70% Lead 30% Tail) Stage 1 Total: 939sks Stage 1 Lead: 534 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: 405 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	2,100 5,073 5,315 5,441	2,100						
Surveys every stand to TD unless directed otherwise by Geologist	No OH Logs	Horizontal Target TD Base Gallup	5,571 5,527 5,639	11,232		6 1/8	100' overlap at liner top 5515' Drilled Lateral		Horz Inc/TVD 90.4 degdeg/5571ft TD = 11232 MD	
MWD Gamma Directional							4 1/2" 11.6ppf SB80 LTC TOC @ hanger (50% OH excess) Stage 1 Total: 316sks Stage 1 Blend: 316 sks 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.	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 2100', 8 3/4 inch holesize
- 5) Start curve at 10deg/100' build rate
- 6) Drill to csg point of 5718' MD
- 7) R&C 7" csg, circ cmt to surface
- 8) Land at ~90 deg, drill lateral to 11232' run 4 1/2 inch cemented liner



Project: Rio Arriba County, NM
 Site: S14-T23N-R6W
 Well: GCU P14-2306 03H
 Wellbore: HZ
 Design: Plan #4



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well GCU P14-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	16' KB @ 6872.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	16' KB @ 6872.0ft (Aztec)
Site:	S14-T23N-R6W	North Reference:	True
Well:	GCU P14-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #4		

Project	Rio Arriba County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	S14-T23N-R6W		
Site Position:		Northing:	1,900,796.67 ft
From:	Lat/Long	Easting:	1,288,664.11 ft
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in
		Latitude:	36.218032
		Longitude:	-107.442501
		Grid Convergence:	-0.70 °

Well	GCU P14-2306 03H		
Well Position	+N/-S	0.0 ft	Northing: 1,900,770.02 ft
	+E/-W	0.0 ft	Easting: 1,292,030.66 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	0.0 ft
		Latitude:	36.218072
		Longitude:	-107.431089
		Ground Level:	6,856.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	7/7/2014	9.32	63.00	50,173

Design	Plan #4			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	127.66

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,802.4	21.07	74.78	2,786.7	33.5	123.2	3.00	3.00	0.00	74.78	
5,265.9	21.07	74.78	5,085.4	266.1	977.9	0.00	0.00	0.00	0.00	
6,132.0	90.40	127.99	5,562.4	-2.3	1,562.5	9.00	8.00	6.14	54.98	
11,232.0	90.40	127.99	5,527.0	-3,141.7	5,581.6	0.00	0.00	0.00	0.00	GCU P14-2306 03H F

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well GCU P14-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	16' KB @ 6872.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	16' KB @ 6872.0ft (Aztec)
Site:	S14-T23N-R6W	North Reference:	True
Well:	GCU P14-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #4		

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)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8"
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,467.0	0.00	0.00	1,467.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,648.0	0.00	0.00	1,648.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,884.0	0.00	0.00	1,884.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
2,131.0	0.93	74.78	2,131.0	0.1	0.2	0.2	3.00	3.00	Lewis Shale
2,200.0	3.00	74.78	2,200.0	0.7	2.5	1.6	3.00	3.00	
2,300.0	6.00	74.78	2,299.6	2.7	10.1	6.3	3.00	3.00	
2,400.0	9.00	74.78	2,398.8	6.2	22.7	14.2	3.00	3.00	
2,500.0	12.00	74.78	2,497.1	11.0	40.3	25.2	3.00	3.00	
2,600.0	15.00	74.78	2,594.3	17.1	62.8	39.3	3.00	3.00	
2,700.0	18.00	74.78	2,690.2	24.5	90.2	56.4	3.00	3.00	
2,800.0	21.00	74.78	2,784.4	33.3	122.4	76.5	3.00	3.00	
2,802.4	21.07	74.78	2,786.7	33.5	123.2	77.1	3.00	3.00	Start 2463.5 hold at 2802.4 MD
2,857.8	21.07	74.78	2,838.4	38.8	142.5	89.1	0.00	0.00	Cliffhouse Ss.
2,900.0	21.07	74.78	2,877.7	42.7	157.1	98.2	0.00	0.00	
3,000.0	21.07	74.78	2,971.1	52.2	191.8	119.9	0.00	0.00	
3,100.0	21.07	74.78	3,064.4	61.6	226.5	141.6	0.00	0.00	
3,200.0	21.07	74.78	3,157.7	71.1	261.2	163.3	0.00	0.00	
3,300.0	21.07	74.78	3,251.0	80.5	295.9	185.0	0.00	0.00	
3,400.0	21.07	74.78	3,344.3	90.0	330.6	206.7	0.00	0.00	
3,500.0	21.07	74.78	3,437.6	99.4	365.3	228.4	0.00	0.00	
3,600.0	21.07	74.78	3,530.9	108.8	399.9	250.1	0.00	0.00	
3,619.6	21.07	74.78	3,549.2	110.7	406.7	254.4	0.00	0.00	Menefee Fn.
3,700.0	21.07	74.78	3,624.2	118.3	434.6	271.8	0.00	0.00	
3,800.0	21.07	74.78	3,717.6	127.7	469.3	293.5	0.00	0.00	
3,900.0	21.07	74.78	3,810.9	137.2	504.0	315.2	0.00	0.00	
4,000.0	21.07	74.78	3,904.2	146.6	538.7	336.9	0.00	0.00	
4,100.0	21.07	74.78	3,997.5	156.0	573.4	358.6	0.00	0.00	
4,200.0	21.07	74.78	4,090.8	165.5	608.1	380.3	0.00	0.00	
4,300.0	21.07	74.78	4,184.1	174.9	642.8	402.0	0.00	0.00	
4,386.7	21.07	74.78	4,265.1	183.1	672.9	420.8	0.00	0.00	Point Lookout Ss.

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	16' KB @ 6872.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	16' KB @ 6872.0ft (Aztec)
Site:	S14-T23N-R6W	North Reference:	True
Well:	GCU P14-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #4		

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)	Comments / Formations
4,400.0	21.07	74.78	4,277.4	184.4	677.5	423.7	0.00	0.00	
4,500.0	21.07	74.78	4,370.7	193.8	712.2	445.4	0.00	0.00	
4,600.0	21.07	74.78	4,464.1	203.2	746.9	467.1	0.00	0.00	
4,612.5	21.07	74.78	4,475.7	204.4	751.2	469.8	0.00	0.00	Mancos Shale
4,700.0	21.07	74.78	4,557.4	212.7	781.6	488.8	0.00	0.00	
4,800.0	21.07	74.78	4,650.7	222.1	816.3	510.5	0.00	0.00	
4,900.0	21.07	74.78	4,744.0	231.6	851.0	532.2	0.00	0.00	
5,000.0	21.07	74.78	4,837.3	241.0	885.7	553.9	0.00	0.00	
5,100.0	21.07	74.78	4,930.6	250.4	920.4	575.6	0.00	0.00	
5,200.0	21.07	74.78	5,023.9	259.9	955.0	597.3	0.00	0.00	
5,248.0	21.07	74.78	5,068.8	264.4	971.7	607.7	0.00	0.00	Mancos Silt
5,265.9	21.07	74.78	5,085.4	266.1	977.9	611.6	0.00	0.00	Start DLS 9.00 TFO 54.98
5,300.0	22.97	81.23	5,117.0	268.7	990.4	619.9	9.00	5.55	
5,400.0	29.62	95.05	5,206.7	269.5	1,034.4	654.2	9.00	6.65	
5,500.0	37.20	103.92	5,290.2	260.1	1,088.5	702.8	9.00	7.58	
5,525.2	39.19	105.67	5,310.0	256.1	1,103.5	717.1	9.00	7.91	Gallup Fn.
5,600.0	45.24	110.08	5,365.4	240.6	1,151.3	764.4	9.00	8.08	
5,700.0	53.53	114.71	5,430.5	211.5	1,221.3	837.6	9.00	8.29	
5,717.5	55.00	115.41	5,440.7	205.5	1,234.1	851.5	9.00	8.39	ICP @ 55°
5,800.0	61.96	118.43	5,483.8	173.6	1,296.8	920.5	9.00	8.44	
5,900.0	70.48	121.60	5,524.1	127.8	1,375.9	1,011.1	9.00	8.52	
6,000.0	79.05	124.45	5,550.3	75.2	1,456.7	1,107.2	9.00	8.57	
6,100.0	87.65	127.15	5,561.9	17.2	1,537.1	1,206.4	9.00	8.59	
6,121.3	89.48	127.71	5,562.4	4.2	1,554.0	1,227.7	9.00	8.60	Horizontal Target
6,132.0	90.40	127.99	5,562.4	-2.3	1,562.5	1,238.3	9.00	8.60	Start 5100.0 hold at 6132.0 MD
6,200.0	90.40	127.99	5,562.0	-44.2	1,616.1	1,306.4	0.00	0.00	
6,300.0	90.40	127.99	5,561.3	-105.7	1,694.9	1,406.4	0.00	0.00	
6,400.0	90.40	127.99	5,560.6	-167.3	1,773.7	1,506.4	0.00	0.00	
6,500.0	90.40	127.99	5,559.9	-228.8	1,852.5	1,606.4	0.00	0.00	
6,600.0	90.40	127.99	5,559.2	-290.4	1,931.3	1,706.3	0.00	0.00	
6,700.0	90.40	127.99	5,558.5	-352.0	2,010.1	1,806.3	0.00	0.00	
6,800.0	90.40	127.99	5,557.8	-413.5	2,088.9	1,906.3	0.00	0.00	
6,900.0	90.40	127.99	5,557.1	-475.1	2,167.7	2,006.3	0.00	0.00	
7,000.0	90.40	127.99	5,556.4	-536.6	2,246.5	2,106.3	0.00	0.00	
7,100.0	90.40	127.99	5,555.7	-598.2	2,325.3	2,206.3	0.00	0.00	
7,200.0	90.40	127.99	5,555.0	-659.7	2,404.1	2,306.3	0.00	0.00	
7,300.0	90.40	127.99	5,554.3	-721.3	2,482.9	2,406.3	0.00	0.00	
7,400.0	90.40	127.99	5,553.6	-782.9	2,561.7	2,506.3	0.00	0.00	
7,500.0	90.40	127.99	5,552.9	-844.4	2,640.6	2,606.3	0.00	0.00	
7,600.0	90.40	127.99	5,552.2	-906.0	2,719.4	2,706.3	0.00	0.00	
7,700.0	90.40	127.99	5,551.5	-967.5	2,798.2	2,806.3	0.00	0.00	
7,800.0	90.40	127.99	5,550.8	-1,029.1	2,877.0	2,906.3	0.00	0.00	
7,900.0	90.40	127.99	5,550.2	-1,090.6	2,955.8	3,006.3	0.00	0.00	
8,000.0	90.40	127.99	5,549.5	-1,152.2	3,034.6	3,106.3	0.00	0.00	
8,100.0	90.40	127.99	5,548.8	-1,213.8	3,113.4	3,206.3	0.00	0.00	
8,200.0	90.40	127.99	5,548.1	-1,275.3	3,192.2	3,306.3	0.00	0.00	
8,300.0	90.40	127.99	5,547.4	-1,336.9	3,271.0	3,406.3	0.00	0.00	
8,400.0	90.40	127.99	5,546.7	-1,398.4	3,349.8	3,506.3	0.00	0.00	
8,500.0	90.40	127.99	5,546.0	-1,460.0	3,428.6	3,606.3	0.00	0.00	
8,600.0	90.40	127.99	5,545.3	-1,521.5	3,507.4	3,706.3	0.00	0.00	
8,700.0	90.40	127.99	5,544.6	-1,583.1	3,586.2	3,806.3	0.00	0.00	
8,800.0	90.40	127.99	5,543.9	-1,644.6	3,665.0	3,906.3	0.00	0.00	

Planning Report

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Well:	GCU P14-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #4		

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)	Comments / Formations
8,900.0	90.40	127.99	5,543.2	-1,706.2	3,743.8	4,006.3	0.00	0.00	
9,000.0	90.40	127.99	5,542.5	-1,767.8	3,822.6	4,106.2	0.00	0.00	
9,100.0	90.40	127.99	5,541.8	-1,829.3	3,901.4	4,206.2	0.00	0.00	
9,200.0	90.40	127.99	5,541.1	-1,890.9	3,980.2	4,306.2	0.00	0.00	
9,300.0	90.40	127.99	5,540.4	-1,952.4	4,059.1	4,406.2	0.00	0.00	
9,400.0	90.40	127.99	5,539.7	-2,014.0	4,137.9	4,506.2	0.00	0.00	
9,500.0	90.40	127.99	5,539.0	-2,075.5	4,216.7	4,606.2	0.00	0.00	
9,600.0	90.40	127.99	5,538.3	-2,137.1	4,295.5	4,706.2	0.00	0.00	
9,700.0	90.40	127.99	5,537.6	-2,198.7	4,374.3	4,806.2	0.00	0.00	
9,800.0	90.40	127.99	5,537.0	-2,260.2	4,453.1	4,906.2	0.00	0.00	
9,900.0	90.40	127.99	5,536.3	-2,321.8	4,531.9	5,006.2	0.00	0.00	
10,000.0	90.40	127.99	5,535.6	-2,383.3	4,610.7	5,106.2	0.00	0.00	
10,100.0	90.40	127.99	5,534.9	-2,444.9	4,689.5	5,206.2	0.00	0.00	
10,200.0	90.40	127.99	5,534.2	-2,506.4	4,768.3	5,306.2	0.00	0.00	
10,300.0	90.40	127.99	5,533.5	-2,568.0	4,847.1	5,406.2	0.00	0.00	
10,400.0	90.40	127.99	5,532.8	-2,629.6	4,925.9	5,506.2	0.00	0.00	
10,500.0	90.40	127.99	5,532.1	-2,691.1	5,004.7	5,606.2	0.00	0.00	
10,600.0	90.40	127.99	5,531.4	-2,752.7	5,083.5	5,706.2	0.00	0.00	
10,700.0	90.40	127.99	5,530.7	-2,814.2	5,162.3	5,806.2	0.00	0.00	
10,800.0	90.40	127.99	5,530.0	-2,875.8	5,241.1	5,906.2	0.00	0.00	
10,900.0	90.40	127.99	5,529.3	-2,937.3	5,319.9	6,006.2	0.00	0.00	
11,000.0	90.40	127.99	5,528.6	-2,998.9	5,398.7	6,106.2	0.00	0.00	
11,100.0	90.40	127.99	5,527.9	-3,060.4	5,477.6	6,206.2	0.00	0.00	
11,200.0	90.40	127.99	5,527.2	-3,122.0	5,556.4	6,306.2	0.00	0.00	
11,232.0	90.40	127.99	5,527.0	-3,141.7	5,581.6	6,338.1	0.00	0.00	TD at 11232.0

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
GCU P14-2306 03H PBI - plan misses target center by 28.6ft at 11200.0ft MD (5527.2 TVD, -3122.0 N, 5556.4 E) - Point	0.00	0.00	5,527.0	-3,108.6	5,581.6	1,897,593.70	1,297,573.94	36.209532	-107.412171
GCU P14-2306 03H POI - plan misses target center by 0.1ft at 6728.3ft MD (5558.3 TVD, -369.4 N, 2032.4 E) - Point	0.00	0.00	5,558.3	-369.5	2,032.3	1,900,375.84	1,294,058.34	36.217057	-107.424200
GCU P14-2306 03H POI - plan hits target center - Point	0.00	0.00	5,558.3	-369.1	2,032.0	1,900,376.21	1,294,058.05	36.217058	-107.424200
GCU P14-2306 03H PBI - plan hits target center - Point	0.00	0.00	5,527.0	-3,141.7	5,581.6	1,897,560.58	1,297,573.54	36.209441	-107.412171
	500.0	500.0	9 5/8"					9.625	12.250
	5,717.5	5,440.7	ICP @ 55°					5.500	6.000

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well GCU P14-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	16' KB @ 6872.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	16' KB @ 6872.0ft (Aztec)
Site:	S14-T23N-R6W	North Reference:	True
Well:	GCU P14-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #4		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,467.0	1,467.0	Ojo Alamo		-0.40	127.66
1,648.0	1,648.0	Kirtland Shale		-0.40	127.66
1,884.0	1,884.0	Fruitland Coal		-0.40	127.66
2,000.0	2,000.0	Pictured Cliffs Ss.		-0.40	127.66
2,131.0	2,131.0	Lewis Shale		-0.40	127.66
2,857.8	2,839.0	Cliffhouse Ss.		-0.40	127.66
3,619.6	3,551.0	Menefee Fn.		-0.40	127.66
4,386.7	4,268.0	Point Lookout Ss.		-0.40	127.66
4,612.5	4,479.0	Mancos Shale		-0.40	127.66
5,248.0	5,073.0	Mancos Silt		-0.40	127.66
5,525.2	5,315.0	Gallup Fn.		-0.40	127.66
6,121.3	5,571.0	Horizontal Target		-0.40	127.66

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,100.0	2,100.0	0.0	0.0	Start Build 3.00	
2,802.4	2,786.7	33.5	123.2	Start 2463.5 hold at 2802.4 MD	
5,265.9	5,085.4	266.1	977.9	Start DLS 9.00 TFO 54.98	
6,132.0	5,562.4	-2.3	1,562.5	Start 5100.0 hold at 6132.0 MD	
11,232.0	5,527.0	-3,141.7	5,581.6	TD at 11232.0	