

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 4/2/14
Well information;
Operator Encana, Well Name and Number Escrito 214-2408 1H
API# 30-045-35531, Section 14, Township 24 NS, Range 8 E W

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Chad Green
NMOCD Approved by Signature

7-29-2014
Date

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

APR 14 2014

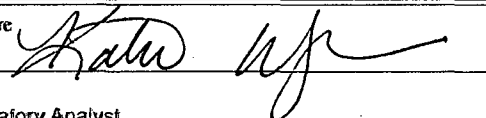
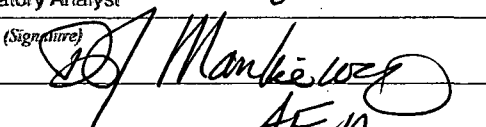
1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM 16589, NMNM 1409	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A	
2. Name of Operator Encana Oil & Gas (USA) Inc.		7. If Unit or CA Agreement, Name and No. Pending	
3a. Address 370 17th Street, Suite 1700, Denver, CO 80202		8. Lease Name and Well No. Escrito L14-2408 01H	
3b. Phone No. (include area code) 720-876-3533		9. API Well No. 30-045-35531	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1429' FSL and 52' FWL in Section 14, T24N, R8W At proposed prod. zone 1750' FSL and 330' FEL in Section 14, T24N, R8W		10. Field and Pool, or Exploratory Escrito-Gallup (associated)	
11. Sec., T. R. M. or Blk. and Survey or Area Section 14, T24N, R8W NMPM		12. County or Parish San Juan	
13. State NM		14. Distance in miles and direction from nearest town or post office* +/- 47.1 miles from the intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) SHL is 52' from West lease line		16. No. of acres in lease NM 16589- 1480 acres NMNM 1409- 629.79 acres	
17. Spacing Unit dedicated to this well 320 acres S/2 Section 14		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Escrito L14-2408 04H is +/- 30' W of SHL	
19. Proposed Depth 5740' TVD/ 10480' MD		20. BLM/BIA Bond No. on file COB-000235	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 6896' KB 6912'		22. Approximate date work will start* 09/28/2014	
23. Estimated duration 20 Days		24. Attachments	

OIL CONS. DIV DIST. 3

JUL 18 2014

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature 	Name (Printed/Typed) Katie Wegner	Date 4/2/14
Title Regulatory Analyst		
Approved by (Signature) 	Name (Printed/Typed) Markie Lopez	Date 7/17/14
Title AFN	Office FED	

Application approval 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.
Conditions of approval, if any, are attached.

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 or to furnish any false, fictitious or fraudulent information.

ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

(Continued on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

*(Including operations on page 2)
AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

NMOCDA

1685 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 535-6181 Fax: (505) 523-0710

611 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1885 Fax: (575) 748-0720

1000 Rio Brazos Est., Astor, N.M. 87410
Phone: (505) 834-6178 Fax: (505) 834-6170

1820 E. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3400 Fax: (505) 476-3480

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Department

Form C-102
Revised August 1, 2011

APR 14 2014

2014 Submit one copy to appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Farmington Field Office
Santa Fe, NM 87506

Bureau of Land Management ☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30-045-35531	'Pool Code 22619	'Pool Name ESCRITO--GALLUP (ASSOCIATED)
'Property Code 313514	'Property Name ESCRITO L14-2408	'Well Number 01H
'OGRID No. 282327	'Operator Name ENCANA OIL & GAS (USA) INC.	'Elevation 6896.0'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 14n	Foot from the	North/South line	Foot from the	East/West line	County
L	14	24N	6W		1428'	SOUTH	92'	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
1	14	24N	8W		1750'	SOUTH	330'	EAST	SAN JUAN

10 Dedicated Acres 320 ACRES - S/2 SEC. 14	11 Joint or Infill	12 Consolidation Code	13 Order No.
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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

1 LAT. 38.313871° N (NAD83)
LONG. 107.660523° W (NAD83)
LAT. 38.313859° N (NAD27)
LONG. 107.658913° W (NAD27)

2 LAT. 38.308821° N (NAD83)
LONG. 107.680813° W (NAD83)
LAT. 38.308809° N (NAD27)
LONG. 107.680003° W (NAD27)

ALL CORNERS
FND 2.8" BC
OLD 1947

S 89°33'29" W 5192.86' (M)

S 89°57' W 5184.20' (R)

WELL FLAG
LAT. 38.310748° N (NAD83)
LONG. 107.660388° W (NAD83)
LAT. 38.310734° N (NAD27)
LONG. 107.659778° W (NAD27)

ENTRY POINT
LAT. 38.311834° N (NAD83)
LONG. 107.659433° W (NAD83)
LAT. 38.311822° N (NAD27)
LONG. 107.658823° W (NAD27)

BOTTOM HOLE
LAT. 38.311742° N (NAD83)
LONG. 107.643804° W (NAD83)
LAT. 38.311730° N (NAD27)
LONG. 107.642894° W (NAD27)

HORIZONTAL DRILL
N 89°28'47" E 4665.59'

N 40°59'00" E 428.85'

S 89°26'18" W 5246.09' (M)

S 89°34' W 5240.40' (R)

N 3°16'08" W 2591.70' (M)
N 3°15' W 2583.90' (R)

N 3°09'10" E 2624.10' (M)
N 3°14' E 2630.10' (R)

BASIS OF BEARINGS
N 0°32'51" E 2604.12' (M)
N 0°32'35" E 2615.08' (M)
N 0°33' E 5219.28' (R)
N 0°35' E 5219.28' (R)
N 0°32'51" E 2604.12' (M)
N 0°32'35" E 2615.08' (M)

14

2 3 4

7 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.

4/2/14
 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.

DECEMBER 3, 2013

Signature and Seal of Professional Surveyor:

 DAVID R. RUSSELL
 NEW MEXICO
 REGISTERED PROFESSIONAL LAND SURVEYOR
 10201

DAVID RUSSELL

Certificate Number 10201

Escrito L14-2408 01H
SHL: NW SW 14 24N 8W
1429 FSL 52 FWL
BHL: NE SE 14 24N 8W
1750 FSL 330 FEL
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
Ojo Alamo Ss.	1,339
Kirtland Shale	1,548
Fruitland Coal	1,707
Pictured Cliffs Ss.	2,057
Lewis Shale	2,166
Cliffhouse Ss.	2,922
Menefee Fn.	3,629
Point Lookout Ss.	4,374
Mancos Shale	4,592
Mancos Silt	5,214
Gallup Fn.	5,442
Horizontal Target	5,749

The referenced surface elevation is 6896', KB 6912'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,707
Oil/Gas	Pictured Cliffs Ss.	2,057
Oil/Gas	Cliffhouse Ss.	2,922
Gas	Menefee Fn.	3,629
Oil/Gas	Point Lookout Ss.	4,374
Oil/Gas	Mancos Shale	4,592
Oil/Gas	Mancos Silt	5,214
Oil/Gas	Gallup Fn.	5,442

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

3. PRESSURE CONTROL

- Pressure control equipment and configuration will be designed to meet 2M standards.
- Working pressure on rams and BOPE will be 3,000 psi.
- Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
- The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- Pressure tests are required before drilling out from under all casing strings set and cemented in place.

Escrito L14-2408 01H
SHL: NW SW 14 24N 8W
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- 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
- 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'	30"	20"	94#	H40, STC New
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5916'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5716'-10480'	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

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.

Escrito L14-2408 01H
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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'	201 sks	Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 16ppg, 1.38cuf/sk	Surface	1 per joint on bottom 3 joints
Intermediate	0'-5916'	30% open hole excess Stage 1 Lead: 397 sks Stage 1 Tail: 297 sks Stage 2 Lead: 197 sks	Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk Cello Flake + 5lb/sk LCM, 12.1ppg 2.13cuf/sk Tail (Stage 1): Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuf/sk	Surface	1 every 3 joints through water bearing zones
Production Liner	5716'-10480'	None - External Casing Packers	N/A	N/A	N/A

*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner

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 3500'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5740'/10480'	Gallup

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	8.4-8.6	60-70	NC
8 3/4"	500'/500'-5720'/5916'	Fresh Water LSND	9.5-8.8	40-50	8-10

Escrito L14-2408 01H
SHL: NW SW 14 24N 8W
1429 FSL 52 FWL
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San Juan, New Mexico

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"	5720'/5916'- 5740'/10480'	Synthetic Oil Based Mud	8.6-9.0	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, including fresh water and oil-based operations. 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 +/- 2691 psi based on a 9.0 ppg at 5749' 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 June 14, 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: NW/4 SW/4 14 24N 8W 1750 FSL 33			Encana Natural Gas				ENG: S Kuykendall 4/2/14		
County: San Juan			WELL SUMMARY				RIG: Aztec 850		
WELL: Escrito L14-2408 01H							GLE: 6896 RKBE: 6912		
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH TVD	MD		HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			60	60'		30	20" 94# 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	Nacimiento 9 5/8" Csg	0 500	500.00		12 1/4	9 5/8" 36ppf J55 STC TOC Surface - 201 sks of Type III Cement	Fresh wtr 8.4-8.6	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	1,339 1,548 1,707 2,057 2,166 2,922 3,629 4,374 4,592		Stage tool @ ~ 2,216	8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 694 sksTotal. Stage 1 Lead: 397 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: 297 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. 197 Stage 2: 168 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.	Fresh Wtr 8.5-8.8	Vertical <1°
Surveys every 30' through the curve	Mud logger onsite	KOP Mancos Silt Gallup Fn. 7" Csg	3,500 5,214 5,442 5,720	3,500 5,916'					
Surveys every stand to TD unless directed otherwise by Geologist	No OH Logs	Horizontal Target TD Base Gallup	5,749 5,740 5,790	10,480		6 1/8	200' overlap at liner top 4563' Drilled Lateral	Horizontal Inclination Horizontal TVD 8.6-9.0 OBM	Horz Inc/TVD /90.1 TD = 10479.6 MD
MWD Gamma Directional							4 1/2" 11.6ppf SB80 LTC Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe	Switch to OBM 8.6-9.0	

NOTES:

- 1) Drill with 30" bit to 60', set 20" 94# 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 3500', 8 3/4 inch holesize
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to csg point of 5916' MD
- 7) R&C 7" csg, circ cmt to surface, switch to OBM
- 8) Land at 90 deg, drill lateral to 10480' run 4 1/2 inch liner with external swellable csg packers



Boomerang Tube LLC

CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

Pipe Outside Diameter (ins)	_____	4.500
Pipe Wall Thickness (ins)	_____	0.250
Nominal Weight Per Foot (lbs)	_____	11.60

Thread Name	_____	Long Thread CSG
Grade Name	_____	SB-80

Pipe Minimum Yield (psi)	_____	80,000
Pipe Minimum Ultimate (psi)	_____	90,000

Coupling Minimum Yield (psi)	_____	80,000
Coupling Minimum Ultimate (psi)	_____	100,000

Coupling or Joint Outside Diameter (ins)	_____	5.000
Drift Diameter (ins)	_____	3.875
Plain End Weight per Foot (lbs)	_____	11.36

Joint Strength (lbs)	_____	201,000
Internal Yield (psi)	_____	7,780
Collapse Rating (psi)	_____	6,350

MAXIMUM DEPTH/LENGTH BASED ON MUD WTS & SAFETY FACTORS

Drilling Mud Weight (ppg)	_____	9.625
Tension Safety Factor	_____	1.80
Maximum Tension Length (ft)	_____	9,630

Internal Yield Safety Factor	_____	1.10
Maximum Depth for Internal Yield (ft)	_____	14,150

Collapse Safety Factor	_____	1.125
Maximum Collapse Depth (ft)	_____	11,290

API RELATED VALUES and INTERMEDIATE CALCULATION RESULTS

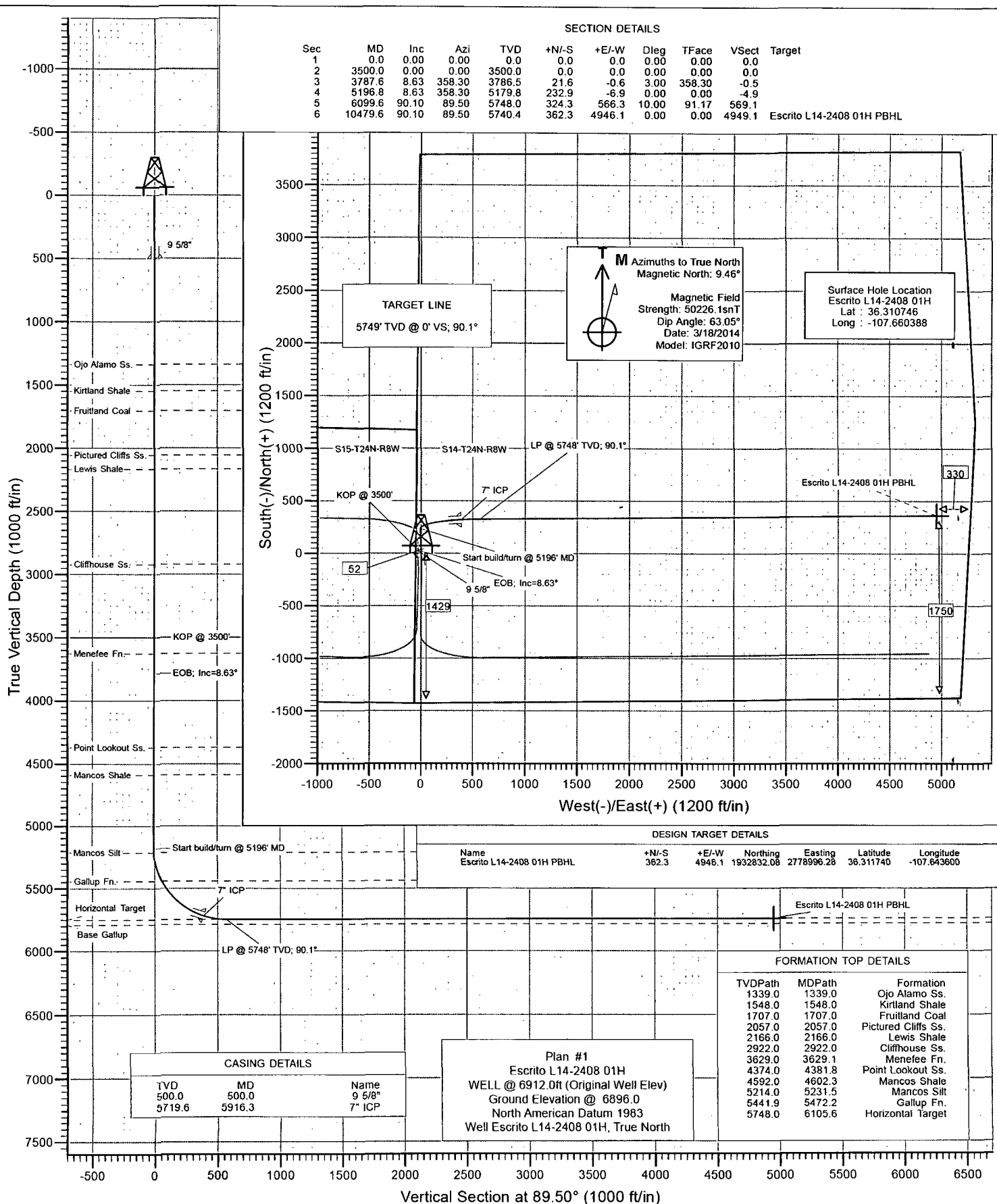
Coupling Thread Fracture Strength	_____	464,000
Pipe Thread Fracture Strength (lbs)	_____	201,000

Pipe Body Plain End Yield (lbs)	_____	267,000
Round Thread Pull-Out (lbs)	_____	219,000

Minimum Make-up Torque (ft-lbs)	_____	1,640
Nominal Make-up Torque (ft-lbs)	_____	2,190
Maximum Make-up Torque (ft-lbs)	_____	2,740

Coupling Internal Yield (psi)	_____	10,660
Pipe Body Internal Yield (psi)	_____	7,780
Leak @ E1 or E7 plane (psi)	_____	17,920

Pipe Hydrostatic Test Pressure @ 80 % SMYS	_____	7,100
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Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 01H
Wellbore: HZ
Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
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-R8W				
Site Position:		Northing:	1,932,462.42 ft	Latitude:	36.310750
From:	Lat/Long	Easting:	2,774,050.25 ft	Longitude:	-107.660390
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.10 °

Well	Escrito L14-2408 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,932,460.96 ft	Latitude:	36.310746
	+E/-W	0.0 ft	Easting:	2,774,050.84 ft	Longitude:	-107.660388
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,896.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/18/2014	9.46	63.05	50,226

Design	Plan #1			
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	89.50

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,787.6	8.63	358.30	3,786.5	21.6	-0.6	3.00	3.00	0.00	358.30	
5,196.8	8.63	358.30	5,179.8	232.9	-6.9	0.00	0.00	0.00	0.00	
6,099.6	90.10	89.50	5,748.0	324.3	566.3	10.00	9.02	10.10	91.17	
10,479.6	90.10	89.50	5,740.4	362.3	4,946.1	0.00	0.00	0.00	0.00	Escrito L14-2408 01H



Planning Report

Database: USA EDM 5000 Multi Users DB
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 Project: San Juan County, NM
 Site: S14-T24N-R8W
 Well: Escrito L14-2408 01H
 Wellbore: HZ
 Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
 TVD Reference: WELL @ 6912.0ft (Original Well Elev)
 MD Reference: WELL @ 6912.0ft (Original Well Elev)
 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)	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	
1,339.0	0.00	0.00	1,339.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,548.0	0.00	0.00	1,548.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,707.0	0.00	0.00	1,707.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
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	
2,057.0	0.00	0.00	2,057.0	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	
2,166.0	0.00	0.00	2,166.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
2,922.0	0.00	0.00	2,922.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 3500'
3,600.0	3.00	358.30	3,600.0	2.6	-0.1	-0.1	3.00	3.00	
3,629.1	3.87	358.30	3,629.0	4.4	-0.1	-0.1	3.00	3.00	Menefee Fn.
3,700.0	6.00	358.30	3,699.6	10.5	-0.3	-0.2	3.00	3.00	
3,787.6	8.63	358.30	3,786.5	21.6	-0.6	-0.5	3.00	3.00	EOB; Inc=8.63°
3,800.0	8.63	358.30	3,798.8	23.5	-0.7	-0.5	0.00	0.00	
3,900.0	8.63	358.30	3,897.6	38.5	-1.1	-0.8	0.00	0.00	
4,000.0	8.63	358.30	3,996.5	53.5	-1.6	-1.1	0.00	0.00	
4,100.0	8.63	358.30	4,095.4	68.5	-2.0	-1.4	0.00	0.00	
4,200.0	8.63	358.30	4,194.2	83.4	-2.5	-1.7	0.00	0.00	
4,300.0	8.63	358.30	4,293.1	98.4	-2.9	-2.1	0.00	0.00	



Planning Report

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Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 01H
Wellbore: HZ
Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
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)	Comments / Formations
4,381.8	8.63	358.30	4,374.0	110.7	-3.3	-2.3	0.00	0.00	Point Lookout Ss.
4,400.0	8.63	358.30	4,392.0	113.4	-3.4	-2.4	0.00	0.00	
4,500.0	8.63	358.30	4,490.9	128.4	-3.8	-2.7	0.00	0.00	
4,600.0	8.63	358.30	4,589.7	143.4	-4.3	-3.0	0.00	0.00	
4,602.3	8.63	358.30	4,592.0	143.8	-4.3	-3.0	0.00	0.00	Mancos Shale
4,700.0	8.63	358.30	4,688.6	158.4	-4.7	-3.3	0.00	0.00	
4,800.0	8.63	358.30	4,787.5	173.4	-5.1	-3.6	0.00	0.00	
4,900.0	8.63	358.30	4,886.3	188.4	-5.6	-3.9	0.00	0.00	
5,000.0	8.63	358.30	4,985.2	203.4	-6.0	-4.3	0.00	0.00	
5,100.0	8.63	358.30	5,084.1	218.4	-6.5	-4.6	0.00	0.00	
5,196.8	8.63	358.30	5,179.8	232.9	-6.9	-4.9	0.00	0.00	Start build/turn @ 5196' MD
5,200.0	8.63	0.43	5,182.9	233.4	-6.9	-4.9	9.98	-0.02	
5,231.5	9.23	20.44	5,214.0	238.1	-6.0	-3.9	10.00	1.91	Mancos Silt
5,250.0	10.03	30.44	5,232.3	240.9	-4.7	-2.6	10.00	4.34	
5,300.0	13.28	49.51	5,281.3	248.4	1.9	4.1	10.00	6.50	
5,350.0	17.38	60.49	5,329.5	255.8	12.8	15.0	10.00	8.18	
5,400.0	21.84	67.24	5,376.6	263.1	27.9	30.2	10.00	8.93	
5,450.0	26.49	71.76	5,422.2	270.2	47.0	49.4	10.00	9.30	
5,472.2	28.59	73.32	5,441.9	273.3	56.8	59.2	10.00	9.46	Gallup Fn.
5,500.0	31.24	75.00	5,466.0	277.0	70.2	72.6	10.00	9.54	
5,550.0	36.05	77.46	5,507.6	283.6	97.1	99.5	10.00	9.62	
5,600.0	40.90	79.40	5,546.7	289.8	127.5	130.1	10.00	9.70	
5,650.0	45.78	81.00	5,583.1	295.6	161.4	163.9	10.00	9.76	
5,700.0	50.68	82.35	5,616.4	301.0	198.2	200.9	10.00	9.80	
5,750.0	55.59	83.52	5,646.4	305.9	237.9	240.6	10.00	9.82	
5,800.0	60.51	84.57	5,672.8	310.3	280.1	282.8	10.00	9.84	
5,850.0	65.44	85.51	5,695.5	314.1	324.5	327.2	10.00	9.86	
5,900.0	70.38	86.39	5,714.3	317.4	370.7	373.4	10.00	9.87	
5,916.3	71.98	86.66	5,719.6	318.3	386.1	388.8	10.00	9.87	7" ICP
5,950.0	75.31	87.21	5,729.1	320.1	418.4	421.1	10.00	9.88	
6,000.0	80.25	87.99	5,739.6	322.1	467.2	470.0	10.00	9.88	
6,050.0	85.20	88.76	5,746.0	323.5	516.7	519.5	10.00	9.88	
6,099.6	90.10	89.50	5,748.0	324.3	566.3	569.1	10.00	9.89	LP @ 5748' TVD; 90.1°
6,105.6	90.10	89.50	5,748.0	324.3	572.3	575.1	0.00	0.00	Horizontal Target
6,200.0	90.10	89.50	5,747.8	325.1	666.7	669.5	0.00	0.00	
6,300.0	90.10	89.50	5,747.7	326.0	766.7	769.5	0.00	0.00	
6,400.0	90.10	89.50	5,747.5	326.9	866.7	869.5	0.00	0.00	
6,500.0	90.10	89.50	5,747.3	327.7	966.6	969.5	0.00	0.00	
6,600.0	90.10	89.50	5,747.1	328.6	1,066.6	1,069.5	0.00	0.00	
6,700.0	90.10	89.50	5,747.0	329.5	1,166.6	1,169.5	0.00	0.00	
6,800.0	90.10	89.50	5,746.8	330.3	1,266.6	1,269.5	0.00	0.00	
6,900.0	90.10	89.50	5,746.6	331.2	1,366.6	1,369.5	0.00	0.00	
7,000.0	90.10	89.50	5,746.4	332.1	1,466.6	1,469.5	0.00	0.00	
7,100.0	90.10	89.50	5,746.3	332.9	1,566.6	1,569.5	0.00	0.00	
7,200.0	90.10	89.50	5,746.1	333.8	1,666.6	1,669.5	0.00	0.00	
7,300.0	90.10	89.50	5,745.9	334.7	1,766.6	1,769.5	0.00	0.00	
7,400.0	90.10	89.50	5,745.7	335.6	1,866.6	1,869.5	0.00	0.00	
7,500.0	90.10	89.50	5,745.6	336.4	1,966.6	1,969.5	0.00	0.00	
7,600.0	90.10	89.50	5,745.4	337.3	2,066.6	2,069.5	0.00	0.00	
7,700.0	90.10	89.50	5,745.2	338.2	2,166.6	2,169.5	0.00	0.00	
7,800.0	90.10	89.50	5,745.1	339.0	2,266.6	2,269.5	0.00	0.00	
7,900.0	90.10	89.50	5,744.9	339.9	2,366.6	2,369.5	0.00	0.00	



Planning Report

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Wellbore: HZ
Design: Plan #1

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TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
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)	Comments / Formations
8,000.0	90.10	89.50	5,744.7	340.8	2,466.6	2,469.5	0.00	0.00	
8,100.0	90.10	89.50	5,744.5	341.6	2,566.6	2,569.5	0.00	0.00	
8,200.0	90.10	89.50	5,744.4	342.5	2,666.6	2,669.5	0.00	0.00	
8,300.0	90.10	89.50	5,744.2	343.4	2,766.6	2,769.5	0.00	0.00	
8,400.0	90.10	89.50	5,744.0	344.2	2,866.6	2,869.5	0.00	0.00	
8,500.0	90.10	89.50	5,743.8	345.1	2,966.6	2,969.5	0.00	0.00	
8,600.0	90.10	89.50	5,743.7	346.0	3,066.6	3,069.5	0.00	0.00	
8,700.0	90.10	89.50	5,743.5	346.8	3,166.6	3,169.5	0.00	0.00	
8,800.0	90.10	89.50	5,743.3	347.7	3,266.6	3,269.5	0.00	0.00	
8,900.0	90.10	89.50	5,743.1	348.6	3,366.6	3,369.5	0.00	0.00	
9,000.0	90.10	89.50	5,743.0	349.4	3,466.6	3,469.5	0.00	0.00	
9,100.0	90.10	89.50	5,742.8	350.3	3,566.5	3,569.5	0.00	0.00	
9,200.0	90.10	89.50	5,742.6	351.2	3,666.5	3,669.5	0.00	0.00	
9,300.0	90.10	89.50	5,742.4	352.0	3,766.5	3,769.5	0.00	0.00	
9,400.0	90.10	89.50	5,742.3	352.9	3,866.5	3,869.5	0.00	0.00	
9,500.0	90.10	89.50	5,742.1	353.8	3,966.5	3,969.5	0.00	0.00	
9,600.0	90.10	89.50	5,741.9	354.6	4,066.5	4,069.5	0.00	0.00	
9,700.0	90.10	89.50	5,741.8	355.5	4,166.5	4,169.5	0.00	0.00	
9,800.0	90.10	89.50	5,741.6	356.4	4,266.5	4,269.5	0.00	0.00	
9,900.0	90.10	89.50	5,741.4	357.2	4,366.5	4,369.5	0.00	0.00	
10,000.0	90.10	89.50	5,741.2	358.1	4,466.5	4,469.5	0.00	0.00	
10,100.0	90.10	89.50	5,741.1	359.0	4,566.5	4,569.5	0.00	0.00	
10,200.0	90.10	89.50	5,740.9	359.8	4,666.5	4,669.5	0.00	0.00	
10,300.0	90.10	89.50	5,740.7	360.7	4,766.5	4,769.5	0.00	0.00	
10,400.0	90.10	89.50	5,740.5	361.6	4,866.5	4,869.5	0.00	0.00	
10,479.6	90.10	89.50	5,740.4	362.3	4,946.1	4,949.1	0.00	0.00	TD at 10479.4

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Escrito L14-2407 01H PI - plan misses target center by 66.5ft at 5837.2ft MD (5690.1 TVD, 313.2 N, 312.9 E) - Point	0.00	0.00	5,748.5	321.8	282.2	1,932,783.27	2,774,332.52	36.311630	-107.659430
Escrito L14-2408 01H PI - plan hits target center - Point	0.00	0.00	5,740.4	362.3	4,946.1	1,932,832.08	2,778,996.28	36.311740	-107.643600

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
5,916.3	5,719.6	7" ICP	0.000	0.000
500.0	500.0	9 5/8"	0.000	0.000



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North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,339.0	1,339.0	Ojo Alamo Ss.		-0.10	89.50
1,548.0	1,548.0	Kirtland Shale		-0.10	89.50
1,707.0	1,707.0	Fruitland Coal		-0.10	89.50
2,057.0	2,057.0	Pictured Cliffs Ss.		-0.10	89.50
2,166.0	2,166.0	Lewis Shale		-0.10	89.50
2,922.0	2,922.0	Cliffhouse Ss.		-0.10	89.50
3,629.1	3,629.0	Menefee Fn.		-0.10	89.50
4,381.8	4,374.0	Point Lookout Ss.		-0.10	89.50
4,602.3	4,592.0	Mancos Shale		-0.10	89.50
5,231.5	5,214.0	Mancos Silt		-0.10	89.50
5,472.2	5,442.0	Gallup Fn.		-0.10	89.50
6,105.6	5,749.0	Horizontal Target		-0.10	89.50

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,500.0	3,500.0	0.0	0.0	KOP @ 3500'
3,787.6	3,786.5	21.6	-0.6	EOB; Inc=8.63°
5,196.8	5,179.8	232.9	-6.9	Start build/turn @ 5196' MD
6,099.6	5,748.0	324.3	566.3	LP @ 5748' TVD; 90.1°
10,479.6	5,740.4	362.3	4,946.1	TD at 10479.4



EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R8W

Escrito L14-2408 01H

HZ

Plan #1

Anticollision Report

31 March, 2014



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Reference Site: S14-T24N-R8W
Site Error: 0.0ft
Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,550.0ft		Error Surface: Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date 3/31/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,479.4	Plan #1 (HZ)	Geolink MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S14-T24N-R8W						
Escrito L14-2408 02H - HZ - Plan #1	3,000.0	3,000.0	30.2	19.8	2.898	CC, ES, SF
Escrito L14-2408 03H - HZ - Plan #1	3,400.0	3,400.0	42.4	30.6	3.592	CC, ES, SF
Escrito L14-2408 04H - HZ - Plan #1	3,500.0	3,500.0	29.8	17.7	2.452	CC, ES
Escrito L14-2408 04H - HZ - Plan #1	3,600.0	3,600.0	30.4	17.9	2.429	SF



Anticollision Report

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Project: San Juan County, NM
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Site Error: 0.0ft
Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 Q2H - HZ - Plan #1														Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD														Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	167.60	-29.5	6.5	30.2						
100.0	100.0	100.0	100.0	0.1	0.1	167.60	-29.5	6.5	30.2	29.9	0.29	102.963			
200.0	200.0	200.0	200.0	0.3	0.3	167.60	-29.5	6.5	30.2	29.5	0.64	47.005			
300.0	300.0	300.0	300.0	0.5	0.5	167.60	-29.5	6.5	30.2	29.2	0.99	30.454			
400.0	400.0	400.0	400.0	0.7	0.7	167.60	-29.5	6.5	30.2	28.8	1.34	22.523			
500.0	500.0	500.0	500.0	0.8	0.8	167.60	-29.5	6.5	30.2	28.5	1.69	17.870			
600.0	600.0	600.0	600.0	1.0	1.0	167.60	-29.5	6.5	30.2	28.2	2.04	14.810			
700.0	700.0	700.0	700.0	1.2	1.2	167.60	-29.5	6.5	30.2	27.8	2.39	12.645			
800.0	800.0	800.0	800.0	1.4	1.4	167.60	-29.5	6.5	30.2	27.5	2.74	11.032			
900.0	900.0	900.0	900.0	1.5	1.5	167.60	-29.5	6.5	30.2	27.1	3.09	9.784			
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	167.60	-29.5	6.5	30.2	26.8	3.43	8.790			
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	167.60	-29.5	6.5	30.2	26.4	3.78	7.979			
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	167.60	-29.5	6.5	30.2	26.1	4.13	7.305			
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	167.60	-29.5	6.5	30.2	25.7	4.48	6.736			
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	167.60	-29.5	6.5	30.2	25.4	4.83	6.249			
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	167.60	-29.5	6.5	30.2	25.0	5.18	5.828			
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	167.60	-29.5	6.5	30.2	24.7	5.53	5.460			
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	167.60	-29.5	6.5	30.2	24.3	5.88	5.136			
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	167.60	-29.5	6.5	30.2	24.0	6.23	4.848			
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	167.60	-29.5	6.5	30.2	23.6	6.58	4.591			
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	167.60	-29.5	6.5	30.2	23.3	6.93	4.359			
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	167.60	-29.5	6.5	30.2	22.9	7.27	4.150			
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	167.60	-29.5	6.5	30.2	22.6	7.62	3.960			
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	167.60	-29.5	6.5	30.2	22.2	7.97	3.787			
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	167.60	-29.5	6.5	30.2	21.9	8.32	3.628			
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	167.60	-29.5	6.5	30.2	21.5	8.67	3.482			
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	167.60	-29.5	6.5	30.2	21.2	9.02	3.347			
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	167.60	-29.5	6.5	30.2	20.8	9.37	3.222			
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	167.60	-29.5	6.5	30.2	20.5	9.72	3.107			
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	167.60	-29.5	6.5	30.2	20.1	10.07	2.999			
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	167.60	-29.5	6.5	30.2	19.8	10.42	2.898 CC, ES, SF			
3,100.0	3,100.0	3,098.4	3,098.4	5.4	5.4	168.61	-32.0	6.4	32.7	21.9	10.76	3.039			
3,200.0	3,200.0	3,196.3	3,195.9	5.6	5.6	170.88	-39.6	6.4	40.3	29.2	11.11	3.626			
3,300.0	3,300.0	3,293.1	3,292.0	5.7	5.7	173.19	-51.9	6.2	52.9	41.5	11.45	4.621			
3,400.0	3,400.0	3,388.5	3,385.8	5.9	6.0	175.03	-68.9	6.0	70.6	58.8	11.79	5.983			
3,500.0	3,500.0	3,481.9	3,476.8	6.1	6.2	176.36	-90.0	5.7	93.1	80.9	12.13	7.673			
3,600.0	3,600.0	3,572.3	3,563.8	6.3	6.5	179.00	-114.6	5.4	122.8	110.3	12.45	9.865			
3,700.0	3,699.6	3,658.0	3,645.1	6.4	6.8	179.66	-141.7	5.1	161.7	149.0	12.73	12.708			
3,787.6	3,786.5	3,728.5	3,711.0	6.6	7.0	-179.93	-166.8	4.7	203.0	190.1	12.94	15.684			
3,800.0	3,798.8	3,738.2	3,719.9	6.6	7.1	-179.89	-170.4	4.7	209.3	196.3	12.98	16.124			
3,900.0	3,897.6	3,822.4	3,797.7	6.8	7.4	-179.56	-202.6	4.3	261.0	247.7	13.30	19.627			
4,000.0	3,996.5	3,908.0	3,876.8	7.0	7.8	-179.34	-235.4	3.9	312.7	299.1	13.61	22.967			
4,100.0	4,095.4	3,993.6	3,955.9	7.2	8.3	-179.18	-268.1	3.5	364.4	350.5	13.93	26.156			
4,200.0	4,194.2	4,079.1	4,034.9	7.5	8.7	-179.06	-300.9	3.1	416.1	401.9	14.25	29.203			
4,300.0	4,293.1	4,164.7	4,114.0	7.7	9.2	-178.96	-333.7	2.6	467.8	453.3	14.57	32.118			
4,400.0	4,392.0	4,250.3	4,193.0	7.9	9.7	-178.89	-366.5	2.2	519.6	504.7	14.88	34.910			
4,500.0	4,490.9	4,335.9	4,272.1	8.2	10.1	-178.82	-399.3	1.8	571.3	556.1	15.20	37.585			
4,600.0	4,589.7	4,421.5	4,351.1	8.4	10.6	-178.77	-432.0	1.4	623.0	607.5	15.52	40.152			
4,700.0	4,688.6	4,507.1	4,430.2	8.7	11.1	-178.73	-464.8	1.0	674.7	658.9	15.83	42.616			
4,800.0	4,787.5	4,592.7	4,509.3	8.9	11.7	-178.69	-497.6	0.6	726.4	710.3	16.15	44.985			
4,900.0	4,886.3	4,678.2	4,588.3	9.2	12.2	-178.66	-530.4	0.2	778.1	761.7	16.46	47.262			
5,000.0	4,985.2	4,763.8	4,667.4	9.4	12.7	-178.63	-563.2	-0.3	829.9	813.1	16.78	49.455			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

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Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 02H - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
5,100.0	5,084.1	4,849.4	4,746.4	9.7	13.2	-178.61	-595.9	-0.7	881.6	864.5	17.10	51.566			
5,196.8	5,179.8	4,932.3	4,823.0	10.0	13.8	-178.59	-627.7	-1.1	931.6	914.2	17.40	53.537			
5,200.0	5,182.9	4,935.0	4,825.5	10.0	13.8	179.12	-628.7	-1.1	933.3	915.9	17.41	53.599			
5,250.0	5,232.3	4,977.7	4,865.0	10.1	14.1	146.65	-645.1	-1.3	959.1	941.5	17.61	54.452			
5,300.0	5,281.3	5,020.1	4,904.1	10.2	14.3	125.44	-661.3	-1.5	984.8	966.9	17.87	55.106			
5,350.0	5,329.5	5,061.7	4,942.5	10.4	14.6	112.61	-677.2	-1.7	1,010.2	992.1	18.17	55.597			
5,400.0	5,376.6	5,102.4	4,980.1	10.5	14.8	104.26	-692.8	-1.9	1,035.3	1,016.8	18.50	55.962			
5,450.0	5,422.2	5,141.7	5,016.4	10.7	15.1	98.39	-707.9	-2.1	1,060.0	1,041.2	18.85	56.232			
5,500.0	5,466.0	5,179.4	5,051.2	10.9	15.3	93.98	-722.3	-2.3	1,084.4	1,065.2	19.22	56.422			
5,550.0	5,507.6	5,215.2	5,084.3	11.1	15.6	90.50	-736.0	-2.4	1,108.5	1,088.9	19.61	56.539			
5,600.0	5,546.7	5,248.8	5,115.4	11.3	15.8	87.62	-748.9	-2.6	1,132.2	1,112.2	20.01	56.579			
5,650.0	5,583.1	5,280.0	5,144.2	11.7	16.0	85.16	-760.8	-2.8	1,155.7	1,135.3	20.44	56.538			
5,700.0	5,616.4	5,308.5	5,170.5	12.0	16.2	82.95	-771.8	-2.9	1,179.0	1,158.1	20.90	56.413			
5,750.0	5,646.4	5,343.8	5,203.2	12.5	16.4	81.34	-785.3	-2.6	1,202.1	1,180.7	21.39	56.212			
5,800.0	5,672.8	5,392.8	5,248.3	13.0	16.7	80.52	-804.0	1.1	1,224.6	1,202.7	21.91	55.904			
5,850.0	5,695.5	5,451.2	5,301.4	13.6	17.1	80.23	-825.9	11.0	1,246.3	1,223.8	22.49	55.407			
5,900.0	5,714.3	5,524.7	5,366.5	14.3	17.6	80.63	-852.8	31.7	1,266.9	1,243.8	23.19	54.642			
5,950.0	5,729.1	5,623.4	5,449.2	15.0	18.2	81.94	-886.7	73.3	1,285.9	1,261.9	24.08	53.401			
6,000.0	5,739.6	5,765.9	5,554.3	15.9	19.1	84.33	-929.6	158.9	1,302.3	1,276.8	25.50	51.066			
6,050.0	5,746.0	5,978.2	5,667.3	16.8	20.8	87.32	-975.0	331.4	1,314.1	1,285.5	28.56	46.006			
6,099.6	5,748.0	6,232.2	5,716.1	17.7	23.5	88.61	-993.3	577.8	1,318.0	1,283.9	34.09	38.666			
6,200.0	5,747.8	6,332.6	5,715.9	19.7	24.9	88.61	-992.4	678.2	1,317.9	1,279.7	38.26	34.451			
6,300.0	5,747.7	6,432.6	5,715.7	21.8	26.4	88.61	-991.5	778.2	1,317.9	1,275.4	42.57	30.959			
6,400.0	5,747.5	6,532.6	5,715.5	24.0	28.1	88.61	-990.6	878.2	1,317.9	1,270.9	47.01	28.034			
6,500.0	5,747.3	6,632.6	5,715.4	26.2	29.9	88.61	-989.7	978.2	1,317.9	1,266.4	51.54	25.569			
6,600.0	5,747.1	6,732.6	5,715.2	28.4	31.8	88.61	-988.9	1,078.2	1,317.9	1,261.8	56.15	23.472			
6,700.0	5,747.0	6,832.6	5,715.0	30.7	33.8	88.61	-988.0	1,178.2	1,317.9	1,257.1	60.80	21.674			
6,800.0	5,746.8	6,932.6	5,714.8	33.1	35.9	88.61	-987.1	1,278.2	1,317.9	1,252.4	65.50	20.119			
6,900.0	5,746.6	7,032.6	5,714.6	35.4	38.0	88.61	-986.2	1,378.2	1,317.9	1,247.6	70.24	18.763			
7,000.0	5,746.4	7,132.6	5,714.5	37.8	40.2	88.61	-985.3	1,478.1	1,317.9	1,242.9	75.00	17.571			
7,100.0	5,746.3	7,232.6	5,714.3	40.2	42.4	88.61	-984.5	1,578.1	1,317.9	1,238.1	79.78	16.518			
7,200.0	5,746.1	7,332.6	5,714.1	42.5	44.7	88.61	-983.6	1,678.1	1,317.8	1,233.3	84.59	15.580			
7,300.0	5,745.9	7,432.6	5,713.9	44.9	46.9	88.61	-982.7	1,778.1	1,317.8	1,228.4	89.41	14.740			
7,400.0	5,745.7	7,532.6	5,713.8	47.3	49.2	88.61	-981.8	1,878.1	1,317.8	1,223.6	94.24	13.984			
7,500.0	5,745.6	7,632.6	5,713.6	49.8	51.5	88.61	-981.0	1,978.1	1,317.8	1,218.7	99.08	13.300			
7,600.0	5,745.4	7,732.6	5,713.4	52.2	53.9	88.61	-980.1	2,078.1	1,317.8	1,213.9	103.93	12.679			
7,700.0	5,745.2	7,832.6	5,713.2	54.6	56.2	88.61	-979.2	2,178.1	1,317.8	1,209.0	108.80	12.112			
7,800.0	5,745.1	7,932.6	5,713.1	57.0	58.6	88.61	-978.3	2,278.1	1,317.8	1,204.1	113.67	11.593			
7,900.0	5,744.9	8,032.6	5,712.9	59.4	60.9	88.61	-977.4	2,378.1	1,317.8	1,199.2	118.54	11.117			
8,000.0	5,744.7	8,132.6	5,712.7	61.9	63.3	88.61	-976.6	2,478.1	1,317.8	1,194.3	123.42	10.677			
8,100.0	5,744.5	8,232.6	5,712.5	64.3	65.7	88.61	-975.7	2,578.1	1,317.7	1,189.4	128.31	10.270			
8,200.0	5,744.4	8,332.6	5,712.4	66.8	68.1	88.61	-974.8	2,678.1	1,317.7	1,184.5	133.20	9.893			
8,300.0	5,744.2	8,432.6	5,712.2	69.2	70.5	88.61	-973.9	2,778.1	1,317.7	1,179.6	138.09	9.542			
8,400.0	5,744.0	8,532.6	5,712.0	71.6	72.9	88.61	-973.0	2,878.1	1,317.7	1,174.7	142.99	9.215			
8,500.0	5,743.8	8,632.6	5,711.8	74.1	75.3	88.61	-972.2	2,978.1	1,317.7	1,169.8	147.89	8.910			
8,600.0	5,743.7	8,732.6	5,711.7	76.5	77.7	88.61	-971.3	3,078.1	1,317.7	1,164.9	152.80	8.624			
8,700.0	5,743.5	8,832.6	5,711.5	79.0	80.1	88.61	-970.4	3,178.1	1,317.7	1,160.0	157.71	8.355			
8,800.0	5,743.3	8,932.6	5,711.3	81.4	82.5	88.61	-969.5	3,278.1	1,317.7	1,155.1	162.62	8.103			
8,900.0	5,743.1	9,032.6	5,711.1	83.9	84.9	88.61	-968.7	3,378.1	1,317.7	1,150.1	167.53	7.865			
9,000.0	5,743.0	9,132.6	5,711.0	86.4	87.4	88.61	-967.8	3,478.1	1,317.6	1,145.2	172.44	7.641			
9,100.0	5,742.8	9,232.6	5,710.8	88.8	89.8	88.61	-966.9	3,578.1	1,317.6	1,140.3	177.36	7.429			
9,200.0	5,742.6	9,332.6	5,710.6	91.3	92.2	88.61	-966.0	3,678.1	1,317.6	1,135.4	182.28	7.229			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Reference Site: S14-T24N-R8W
Site Error: 0.0ft
Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 02H - HZ - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
9,300.0	5,742.4	9,432.6	5,710.4	93.7	94.6	88.61	-965.1	3,778.1	1,317.6	1,130.4	187.19	7.039	
9,400.0	5,742.3	9,532.6	5,710.2	96.2	97.1	88.61	-964.3	3,878.1	1,317.6	1,125.5	192.12	6.858	
9,500.0	5,742.1	9,632.6	5,710.1	98.6	99.5	88.61	-963.4	3,978.0	1,317.6	1,120.6	197.04	6.687	
9,600.0	5,741.9	9,732.6	5,709.9	101.1	101.9	88.61	-962.5	4,078.0	1,317.6	1,115.6	201.96	6.524	
9,700.0	5,741.8	9,832.6	5,709.7	103.6	104.4	88.61	-961.6	4,178.0	1,317.6	1,110.7	206.88	6.369	
9,800.0	5,741.6	9,932.6	5,709.5	106.0	106.8	88.61	-960.7	4,278.0	1,317.6	1,105.8	211.81	6.220	
9,900.0	5,741.4	10,032.6	5,709.4	108.5	109.3	88.61	-959.9	4,378.0	1,317.6	1,100.8	216.74	6.079	
10,000.0	5,741.2	10,132.6	5,709.2	110.9	111.7	88.61	-959.0	4,478.0	1,317.5	1,095.9	221.66	5.944	
10,100.0	5,741.1	10,232.6	5,709.0	113.4	114.2	88.61	-958.1	4,578.0	1,317.5	1,090.9	226.59	5.815	
10,200.0	5,740.9	10,332.6	5,708.8	115.9	116.6	88.61	-957.2	4,678.0	1,317.5	1,086.0	231.52	5.691	
10,300.0	5,740.7	10,432.6	5,708.7	118.3	119.1	88.61	-956.4	4,778.0	1,317.5	1,081.1	236.45	5.572	
10,371.6	5,740.6	10,504.2	5,708.5	120.1	120.8	88.61	-955.7	4,849.6	1,317.5	1,077.5	239.98	5.490	
10,400.0	5,740.5	10,527.9	5,708.5	120.8	121.4	88.61	-955.5	4,873.4	1,317.5	1,076.2	241.27	5.461	
10,479.6	5,740.4	10,527.9	5,708.5	122.8	121.4	88.61	-955.5	4,873.4	1,320.2	1,077.0	243.23	5.428	



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
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Reference Site: S14-T24N-R8W
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Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 03H - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
0.0	0.0	0.0	0.0	0.0	0.0	-147.21	-35.7	-23.0	42.4						
100.0	100.0	100.0	100.0	0.1	0.1	-147.21	-35.7	-23.0	42.4	42.1	0.29	144.726			
200.0	200.0	200.0	200.0	0.3	0.3	-147.21	-35.7	-23.0	42.4	41.8	0.64	66.071			
300.0	300.0	300.0	300.0	0.5	0.5	-147.21	-35.7	-23.0	42.4	41.4	0.99	42.806			
400.0	400.0	400.0	400.0	0.7	0.7	-147.21	-35.7	-23.0	42.4	41.1	1.34	31.659			
500.0	500.0	500.0	500.0	0.8	0.8	-147.21	-35.7	-23.0	42.4	40.7	1.69	25.118			
600.0	600.0	600.0	600.0	1.0	1.0	-147.21	-35.7	-23.0	42.4	40.4	2.04	20.817			
700.0	700.0	700.0	700.0	1.2	1.2	-147.21	-35.7	-23.0	42.4	40.0	2.39	17.773			
800.0	800.0	800.0	800.0	1.4	1.4	-147.21	-35.7	-23.0	42.4	39.7	2.74	15.506			
900.0	900.0	900.0	900.0	1.5	1.5	-147.21	-35.7	-23.0	42.4	39.4	3.09	13.752			
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-147.21	-35.7	-23.0	42.4	39.0	3.43	12.355			
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-147.21	-35.7	-23.0	42.4	38.7	3.78	11.215			
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-147.21	-35.7	-23.0	42.4	38.3	4.13	10.268			
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-147.21	-35.7	-23.0	42.4	38.0	4.48	9.468			
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	-147.21	-35.7	-23.0	42.4	37.6	4.83	8.784			
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	-147.21	-35.7	-23.0	42.4	37.3	5.18	8.192			
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	-147.21	-35.7	-23.0	42.4	36.9	5.53	7.675			
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	-147.21	-35.7	-23.0	42.4	36.6	5.88	7.219			
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	-147.21	-35.7	-23.0	42.4	36.2	6.23	6.814			
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	-147.21	-35.7	-23.0	42.4	35.9	6.58	6.453			
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	-147.21	-35.7	-23.0	42.4	35.5	6.93	6.128			
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	-147.21	-35.7	-23.0	42.4	35.2	7.27	5.833			
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	-147.21	-35.7	-23.0	42.4	34.8	7.62	5.566			
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	-147.21	-35.7	-23.0	42.4	34.5	7.97	5.323			
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	-147.21	-35.7	-23.0	42.4	34.1	8.32	5.099			
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	-147.21	-35.7	-23.0	42.4	33.8	8.67	4.894			
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	-147.21	-35.7	-23.0	42.4	33.4	9.02	4.705			
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	-147.21	-35.7	-23.0	42.4	33.1	9.37	4.529			
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	-147.21	-35.7	-23.0	42.4	32.7	9.72	4.367			
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-147.21	-35.7	-23.0	42.4	32.4	10.07	4.215			
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	-147.21	-35.7	-23.0	42.4	32.0	10.42	4.074			
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	-147.21	-35.7	-23.0	42.4	31.7	10.77	3.942			
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	-147.21	-35.7	-23.0	42.4	31.3	11.11	3.818			
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	-147.21	-35.7	-23.0	42.4	31.0	11.46	3.702			
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	-147.21	-35.7	-23.0	42.4	30.6	11.81	3.592 CC, ES, SF			
3,500.0	3,500.0	3,498.0	3,498.0	6.1	6.1	-148.89	-38.2	-23.0	44.7	32.5	12.16	3.673			
3,600.0	3,600.0	3,595.3	3,594.9	6.3	6.3	-152.49	-45.6	-23.3	53.8	41.3	12.49	4.304			
3,700.0	3,699.6	3,690.2	3,689.1	6.4	6.4	-159.02	-57.7	-23.6	72.8	60.0	12.80	5.683			
3,787.6	3,786.5	3,770.4	3,768.1	6.6	6.6	-163.59	-71.5	-24.0	97.7	84.7	13.05	7.490			
3,800.0	3,798.8	3,781.5	3,779.0	6.6	6.6	-164.16	-73.6	-24.0	101.8	88.7	13.09	7.780			
3,900.0	3,897.6	3,869.2	3,864.5	6.8	6.8	-167.61	-93.0	-24.5	137.6	124.2	13.41	10.261			
4,000.0	3,996.5	3,953.7	3,946.0	7.0	7.1	-169.79	-115.3	-25.2	177.8	164.0	13.73	12.952			
4,100.0	4,095.4	4,034.8	4,023.2	7.2	7.3	-171.24	-140.2	-25.8	222.0	208.0	14.04	15.818			
4,200.0	4,194.2	4,112.4	4,096.0	7.5	7.6	-172.27	-167.0	-26.6	270.1	255.7	14.34	18.831			
4,300.0	4,293.1	4,186.6	4,164.5	7.7	7.9	-173.01	-195.3	-27.3	321.6	307.0	14.64	21.966			
4,400.0	4,392.0	4,257.3	4,228.8	7.9	8.3	-173.57	-224.8	-28.2	376.4	361.4	14.93	25.203			
4,500.0	4,490.9	4,326.4	4,290.5	8.2	8.6	-174.02	-255.9	-29.0	434.1	418.9	15.22	28.519			
4,600.0	4,589.7	4,407.2	4,362.2	8.4	9.1	-174.43	-293.2	-30.0	493.0	477.5	15.53	31.746			
4,700.0	4,688.6	4,488.0	4,433.8	8.7	9.6	-174.75	-330.5	-31.0	551.9	536.1	15.84	34.848			
4,800.0	4,787.5	4,568.7	4,505.5	8.9	10.1	-175.01	-367.7	-32.1	610.8	594.7	16.15	37.833			
4,900.0	4,886.3	4,649.5	4,577.1	9.2	10.6	-175.22	-405.0	-33.1	669.7	653.3	16.45	40.707			
5,000.0	4,985.2	4,730.3	4,648.8	9.4	11.1	-175.40	-442.3	-34.1	728.6	711.9	16.76	43.477			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
 Project: San Juan County, NM
 Reference Site: S14-T24N-R8W
 Site Error: 0.0ft
 Reference Well: Escrito L14-2408 01H
 Well Error: 0.0ft
 Reference Wellbore: HZ
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
 TVD Reference: WELL @ 6912.0ft (Original Well Elev)
 MD Reference: WELL @ 6912.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 03H - HZ - Plan #1														Offset Site Error: 0.0 ft	
Survey Program: O-Geolink MWD														Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
5,100.0	5,084.1	4,811.1	4,720.4	9.7	11.7	-175.55	-479.6	-35.1	787.6	770.5	17.07	46.148			
5,196.8	5,179.8	4,889.3	4,789.8	10.0	12.2	-175.68	-515.7	-36.1	844.6	827.2	17.36	48.644			
5,200.0	5,182.9	4,891.9	4,792.1	10.0	12.2	-178.02	-516.9	-36.1	846.5	829.1	17.37	48.730			
5,250.0	5,232.3	4,932.2	4,827.8	10.1	12.5	148.82	-535.5	-36.7	876.0	858.5	17.53	49.970			
5,300.0	5,281.3	4,972.1	4,863.2	10.2	12.8	126.95	-553.9	-37.2	905.5	887.8	17.76	50.992			
5,350.0	5,329.5	5,011.3	4,898.0	10.4	13.1	113.48	-572.0	-37.7	934.9	916.8	18.04	51.810			
5,400.0	5,376.6	5,049.5	4,931.9	10.5	13.4	104.53	-589.6	-38.1	964.0	945.6	18.38	52.457			
5,450.0	5,422.2	5,086.5	4,964.7	10.7	13.6	98.07	-606.7	-38.6	992.8	974.0	18.74	52.969			
5,500.0	5,466.0	5,121.8	4,996.1	10.9	13.9	93.11	-623.0	-39.1	1,021.2	1,002.1	19.13	53.375			
5,550.0	5,507.6	5,155.4	5,025.8	11.1	14.1	89.09	-638.5	-39.5	1,049.3	1,029.8	19.54	53.696			
5,600.0	5,546.7	5,186.8	5,053.7	11.3	14.4	85.70	-653.0	-39.9	1,077.0	1,057.1	19.97	53.945			
5,650.0	5,583.1	5,216.0	5,079.6	11.7	14.6	82.74	-666.5	-40.2	1,104.4	1,084.0	20.40	54.132			
5,700.0	5,616.4	5,242.6	5,103.2	12.0	14.8	80.07	-678.7	-40.6	1,131.5	1,110.7	20.85	54.265			
5,750.0	5,646.4	5,266.4	5,124.3	12.5	15.0	77.59	-689.7	-40.9	1,158.3	1,137.0	21.31	54.358			
5,800.0	5,672.8	5,287.3	5,142.8	13.0	15.1	75.24	-699.4	-41.1	1,184.7	1,163.0	21.77	54.425			
5,850.0	5,695.5	5,305.1	5,158.6	13.6	15.2	72.96	-707.6	-41.4	1,210.8	1,188.6	22.22	54.487			
5,900.0	5,714.3	5,319.7	5,171.6	14.3	15.4	70.71	-714.3	-41.5	1,236.5	1,213.9	22.66	54.562			
5,950.0	5,729.1	5,330.9	5,181.5	15.0	15.4	68.50	-719.5	-41.7	1,261.8	1,238.7	23.08	54.666			
6,000.0	5,739.6	5,338.8	5,188.5	15.9	15.5	66.29	-723.1	-41.8	1,286.6	1,263.1	23.47	54.808			
6,050.0	5,746.0	5,343.1	5,192.3	16.8	15.5	64.11	-725.2	-41.8	1,310.8	1,287.0	23.84	54.987			
6,099.6	5,748.0	5,343.9	5,193.1	17.7	15.5	61.97	-725.5	-41.9	1,334.1	1,309.9	24.17	55.187			
6,200.0	5,747.8	5,342.1	5,191.5	19.7	15.5	61.88	-724.7	-41.8	1,383.4	1,357.4	26.00	53.211			
6,300.0	5,747.7	5,340.3	5,189.8	21.8	15.5	61.80	-723.9	-41.8	1,437.7	1,409.8	27.89	51.558			
6,400.0	5,747.5	5,338.5	5,188.2	24.0	15.5	61.71	-723.0	-41.8	1,496.8	1,466.9	29.82	50.187			



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Reference Site: S14-T24N-R8W
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Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 04H - HZ - Plan #1														Offset Site Error: 0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-101.98	-6.2	-29.2	29.8					
100.0	100.0	100.0	100.0	0.1	0.1	-101.98	-6.2	-29.2	29.8	29.5	0.29	101.690		
200.0	200.0	200.0	200.0	0.3	0.3	-101.98	-6.2	-29.2	29.8	29.2	0.64	46.424		
300.0	300.0	300.0	300.0	0.5	0.5	-101.98	-6.2	-29.2	29.8	28.8	0.99	30.077		
400.0	400.0	400.0	400.0	0.7	0.7	-101.98	-6.2	-29.2	29.8	28.5	1.34	22.245		
500.0	500.0	500.0	500.0	0.8	0.8	-101.98	-6.2	-29.2	29.8	28.1	1.69	17.649		
600.0	600.0	600.0	600.0	1.0	1.0	-101.98	-6.2	-29.2	29.8	27.8	2.04	14.627		
700.0	700.0	700.0	700.0	1.2	1.2	-101.98	-6.2	-29.2	29.8	27.4	2.39	12.488		
800.0	800.0	800.0	800.0	1.4	1.4	-101.98	-6.2	-29.2	29.8	27.1	2.74	10.895		
900.0	900.0	900.0	900.0	1.5	1.5	-101.98	-6.2	-29.2	29.8	26.7	3.09	9.663		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-101.98	-6.2	-29.2	29.8	26.4	3.43	8.681		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-101.98	-6.2	-29.2	29.8	26.0	3.78	7.880		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-101.98	-6.2	-29.2	29.8	25.7	4.13	7.214		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-101.98	-6.2	-29.2	29.8	25.3	4.48	6.653		
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	-101.98	-6.2	-29.2	29.8	25.0	4.83	6.172		
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	-101.98	-6.2	-29.2	29.8	24.6	5.18	5.756		
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	-101.98	-6.2	-29.2	29.8	24.3	5.53	5.393		
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	-101.98	-6.2	-29.2	29.8	23.9	5.88	5.072		
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	-101.98	-6.2	-29.2	29.8	23.6	6.23	4.788		
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	-101.98	-6.2	-29.2	29.8	23.2	6.58	4.534		
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	-101.98	-6.2	-29.2	29.8	22.9	6.93	4.305		
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	-101.98	-6.2	-29.2	29.8	22.5	7.27	4.099		
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	-101.98	-6.2	-29.2	29.8	22.2	7.62	3.911		
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	-101.98	-6.2	-29.2	29.8	21.8	7.97	3.740		
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	-101.98	-6.2	-29.2	29.8	21.5	8.32	3.583		
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	-101.98	-6.2	-29.2	29.8	21.1	8.67	3.439		
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	-101.98	-6.2	-29.2	29.8	20.8	9.02	3.306		
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	-101.98	-6.2	-29.2	29.8	20.4	9.37	3.183		
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	-101.98	-6.2	-29.2	29.8	20.1	9.72	3.068		
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-101.98	-6.2	-29.2	29.8	19.8	10.07	2.962		
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	-101.98	-6.2	-29.2	29.8	19.4	10.42	2.863		
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	-101.98	-6.2	-29.2	29.8	19.1	10.77	2.770		
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	-101.98	-6.2	-29.2	29.8	18.7	11.11	2.683		
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	-101.98	-6.2	-29.2	29.8	18.4	11.46	2.601		
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	-101.98	-6.2	-29.2	29.8	18.0	11.81	2.524		
3,500.0	3,500.0	3,500.0	3,500.0	6.1	6.1	-101.98	-6.2	-29.2	29.8	17.7	12.16	2.452 CC, ES		
3,600.0	3,600.0	3,600.0	3,600.0	6.3	6.3	-105.12	-6.2	-29.2	30.4	17.9	12.51	2.429 SF		
3,700.0	3,699.6	3,699.6	3,699.6	6.4	6.4	-118.15	-6.2	-29.2	33.3	20.5	12.85	2.592		
3,787.6	3,786.5	3,786.5	3,786.5	6.6	6.6	-132.23	-6.2	-29.2	39.8	26.7	13.13	3.033		
3,800.0	3,798.8	3,798.8	3,798.8	6.6	6.6	-134.14	-6.2	-29.2	41.1	27.9	13.17	3.121		
3,900.0	3,897.6	3,897.6	3,897.6	6.8	6.8	-145.88	-6.2	-29.2	52.7	39.2	13.50	3.904		
4,000.0	3,996.5	3,996.5	3,996.5	7.0	6.9	-153.22	-6.2	-29.2	65.7	51.9	13.84	4.748		
4,100.0	4,095.4	4,095.4	4,095.4	7.2	7.1	-158.10	-6.2	-29.2	79.4	65.2	14.18	5.600		
4,200.0	4,194.2	4,194.2	4,194.2	7.5	7.3	-161.52	-6.2	-29.2	93.5	79.0	14.52	6.439		
4,300.0	4,293.1	4,298.4	4,298.3	7.7	7.5	-163.80	-3.7	-29.2	105.6	90.7	14.88	7.095		
4,400.0	4,392.0	4,404.0	4,403.6	7.9	7.7	-164.89	4.7	-29.4	112.4	97.2	15.24	7.377		
4,500.0	4,490.9	4,510.0	4,508.7	8.2	7.9	-165.16	18.9	-29.8	114.0	98.4	15.61	7.302		
4,600.0	4,589.7	4,616.0	4,612.7	8.4	8.1	-164.66	38.9	-30.2	110.1	94.1	15.98	6.892		
4,700.0	4,688.6	4,718.2	4,712.1	8.7	8.3	-163.41	62.9	-30.8	101.8	85.4	16.35	6.223		
4,800.0	4,787.5	4,817.8	4,808.7	8.9	8.6	-161.87	86.9	-31.4	92.9	76.2	16.73	5.554		
4,900.0	4,886.3	4,917.4	4,905.4	9.2	8.8	-160.01	110.8	-32.0	84.2	67.0	17.12	4.916		
5,000.0	4,985.2	5,017.0	5,002.0	9.4	9.1	-157.72	134.7	-32.5	75.5	58.0	17.53	4.308		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Reference Site: S14-T24N-R8W
Site Error: 0.0ft
Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R8W - Escrito L14-2408 04H - HZ - Plan #1														Offset Site Error: 0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,084.1	5,116.5	5,098.7	9.7	9.4	-154.85	158.7	-33.1	67.0	49.1	17.97	3.731		
5,196.8	5,179.8	5,212.9	5,192.3	10.0	9.7	-151.28	181.8	-33.7	59.0	40.6	18.43	3.201		
5,200.0	5,182.9	5,216.1	5,195.3	10.0	9.7	-153.22	182.6	-33.7	58.7	40.3	18.45	3.185		
5,241.6	5,224.0	5,255.5	5,233.5	10.1	9.9	-174.00	192.1	-35.3	57.0	38.3	18.68	3.053		
5,250.0	5,232.3	5,263.3	5,241.1	10.1	9.9	-176.79	194.0	-36.0	57.1	38.4	18.74	3.047		
5,300.0	5,281.3	5,308.5	5,284.5	10.2	10.0	175.51	204.8	-41.8	61.8	42.7	19.13	3.229		
5,350.0	5,329.5	5,350.0	5,324.0	10.4	10.2	176.16	214.8	-50.2	75.4	56.0	19.43	3.881		
5,400.0	5,376.6	5,386.6	5,358.1	10.5	10.3	178.20	223.4	-60.1	98.3	78.8	19.49	5.042		
5,450.0	5,422.2	5,417.9	5,386.8	10.7	10.4	179.51	230.7	-70.3	128.8	109.5	19.32	6.667		
5,500.0	5,466.0	5,443.7	5,410.0	10.9	10.5	179.88	236.6	-79.9	165.2	146.3	18.97	8.711		
5,550.0	5,507.6	5,464.3	5,428.2	11.1	10.6	179.44	241.3	-88.4	206.1	187.7	18.48	11.156		
5,600.0	5,546.7	5,480.1	5,441.9	11.3	10.7	178.20	244.8	-95.3	250.3	232.5	17.87	14.007		
5,650.0	5,583.1	5,500.0	5,459.0	11.7	10.8	177.55	249.2	-104.6	297.1	279.9	17.22	17.257		
5,700.0	5,616.4	5,500.0	5,459.0	12.0	10.8	171.38	249.2	-104.6	345.2	328.7	16.49	20.938		
5,750.0	5,646.4	5,500.0	5,459.0	12.5	10.8	156.80	249.2	-104.6	394.5	378.1	16.42	24.032		
5,800.0	5,672.8	5,500.0	5,459.0	13.0	10.8	102.10	249.2	-104.6	444.4	423.0	21.41	20.754		
5,850.0	5,695.5	5,500.0	5,459.0	13.6	10.8	41.50	249.2	-104.6	494.2	475.7	18.51	26.697		
5,900.0	5,714.3	5,500.0	5,459.0	14.3	10.8	25.55	249.2	-104.6	543.8	527.8	15.97	34.046		
5,950.0	5,729.1	5,500.0	5,459.0	15.0	10.8	19.51	249.2	-104.6	592.8	578.1	14.74	40.228		
6,000.0	5,739.6	5,500.0	5,459.0	15.9	10.8	16.41	249.2	-104.6	641.1	627.1	13.98	45.866		
6,050.0	5,746.0	5,482.0	5,443.6	16.8	10.7	14.58	245.2	-96.2	687.9	674.4	13.49	51.000		
6,099.6	5,748.0	5,472.9	5,435.7	17.7	10.6	13.52	243.2	-92.1	733.2	719.9	13.26	55.281		
6,200.0	5,747.8	5,450.0	5,415.6	19.7	10.5	13.58	238.0	-82.4	824.1	810.4	13.74	59.974		
6,300.0	5,747.7	5,450.0	5,415.6	21.8	10.5	13.58	238.0	-82.4	916.0	901.7	14.25	64.271		
6,400.0	5,747.5	5,425.0	5,393.3	24.0	10.4	13.64	232.3	-72.9	1,008.5	993.8	14.76	68.330		
6,500.0	5,747.3	5,400.0	5,370.5	26.2	10.3	13.69	226.5	-64.3	1,102.3	1,087.0	15.28	72.144		
6,600.0	5,747.1	5,400.0	5,370.5	28.4	10.3	13.69	226.5	-64.3	1,196.4	1,180.5	15.83	75.599		
6,700.0	5,747.0	5,400.0	5,370.5	30.7	10.3	13.69	226.5	-64.3	1,291.3	1,274.9	16.38	78.842		
6,800.0	5,746.8	5,400.0	5,370.5	33.1	10.3	13.69	226.5	-64.3	1,387.0	1,370.0	16.94	81.883		
6,900.0	5,746.6	5,374.4	5,346.8	35.4	10.3	13.74	220.5	-56.6	1,482.4	1,464.9	17.49	84.744		



Anticollision Report

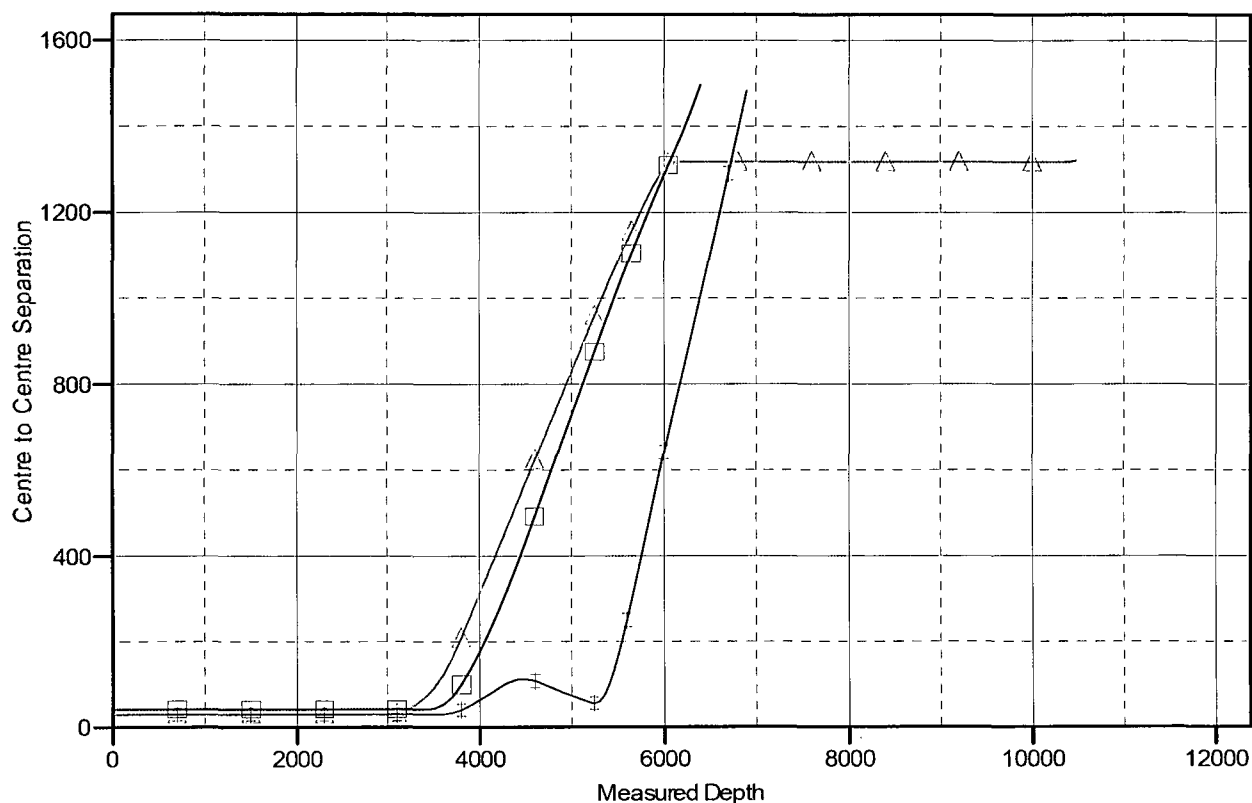
Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Reference Site: S14-T24N-R8W
Site Error: 0.0ft
Reference Well: Escrito L14-2408 01H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito L14-2408 01H
TVD Reference: WELL @ 6912.0ft (Original Well Elev)
MD Reference: WELL @ 6912.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 6912.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -107.83333 °

Coordinates are relative to: Escrito L14-2408 01H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.10°

Ladder Plot



LEGEND

△ Escrito L14-2408 02H, HZ, Plan #1 V0 □ Escrito L14-2408 04H, HZ, Plan #1 V0 ○ Escrito L14-2408 03H, HZ, Plan #1 V0

ENCANA OIL & GAS (USA) INC.

ESCRITO L14-2408 #01H

1429' FSL & 52' FWL

LOCATED IN THE NW/4 SW/4 OF SECTION 14,

T24N, R8W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO

DIRECTIONS

- 1) FROM THE INTERSECTION OF HWY 64 & HWY 550 IN BLOOMFIELD, GO SOUTH ON HWY 550, 42.6 MILES TO CR 7997 (MP 120.7).
- 2) TURN LEFT AND GO 3.1 MILES TO "Y" INTERSECTION.
- 3) TURN RIGHT AND GO 1.2 MILES TO GATE.
- 4) CONTINUE THROUGH GATE AND GO 0.2 MILES TO ROAD THAT IS TO BE UPGRADED ON RIGHT.
- 5) FOLLOW ROAD FOR 0.5 MILES TO EXISTING PAD WHERE ACCESS IS STAKED ON NORTHEAST CORNER OF PAD.

WELL FLAG LOCATED AT LAT. 36.310746° N, LONG. 107.660388° W (NAD 83).



encana

SAN JUAN COUNTY,
NEW MEXICO

- ⊗ Abandoned
- ⊗ Abandoned Gas
- ⊗ Abandoned Oil
- ⊗ Dry Hole
- ⊗ GAS
- ⊗ Injection
- OIL

Basin Mancos
Gas Pool

1 inch = 2,000 feet

ROAD RUNNER 1

2

DUFERS POINT
GALLUP
DAKOTA
POOL

1

NO NAME 1

WILD HARE 1

FEDERAL-C 1

FEDERAL A 3

10

11

AKE 1-11

12

Escrito E07-2407 01H
Escrito E07-2407 02H
Escrito E07-2407 03H
Escrito E07-2407 04H

NANCY 4
NANCY 4

NANCY 4

NANCY 5

NANCY 3

NANCY 3

FEDERAL 3

LOCO 5

LOCO 6

NANCY-FEDERAL 2

NANCY-FEDERAL 1

ESCRITO GALLUP
POOL

SMITH 5

SMITH 4

ESCRITO-GALLUP 21

13

FEDERAL 1
UNIT 19

14

15

Escrito L14-2408 01H

Escrito L14-2408 02H
Escrito L14-2408 03H
Escrito L14-2408 04H

MOUNTAIN 4

76'

1000'

MOUNTAIN 1

MOUNTAIN 2

MOUNTAIN 3

SHOO FLY 3

SHOO FLY 2

SHOO FLY 1

HORSEFLY 1

BLANCO COAL
SOUTH 2 1

SOUTH BLANCO 1

22

BLANCO SOUTH
FEDERA 22-3

ANDERSON 1

ANDERSON 2

23

BLANCO SOUTH
FEDERA 22-4

BLANCO SOUTH
FEDERA 23-5

BLANCO SOUTH
FEDERA 23-6

BLANCO SOUTH
FEDERA 23-8

24

BLANCO SOUTH
FEDERA 23-7

SOUTH BLANCO 1

BLANCO SOUTH
FEDERA 23-2

BLANCO SOUTH
FEDERA 23-3

BLANCO SOUTH
FEDERA 23-4

BLANCO SOUTH
FEDERA 25-8

BLANCO SOUTH
FEDERA 25-11

BLANCO SOUTH
FEDERA 25-12

GOVT-LOWNDES 1

LYBROOK
GALLUP
POOL

0 0.125 0.25 0.5 Miles

encana

Well Name and Number:
Escrito L14-2408 01H

