

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: 4-7-14

Well information;

Operator Encana, Well Name and Number Good Times D14-2410 #2H

API# 30-045-35530, Section 14, Township 24 N, Range 10 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.

Charlie Perri
NMOCD Approved by Signature

5-2-2014
Date

CONFIDENTIAL
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 11 2014

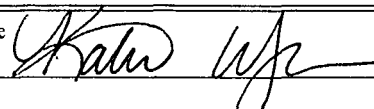
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM 100807
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. N/A
3a. Address 370 17th Street, Suite 1700 Denver, CO 80202	3b. Phone No. (include area code) 720-876-3533	8. Lease Name and Well No. Good Times D14-2410 02H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1348' FNL and 434' FWL Section 14, T24N, R10W At proposed prod. zone 1760' FNL and 330' FWL Section 15, T24N, R10W		9. API Well No. 30-045-35530
14. Distance in miles and direction from nearest town or post office* +/- 33.3 miles southeast of the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM		10. Field and Pool, or Exploratory Basin Mancos
15. Distance from proposed* location to nearest property or lease line, ft. BHL is 330' from west lease line Section 15, T24N, R10W (Also to nearest drig. unit line, if any)		11. Sec., T. R. M. or Blk. and Survey or Area Section 14, T24N, R10W NMPM
16. No. of acres in lease NMNM 100807 - 640 ac.		12. County or Parish San Juan
17. Spacing Unit dedicated to this well 640 acres - All Section 15, T24N, R10W		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Juniper 22-15 is +/- 373' from the wellbore		19. Proposed Depth 5,249' TVD/10,487' MD
20. BLM/BIA Bond No. on file COB-000235		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,876' GL, 6,892' KB
22. Approximate date work will start* 11/02/2014		23. Estimated duration 25 days

24. Attachments

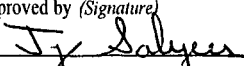
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- 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 4/7/14
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Title

Regulatory Analyst

Approved by (Signature) 	Name (Printed/Typed) Troy Salyers	Date 4/25/2014
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Title

Petroleum Engineer (Acting AFM)

Office

FFO

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 as to any matter within its jurisdiction.

BLM'S APPROVAL OR ACCEPTANCE OF THIS

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

(Continued on page 2)
This action is subject to review and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

NMOCD IV

DISTRICT I

1280 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 588-6161 Fax: (505) 588-0720

DISTRICT II

611 S. First St., Artesia, N.M. 86210
Phone: (505) 748-1823 Fax: (505) 748-9780

DISTRICT III

1000 El Estero Rd., Artesia, N.M. 87410
Phone: (505) 884-8178 Fax: (505) 884-8170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-8480 Fax: (505) 476-8488

State of New Mexico
Energy, Minerals & Natural Resources Department

RECEIVED

Form C-102
Revised August 1, 2011

APR 11 2014 Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

Farmington Field Office
Bureau of Land Management AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35530		*Pool Code 97232	*Pool Name BASIN MANCOS GAS
*Property Code 40344	*Property Name GOOD TIMES D14-2410		*Well Number 02H
*OGRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 6876.4'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	14	24N	10W		1348'	NORTH	434'	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

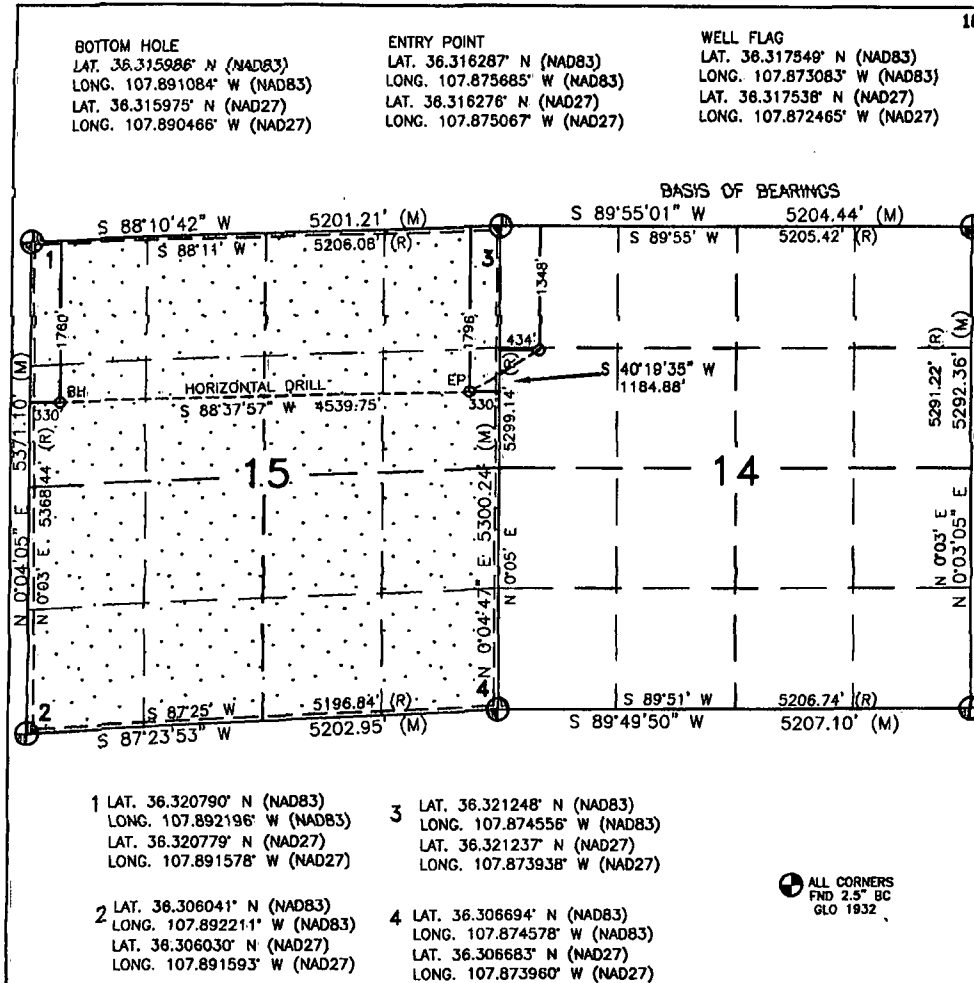
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	15	24N	10W		1760'	NORTH	330'	WEST	SAN JUAN

*Dedicated Acres 640.00 ACRES ALL SEC. 15	PROJECT AREA	*Joint or Infill	*Consolidation Code	*Order No.
				GIL CONS. DIV DIST. 3

APR 29 2014

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



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 04/02/14
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.

JUNE 18, 2013

Date of Survey

Signature and Seal of Professional Surveyor

David Russell
DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
10201

DAVID RUSSELL
Certificate Number 10201

Good Times D14-2410 02H
SHL: SWNW 14 24N 10W
1348 FNL 434 FWL
BHL: SWNW 15 24N 10W
1760 FNL 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.	791
Kirtland Shale	942
Fruitland Coal	1,272
Pictured Cliffs Ss.	1,601
Lewis Shale	1,790
Cliffhouse Ss.	2,341
Menefee Fn.	3,112
Point Lookout Ss.	3,970
Mancos Shale	4,232
Mancos Silt	4,809
Gallup Fn.	5,074

The referenced surface elevation is 6876', KB 6892'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,272
Oil/Gas	Pictured Cliffs Ss.	1,601
Oil/Gas	Cliffhouse Ss.	2,341
Gas	Menefee Fn.	3,112
Oil/Gas	Point Lookout Ss.	3,970
Oil/Gas	Mancos Shale	4,232
Oil/Gas	Mancos Silt	4,809
Oil/Gas	Gallup Fn.	5,074

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

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.

Good Times D14-2410 02H
SHL: SWNW 14 24N 10W
1348 FNL 434 FWL
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San Juan, New Mexico

- 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'-5850'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5650'-10487'	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.

Good Times D14-2410 02H
 SHL: SWNW 14 24N 10W
 1348 FNL 434 FWL
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 1760 FNL 330 FEL
 San Juan, New Mexico

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'-5850'	30% open hole excess Stage 1 Lead: 328 sks Stage 1 Tail: 381 sks Stage 2 Lead: 162 sks	Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 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	5650'-10487'	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 4710'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5249'/10487'	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'-5296'/5850'	Fresh Water LSND	9.5-8.8	40-50	8-10

Good Times D14-2410 02H
SHL: SWNW 14 24N 10W
1348 FNL 434 FWL
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1760 FNL 330 FEL
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"	5296'/5850'- 5249'/10487'	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 +/- 2482 psi based on a 9.0 ppg at 5304' 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 2, 2014. 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 NE/4 15 24N 10W 1796 FNL 330 FEL			Encana Natural Gas				ENG: S Kuykendall		4/7/14	
County: San Juan			WELL SUMMARY				RIG: Aztec 950			
WELL: Good Times D14-2410 02H							GLE: 6878.4			
							RKB: 6892.4			
MWD	OPEN HOLE	FORM	DEPTH			HOLE	CASING	MW	DEVIATION	
LWD	LOGGING		TVD	MD						SIZE
			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	791 942 1,272 1,601 1,790 2,341 3,112 3,970 4,232		Stage tool @ ~ 1,840	8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 708 sks Total. Stage 1 Lead: 328 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: 381 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. 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	4,710 4,809 5,074 5,296	4,710 5,850'						
Surveys every stand to TD unless directed otherwise by Geologist	No OH Logs	Horizontal Target TD Base Gallup	5,304 5,249 5,398	10,487		6 1/8	200' overlap at liner top 4637' Drilled Lateral	Horizontal Inclination Horizontal TVD 8.6-9.0 OBM	Horz Inc/TVD /90.6° TD = 10487.2 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 4710', 8 3/4 inch holesize
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to csg point of 5850' MD
- 7) R&C 7" csg, circ cmt to surface, switch to OBM
- 8) Land at 90 deg, drill lateral to 10487' run 4 1/2 inch liner with external swellable csg packers



Boomerang Tube LLC

CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

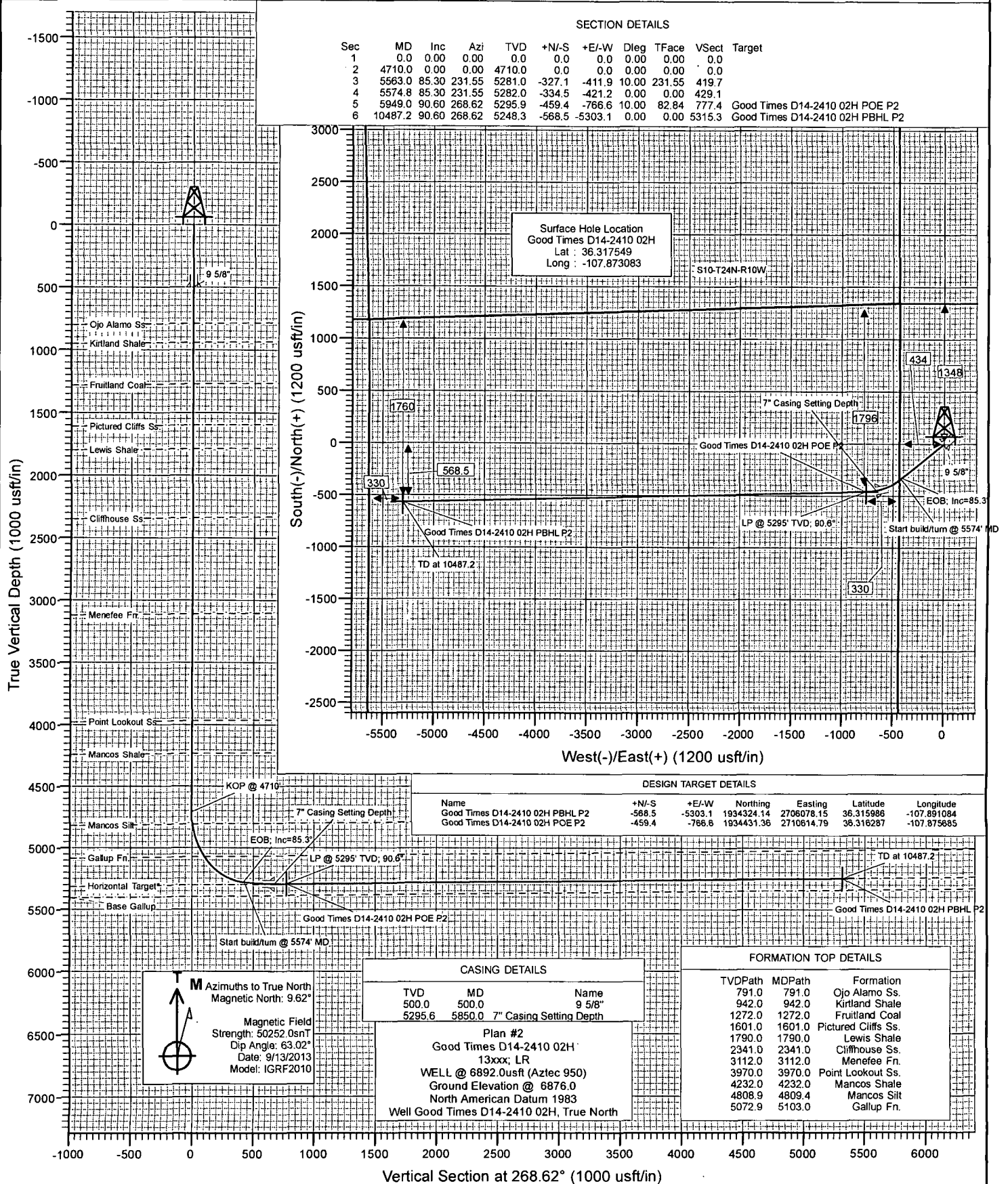
Pipe Outside Diameter (ins)	_____	4.500
Pipe Wall Thickness (ins)	_____	0.250
Nominal Weight Per Foot (lbs)	_____	11.60
Thread Name	_____	Long Thread CSG
Grade Name	_____	SB-80
Pipe Minimum Yield (psi)	_____	80,000
Pipe Minimum Ultimate (psi)	_____	90,000
Coupling Minimum Yield (psi)	_____	80,000
Coupling 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



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Project:	San Juan County, NM	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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

Site	S14-T24N-R10W		
Site Position:		Northing:	1,934,890.44 usft
From:	Lat/Long	Easting:	2,711,381.53 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36.317549
		Longitude:	-107.873083
		Grid Convergence:	-0.02 °

Well	Good Times D14-2410 02H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	36.317549
		Longitude:	-107.873083
		Ground Level:	6,876.0 usft

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

Design	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			268.62

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,710.0	0.00	0.00	4,710.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,563.0	85.30	231.55	5,281.0	-327.1	-411.9	10.00	10.00	0.00	231.55	
5,574.8	85.30	231.55	5,282.0	-334.5	-421.2	0.00	0.00	0.00	0.00	
5,949.0	90.60	268.62	5,295.9	-459.4	-766.6	10.00	1.42	9.91	82.84	Good Times D14-2411
10,487.2	90.60	268.62	5,248.3	-568.5	-5,303.1	0.00	0.00	0.00	0.00	Good Times D14-2411

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Project:	San Juan County, NM	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	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	
791.0	0.00	0.00	791.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
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	
942.0	0.00	0.00	942.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
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	
1,272.0	0.00	0.00	1,272.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
1,500.0	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	
1,601.0	0.00	0.00	1,601.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,790.0	0.00	0.00	1,790.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
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	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
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	
2,341.0	0.00	0.00	2,341.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
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	
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	
3,112.0	0.00	0.00	3,112.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
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	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
3,970.0	0.00	0.00	3,970.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,232.0	0.00	0.00	4,232.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Project:	San Juan County, NM	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	
4,710.0	0.00	0.00	4,710.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4710'
4,800.0	9.00	231.55	4,799.6	-4.4	-5.5	5.6	10.00	10.00	
4,809.4	9.94	231.55	4,808.9	-5.4	-6.7	6.9	10.00	10.00	Mancos Silt
4,900.0	19.00	231.55	4,896.5	-19.4	-24.4	24.9	10.00	10.00	
5,000.0	29.00	231.55	4,987.8	-44.7	-56.3	57.3	10.00	10.00	
5,100.0	39.00	231.55	5,070.6	-79.4	-100.0	101.9	10.00	10.00	
5,103.0	39.30	231.55	5,072.9	-80.6	-101.5	103.4	10.00	10.00	Gallup Fn.
5,200.0	49.00	231.55	5,142.4	-122.5	-154.3	157.2	10.00	10.00	
5,300.0	59.00	231.55	5,201.1	-172.8	-217.6	221.7	10.00	10.00	
5,400.0	69.00	231.55	5,244.9	-228.6	-287.9	293.3	10.00	10.00	
5,500.0	79.00	231.55	5,272.4	-288.3	-363.1	369.9	10.00	10.00	
5,563.0	85.30	231.55	5,281.0	-327.1	-411.9	419.7	10.00	10.00	EOB; Inc=85.3°
5,574.8	85.30	231.55	5,282.0	-334.5	-421.2	429.1	0.00	0.00	Start build/turn @ 5574' MD
5,600.0	85.62	234.05	5,284.0	-349.6	-441.1	449.4	10.00	1.26	
5,700.0	86.96	243.98	5,290.5	-400.9	-526.6	536.1	10.00	1.34	
5,800.0	88.39	253.88	5,294.5	-436.8	-619.7	630.0	10.00	1.43	
5,850.0	89.13	258.83	5,295.6	-448.6	-668.3	678.9	10.00	1.47	7" Casing Setting Depth
5,900.0	89.87	263.77	5,296.1	-456.1	-717.7	728.4	10.00	1.49	
5,949.0	90.60	268.62	5,295.9	-459.4	-766.6	777.4	10.00	1.49	LP @ 5295' TVD; 90.6°
6,000.0	90.60	268.62	5,295.3	-460.6	-817.5	828.4	0.00	0.00	
6,100.0	90.60	268.62	5,294.3	-463.0	-917.5	928.4	0.00	0.00	
6,200.0	90.60	268.62	5,293.2	-465.4	-1,017.4	1,028.4	0.00	0.00	
6,300.0	90.60	268.62	5,292.2	-467.8	-1,117.4	1,128.4	0.00	0.00	
6,400.0	90.60	268.62	5,291.1	-470.2	-1,217.4	1,228.3	0.00	0.00	
6,500.0	90.60	268.62	5,290.1	-472.6	-1,317.3	1,328.3	0.00	0.00	
6,600.0	90.60	268.62	5,289.0	-475.0	-1,417.3	1,428.3	0.00	0.00	
6,700.0	90.60	268.62	5,288.0	-477.4	-1,517.3	1,528.3	0.00	0.00	
6,800.0	90.60	268.62	5,286.9	-479.8	-1,617.2	1,628.3	0.00	0.00	
6,900.0	90.60	268.62	5,285.9	-482.3	-1,717.2	1,728.3	0.00	0.00	
7,000.0	90.60	268.62	5,284.8	-484.7	-1,817.2	1,828.3	0.00	0.00	
7,100.0	90.60	268.62	5,283.8	-487.1	-1,917.1	1,928.3	0.00	0.00	
7,200.0	90.60	268.62	5,282.8	-489.5	-2,017.1	2,028.3	0.00	0.00	
7,300.0	90.60	268.62	5,281.7	-491.9	-2,117.1	2,128.3	0.00	0.00	
7,400.0	90.60	268.62	5,280.7	-494.3	-2,217.0	2,228.3	0.00	0.00	
7,500.0	90.60	268.62	5,279.6	-496.7	-2,317.0	2,328.3	0.00	0.00	
7,600.0	90.60	268.62	5,278.6	-499.1	-2,417.0	2,428.3	0.00	0.00	
7,700.0	90.60	268.62	5,277.5	-501.5	-2,516.9	2,528.3	0.00	0.00	
7,800.0	90.60	268.62	5,276.5	-503.9	-2,616.9	2,628.3	0.00	0.00	
7,900.0	90.60	268.62	5,275.4	-506.3	-2,716.9	2,728.3	0.00	0.00	
8,000.0	90.60	268.62	5,274.4	-508.7	-2,816.8	2,828.3	0.00	0.00	
8,100.0	90.60	268.62	5,273.3	-511.1	-2,916.8	2,928.3	0.00	0.00	
8,200.0	90.60	268.62	5,272.3	-513.5	-3,016.8	3,028.2	0.00	0.00	
8,300.0	90.60	268.62	5,271.2	-515.9	-3,116.7	3,128.2	0.00	0.00	
8,400.0	90.60	268.62	5,270.2	-518.3	-3,216.7	3,228.2	0.00	0.00	
8,500.0	90.60	268.62	5,269.1	-520.7	-3,316.7	3,328.2	0.00	0.00	
8,600.0	90.60	268.62	5,268.1	-523.1	-3,416.6	3,428.2	0.00	0.00	
8,700.0	90.60	268.62	5,267.0	-525.5	-3,516.6	3,528.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Project:	San Juan County, NM	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
8,800.0	90.60	268.62	5,266.0	-527.9	-3,616.5	3,628.2	0.00	0.00	
8,900.0	90.60	268.62	5,264.9	-530.3	-3,716.5	3,728.2	0.00	0.00	
9,000.0	90.60	268.62	5,263.9	-532.7	-3,816.5	3,828.2	0.00	0.00	
9,100.0	90.60	268.62	5,262.9	-535.1	-3,916.4	3,928.2	0.00	0.00	
9,200.0	90.60	268.62	5,261.8	-537.5	-4,016.4	4,028.2	0.00	0.00	
9,300.0	90.60	268.62	5,260.8	-539.9	-4,116.4	4,128.2	0.00	0.00	
9,400.0	90.60	268.62	5,259.7	-542.3	-4,216.3	4,228.2	0.00	0.00	
9,500.0	90.60	268.62	5,258.7	-544.8	-4,316.3	4,328.2	0.00	0.00	
9,600.0	90.60	268.62	5,257.6	-547.2	-4,416.3	4,428.2	0.00	0.00	
9,700.0	90.60	268.62	5,256.6	-549.6	-4,516.2	4,528.2	0.00	0.00	
9,800.0	90.60	268.62	5,255.5	-552.0	-4,616.2	4,628.2	0.00	0.00	
9,900.0	90.60	268.62	5,254.5	-554.4	-4,716.2	4,728.2	0.00	0.00	
10,000.0	90.60	268.62	5,253.4	-556.8	-4,816.1	4,828.1	0.00	0.00	
10,100.0	90.60	268.62	5,252.4	-559.2	-4,916.1	4,928.1	0.00	0.00	
10,200.0	90.60	268.62	5,251.3	-561.6	-5,016.1	5,028.1	0.00	0.00	
10,300.0	90.60	268.62	5,250.3	-564.0	-5,116.0	5,128.1	0.00	0.00	
10,400.0	90.60	268.62	5,249.2	-566.4	-5,216.0	5,228.1	0.00	0.00	
10,487.2	90.60	268.62	5,248.3	-568.5	-5,303.1	5,315.3	0.00	0.00	TD at 10487.2

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Good Times D14-2410 0	0.00	0.00	5,295.9	-459.4	-766.6	1,934,431.36	2,710,614.79	36.316287	-107.875685
- plan hits target center									
- Point									
Good Times D14-2410 0	0.00	0.00	5,281.7	-903.1	-766.6	1,933,987.61	2,710,614.60	36.315068	-107.875685
- plan misses target center by 443.8usft at 5959.8usft MD (5295.7 TVD, -459.7 N, -777.4 E)									
- Point									
Good Times D14-2410 0	0.00	0.00	5,234.1	-1,048.3	-5,302.1	1,933,844.35	2,706,079.04	36.314668	-107.891080
- plan misses target center by 480.0usft at 10487.2usft MD (5248.3 TVD, -568.5 N, -5303.1 E)									
- Point									
Good Times D14-2410 0	0.00	0.00	5,248.3	-568.5	-5,303.1	1,934,324.14	2,706,078.15	36.315986	-107.891084
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,850.0	5,295.6	7" Casing Setting Depth	0	0
500.0	500.0	9 5/8"	0	0

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Project:	San Juan County, NM	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site:	S14-T24N-R10W	North Reference:	True
Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
791.0	791.0	Ojo Alamo Ss.		-0.60	268.62
942.0	942.0	Kirtland Shale		-0.60	268.62
1,272.0	1,272.0	Fruitland Coal		-0.60	268.62
1,601.0	1,601.0	Pictured Cliffs Ss.		-0.60	268.62
1,790.0	1,790.0	Lewis Shale		-0.60	268.62
2,341.0	2,341.0	Cliffhouse Ss.		-0.60	268.62
3,112.0	3,112.0	Menefee Fn.		-0.60	268.62
3,970.0	3,970.0	Point Lookout Ss.		-0.60	268.62
4,232.0	4,232.0	Mancos Shale		-0.60	268.62
4,809.4	4,809.0	Mancos Silt		-0.60	268.62
5,103.0	5,074.0	Gallup Fn.		-0.60	268.62

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,710.0	4,710.0	0.0	0.0	KOP @ 4710'
5,563.0	5,281.0	-327.1	-411.9	EOB; Inc=85.3°
5,574.8	5,282.0	-334.5	-421.2	Start build/turn @ 5574' MD
5,949.0	5,295.9	-459.4	-766.6	LP @ 5295' TVD; 90.6°
10,487.2	5,248.3	-568.5	-5,303.1	TD at 10487.2

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R10W

Good Times D14-2410 02H

Hz

Plan #2

Anticollision Report

24 February, 2014

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Reference Site:	S14-T24N-R10W	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site Error:	0.0usft	North Reference:	True
Reference Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,229.8usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	2/24/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	10,487.2	Plan #2 (Hz)	Geolink MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S14-T24N-R10W						
Good Times D14-2410 01H - Hz - Plan #1	4,700.0	4,700.0	29.9	13.5	1.828	CC, ES, SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Reference Site:	S14-T24N-R10W	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site Error:	0.0usft	North Reference:	True
Reference Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S14-T24N-R10W - Good Times D14-2410 01H - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 usft
Reference	Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	25.70	26.9	13.0	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	25.70	26.9	13.0	29.9	29.6	0.29	101.954	
200.0	200.0	200.0	200.0	0.3	0.3	25.70	26.9	13.0	29.9	29.3	0.64	46.544	
300.0	300.0	300.0	300.0	0.5	0.5	25.70	26.9	13.0	29.9	28.9	0.99	30.155	
400.0	400.0	400.0	400.0	0.7	0.7	25.70	26.9	13.0	29.9	28.6	1.34	22.302	
500.0	500.0	500.0	500.0	0.8	0.8	25.70	26.9	13.0	29.9	28.2	1.69	17.694	
600.0	600.0	600.0	600.0	1.0	1.0	25.70	26.9	13.0	29.9	27.9	2.04	14.665	
700.0	700.0	700.0	700.0	1.2	1.2	25.70	26.9	13.0	29.9	27.5	2.39	12.521	
800.0	800.0	800.0	800.0	1.4	1.4	25.70	26.9	13.0	29.9	27.2	2.74	10.924	
900.0	900.0	900.0	900.0	1.5	1.5	25.70	26.9	13.0	29.9	26.8	3.09	9.688	
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	25.70	26.9	13.0	29.9	26.5	3.43	8.703	
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	25.70	26.9	13.0	29.9	26.1	3.78	7.900	
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	25.70	26.9	13.0	29.9	25.8	4.13	7.233	
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	25.70	26.9	13.0	29.9	25.4	4.48	6.670	
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	25.70	26.9	13.0	29.9	25.1	4.83	6.188	
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	25.70	26.9	13.0	29.9	24.7	5.18	5.771	
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	25.70	26.9	13.0	29.9	24.4	5.53	5.407	
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	25.70	26.9	13.0	29.9	24.0	5.88	5.088	
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	25.70	26.9	13.0	29.9	23.7	6.23	4.801	
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	25.70	26.9	13.0	29.9	23.3	6.58	4.546	
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	25.70	26.9	13.0	29.9	23.0	6.93	4.317	
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	25.70	26.9	13.0	29.9	22.6	7.27	4.109	
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	25.70	26.9	13.0	29.9	22.3	7.62	3.921	
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	25.70	26.9	13.0	29.9	21.9	7.97	3.750	
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	25.70	26.9	13.0	29.9	21.6	8.32	3.592	
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	25.70	26.9	13.0	29.9	21.2	8.67	3.448	
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	25.70	26.9	13.0	29.9	20.9	9.02	3.314	
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	25.70	26.9	13.0	29.9	20.5	9.37	3.191	
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	25.70	26.9	13.0	29.9	20.2	9.72	3.076	
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	25.70	26.9	13.0	29.9	19.8	10.07	2.970	
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	25.70	26.9	13.0	29.9	19.5	10.42	2.870	
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	25.70	26.9	13.0	29.9	19.1	10.77	2.777	
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	25.70	26.9	13.0	29.9	18.8	11.11	2.690	
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	25.70	26.9	13.0	29.9	18.4	11.46	2.608	
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	25.70	26.9	13.0	29.9	18.1	11.81	2.531	
3,500.0	3,500.0	3,500.0	3,500.0	6.1	6.1	25.70	26.9	13.0	29.9	17.7	12.16	2.458	
3,600.0	3,600.0	3,600.0	3,600.0	6.3	6.3	25.70	26.9	13.0	29.9	17.4	12.51	2.390	
3,700.0	3,700.0	3,700.0	3,700.0	6.4	6.4	25.70	26.9	13.0	29.9	17.0	12.86	2.325	
3,800.0	3,800.0	3,800.0	3,800.0	6.6	6.6	25.70	26.9	13.0	29.9	16.7	13.21	2.263	
3,900.0	3,900.0	3,900.0	3,900.0	6.8	6.8	25.70	26.9	13.0	29.9	16.3	13.56	2.205	
4,000.0	4,000.0	4,000.0	4,000.0	7.0	7.0	25.70	26.9	13.0	29.9	16.0	13.91	2.150	
4,100.0	4,100.0	4,100.0	4,100.0	7.1	7.1	25.70	26.9	13.0	29.9	15.6	14.26	2.097	
4,200.0	4,200.0	4,200.0	4,200.0	7.3	7.3	25.70	26.9	13.0	29.9	15.3	14.60	2.047	
4,300.0	4,300.0	4,300.0	4,300.0	7.5	7.5	25.70	26.9	13.0	29.9	14.9	14.95	1.999	
4,400.0	4,400.0	4,400.0	4,400.0	7.7	7.7	25.70	26.9	13.0	29.9	14.6	15.30	1.953	
4,500.0	4,500.0	4,500.0	4,500.0	7.8	7.8	25.70	26.9	13.0	29.9	14.2	15.65	1.910	
4,600.0	4,600.0	4,600.0	4,600.0	8.0	8.0	25.70	26.9	13.0	29.9	13.9	16.00	1.868	
4,700.0	4,700.0	4,700.0	4,700.0	8.2	8.2	25.70	26.9	13.0	29.9	13.5	16.35	1.828 CC, ES, SF	
4,800.0	4,799.6	4,799.0	4,798.8	8.4	8.3	151.53	29.5	9.2	36.9	20.3	16.59	2.225	
4,900.0	4,898.5	4,893.3	4,890.9	8.6	8.5	142.12	40.3	-7.0	62.4	45.8	16.68	3.743	
5,000.0	4,887.8	4,978.6	4,970.5	8.8	8.7	134.35	57.2	-32.3	106.1	89.2	16.81	6.309	
5,100.0	5,070.6	5,050.0	5,033.1	9.3	9.0	127.71	78.3	-60.9	164.8	147.7	17.12	9.625	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Reference Site:	S14-T24N-R10W	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site Error:	0.0usft	North Reference:	True
Reference Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S14-T24N-R10W - Good Times D14-2410 01H - Hz - Plan #1														Offset Site Error:	0.0 usft
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)				Between Centres (usft)	Between Ellipses (usft)		
5,200.0	5,142.4	5,114.8	5,085.8	9.9	9.3	120.57	97.2	-92.2	235.3	217.4	17.87	13.164			
5,300.0	5,201.1	5,166.2	5,124.3	10.9	9.6	111.68	116.0	-120.5	314.3	295.1	19.22	16.351			
5,400.0	5,244.9	5,207.9	5,153.3	12.2	9.9	100.20	132.7	-145.4	399.1	378.0	21.11	18.906			
5,500.0	5,272.4	5,240.9	5,174.6	13.7	10.2	86.07	146.7	-166.4	487.4	464.4	22.94	21.248			
5,600.0	5,284.0	5,267.0	5,190.4	15.5	10.4	78.13	158.2	-183.6	577.1	552.6	24.46	23.596			
5,700.0	5,290.5	5,300.0	5,209.0	17.4	10.8	82.01	173.4	-206.3	662.6	635.9	26.67	24.843			
5,800.0	5,294.5	5,344.7	5,231.7	19.4	11.3	84.57	194.8	-238.4	740.5	711.7	28.80	25.706			
5,900.0	5,296.1	5,403.5	5,256.8	21.4	12.1	86.53	224.3	-282.6	808.6	777.7	30.92	26.151			
6,000.0	5,295.3	5,476.0	5,280.0	23.4	13.2	88.35	262.4	-339.6	866.9	833.3	33.58	25.815			
6,100.0	5,294.3	6,120.8	5,309.0	25.5	25.9	90.97	410.7	-945.6	874.3	826.1	48.15	18.158			
6,200.0	5,293.2	6,220.8	5,308.0	27.6	28.1	90.97	407.5	-1,045.5	873.5	820.7	52.74	16.562			
6,300.0	5,292.2	6,320.8	5,306.9	29.8	30.3	90.97	404.3	-1,145.5	872.7	815.3	57.39	15.206			
6,400.0	5,291.1	6,420.8	5,305.9	32.1	32.6	90.97	401.1	-1,245.4	871.9	809.8	62.09	14.043			
6,500.0	5,290.1	6,520.8	5,304.8	34.3	34.9	90.97	397.9	-1,345.4	871.1	804.3	66.82	13.037			
6,600.0	5,289.0	6,620.8	5,303.8	36.6	37.2	90.98	394.7	-1,445.3	870.3	798.7	71.58	12.158			
6,700.0	5,288.0	6,720.7	5,302.7	38.9	39.5	90.98	391.5	-1,545.2	869.5	793.1	76.37	11.386			
6,800.0	5,286.9	6,820.7	5,301.7	41.3	41.8	90.98	388.3	-1,645.2	868.7	787.5	81.17	10.702			
6,900.0	5,285.9	6,920.7	5,300.6	43.6	44.2	90.98	385.1	-1,745.1	867.9	781.9	85.99	10.093			
7,000.0	5,284.8	7,020.7	5,299.6	46.0	46.6	90.98	381.9	-1,845.1	867.1	776.3	90.83	9.547			
7,100.0	5,283.8	7,120.7	5,298.5	48.4	48.9	90.98	378.7	-1,945.0	866.3	770.7	95.67	9.055			
7,200.0	5,282.8	7,220.7	5,297.5	50.7	51.3	90.98	375.5	-2,044.9	865.5	765.0	100.53	8.610			
7,300.0	5,281.7	7,320.7	5,296.5	53.1	53.7	90.98	372.3	-2,144.9	864.8	759.4	105.39	8.205			
7,400.0	5,280.7	7,420.7	5,295.4	55.5	56.1	90.98	369.1	-2,244.8	864.0	753.7	110.26	7.835			
7,500.0	5,279.6	7,520.7	5,294.4	57.9	58.6	90.98	365.9	-2,344.8	863.2	748.0	115.14	7.497			
7,600.0	5,278.6	7,620.7	5,293.3	60.4	61.0	90.99	362.7	-2,444.7	862.4	742.3	120.03	7.185			
7,700.0	5,277.5	7,720.7	5,292.3	62.8	63.4	90.99	359.5	-2,544.6	861.6	736.7	124.91	6.897			
7,800.0	5,276.5	7,820.7	5,291.2	65.2	65.8	90.99	356.3	-2,644.6	860.8	731.0	129.81	6.631			
7,900.0	5,275.4	7,920.7	5,290.2	67.6	68.2	90.99	353.1	-2,744.5	860.0	725.3	134.70	6.384			
8,000.0	5,274.4	8,020.7	5,289.1	70.0	70.7	90.99	349.9	-2,844.5	859.2	719.6	139.60	6.155			
8,100.0	5,273.3	8,120.7	5,288.1	72.5	73.1	90.99	346.7	-2,944.4	858.4	713.9	144.51	5.940			
8,200.0	5,272.3	8,220.7	5,287.0	74.9	75.5	90.99	343.5	-3,044.3	857.6	708.2	149.41	5.740			
8,300.0	5,271.2	8,320.7	5,286.0	77.3	78.0	90.99	340.3	-3,144.3	856.8	702.5	154.32	5.552			
8,400.0	5,270.2	8,420.7	5,285.0	79.8	80.4	90.99	337.1	-3,244.2	856.0	696.8	159.23	5.376			
8,500.0	5,269.1	8,520.7	5,283.9	82.2	82.9	90.99	333.9	-3,344.2	855.2	691.1	164.15	5.210			
8,600.0	5,268.1	8,620.7	5,282.9	84.7	85.3	91.00	330.8	-3,444.1	854.4	685.4	169.06	5.054			
8,700.0	5,267.0	8,720.7	5,281.8	87.1	87.8	91.00	327.6	-3,544.0	853.6	679.7	173.98	4.907			
8,800.0	5,266.0	8,820.7	5,280.8	89.6	90.2	91.00	324.4	-3,644.0	852.9	674.0	178.90	4.767			
8,900.0	5,264.9	8,920.7	5,279.7	92.0	92.7	91.00	321.2	-3,743.9	852.1	668.2	183.82	4.635			
9,000.0	5,263.9	9,020.7	5,278.7	94.5	95.1	91.00	318.0	-3,843.9	851.3	662.5	188.74	4.510			
9,100.0	5,262.9	9,120.7	5,277.6	96.9	97.6	91.00	314.8	-3,943.8	850.5	656.8	193.66	4.392			
9,200.0	5,261.8	9,220.7	5,276.6	99.4	100.0	91.00	311.6	-4,043.7	849.7	651.1	198.59	4.279			
9,300.0	5,260.8	9,320.7	5,275.6	101.8	102.5	91.00	308.4	-4,143.7	848.9	645.4	203.51	4.171			
9,400.0	5,259.7	9,420.7	5,274.5	104.3	104.9	91.00	305.2	-4,243.6	848.1	639.7	208.44	4.069			
9,500.0	5,258.7	9,520.7	5,273.5	106.7	107.4	91.01	302.0	-4,343.6	847.3	633.9	213.36	3.971			
9,600.0	5,257.6	9,620.7	5,272.4	109.2	109.8	91.01	298.8	-4,443.5	846.5	628.2	218.29	3.878			
9,700.0	5,256.6	9,720.7	5,271.4	111.6	112.3	91.01	295.6	-4,543.4	845.7	622.5	223.22	3.789			
9,800.0	5,255.5	9,820.7	5,270.3	114.1	114.7	91.01	292.4	-4,643.4	844.9	616.8	228.15	3.703			
9,900.0	5,254.5	9,920.6	5,269.3	116.5	117.2	91.01	289.2	-4,743.3	844.1	611.0	233.08	3.622			
10,000.0	5,253.4	10,020.6	5,268.2	119.0	119.7	91.01	286.0	-4,843.3	843.3	605.3	238.01	3.543			
10,100.0	5,252.4	10,120.6	5,267.2	121.5	122.1	91.01	282.8	-4,943.2	842.5	599.6	242.94	3.468			
10,200.0	5,251.3	10,220.6	5,266.1	123.9	124.6	91.01	279.6	-5,043.1	841.7	593.9	247.87	3.396			
10,300.0	5,250.3	10,320.6	5,265.1	126.4	127.0	91.01	276.4	-5,143.1	841.0	588.1	252.81	3.326			

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Reference Site:	S14-T24N-R10W	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site Error:	0.0usft	North Reference:	True
Reference Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S14-T24N-R10W - Good Times D14-2410 01H - Hz - Plan #1		Offset Site Error:		0.0 usft	
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis		Distance												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning					
10,400.0	5,249.2	10,420.6	5,264.1	128.8	129.5	91.01	273.2	-5,243.0	840.2	582.4	257.74	3.260						
10,464.0	5,248.6	10,479.5	5,263.4	130.4	130.9	91.02	271.3	-5,301.8	839.7	578.9	260.77	3.220						
10,487.2	5,248.3	10,479.5	5,263.4	131.0	130.9	91.02	271.3	-5,301.8	839.9	578.6	261.34	3.214						

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Good Times D14-2410 02H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6892.0usft (Aztec 950)
Reference Site:	S14-T24N-R10W	MD Reference:	WELL @ 6892.0usft (Aztec 950)
Site Error:	0.0usft	North Reference:	True
Reference Well:	Good Times D14-2410 02H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	H2	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 6892.0usft (Aztec 950)

Offset Depths are relative to Offset Datum

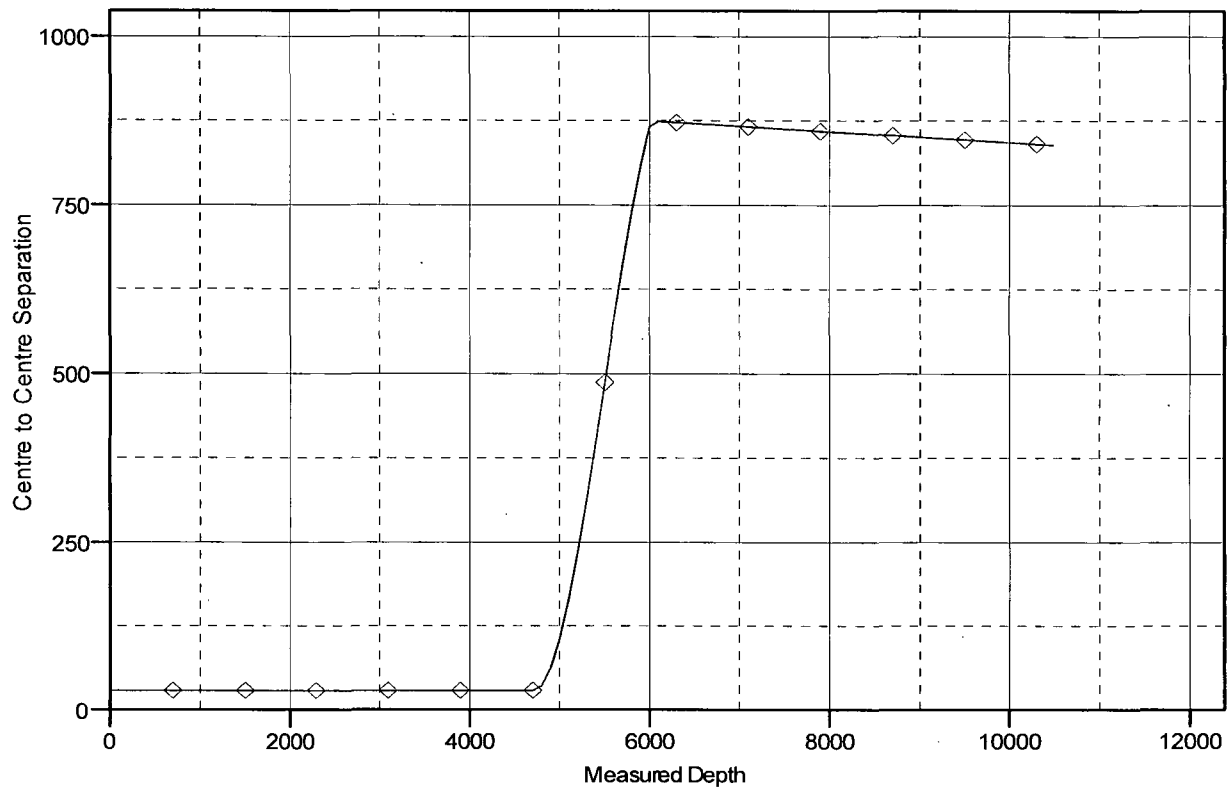
Central Meridian is -107.833333 °

Coordinates are relative to: Good Times D14-2410 02H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: -0.02°

Ladder Plot



LEGEND

◆ Good Times D14-2410 01H, H2, Plan #1 V0

ENCANA OIL & GAS (USA) INC.

GOOD TIMES D14-2410 #02H
1348' FNL & 434' FWL
LOCATED IN THE SW/4 NW/4 OF SECTION 14,
T24N, R10W, 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, 28.2 MILES TO HWY 57 (M.P. 123.4).
- 2) TURN RIGHT ONTO HWY 57 AND GO 4.3 MILES.
- 3) TURN LEFT AND GO THROUGH GATE.
- 4) GO 0.1 MILES AND GO THROUGH SECOND GATE.
- 5) TRAVEL 0.7 MILES WHERE ACCESS IS STAKED ON LEFT SIDE OF ROAD.

WELL FLAG LOCATED AT LAT. 36.317549° N, LONG. 107.873083° W (NAD 83).

JOB No.: ENC100
DATE: 07/11/13



**Scorpion Survey &
Consulting, L.L.C.**
55 County Road 3312
Aztec, New Mexico 87410
(505) 333-2945

WELLHEAD BLOWOUT CONTROL SYSTEM

encana

Well Name and Number:
Good Times D14-2410 02H

