State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Tony Delfin
Acting Cabinet Secretary

David R. Catanach, 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 3160-4 or 3160-5 form.

Operator Signature Date: 10/30/14
Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng	W/E	Feet	NS	Ft	EW
30-045-35513-00-00	LYBROOK I10 2308	003H	ENCANA OIL & GAS (USA) INC.	G	P	San Juan	F	I	10	23	N	8	W	2438	S	480	E

Application Type:

☐ P&A ☐ Drilling/Casing Change ☐ Location Change

- ☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☒ Other: Change name & BHL/POE

Conditions of Approval:

This Sundry was held for Unit Approval

The OCD did not approve this form or make changes to the well as this Unit was cancelled and never approved.

NMOCD Approved by Signature

9/13/16
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

21

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
OCT 31 2014
Farmington Field Office
Bureau of Land Management

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

OIL CONS. DIV DIST. 3
NOV 04 2014

1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM 118132 & NMNM 76842
	6. If Indian, Allottee or Tribe Name N/A
	7. If Unit of CA/Agreement, Name and/or No. PENDING
	8. Well Name and No. Hutton Canyon Unit I10-2308 03H (FKA Lybrook)
2. Name of Operator Encana Oil & Gas (USA) Inc.	9. API Well No. 30-045-35513
3a. Address 370 17th Street, Suite 1700 Denver, CO 80202 3b. Phone No. *(include area code)* 720-876-3533	10. Field and Pool or Exploratory Area Pending
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SHL: 2438' FSL and 480' FEL Section 10, T23N, R8W BHL: 2220' FNL and 370' FEL Section 14, T23N, R8W	11. County or Parish, State San Juan, NM

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

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

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

Encana Oil & Gas (USA) Inc. (Encana) recently finalized the formation of a 2,560 acre Federal exploratory unit named the Hutton Canyon Unit. The Hutton Canyon Unit hearing occurred on October 2, 2014 at the Oil Conservation Division in Santa Fe, in which Encana requested an undivided unit be formed that would also encompass its own unique oil pool designation. The Lybrook I10-2308 03H well will now be part of the Hutton Canyon Unit. Therefore, we are submitting this sundry application to change the name from Lybrook I10-2308 03H to Hutton Canyon Unit I10-2308 03H.

In addition to the name change, the BHL was modified from 2260 FNL, 330 FEL (Sec 14, T23N, R8W) to 2220 FNL, 370 FEL (Sec 14, T23N, R8W). The POE was modified from 2360 FSL, 330 FWL (Sec 11, T23N, R8W) to 2390 FNL, 330 FWL (Sec 11, T23N, R8W). Finally, the drilling plan was modified to cement the 4 1/2" production liner, instead of running open hole swell packers, as previously planned, and the 7" ICP was also moved from approximately 72 degrees to approximately 55 degrees.

Attached is an updated Survey Plat package, a Directional Drilling Plan, 10-Point Drilling Plan and Wellbore Diagram that reflect these changes.

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations

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

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

Katie Wegner — Title Regulatory Analyst

Signature — Date 10/30/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by William Tambekou — Title Petroleum Engineer — Date 11/03/2014

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

Office FFO

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

(Instructions on page 2)

NMOCD

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

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

RECEIVED
OCT 31 2014
Farmington Field Office
Bureau of Land Management

OIL CONS. DIV DIST. 3
NOV 04 2014

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	PENDING	PENDING

[4] Property Code	[5] Property Name	[6] Well Number
	HUTTON CANYON UNIT 110-2308	03H

[7] OGRID No.	[8] Operator Name	[9] Elevation
282327	ENCANA OIL & GAS (USA) INC.	6932.6'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	10	23N	8W		2438'	SOUTH	480'	EAST	SAN JUAN

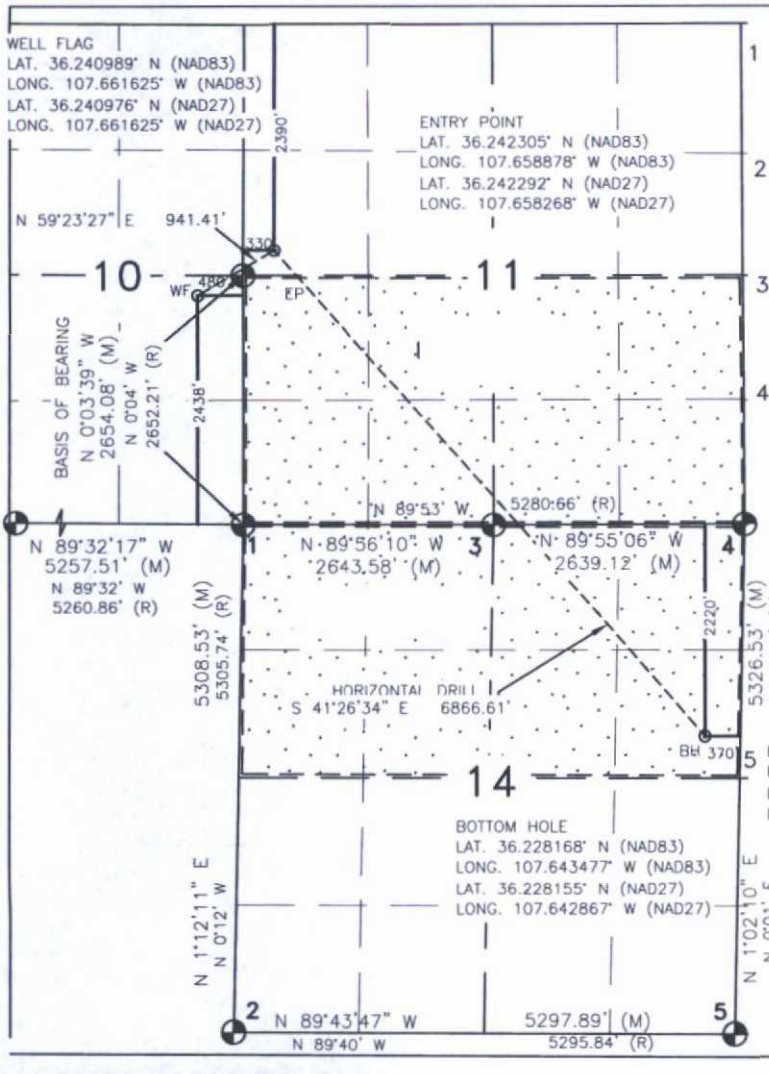
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	14	23N	8W		2220'	NORTH	370'	EAST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
PROJECT AREA 2560 ACRES SEC. 11,13,14 (T23N, R8W) AND SEC. 18 (T23N, R7W) : N/2 SEC. 13, N/2 SEC. 14, & ALL OF SEC. 11			PENDING

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



18

1 LAT. 36.234283° N (NAD83)
LONG. 107.659990° W (NAD83)
LAT. 36.234270° N (NAD27)
LONG. 107.659380° W (NAD27)

2 LAT. 36.219709° N (NAD83)
LONG. 107.660370° W (NAD83)
LAT. 36.219696° N (NAD27)
LONG. 107.659760° W (NAD27)

3 LAT. 36.234273° N (NAD83)
LONG. 107.651030° W (NAD83)
LAT. 36.234260° N (NAD27)
LONG. 107.650420° W (NAD27)

4 LAT. 36.234261° N (NAD83)
LONG. 107.642085° W (NAD83)
LAT. 36.234248° N (NAD27)
LONG. 107.641475° W (NAD27)

5 LAT. 36.219637° N (NAD83)
LONG. 107.642417° W (NAD83)
LAT. 36.219624° N (NAD27)
LONG. 107.641807° W (NAD27)

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 10/30/14 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.

AUGUST 16, 2013
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID R. RUSSELL
NEW MEXICO
10201
REGISTERED PROFESSIONAL LAND SURVEYOR

DAVID RUSSELL
Certificate Number 10201

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

ENCANA OIL & GAS (USA) INC.
HUTTON CANYON UNIT I10-2308 #03H

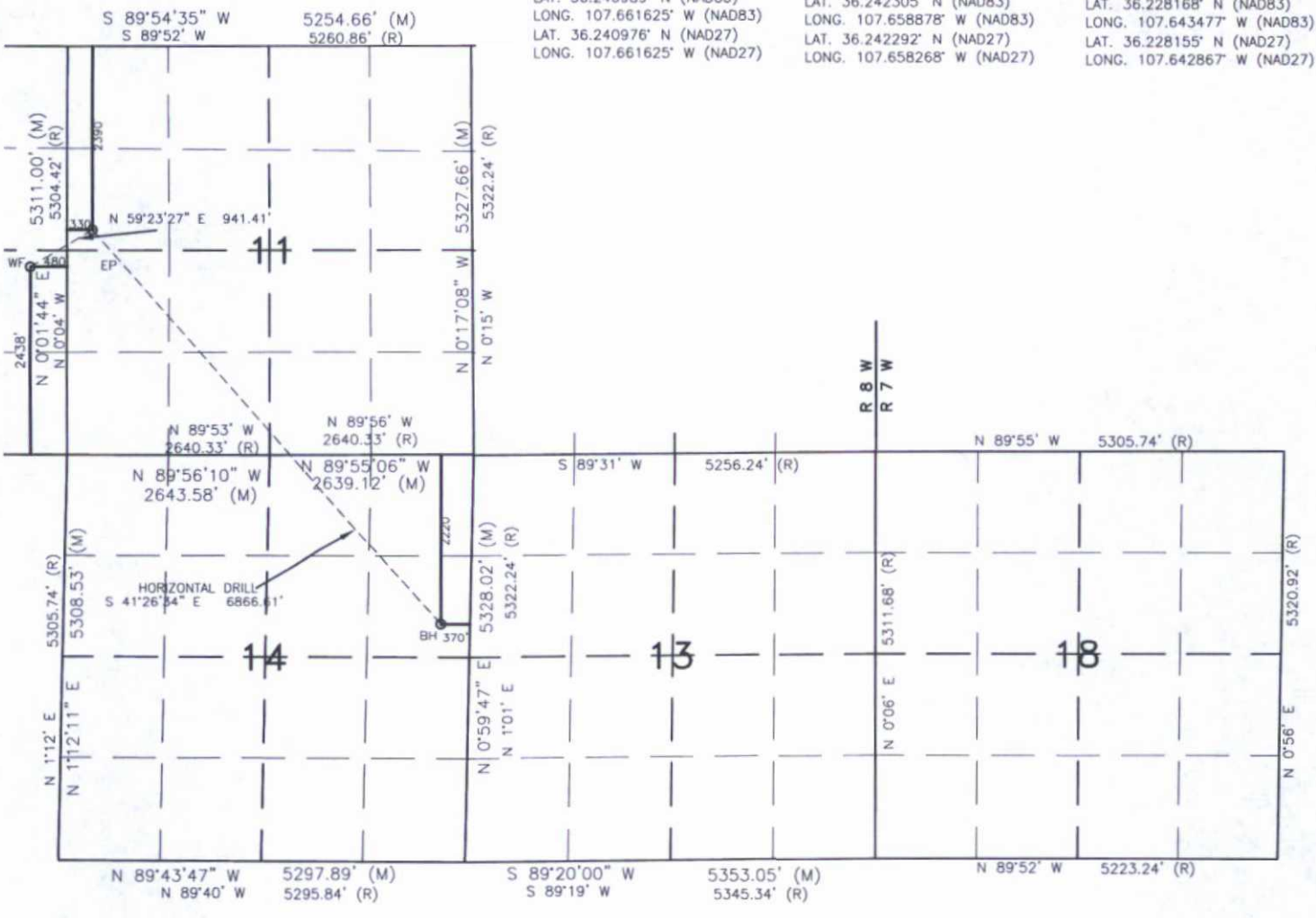
OIL CONS. DIV DIST. 3

NOV 04 2014

WELL FLAG
LAT. 36.240989° N (NAD83)
LONG. 107.661625° W (NAD83)
LAT. 36.240976° N (NAD27)
LONG. 107.661625° W (NAD27)

ENTRY POINT
LAT. 36.242305° N (NAD83)
LONG. 107.658878° W (NAD83)
LAT. 36.242292° N (NAD27)
LONG. 107.658268° W (NAD27)

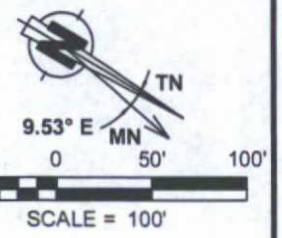
BOTTOM HOLE
LAT. 36.228168° N (NAD83)
LONG. 107.643477° W (NAD83)
LAT. 36.228155° N (NAD27)
LONG. 107.642867° W (NAD27)



WELL FLAG
LATITUDE: 36.240989° N
LONGITUDE: 107.661625° W
DATUM: NAD83

ENCANA OIL & GAS (USA) INC.

HUTTON CANYON UNIT I10-2308 #03H
2438' FSL & 480' FEL
LOCATED IN THE NE/4 SE/4 OF SECTION 10,
T23N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6933', NAVD 88
FINISHED PAD ELEVATION: 6932.6', NAVD 88



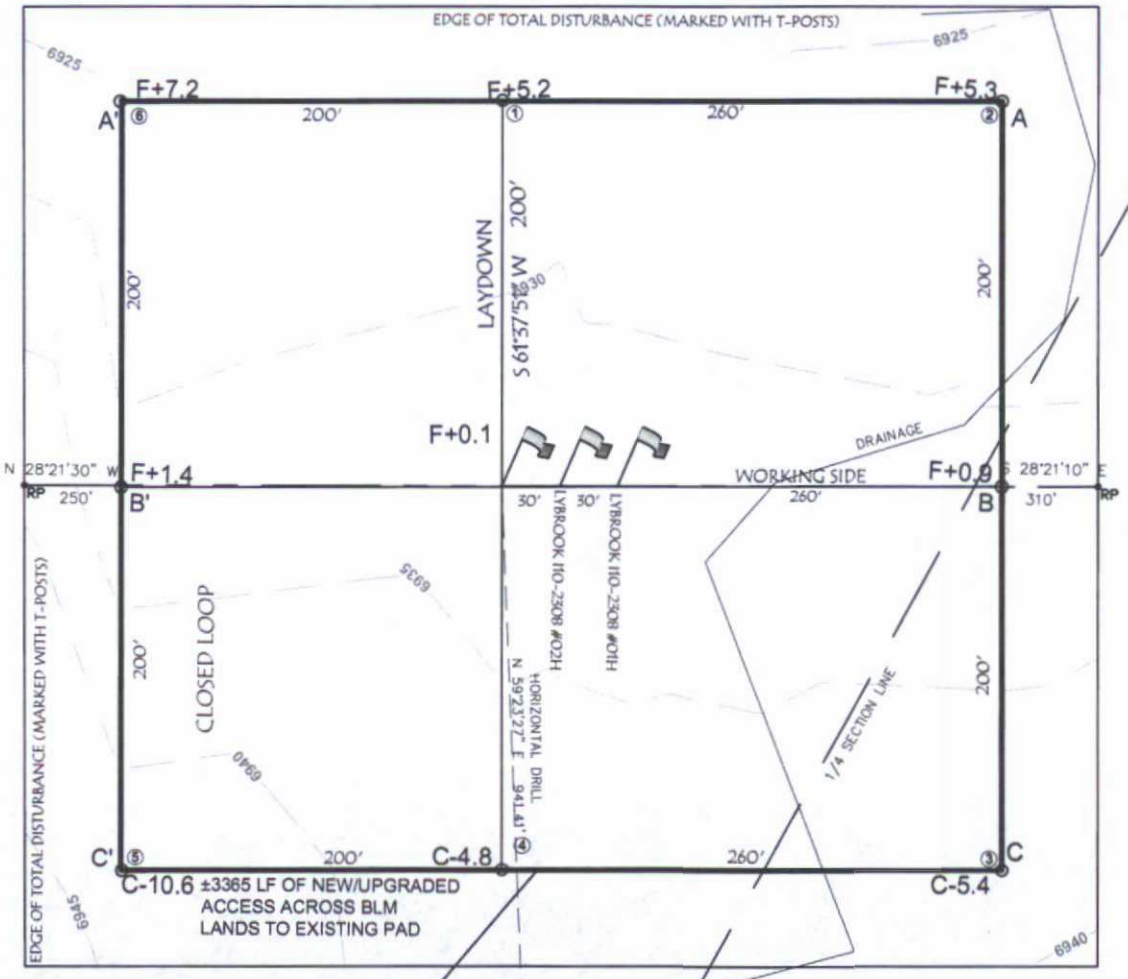
NOTES:

1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 10, TOWNSHIP 23 NORTH, RANGE 8 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.
LINE BEARS: N 0°03'39" W A DISTANCE OF 2654.08 FEET AS MEASURED BY G.P.S.

2.) LATITUDE, LONGITUDE AND ELLIPSOIDAL HEIGHT BASED ON AZTEC CORS L1 PHASE CENTER.
DISTANCES SHOWN ARE GROUND DISTANCES USING A TRAVERSE MERCATOR PROJECTION FROM A WGS84 ELLIPSOID, CONVERTED TO NAD83.
NAVD88 ELEVATIONS AS PREDICTED BY GEOID03.

3.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

4.) T-POSTS HAVE BEEN SET TO DEFINE THE EDGE OF DISTURBANCE LIMITS WHICH ARE 50' OFFSETS FROM THE EDGE OF THE STAKED WELL PAD.



~ SURFACE OWNERSHIP ~
BUREAU OF LAND MANAGEMENT

TOTAL PERMITTED AREA
500' x 560' = 6.43 ACRES
SCALE: 1" = 100'
JOB No.: ENC085_REV1
DATE: 09/16/2014
DRAWN BY: TWT

NOTE:
SCORPION SURVEY & CONSULTING, L.L.C. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED, BURIED PIPELINES OR CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

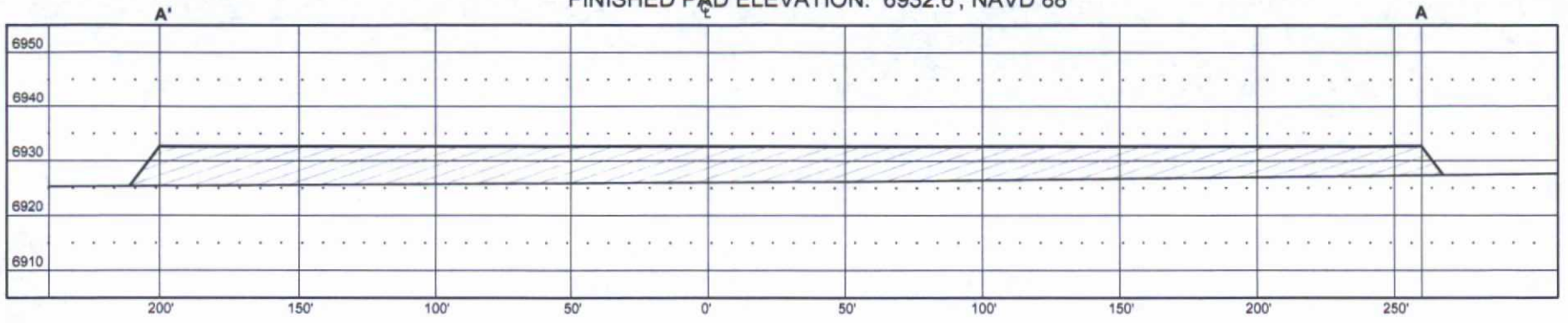
SLOPES TO BE CONSTRUCTED TO MATCH THE ORIGINAL CONTOURS AS CLOSE AS POSSIBLE.

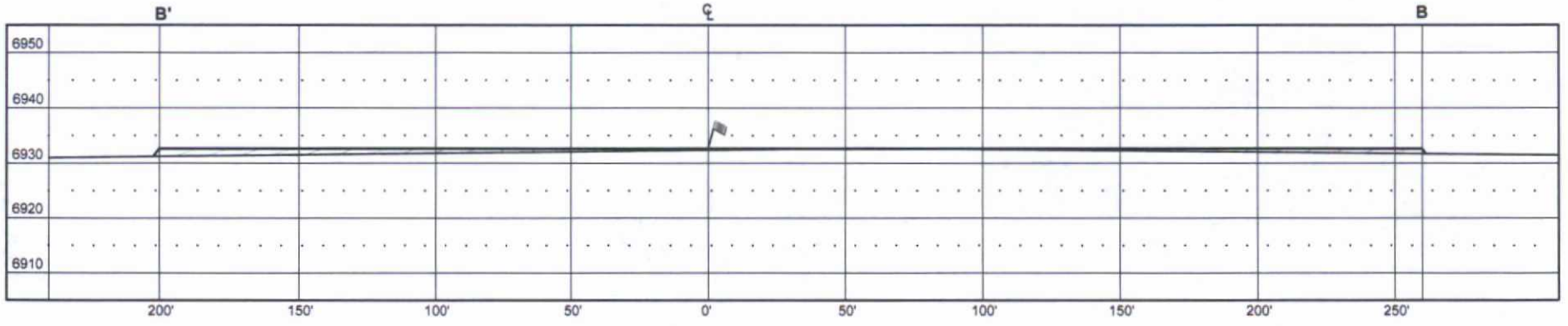
Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

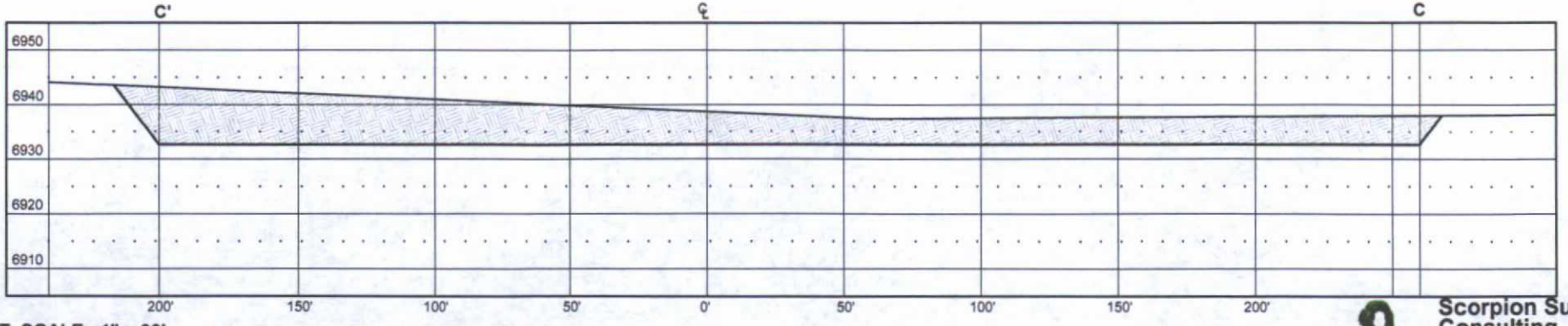
LATITUDE: 36.240989° N
LONGITUDE: 107.661625° W
DATUM: NAD 83

ENCANA OIL & GAS (USA) INC.

HUTTON CANYON UNIT I10-2308 #03H
2438' FSL & 480' FEL
LOCATED IN THE NE/4 SE/4 OF SECTION 10, T23N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6933', NAVD 88
FINISHED PAD ELEVATION: 6932.6', NAVD 88







VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 60'
JOB No.: ENC085_REV1
DATE: 09/16/2014

THIS DIAGRAM IS AN ESTIMATE OF DIRT BALANCE AND IS NOT INTENDED TO BE AN EXACT MEASURE OF VOLUME

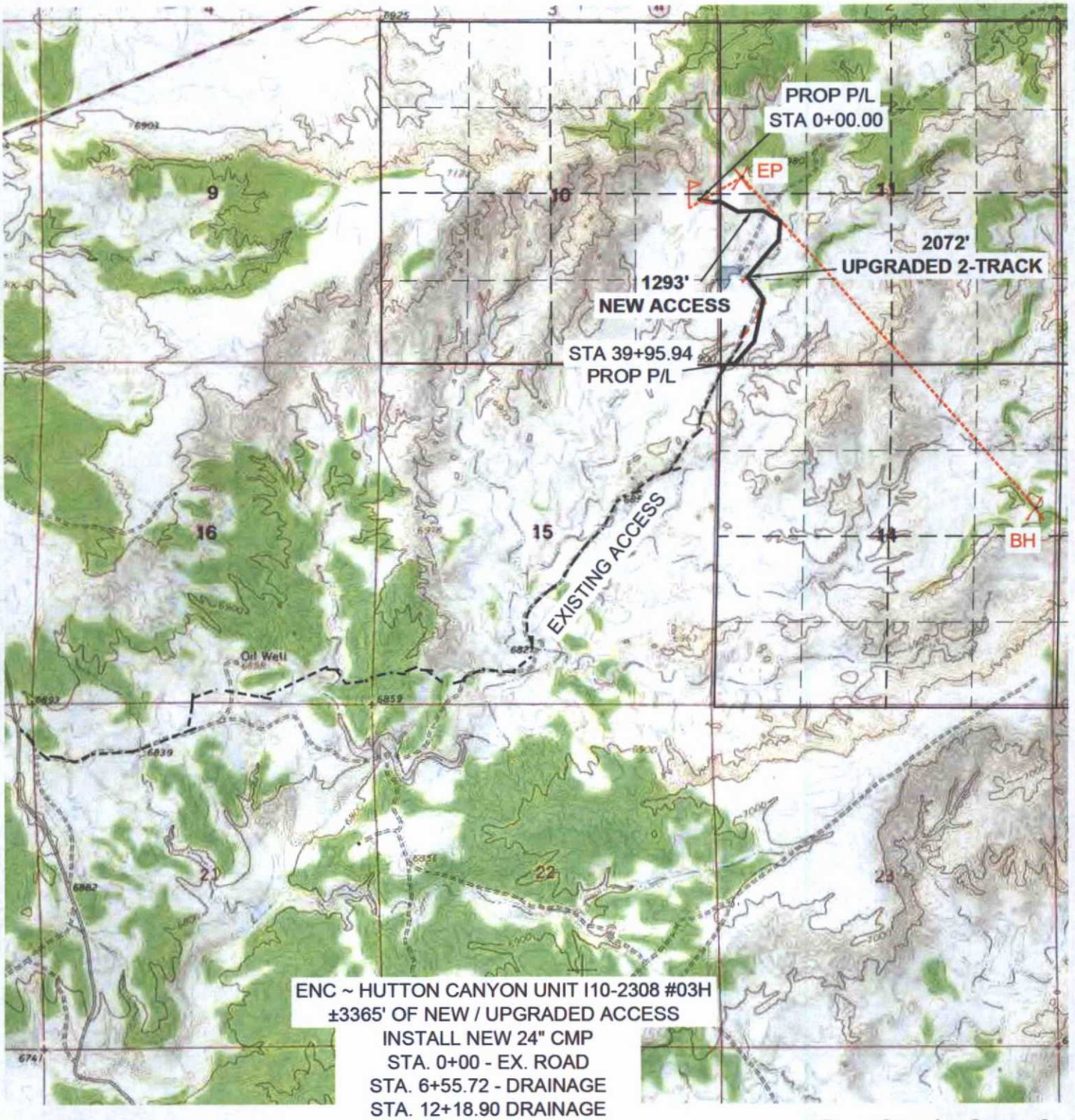
FILL CUT

Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

LATITUDE: 36.240989° N
LONGITUDE: 107.661625° W
DATUM: NAD 83

ENCANA OIL & GAS (USA) INC.

HUTTON CANYON UNIT I10-2308 #03H
2438' FSL & 480' FEL
LOCATED IN THE NE/4 SE/4 OF SECTION 10, T23N, R8W,
N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6933', NAVD 88
±3365' OF NEW/UPGRADED ACCESS ACROSS BLM
LANDS



ENC ~ HUTTON CANYON UNIT I10-2308 #03H
±3365' OF NEW / UPGRADED ACCESS
INSTALL NEW 24" CMP
STA. 0+00 - EX. ROAD
STA. 6+55.72 - DRAINAGE
STA. 12+18.90 DRAINAGE
STA. 24+75.19 - DRAINAGE
STA. 30+56.98 - NEEDS 24" CMP
STA. 33+14.86 - NEEDS 24" CMP
STA. 33+64.86 - @ PAD

U.S.G.S. QUAD: HUTTON CANYON UNIT NW
SCALE: 1" = 2000' (1:24,000)
JOB No.: ENC085_REV2
DATE: 09/16/2014

Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

ENCANA OIL & GAS (USA) INC.

HUTTON CANYON UNIT I10-2308 #03H
2438' FSL & 480' FEL
LOCATED IN THE NE/4 SE/4 OF SECTION 10,
T23N, 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, 39.0 MILES TO INDIAN ROUTE 7061 (M.P. 112.6).
2) TURN RIGHT AND GO 1.7 MILES TO A DIRT ROAD WITH CATTLE GUARD.
3) TURN LEFT AND GO 0.6 MILES TO "Y" INTERSECTION.
4) TURN LEFT AND GO 0.9 MILES TO "T" INTERSECTION.
5) TURN LEFT AND GO 1.1 MILES TO ABANDONED 2-TRACK TO BE UPGRADED.

WELL FLAG LOCATED AT LAT. 36.240989° N, LONG.107.661625° W (NAD 83).

JOB No.: ENC085_REV1
DATE: 09/16/2014

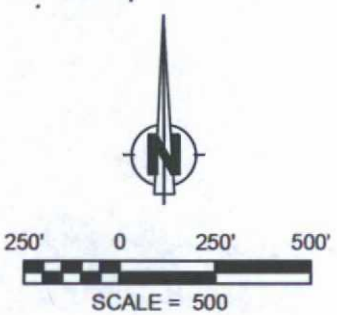
Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 333-2945

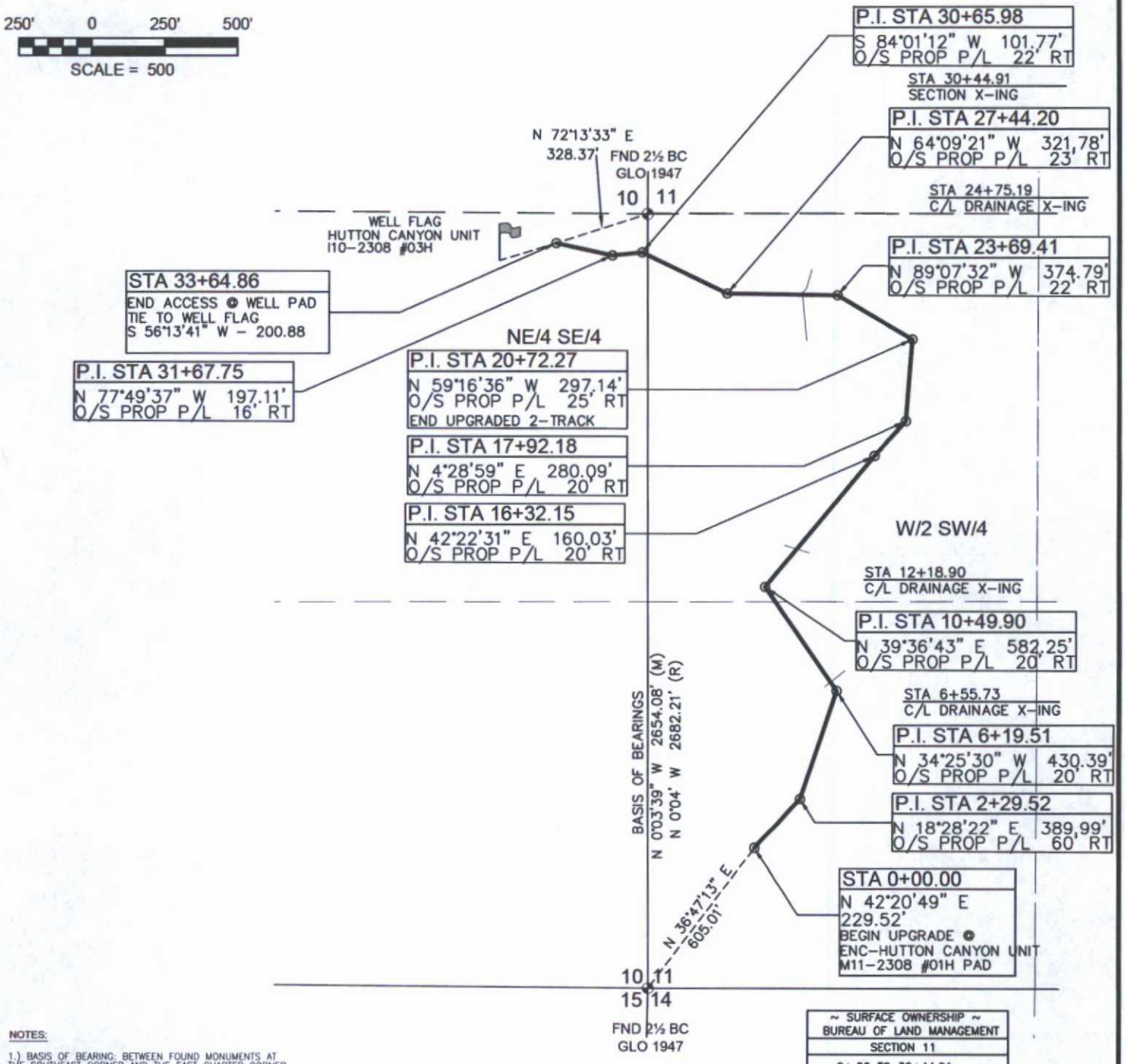
PROPOSED ACCESS FOR

ENCANA OIL & GAS (USA) INC.

HUTTON CANYON UNIT I10-2308 #03H

LOCATED IN THE W/2 SW/4 OF SECTION 11,
& THE NE/4 SE/4 OF SECTION 10,
T23N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO





~ SURFACE OWNERSHIP ~ BUREAU OF LAND MANAGEMENT		
SECTION 11		
0+.00 TO 30+44.91		
3044.91 FT/ 184.54 RODS		
SECTION 10		
30+44.91 TO 33+64.86		
319.95 FT/ 19.39 RODS		
TOTAL		
0+.00 TO 33+64.86		
3364.86 FT/ 203.93 RODS		
DATE OF SURVEY	08/16/13	JC, MR

NOTES:

1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 10, TOWNSHIP 23 NORTH, RANGE 8 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO. LINE BEARS: N 0°03'39" W A DISTANCE OF 2654.08' FEET AS MEASURED BY G.P.S.

2.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

I, DAVID R. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

DAVID R. RUSSELL, PLS
NEW MEXICO L.S. #10201

DATE: 9-19-2013

JOB No.: ENC085_REV1

DATE: 09/16/2014

Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

PROPOSED PIPELINE FOR

ENCANA OIL & GAS (USA) INC.

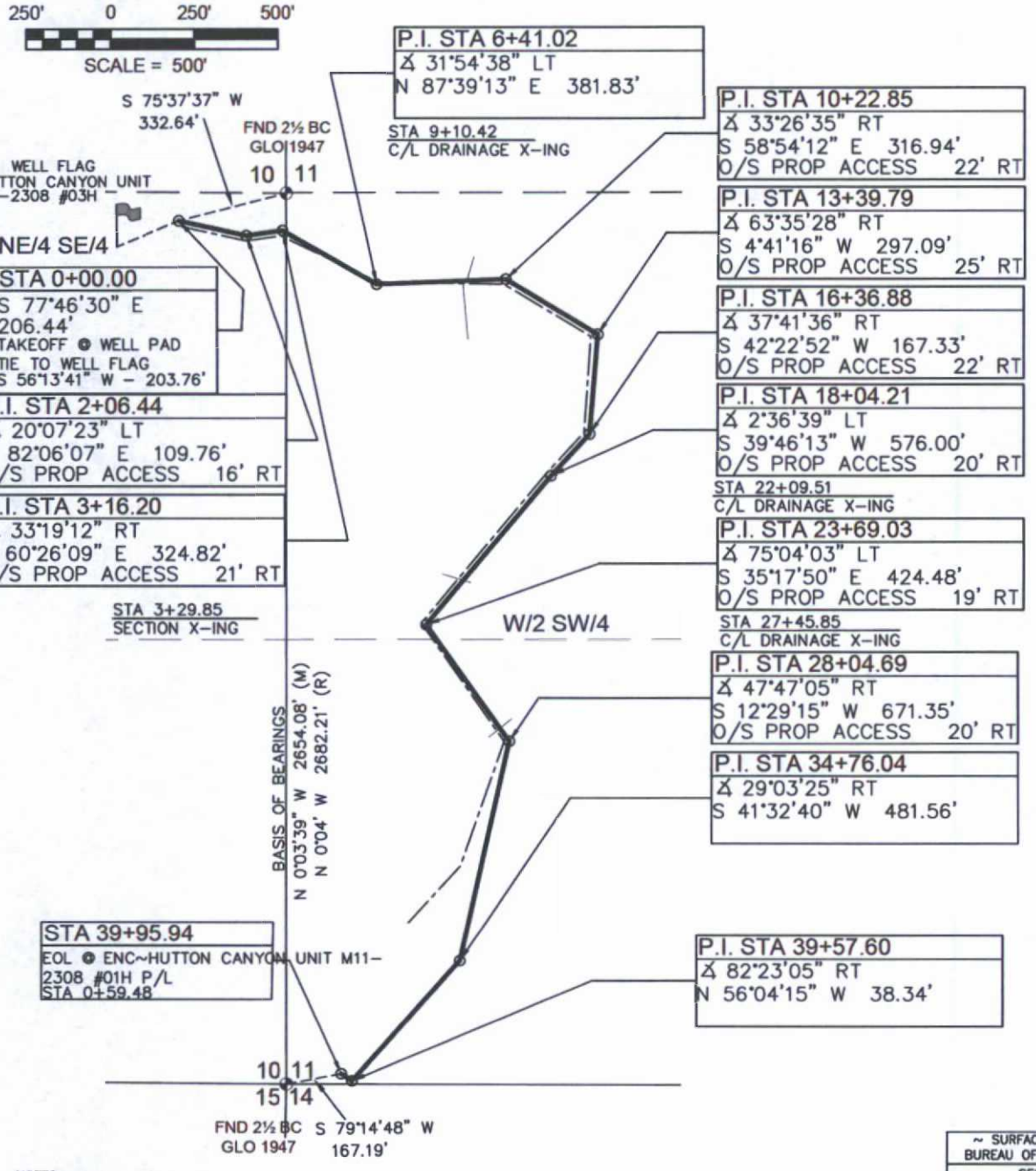
HUTTON CANYON UNIT I10-2308 #03H

LOCATED IN THE W/2 SW/4 OF SECTION 11,

& THE NE/4 SE/4 OF SECTION 10,

T23N, R8W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ BUREAU OF LAND MANAGEMENT		
SECTION 10		
0+.00 TO 3+29.85		
329.85 FT / 19.99 RODS		
SECTION 11		
3+29.85 TO 39+95.94		
3666.09 FT / 222.19 RODS		
TOTAL		
0+.00 TO 39+95.94		
3995.94 FT / 242.18 RODS		
DATE OF SURVEY	08/16/13	JC, MR

NOTES:

1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 10, TOWNSHIP 23 NORTH, RANGE 8 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO. LINE BEARS: N 0°03'39" W A DISTANCE OF 2654.08' FEET AS MEASURED BY G.P.S.

2.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

DAVID R. RUSSELL NEW MEXICO 10201 REGISTERED PROFESSIONAL LAND SURVEYOR

I, DAVID R. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

DAVID R. RUSSELL, PLS
NEW MEXICO L.S. #10201

DATE: 11-19-2013

JOB No.: ENC085_REV2 DATE: 09/16/2014

Scorpion Survey & Consulting, L.L.C.
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

LOC: 2438' FSL, 480' FEL Sec 10 23N 08W
County: San Juan
WELL: Hutton Canyon Unit I10-2308 03H

Encana Natural Gas

WELL SUMMARY

ENG: Sydney Kuyke 10/27/14
RIG: Aztec 920
GLE: 6932.6
RKBE: 6947.1

MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH TVD	DEPTH MD	HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			60	60'	26	**16" 42.09#** **100sx Type I Neat 16.0ppg cmt**	Fresh wtr 8.3-9.2	
Multi-Well pad take survey every stand and run anti-collision report prior to spud	None	San Jose Fn.	0		12 1/4	**9 5/8" 36ppf J55 STC** TOC Surface with 100% OH Excess: 228 sks Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water.	Fresh wtr 8.3-10	Vertical <1°
		Nacimiento Fn.	surface					
		9 5/8" Csg	**500**	**500.00**				
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.	1,058		8 3/4	**7" 26ppf J55 LTC** TOC @ surface (100% OH excess - 70% Lead 30% Tail) Stage 1 Total: 891sks Stage 1 Lead: 505 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: 386 sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk.	Fresh Wtr 8.3-10	Vertical <1°
		Kirtland Shale	1,148					
		Fruitland Coal	1,421					
		Pictured Cliffs Ss.	1,654					
		Lewis Shale	1,753					
		Cliffhouse Ss.	2,454					
		Menefee Fn.	3,207					
		Point Lookout Ss.	4,062					
		Mancos Shale	4,258					
	Mud logger onsite	**KOP**	**4,090**	**4,090**				
Surveys every 30' through the curve		Mancos Silt	4,799					
		Gallup Fn.	5,057					
		7" Csg	**5,117**	**5,429'**				
Surveys every stand to TD unless directed otherwise by Geologist MWD Gamma Directional	No OH Logs	Horizontal Target	5,335		6 1/8	100' overlap at liner top		Horz Inc/TVD 90.6deg/5335.1ft
		TD	**5,261**	**12,625**		7196' Drilled Lateral		TD = 12625.4 MD
		Base Gallup	5,412			**4 1/2" 11.6ppf SB80 LTC** TOC @ hanger (50% OH excess) Stage 1 Total: 407sks Stage 1 Blend: 407 sks Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwow Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL-52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk.	**WBM** 8.3-10	

NOTES:

1) Drill with 26" bit to 60', set 16" 42.09ppf conductor pipe
2) Drill surface to 500', R&C 9 5/8" casing
3) N/U BOP and surface equipment
4) Drill to KOP of 4090', 8 3/4 inch holesize
5) Start curve at 10deg/100' build rate
6) Drill to csg point of 5429' MD
7) R&C 7" csg, circ cmt to surface
8) Land at ~90 deg, drill lateral to 12625' run 4 1/2 inch cemented liner

Hutton Canyon Unit I10-2308 03H
SHL: 2438' FSL, 480' FEL Sec 10 23N 08W
BHL: 2220' FNL, 370' FEL Sec 14 23N 08W
San Juan, New Mexico

Encana Oil & Gas (USA) Inc.
Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
San Jose Fn.	n/a
Nacimiento Fn.	surface
Ojo Alamo Ss.	1,058
Kirtland Shale	1,148
Fruitland Coal	1,421
Pictured Cliffs Ss.	1,654
Lewis Shale	1,753
Cliffhouse Ss.	2,454
Menefee Fn.	3,207
Point Lookout Ss.	4,062
Mancos Shale	4,258
Mancos Silt	4,799
Gallup Fn.	5,057
Base Gallup	5,412

The referenced surface elevation is 6933', KB 6947'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,421
Oil/Gas	Pictured Cliffs Ss.	1,654
Oil/Gas	Cliffhouse Ss.	2,454
Gas	Menefee Fn.	3,207
Oil/Gas	Point Lookout Ss.	4,062
Oil/Gas	Mancos Shale	4,258
Oil/Gas	Mancos Silt	4,799
Oil/Gas	Gallup Fn.	5,057

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

Hutton Canyon Unit I10-2308 03H
SHL: 2438' FSL, 480' FEL Sec 10 23N 08W
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San Juan, New Mexico

3. PRESSURE CONTROL

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

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

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

a) The proposed casing design is as follows:

Casing	Depth (MD)	Hole Size	Csg Size	Weight	Grade
Conductor	0'-60'	26"	16"	42.09#	
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5429'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5329'-12625'	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

Hutton Canyon Unit I10-2308 03H
SHL: 2438' FSL, 480' FEL Sec 10 23N 08W
BHL: 2220' FNL, 370' FEL Sec 14 23N 08W
San Juan, New Mexico

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

b) The proposed cementing program is as follows

Casing	Depth (MD)	Cement Volume (sacks)	Cement Type & Yield	Designed	Centralizers
Conductor	0'-60'	100 sks	Type I Neat 16 ppg	Surface	None
Surface	0'-500'	228 sks	Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water	Surface	1 per joint on bottom 3 joints
Intermediate	0'-5429'	100% open hole excess Stage 1 Lead: 505 sks Stage 1 Tail: 386 sks	Lead: PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuft/sk Tail: Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuft/sk	Surface	1 every 3 joints through water bearing zones
Production Liner	5329'-12625'	50% OH excess Stage 1 Blend Total: 407sks	Blend: Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwow Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL-52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk	Liner Hanger	N/A

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

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

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4090'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5261'/12625'	Gallup

Hutton Canyon Unit I10-2308 03H
SHL: 2438' FSL, 480' FEL Sec 10 23N 08W
BHL: 2220' FNL, 370' FEL Sec 14 23N 08W
San Juan, New Mexico

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60'/60'	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0'-500'/500'	Fresh Water	8.3-10	60-70	NC
8 3/4"	500'/500'-5117'/5429'	Fresh Water LSND	8.3-10	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5117'/5429'-5261'/12625'	Fresh Water LSND	8.3-10	15-25	<15

c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

7. TESTING, CORING, & LOGGING

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

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

8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2497 psi based on a 9.0 ppg at 5335' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H_2S is encountered, the guidelines in Onshore Order No. 6 will be followed.

9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

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

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

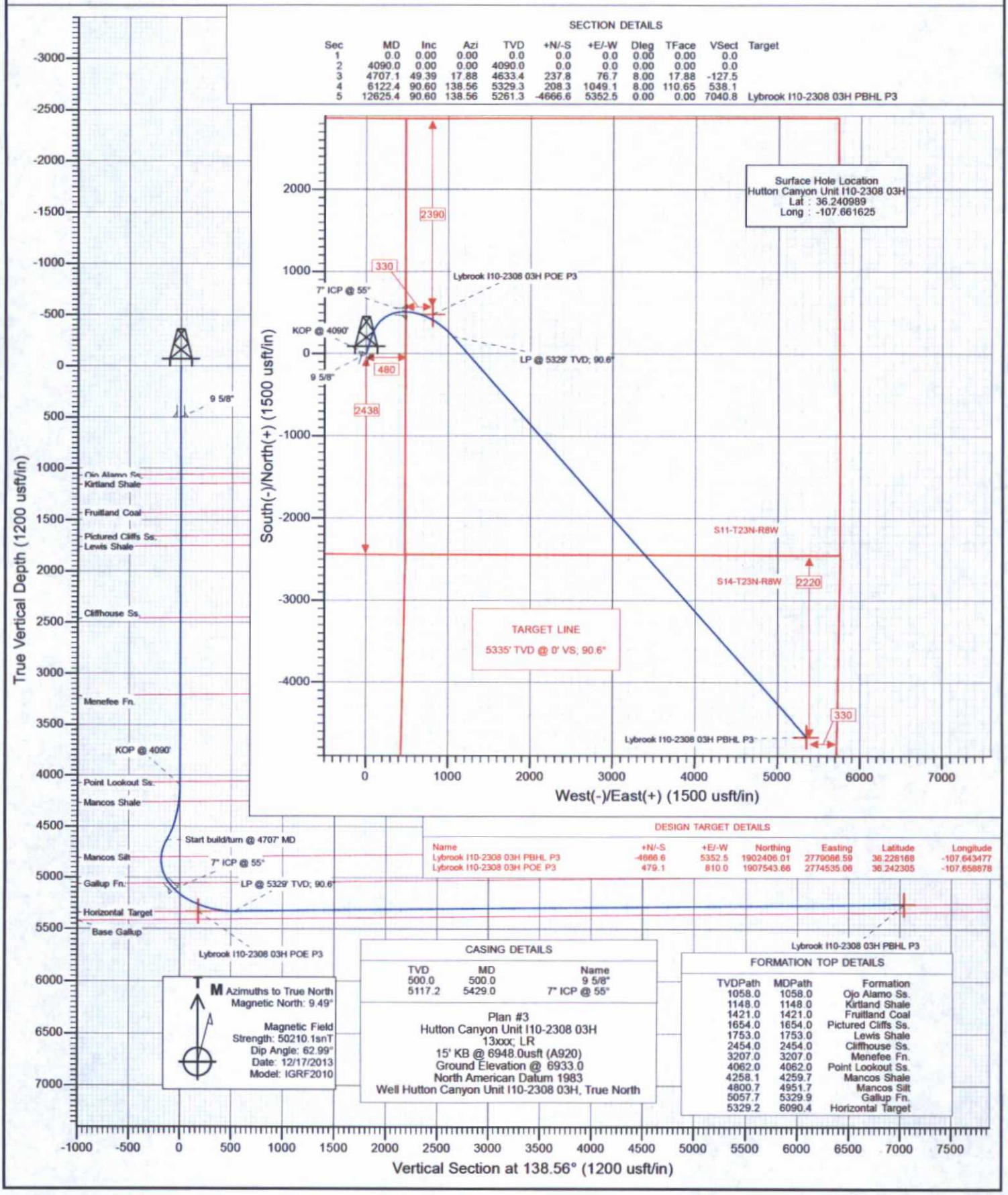
encana natural gas

Project: San Juan County, NM
Site: S10-T23N-R8W (Lybrook)
Well: Hutton Canyon Unit I10-2308 03H
Wellbore: Hz
Design: Plan #3

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4090.0	0.00	0.00	4090.0	0.0	0.0	0.00	0.00	0.0	
3	4707.1	49.39	17.88	4633.4	237.8	76.7	8.00	17.88	-127.5	
4	6122.4	90.60	138.56	5329.3	208.3	1049.1	8.00	110.65	538.1	
5	12625.4	90.60	138.56	5261.3	-4666.6	5352.5	0.00	0.00	7040.8	Lybrook I10-2308 03H PBHL P3



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lybrook I10-2308 03H PBHL P3	-4666.6	5352.5	1902406.01	2779086.59	36.228168	-107.643477
Lybrook I10-2308 03H POE P3	479.1	810.0	1907543.66	2774535.06	36.242305	-107.658878

CASING DETAILS

TVD	MD	Name
500.0	500.0	9 5/8"
5117.2	5429.0	7" ICP @ 55°

Plan #3
Hutton Canyon Unit I10-2308 03H
13xxx; LR
15' KB @ 6948.0usft (A920)
Ground Elevation @ 6933.0
North American Datum 1983
Well Hutton Canyon Unit I10-2308 03H, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1058.0	1058.0	Ojo Alamo Ss.
1148.0	1148.0	Kirtland Shale
1421.0	1421.0	Fruitland Coal
1654.0	1654.0	Pictured Cliffs Ss.
1753.0	1753.0	Lewis Shale
2454.0	2454.0	Cliffhouse Ss.
3207.0	3207.0	Menefee Fn.
4062.0	4062.0	Point Lookout Ss.
4258.1	4259.7	Mancos Shale
4800.7	4951.7	Mancos Silt
5057.7	5329.9	Gallup Fn.
5329.2	6090.4	Horizontal Target

Azimuths to True North
Magnetic North: 9.49°

Magnetic Field
Strength: 50210.1snT
Dip Angle: 62.99°
Date: 12/17/2013
Model: IGRF2010

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hutton Canyon Unit I10-2308 03H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	15' KB @ 6948.0usft (A920)
Project:	San Juan County, NM	**MD Reference:**	15' KB @ 6948.0usft (A920)
Site:	S10-T23N-R8W (Lybrook)	**North Reference:**	True
Well:	Hutton Canyon Unit I10-2308 03H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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	S10-T23N-R8W (Lybrook)				
Site Position:		**Northing:**	1,907,115.89 usft	**Latitude:**	36.241134
From:	Lat/Long	**Easting:**	2,773,697.18 usft	**Longitude:**	-107.661722
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	0.10 °

Well	Hutton Canyon Unit I10-2308 03H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	1,907,063.16 usft	**Latitude:**	36.240989
	+E/-W	0.0 usft	**Easting:**	2,773,725.87 usft	**Longitude:**	-107.661625
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	6,933.0 usft

Wellbore	Hz			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/17/2013	9.49	62.99	50,210

Design	Plan #3				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	138.56	

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	
4,090.0	0.00	0.00	4,090.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,707.1	49.39	17.88	4,633.4	237.8	76.7	8.00	8.00	0.00	17.88	
6,122.4	90.60	138.56	5,329.3	208.3	1,049.1	8.00	2.91	8.53	110.65	
12,625.4	90.60	138.56	5,261.3	-4,666.6	5,352.5	0.00	0.00	0.00	0.00	Lybrook I10-2308 03H

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hutton Canyon Unit I10-2308 03H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	15' KB @ 6948.0usft (A920)
Project:	San Juan County, NM	**MD Reference:**	15' KB @ 6948.0usft (A920)
Site:	S10-T23N-R8W (Lybrook)	**North Reference:**	True
Well:	Hutton Canyon Unit I10-2308 03H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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	
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	
1,058.0	0.00	0.00	1,058.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,148.0	0.00	0.00	1,148.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,421.0	0.00	0.00	1,421.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
1,654.0	0.00	0.00	1,654.0	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	
1,753.0	0.00	0.00	1,753.0	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	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,454.0	0.00	0.00	2,454.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
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	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,207.0	0.00	0.00	3,207.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
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	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,062.0	0.00	0.00	4,062.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
4,090.0	0.00	0.00	4,090.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4090'
4,100.0	0.80	17.88	4,100.0	0.1	0.0	0.0	8.00	8.00	
4,200.0	8.80	17.88	4,199.6	8.0	2.6	-4.3	8.00	8.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hutton Canyon Unit I10-2308 03H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	15' KB @ 6948.0usft (A920)
Project:	San Juan County, NM	**MD Reference:**	15' KB @ 6948.0usft (A920)
Site:	S10-T23N-R8W (Lybrook)	**North Reference:**	True
Well:	Hutton Canyon Unit I10-2308 03H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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
4,259.7	13.58	17.88	4,258.1	19.0	6.1	-10.2	8.00	8.00	Mancos Shale
4,300.0	16.81	17.88	4,297.0	29.1	9.4	-15.6	8.00	8.00	
4,400.0	24.81	17.88	4,390.4	62.9	20.3	-33.7	8.00	8.00	
4,500.0	32.82	17.88	4,477.9	108.7	35.1	-58.3	8.00	8.00	
4,600.0	40.82	17.88	4,557.9	165.7	53.5	-88.8	8.00	8.00	
4,700.0	48.82	17.88	4,628.8	232.7	75.1	-124.8	8.00	8.00	
4,707.1	49.39	17.88	4,633.4	237.8	76.7	-127.5	8.00	8.00	Start build/turn @ 4707' MD
4,800.0	47.15	27.39	4,695.4	301.7	103.3	-157.8	8.00	-2.41	
4,900.0	45.68	38.25	4,764.4	362.5	142.3	-177.5	8.00	-1.47	
4,951.7	45.33	44.03	4,800.7	390.2	166.6	-182.3	8.00	-0.67	Mancos Silt
5,000.0	45.27	49.46	4,834.6	413.7	191.6	-183.4	8.00	-0.12	
5,100.0	45.97	60.62	4,904.7	454.5	250.0	-175.3	8.00	0.70	
5,200.0	47.71	71.33	4,973.2	484.0	316.5	-153.4	8.00	1.74	
5,300.0	50.39	81.32	5,038.8	501.7	389.7	-118.2	8.00	2.68	
5,329.9	51.35	84.15	5,057.7	504.7	412.7	-105.2	8.00	3.21	Gallup Fn.
5,400.0	53.85	90.46	5,100.3	507.2	468.3	-70.3	8.00	3.57	
5,429.0	54.98	92.96	5,117.2	506.5	491.9	-54.2	8.00	3.89	7" ICP @ 55°
5,500.0	57.95	98.77	5,156.4	500.4	550.7	-10.7	8.00	4.18	
5,600.0	62.54	106.32	5,206.1	481.5	635.3	59.5	8.00	4.59	
5,700.0	67.50	113.25	5,248.3	450.7	720.4	138.9	8.00	4.96	
5,800.0	72.74	119.68	5,282.4	408.8	804.5	226.0	8.00	5.24	
5,900.0	78.17	125.75	5,307.5	356.4	885.8	319.1	8.00	5.43	
6,000.0	83.72	131.58	5,323.3	294.8	962.8	416.3	8.00	5.55	
6,090.4	88.80	136.74	5,329.2	232.0	1,027.5	506.1	8.00	5.62	Horizontal Target
6,100.0	89.34	137.29	5,329.3	224.9	1,034.0	515.8	8.00	5.63	
6,122.4	90.60	138.56	5,329.3	208.3	1,049.1	538.1	8.00	5.63	LP @ 5329' TVD; 90.6°
6,200.0	90.60	138.56	5,328.5	150.1	1,100.4	615.7	0.00	0.00	
6,300.0	90.60	138.56	5,327.5	75.2	1,166.6	715.7	0.00	0.00	
6,400.0	90.60	138.56	5,326.4	0.2	1,232.8	815.7	0.00	0.00	
6,500.0	90.60	138.56	5,325.4	-74.8	1,298.9	915.7	0.00	0.00	
6,600.0	90.60	138.56	5,324.3	-149.7	1,365.1	1,015.7	0.00	0.00	
6,700.0	90.60	138.56	5,323.3	-224.7	1,431.3	1,115.7	0.00	0.00	
6,800.0	90.60	138.56	5,322.2	-299.7	1,497.5	1,215.7	0.00	0.00	
6,900.0	90.60	138.56	5,321.2	-374.6	1,563.6	1,315.7	0.00	0.00	
7,000.0	90.60	138.56	5,320.1	-449.6	1,629.8	1,415.7	0.00	0.00	
7,100.0	90.60	138.56	5,319.1	-524.5	1,696.0	1,515.7	0.00	0.00	
7,200.0	90.60	138.56	5,318.0	-599.5	1,762.2	1,615.7	0.00	0.00	
7,300.0	90.60	138.56	5,317.0	-674.5	1,828.3	1,715.7	0.00	0.00	
7,400.0	90.60	138.56	5,315.9	-749.4	1,894.5	1,815.7	0.00	0.00	
7,500.0	90.60	138.56	5,314.9	-824.4	1,960.7	1,915.7	0.00	0.00	
7,600.0	90.60	138.56	5,313.9	-899.4	2,026.9	2,015.7	0.00	0.00	
7,700.0	90.60	138.56	5,312.8	-974.3	2,093.0	2,115.7	0.00	0.00	
7,800.0	90.60	138.56	5,311.8	-1,049.3	2,159.2	2,215.7	0.00	0.00	
7,900.0	90.60	138.56	5,310.7	-1,124.3	2,225.4	2,315.6	0.00	0.00	
8,000.0	90.60	138.56	5,309.7	-1,199.2	2,291.6	2,415.6	0.00	0.00	
8,100.0	90.60	138.56	5,308.6	-1,274.2	2,357.7	2,515.6	0.00	0.00	
8,200.0	90.60	138.56	5,307.6	-1,349.2	2,423.9	2,615.6	0.00	0.00	
8,300.0	90.60	138.56	5,306.5	-1,424.1	2,490.1	2,715.6	0.00	0.00	
8,400.0	90.60	138.56	5,305.5	-1,499.1	2,556.3	2,815.6	0.00	0.00	
8,500.0	90.60	138.56	5,304.4	-1,574.1	2,622.4	2,915.6	0.00	0.00	
8,600.0	90.60	138.56	5,303.4	-1,649.0	2,688.6	3,015.6	0.00	0.00	
8,700.0	90.60	138.56	5,302.3	-1,724.0	2,754.8	3,115.6	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hutton Canyon Unit I10-2308 03H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	15' KB @ 6948.0usft (A920)
Project:	San Juan County, NM	**MD Reference:**	15' KB @ 6948.0usft (A920)
Site:	S10-T23N-R8W (Lybrook)	**North Reference:**	True
Well:	Hutton Canyon Unit I10-2308 03H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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	138.56	5,301.3	-1,798.9	2,821.0	3,215.6	0.00	0.00	
8,900.0	90.60	138.56	5,300.2	-1,873.9	2,887.1	3,315.6	0.00	0.00	
9,000.0	90.60	138.56	5,299.2	-1,948.9	2,953.3	3,415.6	0.00	0.00	
9,100.0	90.60	138.56	5,298.2	-2,023.8	3,019.5	3,515.6	0.00	0.00	
9,200.0	90.60	138.56	5,297.1	-2,098.8	3,085.7	3,615.6	0.00	0.00	
9,300.0	90.60	138.56	5,296.1	-2,173.8	3,151.8	3,715.6	0.00	0.00	
9,400.0	90.60	138.56	5,295.0	-2,248.7	3,218.0	3,815.6	0.00	0.00	
9,500.0	90.60	138.56	5,294.0	-2,323.7	3,284.2	3,915.6	0.00	0.00	
9,600.0	90.60	138.56	5,292.9	-2,398.7	3,350.4	4,015.6	0.00	0.00	
9,700.0	90.60	138.56	5,291.9	-2,473.6	3,416.6	4,115.5	0.00	0.00	
9,800.0	90.60	138.56	5,290.8	-2,548.6	3,482.7	4,215.5	0.00	0.00	
9,900.0	90.60	138.56	5,289.8	-2,623.6	3,548.9	4,315.5	0.00	0.00	
10,000.0	90.60	138.56	5,288.7	-2,698.5	3,615.1	4,415.5	0.00	0.00	
10,100.0	90.60	138.56	5,287.7	-2,773.5	3,681.3	4,515.5	0.00	0.00	
10,200.0	90.60	138.56	5,286.6	-2,848.4	3,747.4	4,615.5	0.00	0.00	
10,300.0	90.60	138.56	5,285.6	-2,923.4	3,813.6	4,715.5	0.00	0.00	
10,400.0	90.60	138.56	5,284.6	-2,998.4	3,879.8	4,815.5	0.00	0.00	
10,500.0	90.60	138.56	5,283.5	-3,073.3	3,946.0	4,915.5	0.00	0.00	
10,600.0	90.60	138.56	5,282.5	-3,148.3	4,012.1	5,015.5	0.00	0.00	
10,700.0	90.60	138.56	5,281.4	-3,223.3	4,078.3	5,115.5	0.00	0.00	
10,800.0	90.60	138.56	5,280.4	-3,298.2	4,144.5	5,215.5	0.00	0.00	
10,900.0	90.60	138.56	5,279.3	-3,373.2	4,210.7	5,315.5	0.00	0.00	
11,000.0	90.60	138.56	5,278.3	-3,448.2	4,276.8	5,415.5	0.00	0.00	
11,100.0	90.60	138.56	5,277.2	-3,523.1	4,343.0	5,515.5	0.00	0.00	
11,200.0	90.60	138.56	5,276.2	-3,598.1	4,409.2	5,615.5	0.00	0.00	
11,300.0	90.60	138.56	5,275.1	-3,673.1	4,475.4	5,715.5	0.00	0.00	
11,400.0	90.60	138.56	5,274.1	-3,748.0	4,541.5	5,815.4	0.00	0.00	
11,500.0	90.60	138.56	5,273.0	-3,823.0	4,607.7	5,915.4	0.00	0.00	
11,600.0	90.60	138.56	5,272.0	-3,897.9	4,673.9	6,015.4	0.00	0.00	
11,700.0	90.60	138.56	5,270.9	-3,972.9	4,740.1	6,115.4	0.00	0.00	
11,800.0	90.60	138.56	5,269.9	-4,047.9	4,806.2	6,215.4	0.00	0.00	
11,900.0	90.60	138.56	5,268.9	-4,122.8	4,872.4	6,315.4	0.00	0.00	
12,000.0	90.60	138.56	5,267.8	-4,197.8	4,938.6	6,415.4	0.00	0.00	
12,100.0	90.60	138.56	5,266.8	-4,272.8	5,004.8	6,515.4	0.00	0.00	
12,200.0	90.60	138.56	5,265.7	-4,347.7	5,070.9	6,615.4	0.00	0.00	
12,300.0	90.60	138.56	5,264.7	-4,422.7	5,137.1	6,715.4	0.00	0.00	
12,400.0	90.60	138.56	5,263.6	-4,497.7	5,203.3	6,815.4	0.00	0.00	
12,500.0	90.60	138.56	5,262.6	-4,572.6	5,269.5	6,915.4	0.00	0.00	
12,600.0	90.60	138.56	5,261.5	-4,647.6	5,335.6	7,015.4	0.00	0.00	
12,625.4	90.60	138.56	5,261.3	-4,666.6	5,352.5	7,040.8	0.00	0.00	TD at 12625.4

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hutton Canyon Unit I10-2308 03H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	15' KB @ 6948.0usft (A920)
Project:	San Juan County, NM	**MD Reference:**	15' KB @ 6948.0usft (A920)
Site:	S10-T23N-R8W (Lybrook)	**North Reference:**	True
Well:	Hutton Canyon Unit I10-2308 03H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lybrook I10-2308 03H P - plan misses target center by 86.0usft at 5792.4usft MD (5280.1 TVD, 412.3 N, 798.2 E) - Point	0.00	0.00	5,333.1	479.1	810.0	1,907,543.66	2,774,535.06	36.242305	-107.658878
Lybrook I10-2308 03H P - plan misses target center by 372.1usft at 6182.0usft MD (5328.7 TVD, 163.6 N, 1088.5 E) - Point	0.00	0.00	5,339.8	-82.6	809.8	1,906,981.97	2,774,535.78	36.240762	-107.658879
Lybrook I10-2308 03H P - plan hits target center - Point	0.00	0.00	5,261.3	-4,666.6	5,352.5	1,902,406.01	2,779,086.59	36.228168	-107.643477
Lybrook I10-2308 03H P - plan misses target center by 83.1usft at 5790.8usft MD (5279.6 TVD, 413.1 N, 796.9 E) - Point	0.00	0.00	5,328.4	479.1	810.0	1,907,543.66	2,774,535.06	36.242305	-107.658878
Lybrook I10-2308 03H P - plan misses target center by 79.1usft at 12625.4usft MD (5261.3 TVD, -4666.6 N, 5352.5 E) - Point	0.00	0.00	5,317.1	-4,706.7	5,391.7	1,902,366.04	2,779,125.90	36.228058	-107.643344
Lybrook I10-2308 03H P - plan hits target center - Point	0.00	0.00	5,261.3	-4,666.6	5,352.5	1,902,406.01	2,779,086.59	36.228168	-107.643477

500.0	500.0	9 5/8"	0	0
5,429.0	5,117.2	7" ICP @ 55°	0	0

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,058.0	1,058.0	Ojo Alamo Ss.		-0.60	135.26
1,148.0	1,148.0	Kirtland Shale		-0.60	135.26
1,421.0	1,421.0	Fruitland Coal		-0.60	135.26
1,654.0	1,654.0	Pictured Cliffs Ss.		-0.60	135.26
1,753.0	1,753.0	Lewis Shale		-0.60	135.26
2,454.0	2,454.0	Cliffhouse Ss.		-0.60	135.26
3,207.0	3,207.0	Menefee Fn.		-0.60	135.26
4,062.0	4,062.0	Point Lookout Ss.		-0.60	135.26
4,259.7	4,258.0	Mancos Shale		-0.60	135.26
4,951.7	4,799.0	Mancos Silt		-0.60	135.26
5,329.9	5,057.0	Gallup Fn.		-0.60	135.26
6,090.4	5,335.0	Horizontal Target		-0.60	135.26

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,090.0	4,090.0	0.0	0.0	KOP @ 4090'
4,707.1	4,633.4	237.8	76.7	Start build/turn @ 4707' MD
6,122.4	5,329.3	208.3	1,049.1	LP @ 5329' TVD; 90.6°
12,625.4	5,261.3	-4,666.6	5,352.5	TD at 12625.4