

District I
1625 N French Dr, Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0720
District II
811 S First St, Artesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 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 and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised August 1, 2011

Permit

PLEASE NOTE THIS IS FOR THE
MOTHERBORE

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address ENCANA OIL & GAS (USA) INC. 370 17 TH STREET, SUITE 1700 DENVER, CO 80202		² OGRID Number 282327
		³ API Number 30.045.35313
⁴ Property Code 38846	⁵ Property Name ESCRITO P16-2409	⁶ Well No. 01H

⁷ Surface Location

UL - Lot P	Section 16	Township 24N	Range 9W	Lot Idn	Feet from 700	N/S Line SOUTH	Feet From 330	E/W Line EAST	County SAN JUAN RCVD SEP 28 '11
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⁸ Pool Information

BISTI-LOWER GALLUP (5890)	OIL CONS. DIV. DIST. 3
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Additional Well Information

⁹ Work Type N	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 6827'
¹⁴ Multiple N/A	¹⁵ Proposed Depth 6575'	¹⁶ Formation MORRISON	¹⁷ Contractor AZTEC	¹⁸ Spud Date 11/01/11
Depth to Ground water UNKNOWN		Distance from nearest fresh water well GREATER THAN 5280'		Distance to nearest surface water 1735'

¹⁹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
CONDUCTOR	26"	20"	94#	60'	80	SURFACE
SURFACE	17 1/2"	13 3/8"	48#	500'	230	SURFACE
INTERMEDIATE	12 1/4"	9 5/8"	40#	4500'	1485 (50% OH EXCESS)	SURFACE
PRODUCTION	8 1/2"					

Hold C104
for Directional Survey
and "As Drilled" plat

Casing/Cement Program: Additional Comments

MOTHERBORE IS VERTICAL PILOT HOLE. WILL DRILL OUT OF 9 5/8" CSG WITH 8 1/2" BIT TO 6575' IN THE MORRISON. AFTER CORING AND RUNNING OH LOGS, WILL PLUGBACK WITH CEMENT AND KICKOFF FOR HORIZONTAL LATERAL IN THE GALLUP FORMATION. WILL USE GELLED FRESH WATER MUD SYSTEM IN VERTICAL PILOT.

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
ANNULAR	3000	1500	TBD
DOUBLE RAM	3000	3000	TBD

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that the drilling pit will be constructed according to NMOC guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.
NO DRILLING PIT WILL BE USED.

Printed name. BRENDA R. LINSTER

Title: REGULATORY ADVISOR

E-mail Address: BRENDA.LINSTER@ENCANA.COM

Date: 09/26/2011

Phone: 720-876-3989

OIL CONSERVATION DIVISION

Approved By:

Title:

SUPERVISOR DISTRICT # 3

Approved Date:

OCT 14 2011

Expiration Date:

OCT 14 2012

Hold C104

for Directional Survey
and "As Drilled" plat

Conditions of Approval Attached

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

A

Non Standard Location & Simultaneous Dedication orders

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Permit

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¹ Operator Name and Address ENCANA OIL & GAS (USA) INC. 370 17 TH STREET, SUITE 1700 DENVER, CO 80202		² OGRID Number 282327
		³ API Number 30-045-35313
⁴ Property Code 38846	⁵ Property Name ESCRITO P16-2409	⁶ Well No 01H

7 Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	16	24N	9W		700	SOUTH	330	EAST	SAN JUAN
M	16	24N	9W		700	SOUTH	330	WEST	SAN JUAN

SHL
BHL

8 Pool Information

BISTI-LOWER GALLUP (5890)

Additional Well Information

⁹ Work Type N	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 6827'
¹⁴ Multiple N/A	¹⁵ Proposed Depth 5347' TVD/9695' MD	¹⁶ Formation GALLUP	¹⁷ Contractor AZTEC	¹⁸ Spud Date 11/01/11
Depth to Ground water UNKNOWN		Distance from nearest fresh water well GREATER THAN 5280'		Distance to nearest surface water 1735'

19 Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
CONDUCTOR	26"	20"	94#	60'	80	SURFACE
SURFACE	17 1/2"	13 3/8"	48#	500'	230	SURFACE
INTERMEDIATE	12 1/4"	9 5/8"	40#	4500'	1485 (50% OH EXCESS)	SURFACE
PRODUCTION	8 1/2"	5 1/2"	17#	4300'-9695' MD	N/A	N/A

Hold C104
for Directional Survey
and "As Drilled" plat

Casing/Cement Program: Additional Comments

HORIZONTAL LATERAL IN THE GALLUP FORMATION. NO CEMENT IN THE PRODUCTION LINER, WILL RUN EXTERNAL SWELL CASING PACKER SYSTEM WILL USE SYNTHETIC OIL BASED MUD SYSTEM FROM KOP TO TD OF HORIZONTAL LATERAL.

Proposed Blowout Prevention Program

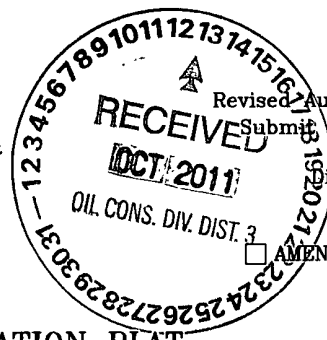
Type	Working Pressure	Test Pressure	Manufacturer
ANNULAR	3000	1500	TBD
DOUBLE RAM	3000	3000	TBD

Hold C104
for Directional Survey
and "As Drilled" plat

I hereby certify that the information given above is true and complete to be best of my knowledge and belief. NO DRILLING PIT WILL BE USED. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐ , a general permit ☐ , or an (attached) alternative OCD-approved plan ☐ . <i>Brenda R. Linster</i>		OIL CONSERVATION DIVISION Approved By: <i>Charles L. 10-13-11</i>	
Printed name: BRENDA R. LINSTER		Title:	
Title: REGULATORY ADVISOR		Approved Date:	Expiration Date:
E-mail Address: BRENDA.LINSTER@ENCANA.COM		Hold C104 for Directional Survey and "As Drilled" plat	
Date: 10/09/2011	Phone: 720-876-3989	Conditions of Approval Attached	

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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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 5890	³ Pool Name BISIT LOWER-GALLUP
⁴ Property Code	⁵ Property Name ESCRITO P16-2409		⁶ Well Number 01H
⁷ GRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.		⁹ Elevation 6827'

¹⁰ Surface Location

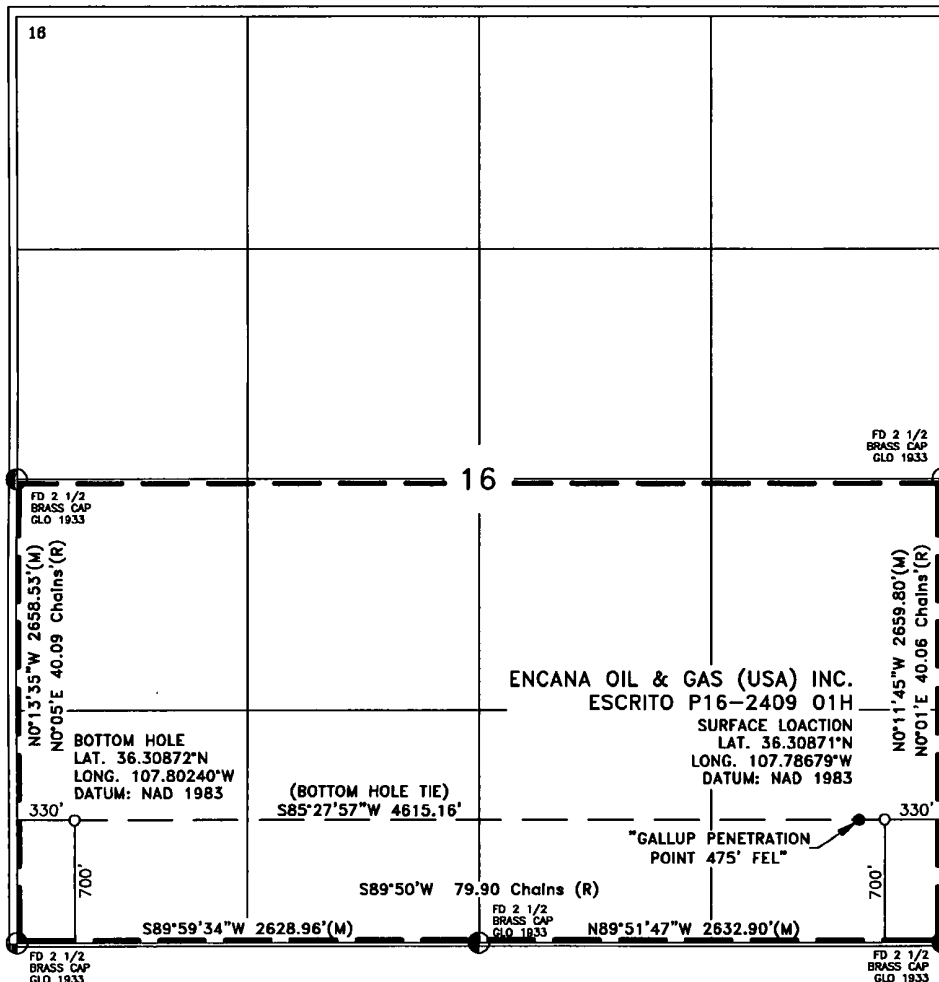
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	24-N	9-W		700'	SOUTH	330'	EAST	SAN JUAN

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
M	16	24-N	9-W		700'	SOUTH	330'	WEST	SAN JUAN

¹² Dedicated Acres 320 ACRES - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



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.

Brenda R. Linster
Signature
Brenda R. Linster
Printed Name
brenda.linster@encana.com
E-mail Address
Date 10-9-11

¹⁸ 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.

Date of Survey
Signature and Seal of Professional Surveyor:

WILLIAM E. MAHNKE
#8466
WILLIAM E. MAHNKE
Certificate Number 8466
PROFESSIONAL LAND SURVEYOR

Well Planning Proposal FOR

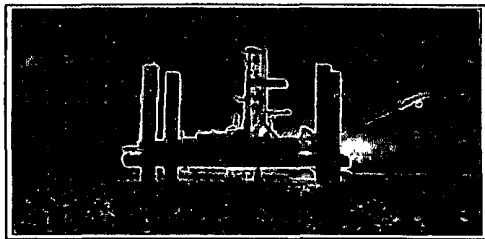
**Encana Oil & Gas
Escrito P16-2409 13B
San Juan Co., NM**

Well File: Design #2 (8/25/11)

Presented By:

Pat Rasmussen
Regional Manager

Bret Wolford
Well Planner





Encana Oil & Gas
Project: San Juan Co., NM
Site: Sec.16-T24N-R9W
Well: Escrito P16-2409 13B
Wellbore: Wellbore #1
Design: Design #2
Lat: 36.308710
Long: -107.786790
Pad GL: 6827.00
KB: WELL @ 6841.00usft

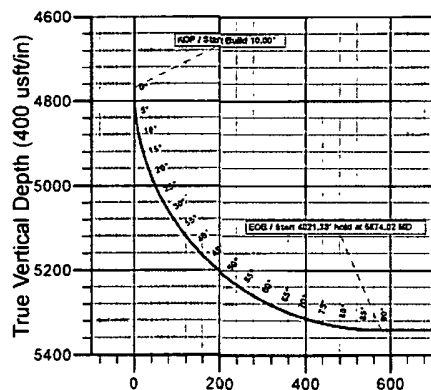


PROJECT DETAILS: San Juan Co., NM	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: New Mexico Western Zone	
System Datum: Mean Sea Level	

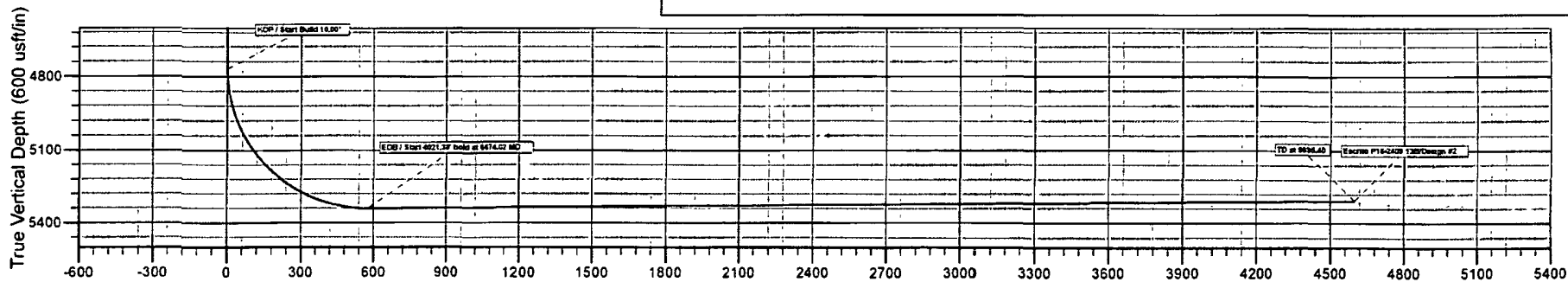
	Azimuths to True North Magnetic North: 9.83°
	Magnetic Field Strength: 50460.8nT Dip Angle: 63.08° Date: 08/24/2011 Model: IGRF2010

WELL DETAILS: Escrito P16-2409 13B						
+N/-S	+E/-W	Northing	Ground Level:	6827.00		
0.00	0.00	1931673.699	Easting	2736804.742	Latitude	36.308710
					Longitude	-107.786790
					Slot	

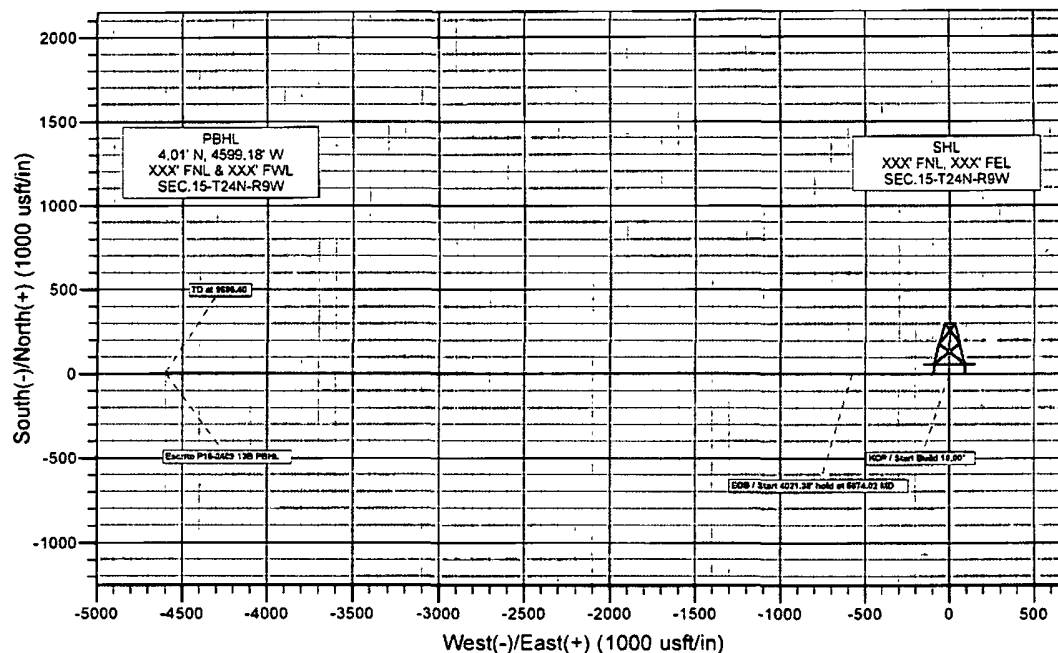
WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Escrito P16-2409 13B PBHL	5306.86	4.01	-4599.18	36.308720	-107.802400	Point



Vertical Section at 270.05° (400 usf/in)



Vertical Section at 270.05° (600 usf/in)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4769.02	0.00	0.00	4769.02	0.00	0.00	0.00	0.00	0.00	KOP / Start Build 10.00°
5674.02	90.50	270.05	5341.96	0.60	-577.96	10.00	270.05	577.96	EOB / Start 4021.38° hold at 5674.02 MD
9695.40	90.50	270.05	5306.86	4.01	-4599.18	0.00	0.00	4599.18	TD at 9695.40

Plan: Design #2 (Escrito P16-2409 13B/Wellbore #1)

Created By: Bret Wolford Date: 17:41, August 25 2011



Encana Oil & Gas

San Juan Co., NM

Sec.16-T24N-R9W

Escrito P16-2409 13B

Wellbore #1

Plan: Design #2

Standard Planning Report

25 August, 2011



Database: EDM 5000.1 EDMDBBW
Company: Encana Oil & Gas
Project: San Juan Co., NM
Site: Sec.16-T24N-R9W
Well: Escrito P16-2409 13B
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Escrito P16-2409 13B
TVD Reference: WELL @ 6841.00usft
MD Reference: WELL @ 6841.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	San Juan Co., 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	Sec.16-T24N-R9W		
Site Position:		Northing:	1,931,673.699 usft
From:	Lat/Long	Eastng:	2,736,804.742 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	36.308710
		Longitude:	-107.786790
		Grid Convergence:	0.03 °

Well	Escrito P16-2409 13B		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Eastng:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	36.308710
		Longitude:	-107.786790
		Ground Level:	6,827.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	08/24/11	9.83
		Dip Angle	63.08
		Field Strength	50,461
		(°)	(°)
		(nT)	

Design	Design #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			270.05

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,769.02	0.00	0.00	4,769.02	0.00	0.00	0.00	0.00	0.00	0.00	
5,674.02	90.50	270.05	5,341.96	0.50	-577.96	10.00	10.00	0.00	270.05	Escrito P16-2409 13B
9,695.40	90.50	270.05	5,306.86	4.01	-4,599.18	0.00	0.00	0.00	0.00	Escrito P16-2409 13B



Great White Directional Services, LLC
Planning Report



Database: EDM 5000.1 EDMDBBW
Company: Encana Oil & Gas
Project: San Juan Co., NM
Site: Sec.16-T24N-R9W
Well: Escrito P16-2409 13B
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Escrito P16-2409 13B
TVD Reference: WELL @ 6841.00usft
MD Reference: WELL @ 6841.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP / Start Build 10.00°									
4,769.02	0.00	0.00	4,769.02	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	3.10	270.05	4,799.98	0.00	-0.84	0.84	10.00	10.00	0.00
4,850.00	8.10	270.05	4,849.73	0.00	-5.71	5.71	10.00	10.00	0.00
4,900.00	13.10	270.05	4,898.86	0.01	-14.91	14.91	10.00	10.00	0.00
4,950.00	18.10	270.05	4,947.01	0.02	-28.35	28.35	10.00	10.00	0.00



Great White Directional Services, LLC Planning Report



Database: EDM 5000.1 EDMDBBW
Company: Encana Oil & Gas
Project: San Juan Co., NM
Site: Sec.16-T24N-R9W
Well: Escrito P16-2409 13B
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Escrito P16-2409 13B
TVD Reference: WELL @ 6841.00usft
MD Reference: WELL @ 6841.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	23.10	270.05	4,993.79	0.04	-45.93	45.93	10.00	10.00	0.00
5,050.00	28.10	270.05	5,038.87	0.06	-67.53	67.53	10.00	10.00	0.00
5,100.00	33.10	270.05	5,081.90	0.08	-92.97	92.97	10.00	10.00	0.00
5,150.00	38.10	270.05	5,122.54	0.11	-122.06	122.06	10.00	10.00	0.00
5,200.00	43.10	270.05	5,160.49	0.13	-154.59	154.59	10.00	10.00	0.00
5,250.00	48.10	270.05	5,195.47	0.17	-190.30	190.30	10.00	10.00	0.00
5,300.00	53.10	270.05	5,227.19	0.20	-228.93	228.93	10.00	10.00	0.00
5,350.00	58.10	270.05	5,255.43	0.24	-270.17	270.17	10.00	10.00	0.00
5,400.00	63.10	270.05	5,279.97	0.27	-313.71	313.71	10.00	10.00	0.00
5,450.00	68.10	270.05	5,300.62	0.31	-359.23	359.23	10.00	10.00	0.00
5,500.00	73.10	270.05	5,317.23	0.35	-406.38	406.38	10.00	10.00	0.00
5,550.00	78.10	270.05	5,329.66	0.40	-454.79	454.79	10.00	10.00	0.00
5,600.00	83.10	270.05	5,337.83	0.44	-504.10	504.10	10.00	10.00	0.00
5,650.00	88.10	270.05	5,341.66	0.48	-553.94	553.94	10.00	10.00	0.00
EOB / Start 4021.38' hold at 5674.02 MD									
5,674.02	90.50	270.05	5,341.96	0.50	-577.96	577.96	10.00	10.00	0.00
5,700.00	90.50	270.05	5,341.73	0.53	-603.94	603.94	0.00	0.00	0.00
5,800.00	90.50	270.05	5,340.86	0.61	-703.93	703.93	0.00	0.00	0.00
5,900.00	90.50	270.05	5,339.98	0.70	-803.93	803.93	0.00	0.00	0.00
6,000.00	90.50	270.05	5,339.11	0.79	-903.92	903.93	0.00	0.00	0.00
6,100.00	90.50	270.05	5,338.24	0.88	-1,003.92	1,003.92	0.00	0.00	0.00
6,200.00	90.50	270.05	5,337.37	0.96	-1,103.92	1,103.92	0.00	0.00	0.00
6,300.00	90.50	270.05	5,336.49	1.05	-1,203.91	1,203.91	0.00	0.00	0.00
6,400.00	90.50	270.05	5,335.62	1.14	-1,303.91	1,303.91	0.00	0.00	0.00
6,500.00	90.50	270.05	5,334.75	1.22	-1,403.91	1,403.91	0.00	0.00	0.00
6,600.00	90.50	270.05	5,333.88	1.31	-1,503.90	1,503.90	0.00	0.00	0.00
6,700.00	90.50	270.05	5,333.00	1.40	-1,603.90	1,603.90	0.00	0.00	0.00
6,800.00	90.50	270.05	5,332.13	1.49	-1,703.89	1,703.89	0.00	0.00	0.00
6,900.00	90.50	270.05	5,331.26	1.57	-1,803.89	1,803.89	0.00	0.00	0.00
7,000.00	90.50	270.05	5,330.38	1.66	-1,903.89	1,903.89	0.00	0.00	0.00
7,100.00	90.50	270.05	5,329.51	1.75	-2,003.88	2,003.88	0.00	0.00	0.00
7,200.00	90.50	270.05	5,328.64	1.83	-2,103.88	2,103.88	0.00	0.00	0.00
7,300.00	90.50	270.05	5,327.77	1.92	-2,203.87	2,203.88	0.00	0.00	0.00
7,400.00	90.50	270.05	5,326.89	2.01	-2,303.87	2,303.87	0.00	0.00	0.00
7,500.00	90.50	270.05	5,326.02	2.10	-2,403.87	2,403.87	0.00	0.00	0.00
7,600.00	90.50	270.05	5,325.15	2.18	-2,503.86	2,503.86	0.00	0.00	0.00
7,700.00	90.50	270.05	5,324.28	2.27	-2,603.86	2,603.86	0.00	0.00	0.00
7,800.00	90.50	270.05	5,323.40	2.36	-2,703.86	2,703.86	0.00	0.00	0.00
7,900.00	90.50	270.05	5,322.53	2.45	-2,803.85	2,803.85	0.00	0.00	0.00
8,000.00	90.50	270.05	5,321.66	2.53	-2,903.85	2,903.85	0.00	0.00	0.00
8,100.00	90.50	270.05	5,320.79	2.62	-3,003.84	3,003.85	0.00	0.00	0.00
8,200.00	90.50	270.05	5,319.91	2.71	-3,103.84	3,103.84	0.00	0.00	0.00
8,300.00	90.50	270.05	5,319.04	2.79	-3,203.84	3,203.84	0.00	0.00	0.00
8,400.00	90.50	270.05	5,318.17	2.88	-3,303.83	3,303.83	0.00	0.00	0.00
8,500.00	90.50	270.05	5,317.29	2.97	-3,403.83	3,403.83	0.00	0.00	0.00
8,600.00	90.50	270.05	5,316.42	3.06	-3,503.82	3,503.83	0.00	0.00	0.00
8,700.00	90.50	270.05	5,315.55	3.14	-3,603.82	3,603.82	0.00	0.00	0.00
8,800.00	90.50	270.05	5,314.68	3.23	-3,703.82	3,703.82	0.00	0.00	0.00
8,900.00	90.50	270.05	5,313.80	3.32	-3,803.81	3,803.81	0.00	0.00	0.00
9,000.00	90.50	270.05	5,312.93	3.40	-3,903.81	3,903.81	0.00	0.00	0.00
9,100.00	90.50	270.05	5,312.06	3.49	-4,003.81	4,003.81	0.00	0.00	0.00
9,200.00	90.50	270.05	5,311.19	3.58	-4,103.80	4,103.80	0.00	0.00	0.00
9,300.00	90.50	270.05	5,310.31	3.67	-4,203.80	4,203.80	0.00	0.00	0.00



Great White Directional Services, LLC
Planning Report



Database: EDM 5000.1 EDMDBBW
Company: Encana Oil & Gas
Project: San Juan Co., NM
Site: Sec.16-T24N-R9W
Well: Escrito P16-2409 13B
Wellbore: Wellbore #1
Design: Design #2

Local Co-ordinate Reference: Well Escrito P16-2409 13B
TVD Reference: WELL @ 6841.00usft
MD Reference: WELL @ 6841.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.00	90.50	270.05	5,309.44	3.75	-4,303.79	4,303.80	0.00	0.00	0.00
9,500.00	90.50	270.05	5,308.57	3.84	-4,403.79	4,403.79	0.00	0.00	0.00
9,600.00	90.50	270.05	5,307.70	3.93	-4,503.79	4,503.79	0.00	0.00	0.00
TD at 9695.40 - Escrito P16-2409 13B PBHL									
9,695.40	90.50	270.05	5,306.86	4.01	-4,599.18	4,599.18	0.00	0.00	0.00

Design 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									
Escrito P16-2409 13B PI	0.00	0.00	5,306.86	4.01	-4,599.18	1,931,675.498	2,732,205.562	36.308720	-107.802400
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,769.02	4,769.02	0.00	0.00	KOP / Start Build 10.00°
5,674.02	5,341.96	0.50	-577.96	EOB / Start 4021.38' hold at 5674.02 MD
9,695.40	5,306.86	4.01	-4,599.18	TD at 9695.40