

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

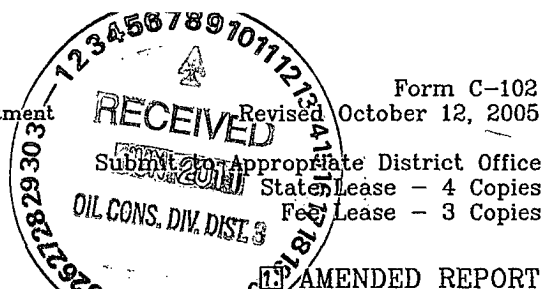
DISTRICT II
1301 West Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

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



"AS DRILLED PLAT"

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30533	² Pool Code 71599 / 72319	³ Pool Name BASIN DAKOTA/ BLANCO MESAVERDE
⁴ Property Code 7623	⁵ Property Name VAUGHN	⁶ Well Number 30N
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6427'

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
K	28	26-N	6-W		2520'	SOUTH	1595'	WEST	RIO ARRIBA

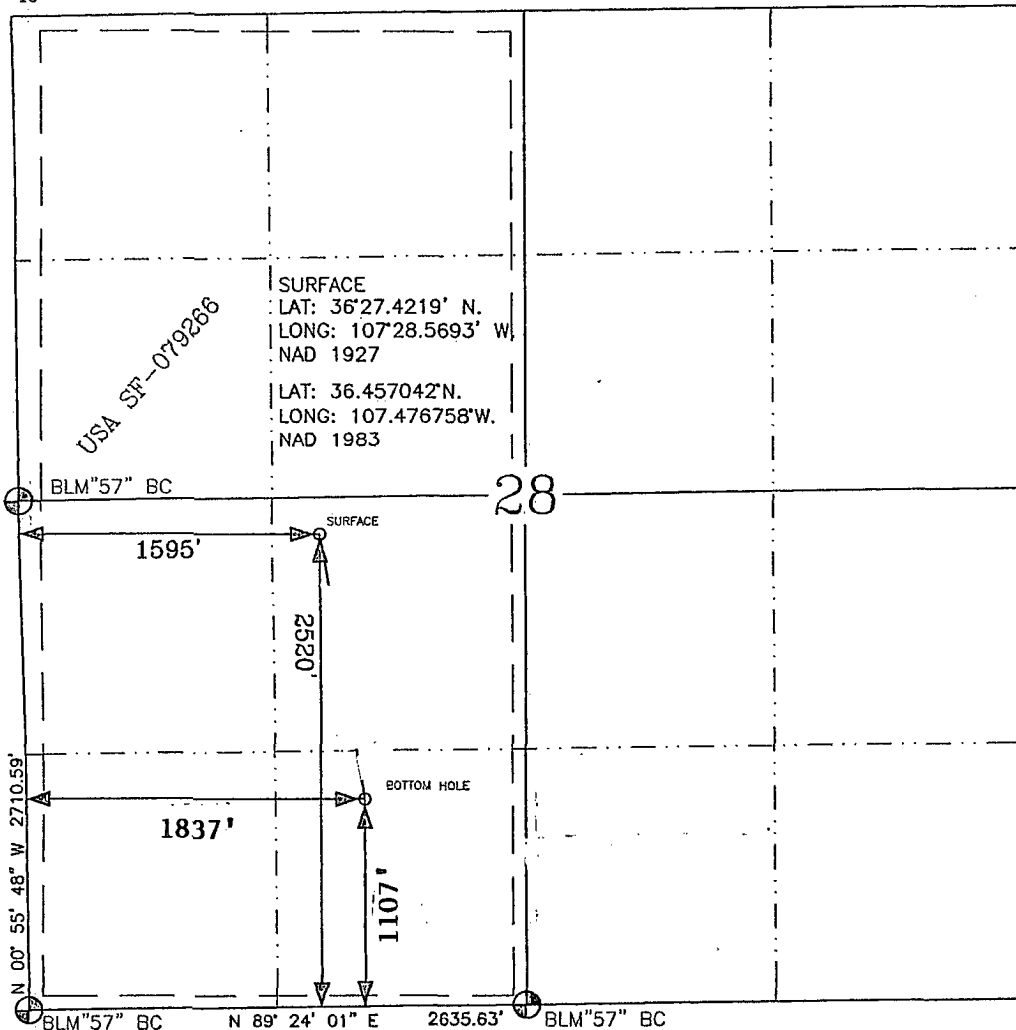
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	26-N	6-W		1107	SOUTH	1837	WEST	RIO ARRIBA

¹² Dedicated Acres DK 320 ACRES W/2 MV 320 ACRES W/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 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

[Signature]
Signature
Dollie L. Busse
Printed Name

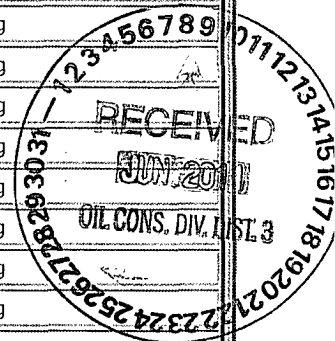
18 SURVEYOR CERTIFICATION

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.

9-10-08
Date of Survey
Signature and Seal of Professional Surveyor:
15703
Certificate Number 15703

Legal WellName : VAUGHN #30N	API / UWI: 3003930533
Operator: BURLINGTON RESOURCES OIL & GAS COMPANY LP	Surf Loc: 028-026N-006W-K
St/Prov: NEW MEXICO	N/S Dist (ft): 2,520.00 - FSL
County: RIO ARRIBA	E/W Dist (ft): 1,595.00 - FWL

Wellbore Name : Original Hole					
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
INCLINATION SURVEY	01/24/2011	.00	.00	.00	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
01/24/2011	129.00	.75	.00	Inc-Drop	MO-TE DRILLING INC
01/24/2011	239.00	.75	.00	Inc-Drop	MO-TE DRILLING INC
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
MWD SURVEY	02/02/2011	.00	.00	.00	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
02/02/2011	265.00	.28	200.62	IncAzi-MWD	Scientific Drilling
02/02/2011	296.00	.45	191.15	IncAzi-MWD	Scientific Drilling
02/02/2011	327.00	.96	176.76	IncAzi-MWD	Scientific Drilling
02/02/2011	356.00	1.62	178.82	IncAzi-MWD	Scientific Drilling
02/02/2011	387.00	2.12	181.42	IncAzi-MWD	Scientific Drilling
02/02/2011	418.00	2.54	175.20	IncAzi-MWD	Scientific Drilling
02/02/2011	449.00	3.03	175.29	IncAzi-MWD	Scientific Drilling
02/02/2011	480.00	3.85	171.25	IncAzi-MWD	Scientific Drilling
02/02/2011	511.00	4.64	172.28	IncAzi-MWD	Scientific Drilling
02/02/2011	541.00	5.20	172.67	IncAzi-MWD	Scientific Drilling
02/02/2011	572.00	5.84	173.14	IncAzi-MWD	Scientific Drilling
02/02/2011	603.00	6.60	172.75	IncAzi-MWD	Scientific Drilling
02/02/2011	634.00	7.53	170.68	IncAzi-MWD	Scientific Drilling
02/02/2011	664.00	8.29	171.95	IncAzi-MWD	Scientific Drilling
02/02/2011	696.00	8.92	170.78	IncAzi-MWD	Scientific Drilling
02/02/2011	726.00	9.38	172.13	IncAzi-MWD	Scientific Drilling
02/02/2011	757.00	9.86	172.13	IncAzi-MWD	Scientific Drilling
02/02/2011	788.00	10.33	173.57	IncAzi-MWD	Scientific Drilling
02/02/2011	819.00	10.80	175.29	IncAzi-MWD	Scientific Drilling
02/02/2011	850.00	11.51	174.33	IncAzi-MWD	Scientific Drilling
02/02/2011	881.00	12.08	174.05	IncAzi-MWD	Scientific Drilling
02/02/2011	911.00	12.43	173.58	IncAzi-MWD	Scientific Drilling
02/02/2011	942.00	13.04	173.55	IncAzi-MWD	Scientific Drilling
02/02/2011	976.00	13.56	173.12	IncAzi-MWD	Scientific Drilling
02/02/2011	1,007.00	14.35	173.17	IncAzi-MWD	Scientific Drilling
02/02/2011	1,039.00	15.29	171.90	IncAzi-MWD	Scientific Drilling
02/02/2011	1,071.00	16.05	170.78	IncAzi-MWD	Scientific Drilling



02/02/2011	1,102.00	16.41	169.60	IncAzi-MWD	Scientific Drilling
02/02/2011	1,133.00	17.33	171.34	IncAzi-MWD	Scientific Drilling
02/02/2011	1,165.00	18.19	171.15	IncAzi-MWD	Scientific Drilling
02/03/2011	1,197.00	18.85	171.91	IncAzi-MWD	Scientific Drilling
02/03/2011	1,229.00	19.69	171.58	IncAzi-MWD	Scientific Drilling
02/03/2011	1,260.00	20.36	172.12	IncAzi-MWD	Scientific Drilling
02/03/2011	1,292.00	20.95	171.33	IncAzi-MWD	Scientific Drilling
02/03/2011	1,323.00	21.50	169.91	IncAzi-MWD	Scientific Drilling
02/03/2011	1,355.00	22.24	168.93	IncAzi-MWD	Scientific Drilling
02/03/2011	1,387.00	23.29	169.53	IncAzi-MWD	Scientific Drilling
02/03/2011	1,418.00	23.86	169.77	IncAzi-MWD	Scientific Drilling
02/03/2011	1,449.00	24.29	171.01	IncAzi-MWD	Scientific Drilling
02/03/2011	1,481.00	24.91	171.36	IncAzi-MWD	Scientific Drilling
02/03/2011	1,513.00	25.36	171.10	IncAzi-MWD	Scientific Drilling
02/03/2011	1,545.00	25.91	170.83	IncAzi-MWD	Scientific Drilling
02/03/2011	1,576.00	26.87	170.47	IncAzi-MWD	Scientific Drilling
02/03/2011	1,639.00	27.52	169.54	IncAzi-MWD	Scientific Drilling
02/03/2011	1,703.00	28.11	170.59	IncAzi-MWD	Scientific Drilling
02/03/2011	1,766.00	27.44	170.27	IncAzi-MWD	Scientific Drilling
02/03/2011	1,829.00	28.49	170.64	IncAzi-MWD	Scientific Drilling
02/03/2011	1,892.00	28.32	170.62	IncAzi-MWD	Scientific Drilling
02/03/2011	1,955.00	28.09	170.28	IncAzi-MWD	Scientific Drilling
02/03/2011	2,018.00	27.71	170.17	IncAzi-MWD	Scientific Drilling
02/03/2011	2,081.00	28.28	170.44	IncAzi-MWD	Scientific Drilling
02/03/2011	2,145.00	28.85	170.56	IncAzi-MWD	Scientific Drilling
02/03/2011	2,209.00	29.60	170.61	IncAzi-MWD	Scientific Drilling
02/03/2011	2,272.00	29.94	170.28	IncAzi-MWD	Scientific Drilling
02/03/2011	2,335.00	29.08	170.54	IncAzi-MWD	Scientific Drilling
02/03/2011	2,397.00	29.01	170.81	IncAzi-MWD	Scientific Drilling
02/03/2011	2,460.00	28.57	169.91	IncAzi-MWD	Scientific Drilling
02/04/2011	2,524.00	28.12	169.99	IncAzi-MWD	Scientific Drilling
02/04/2011	2,587.00	28.35	170.35	IncAzi-MWD	Scientific Drilling
02/04/2011	2,650.00	28.65	173.32	IncAzi-MWD	Scientific Drilling
02/04/2011	2,713.00	29.50	171.66	IncAzi-MWD	Scientific Drilling
02/04/2011	2,776.00	30.92	172.52	IncAzi-MWD	Scientific Drilling
02/04/2011	2,840.00	30.74	170.39	IncAzi-MWD	Scientific Drilling
02/04/2011	2,903.00	30.19	169.03	IncAzi-MWD	Scientific Drilling
02/04/2011	2,966.00	29.02	168.84	IncAzi-MWD	Scientific Drilling
02/04/2011	3,029.00	28.61	170.05	IncAzi-MWD	Scientific Drilling
02/04/2011	3,093.00	27.90	171.03	IncAzi-MWD	Scientific Drilling
02/04/2011	3,156.00	27.42	170.07	IncAzi-MWD	Scientific Drilling
02/04/2011	3,219.00	26.34	171.05	IncAzi-MWD	Scientific Drilling
02/04/2011	3,282.00	25.51	172.33	IncAzi-MWD	Scientific Drilling
02/04/2011	3,345.00	26.17	170.88	IncAzi-MWD	Scientific Drilling
02/04/2011	3,408.00	26.40	170.32	IncAzi-MWD	Scientific Drilling
02/04/2011	3,471.00	25.60	170.11	IncAzi-MWD	Scientific Drilling
02/04/2011	3,535.00	24.86	168.64	IncAzi-MWD	Scientific Drilling
02/04/2011	3,598.00	22.90	169.02	IncAzi-MWD	Scientific Drilling

02/04/2011	3,661.00	20.76	169.32	IncAzi-MWD	Scientific Drilling
02/05/2011	3,724.00	19.50	168.38	IncAzi-MWD	Scientific Drilling
02/04/2011	3,787.00	17.75	166.90	IncAzi-MWD	Scientific Drilling
02/04/2011	3,850.00	16.98	167.59	IncAzi-MWD	Scientific Drilling
02/04/2011	3,914.00	16.21	167.27	IncAzi-MWD	Scientific Drilling
02/04/2011	3,977.00	14.93	166.63	IncAzi-MWD	Scientific Drilling
02/04/2011	4,008.00	14.48	164.67	IncAzi-MWD	Scientific Drilling
02/04/2011	4,040.00	13.86	164.60	IncAzi-MWD	Scientific Drilling
02/05/2011	4,071.00	12.86	164.49	IncAzi-MWD	Scientific Drilling
02/05/2011	4,102.00	11.99	163.79	IncAzi-MWD	Scientific Drilling
02/05/2011	4,134.00	11.11	166.34	IncAzi-MWD	Scientific Drilling
02/05/2011	4,166.00	9.94	167.11	IncAzi-MWD	Scientific Drilling
02/05/2011	4,198.00	8.71	166.71	IncAzi-MWD	Scientific Drilling
02/05/2011	4,230.00	7.78	168.40	IncAzi-MWD	Scientific Drilling
02/05/2011	4,261.00	6.96	166.85	IncAzi-MWD	Scientific Drilling
02/05/2011	4,293.00	6.09	165.27	IncAzi-MWD	Scientific Drilling
02/05/2011	4,325.00	4.92	162.48	IncAzi-MWD	Scientific Drilling
02/05/2011	4,357.00	3.93	162.21	IncAzi-MWD	Scientific Drilling
02/05/2011	4,388.00	3.05	161.14	IncAzi-MWD	Scientific Drilling
02/05/2011	4,427.00	2.52	153.95	IncAzi-MWD	Scientific Drilling

Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)
FINAL BH SURVEY	02/12/2011	.00	.00	.00

Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
02/12/2011	5,489.00	1.00	.00	Inc-MWD	Aztec Well Servicing Co Inc
02/13/2011	5,993.00	1.00	.00	Inc-MWD	Aztec Well Servicing Co Inc
02/14/2011	6,493.00	.50	.00	Inc-MWD	Aztec Well Servicing Co Inc
02/14/2011	7,000.00	.50	.00	Inc-MWD	Aztec Well Servicing Co Inc
02/15/2011	7,490.00	1.00	.00	Inc-MWD	Aztec Well Servicing Co Inc
02/15/2011	7,577.00	.50	.00	Inc-MWD	Aztec Well Servicing Co Inc

I, the undersigned, certify that I, acting in my capacity as DRILLING ENGINEER for ConocoPhillips Company am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Bow Tolman

Subscribed and sworn to me this June 3, 2011

Daniel J Busse

Notary Public in and for San Juan County, New Mexico

My Commission expires AUGUST 6, 2014

ConocoPhillips

ConocoPhillips

SJB (NM Central)

SEC 28-T26N-R6W

Vaughn #30N - Slot Vaughn #30N

0H

Survey: Actual



Standard Survey Report

21 February, 2011

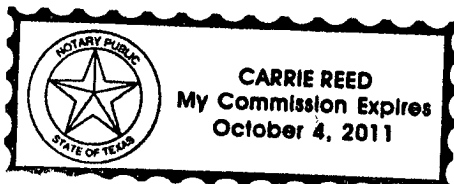
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

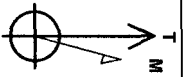
Notarized this date 21st of February, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling
Directional Drilling Operations



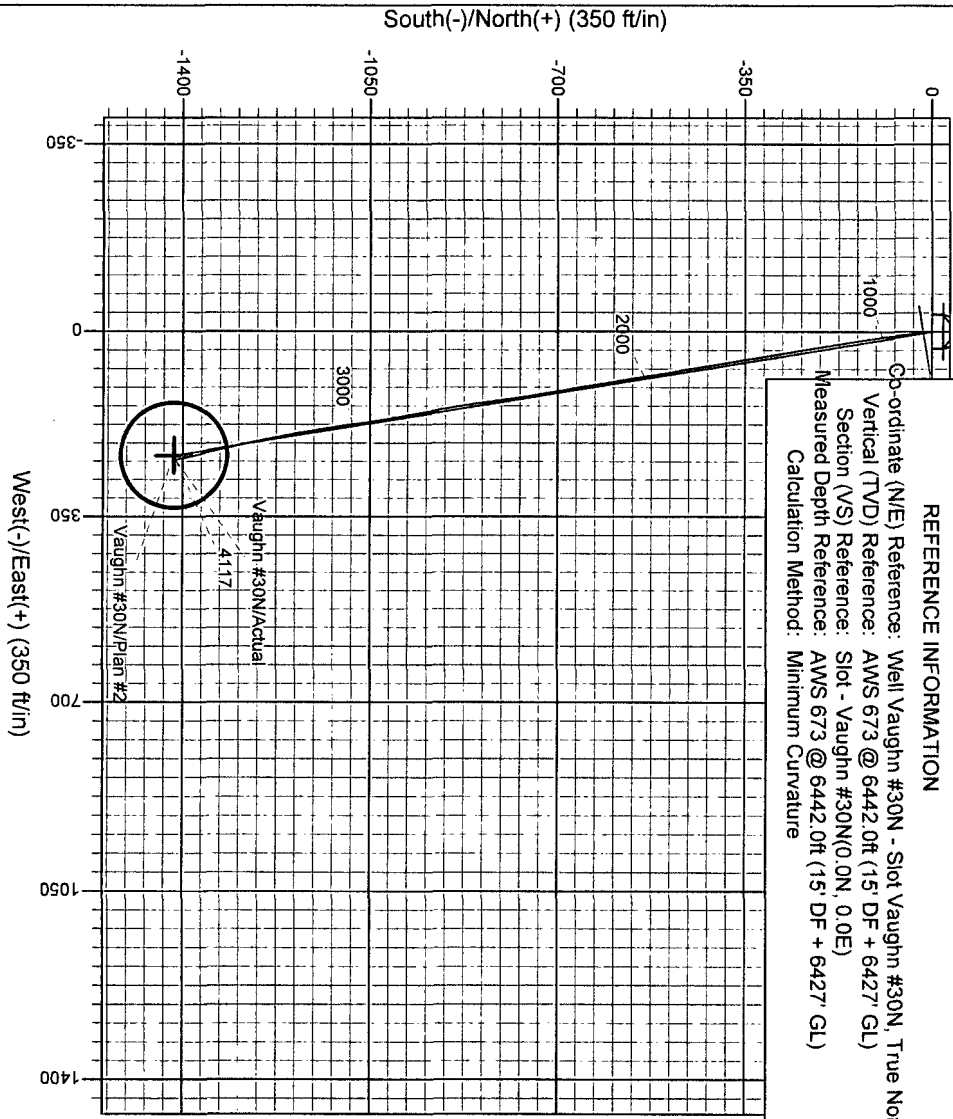
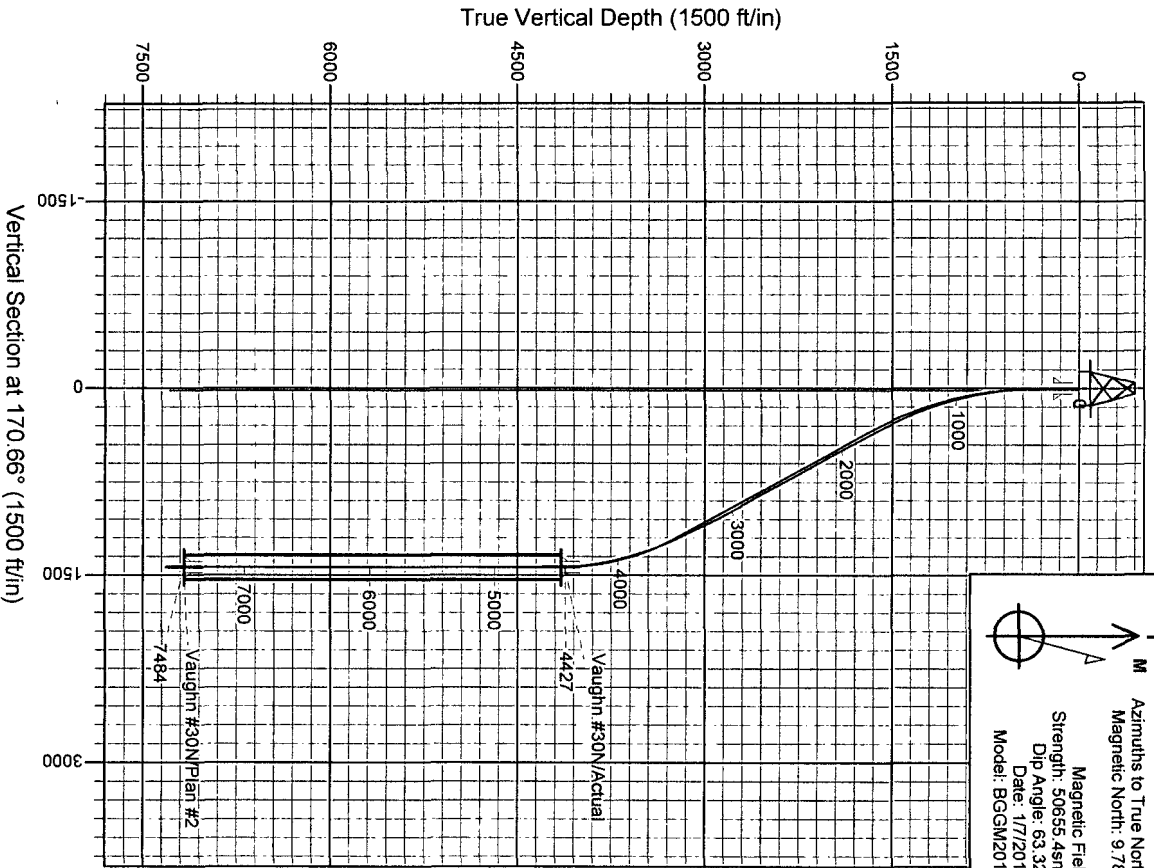
Azimuths to True North
Magnetic North: 9.78°
Magnetic Field
Strength: 50655.45nT
Dip Angle: 63.32°
Date: 1/7/2011
Model: BGGM2010

+N/-S 0.0
+E/-W 0.0
Northing 1987865.44

WELL DETAILS: Vaughn #30N
AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Ground Level: 6427.0
Easting 139412.21
Latitude 36° 27' 25.314 N
Longitude 107° 28' 34.158 W
Vaughn #30N Slot

REFERENCE INFORMATION

Co-ordinate (N/E): Reference: Well Vaughn #30N - Slot Vaughn #30N, True North
Vertical (TVD) Reference: AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Section (VS) Reference: Slot - Vaughn #30N(0.0N, 0.0E)
Measured Depth Reference: AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Calculation Method: Minimum Curvature



COMPANY DETAILS: ConocoPhillips
Calculation Method: Minimum Curvature
Error System: ISCWSA
Scan Method: Closest Approach 3D
Error Surface: Combined Covariances
Warning Method: Risk Ratio

PROJECT DETAILS: SJB (NM Central)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico Central 3002
System Datum: Mean Sea Level

SITE DETAILS: SEC 28-T26N-R6W
Rio Arriba County NM
Site Centre Latitude: 36° 27' 25.314 N
Longitude: 107° 28' 34.158 W
Positional Uncertainty: 7.5
Convergence: -0.73
Local North: True

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Vaughn #30N - Slot Vaughn #30N
Project:	SJB (NM Central)	TVD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Site:	SEC 28-T26N-R6W	MD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Well:	Vaughn #30N	North Reference:	True
Wellbore:	0H	Survey Calculation Method:	Minimum Curvature
Design:	0H	Database:	edmCOP

Project	SJB (NM Central), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico Central 3002		Using geodetic scale factor

Site	SEC 28-T26N-R6W		
Site Position:		Northing:	1,987,865.44 ft
From:	Lat/Long	Easting:	139,412.21 ft
Position Uncertainty:	15.0 ft	Slot Radius:	6-1/8"
		Latitude:	36° 27' 25.314 N
		Longitude:	107° 28' 34.158 W
		Grid Convergence:	-0.73 °

Well	Vaughn #30N - Slot Vaughn #30N, S-Type MV/DK Well		
Well Position	+N/-S	0.0 ft	Northing: 1,987,865.44 ft
	+E/-W	0.0 ft	Easting: 139,412.21 ft
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Latitude:	36° 27' 25.314 N
		Longitude:	107° 28' 34.158 W
		Ground Level:	6,427.0 ft

Wellbore	0H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	1/7/2011	9.78	63.32	50,655

Design	0H			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	170.28

Survey Program	Date 2/21/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
265.0	4,427.0	Actual (0H)	MWD SDI	MWD - Standard ver 1.0.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
265.0	0.28	200.62	265.0	-0.6	-0.2	0.6	0.11	0.11	0.00
296.0	0.45	191.15	296.0	-0.8	-0.3	0.7	0.58	0.55	-30.55
327.0	0.96	176.76	327.0	-1.2	-0.3	1.1	1.73	1.65	-46.42
356.0	1.62	178.82	356.0	-1.8	-0.3	1.8	2.28	2.28	7.10
387.0	2.12	181.42	387.0	-2.8	-0.3	2.8	1.64	1.61	8.39
418.0	2.54	175.20	417.9	-4.1	-0.2	4.0	1.58	1.35	-20.06
449.0	3.03	175.29	448.9	-5.6	-0.1	5.5	1.58	1.58	0.29
480.0	3.85	171.25	479.9	-7.4	0.1	7.4	2.76	2.65	-13.03
511.0	4.64	172.28	510.8	-9.7	0.5	9.7	2.56	2.55	3.32
541.0	5.20	172.67	540.7	-12.3	0.8	12.2	1.87	1.87	1.30
572.0	5.84	173.14	571.5	-15.2	1.2	15.2	2.07	2.06	1.52
603.0	6.60	172.75	602.3	-18.6	1.6	18.6	2.46	2.45	-1.26

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Vaughn #30N - Slot Vaughn #30N
Project:	SJB (NM Central)	TVD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Site:	SEC 28-T26N-R6W	MD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Well:	Vaughn #30N	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edmCOP

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
634.0	7.53	170.68	633.1	-22.3	2.1	22.4	3.11	3.00	-6.68
664.0	8.29	171.95	662.8	-26.4	2.7	26.5	2.60	2.53	4.23
696.0	8.92	170.78	694.4	-31.1	3.5	31.3	2.04	1.97	-3.66
726.0	9.38	172.13	724.1	-35.9	4.2	36.0	1.69	1.53	4.50
757.0	9.86	172.13	754.6	-41.0	4.9	41.2	1.55	1.55	0.00
788.0	10.33	173.57	785.2	-46.4	5.6	46.7	1.72	1.52	4.65
819.0	10.80	175.29	815.6	-52.0	6.1	52.3	1.83	1.52	5.55
850.0	11.51	174.33	846.0	-58.0	6.6	58.3	2.37	2.29	-3.10
881.0	12.08	174.05	876.4	-64.3	7.3	64.6	1.85	1.84	-0.90
911.0	12.43	173.58	905.7	-70.6	8.0	71.0	1.21	1.17	-1.57
942.0	13.04	173.55	935.9	-77.4	8.7	77.8	1.97	1.97	-0.10
976.0	13.56	173.12	969.0	-85.2	9.7	85.6	1.56	1.53	-1.26
1,007.0	14.35	173.17	999.1	-92.6	10.5	93.1	2.55	2.55	0.16
1,039.0	15.29	171.90	1,030.0	-100.7	11.6	101.3	3.11	2.94	-3.97
1,071.0	16.05	170.78	1,060.9	-109.3	12.9	109.9	2.56	2.38	-3.50
1,102.0	16.41	169.60	1,090.6	-117.8	14.4	118.6	1.57	1.16	-3.81
1,133.0	17.33	171.34	1,120.3	-126.7	15.9	127.6	3.39	2.97	5.61
1,165.0	18.19	171.15	1,150.8	-136.3	17.4	137.3	2.69	2.69	-0.59
1,197.0	18.85	171.91	1,181.1	-146.4	18.9	147.5	2.20	2.06	2.38
1,229.0	19.69	171.58	1,211.3	-156.8	20.4	158.0	2.65	2.63	-1.03
1,260.0	20.36	172.12	1,240.4	-167.4	21.9	168.6	2.24	2.16	1.74
1,292.0	20.95	171.33	1,270.4	-178.5	23.5	179.9	2.04	1.84	-2.47
1,323.0	21.50	169.91	1,299.3	-189.6	25.3	191.2	2.43	1.77	-4.58
1,355.0	22.24	168.93	1,329.0	-201.3	27.5	203.1	2.58	2.31	-3.06
1,387.0	23.29	169.53	1,358.5	-213.5	29.8	215.5	3.36	3.28	1.88
1,418.0	23.86	169.77	1,386.9	-225.7	32.1	227.8	1.86	1.84	0.77
1,449.0	24.29	171.01	1,415.2	-238.1	34.2	240.5	2.14	1.39	4.00
1,481.0	24.91	171.36	1,444.3	-251.3	36.2	253.8	1.99	1.94	1.09
1,513.0	25.36	171.10	1,473.3	-264.7	38.3	267.4	1.45	1.41	-0.81
1,545.0	25.91	170.83	1,502.1	-278.4	40.5	281.2	1.76	1.72	-0.84
1,576.0	26.87	170.47	1,529.9	-292.0	42.7	295.0	3.14	3.10	-1.16
1,639.0	27.52	169.54	1,585.9	-320.4	47.7	323.8	1.23	1.03	-1.48
1,703.0	28.11	170.59	1,642.5	-349.8	52.9	353.7	1.20	0.92	1.64
1,766.0	27.44	170.27	1,698.3	-378.7	57.7	383.0	1.09	-1.06	-0.51
1,829.0	28.49	170.64	1,753.9	-407.9	62.6	412.6	1.69	1.67	0.59
1,892.0	28.32	170.62	1,809.3	-437.4	67.5	442.5	0.27	-0.27	-0.03
1,955.0	28.09	170.28	1,864.8	-466.8	72.4	472.3	0.45	-0.37	-0.54
2,018.0	27.71	170.17	1,920.5	-495.8	77.5	501.8	0.61	-0.60	-0.17
2,081.0	28.28	170.44	1,976.1	-525.0	82.4	531.4	0.93	0.90	0.43
2,145.0	28.85	170.56	2,032.4	-555.2	87.5	562.0	0.90	0.89	0.19
2,209.0	29.60	170.61	2,088.2	-586.0	92.6	593.2	1.17	1.17	0.08
2,272.0	29.94	170.28	2,142.9	-616.8	97.8	624.5	0.60	0.54	-0.52
2,335.0	29.08	170.54	2,197.7	-647.4	103.0	655.5	1.38	-1.37	0.41
2,397.0	29.01	170.81	2,251.9	-677.1	107.8	685.6	0.24	-0.11	0.44
2,460.0	28.57	169.91	2,307.1	-707.1	112.9	716.0	0.98	-0.70	-1.43
2,524.0	28.12	169.99	2,363.5	-737.0	118.2	746.4	0.71	-0.70	0.13
2,587.0	28.35	170.35	2,419.0	-766.3	123.3	776.2	0.45	0.37	0.57
2,650.0	28.65	173.32	2,474.3	-796.1	127.6	806.2	2.30	0.48	4.71
2,713.0	29.50	171.66	2,529.4	-826.4	131.6	836.8	1.86	1.35	-2.63
2,776.0	30.92	172.52	2,583.8	-857.8	135.9	868.5	2.36	2.25	1.37
2,840.0	30.74	170.39	2,638.8	-890.3	140.8	901.3	1.73	-0.28	-3.33
2,903.0	30.19	169.03	2,693.1	-921.7	146.5	933.2	1.40	-0.87	-2.16
2,966.0	29.02	168.84	2,747.9	-952.2	152.5	964.3	1.86	-1.86	-0.30
3,029.0	28.61	170.05	2,803.1	-982.1	158.0	994.7	1.13	-0.65	1.92

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Vaughn #30N - Slot Vaughn #30N
Project:	SJB (NM Central)	TVD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Site:	SEC 28-T26N-R6W	MD Reference:	AWS 673 @ 6442.0ft (15' DF + 6427' GL)
Well:	Vaughn #30N	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	edmCOP

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,093.0	27.90	171.03	2,859.4	-1,012.0	163.0	1,025.0	1.33	-1.11	1.53
3,156.0	27.42	170.07	2,915.2	-1,040.8	167.8	1,054.2	1.04	-0.76	-1.52
3,219.0	26.34	171.05	2,971.4	-1,068.9	172.5	1,082.7	1.85	-1.71	1.56
3,282.0	25.51	172.33	3,028.1	-1,096.2	176.5	1,110.2	1.59	-1.32	2.03
3,345.0	26.17	170.88	3,084.8	-1,123.3	180.5	1,137.7	1.45	1.05	-2.30
3,408.0	26.40	170.32	3,141.3	-1,150.9	185.1	1,165.6	0.54	0.37	-0.89
3,471.0	25.60	170.11	3,197.9	-1,178.1	189.7	1,193.2	1.28	-1.27	-0.33
3,535.0	24.86	168.64	3,255.8	-1,204.9	194.8	1,220.5	1.52	-1.16	-2.30
3,598.0	22.90	169.02	3,313.4	-1,229.9	199.7	1,246.0	3.12	-3.11	0.60
3,661.0	20.76	169.32	3,371.9	-1,252.9	204.1	1,269.4	3.40	-3.40	0.48
3,724.0	19.50	168.38	3,431.0	-1,274.2	208.3	1,291.1	2.06	-2.00	-1.49
3,787.0	17.75	166.90	3,490.7	-1,293.8	212.6	1,311.2	2.88	-2.78	-2.35
3,850.0	16.98	167.59	3,550.9	-1,312.2	216.8	1,329.9	1.27	-1.22	1.10
3,914.0	16.21	167.27	3,612.2	-1,330.0	220.7	1,348.2	1.21	-1.20	-0.50
3,977.0	14.93	166.63	3,672.9	-1,346.5	224.5	1,365.1	2.05	-2.03	-1.02
4,008.0	14.48	164.67	3,702.9	-1,354.1	226.5	1,372.9	2.16	-1.45	-6.32
4,040.0	13.86	164.60	3,733.9	-1,361.7	228.6	1,380.7	1.94	-1.94	-0.22
4,071.0	12.86	164.49	3,764.1	-1,368.6	230.5	1,387.8	3.23	-3.23	-0.35
4,102.0	11.99	163.79	3,794.3	-1,375.0	232.3	1,394.5	2.85	-2.81	-2.26
4,134.0	11.11	166.34	3,825.7	-1,381.2	234.0	1,400.8	3.18	-2.75	7.97
4,166.0	9.94	167.11	3,857.1	-1,386.9	235.3	1,406.7	3.68	-3.66	2.41
4,198.0	8.71	166.71	3,888.7	-1,391.9	236.5	1,411.9	3.85	-3.84	-1.25
4,230.0	7.78	168.40	3,920.4	-1,396.4	237.5	1,416.4	3.00	-2.91	5.28
4,261.0	6.96	166.85	3,951.1	-1,400.3	238.3	1,420.4	2.72	-2.65	-5.00
4,293.0	6.09	165.27	3,982.9	-1,403.8	239.2	1,424.0	2.78	-2.72	-4.94
4,325.0	4.92	162.48	4,014.8	-1,406.8	240.0	1,427.1	3.75	-3.66	-8.72
4,357.0	3.93	162.21	4,046.7	-1,409.1	240.8	1,429.5	3.09	-3.09	-0.84
4,388.0	3.05	161.14	4,077.6	-1,410.9	241.4	1,431.4	2.85	-2.84	-3.45
4,427.0	2.52	153.95	4,116.6	-1,412.7	242.1	1,433.2	1.63	-1.36	-18.44