

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 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

Form C-102

Revised October 12, 2005

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

RCVD DEC 14 '10

OIL CONS. DIV.

"AS DRILLED PLAT"

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-33900	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL DIST. 3
⁴ Property Code 31329	⁵ Property Name SAN JUAN 32-7 UNIT	⁶ Well Number 247H
⁷ GRID-No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6418'

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
G	7	32N	7W	2	1180	NORTH	2865	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
E	7	32N	7W	7	747	NORTH	747	WEST	SAN JUAN

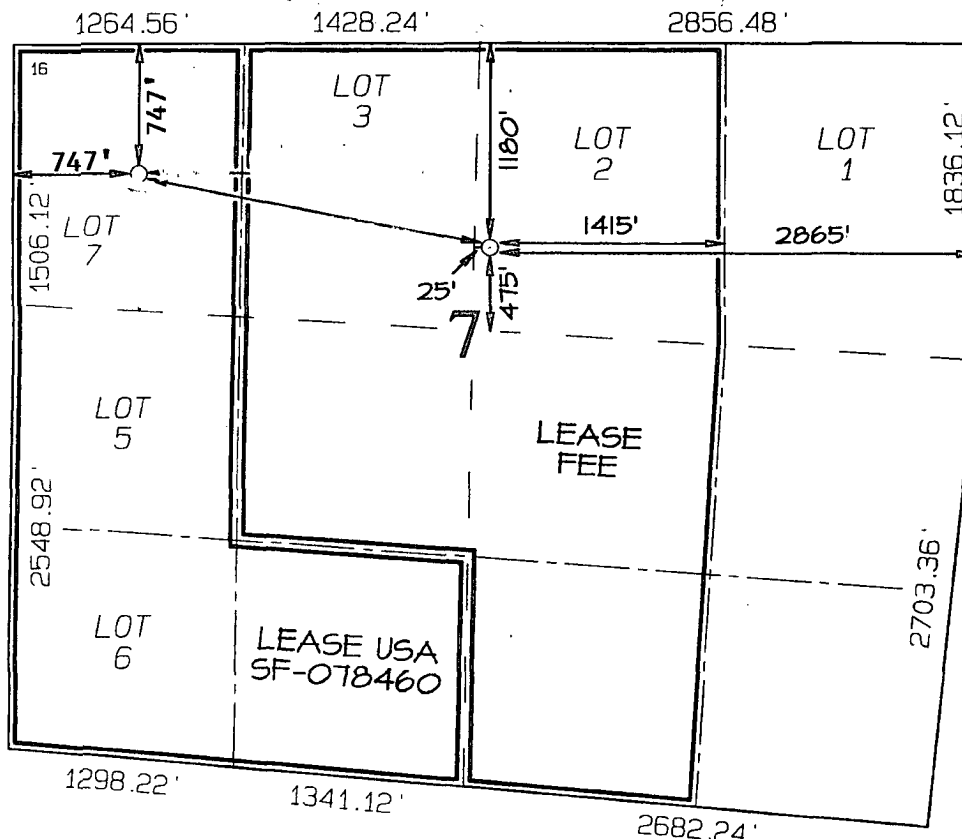
¹² Dedicated Acres 319.42 Acres	Lots 2, 3, 5, 6 and 7 E/2 SW/4 & W/2 SE/4	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13203
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SURFACE LOCATION
LAT: 36°59.8034'N
LONG: 107°36.4975'W
DATUM: NAD1927

LAT: 36.99673°N
LONG: 107.60890°W
DATUM: NAD1983

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

COLORADO / NEW MEXICO STATE-LINE BOUNDARY



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.

Crystal Tafoya 12/14/10
Signature Date

Crystal Tafoya 12/14/10

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.

Date of Survey: MARCH 27, 2010

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269

Legal WellName : SAN JUAN 32-7 UNIT #247H	API / UWI: 3004533900
Operator: CONOCOPHILLIPS	Surf Loc: 007-032N-007W-G
St/Prov: NEW MEXICO	N/S Dist (ft): 1,180.00 - N
County: SAN JUAN	E/W Dist (ft): 2,865.00 - E

Wellbore Name : Original Hole

Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)
SINGLE SHOTS	09/28/2006	264.00	.75	.00

Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
09/28/2006	134.00	.50	.00	TOTCO SS	
09/28/2006	264.00	.75	.00	TOTCO SS	
10/05/2006	500.00	.50	.00	MWD	
10/05/2006	1,000.00	1.00	.00	MWD	
10/05/2006	1,500.00	1.00	.00	MWD	
10/05/2006	2,000.00	1.00	.00	MWD	
10/05/2006	2,500.00	.50	.00	MWD	
10/06/2006	3,000.00	1.00	.00	MWD	
10/06/2006	3,437.00	1.00	.00	Incl	

Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)
GYRO	09/21/2010	.00	.00	.00

Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
09/21/2010	.00	.00	.00		
09/21/2010	100.00	.39	169.10		
09/21/2010	200.00	.73	178.34		
09/21/2010	300.00	.93	161.00		RCVD NOV 22 '10
09/21/2010	400.00	1.19	149.51		OIL CONS. DIV.
09/21/2010	500.00	1.25	149.91		DIST. 3
09/21/2010	600.00	1.09	148.84		
09/21/2010	700.00	1.07	139.71		
09/21/2010	800.00	.85	151.10		
09/21/2010	900.00	.70	149.99		
09/21/2010	1,000.00	.76	137.96		
09/21/2010	1,100.00	.83	144.22		
09/21/2010	1,200.00	.93	142.66		
09/21/2010	1,300.00	.99	149.98		
09/20/2010	1,400.00	1.03	155.16		
09/21/2010	1,500.00	.96	154.79		
09/21/2010	1,600.00	.69	148.88		
09/21/2010	1,700.00	.63	139.93		
09/21/2010	1,800.00	.45	107.60		
09/21/2010	1,900.00	.41	112.07		

09/21/2010	2,000.00	.57	102.70		
09/21/2010	2,100.00	.52	105.96		
09/21/2010	2,200.00	.47	116.93		
09/21/2010	2,300.00	.44	124.35		
09/21/2010	2,400.00	.31	101.53		
09/21/2010	2,500.00	.46	91.95		
09/21/2010	2,600.00	.56	83.25		
09/21/2010	2,700.00	.55	85.12		
09/21/2010	2,800.00	.26	77.65		
09/21/2010	2,900.00	.60	80.19		
09/21/2010	3,000.00	.68	39.18		
09/21/2010	3,090.00	1.12	354.38		

Wellbore Name : Leg 1					
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
DIRECTIONAL SURVEY		2,858.00	.46	79.58	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
10/03/2010	2,877.00	6.60	40.52	Inc-MWD	Scientific Drilling
10/03/2010	2,899.00	7.04	350.07	Inc-MWD	Scientific Drilling
10/03/2010	2,929.00	12.49	308.32	Inc-MWD	Scientific Drilling
10/03/2010	2,935.00	13.55	304.72	Inc-MWD	Scientific Drilling
10/03/2010	2,968.00	23.34	319.03	Inc-MWD	Scientific Drilling
10/04/2010	3,000.00	30.76	314.63	Inc-MWD	Scientific Drilling
10/04/2010	3,031.00	41.24	311.61	Inc-MWD	Scientific Drilling
10/04/2010	3,063.00	50.57	311.60	Inc-MWD	Scientific Drilling
10/04/2010	3,094.00	60.78	310.90	Inc-MWD	Scientific Drilling
10/04/2010	3,126.00	68.83	312.78	Inc-MWD	Scientific Drilling
10/04/2010	3,158.00	80.12	310.00	Inc-MWD	Scientific Drilling
10/04/2010	3,195.00	85.28	306.21	Inc-MWD	Scientific Drilling
10/04/2010	3,227.00	85.96	303.13	Inc-MWD	Scientific Drilling
10/04/2010	3,258.00	86.60	301.85	Inc-MWD	Scientific Drilling
10/04/2010	3,290.00	88.28	301.69	Inc-MWD	Scientific Drilling
10/04/2010	3,322.00	90.17	299.50	Inc-MWD	Scientific Drilling
10/04/2010	3,354.00	91.58	300.08	Inc-MWD	Scientific Drilling
10/04/2010	3,386.00	92.39	299.15	Inc-MWD	Scientific Drilling
10/05/2010	3,418.00	92.69	298.45	Inc-MWD	Scientific Drilling
10/05/2010	3,449.00	92.29	295.29	Inc-MWD	Scientific Drilling
10/05/2010	3,481.00	93.74	294.91	Inc-MWD	Scientific Drilling
10/05/2010	3,513.00	94.18	295.23	Inc-MWD	Scientific Drilling
10/05/2010	3,544.00	92.96	293.93	Inc-MWD	Scientific Drilling
10/05/2010	3,576.00	92.22	291.08	Inc-MWD	Scientific Drilling
10/05/2010	3,608.00	91.92	289.00	Inc-MWD	Scientific Drilling
10/05/2010	3,640.00	92.19	288.83	Inc-MWD	Scientific Drilling
10/05/2010	3,671.00	91.48	287.44	Inc-MWD	Scientific Drilling
10/05/2010	3,703.00	91.72	287.26	Inc-MWD	Scientific Drilling
10/05/2010	3,735.00	92.29	286.40	Inc-MWD	Scientific Drilling

10/05/2010	3,766.00	92.12	284.31	Inc-MWD	Scientific Drilling
10/05/2010	3,798.00	91.62	282.57	Inc-MWD	Scientific Drilling
10/05/2010	3,830.00	91.75	280.14	Inc-MWD	Scientific Drilling
10/05/2010	3,861.00	91.62	278.56	Inc-MWD	Scientific Drilling
10/05/2010	3,893.00	90.03	274.79	Inc-MWD	Scientific Drilling
10/05/2010	3,925.00	88.22	270.59	Inc-MWD	Scientific Drilling
10/05/2010	3,957.00	87.56	269.10	Inc-MWD	Scientific Drilling
10/05/2010	3,988.00	87.54	270.82	Inc-MWD	Scientific Drilling
10/05/2010	4,019.00	88.65	270.08	Inc-MWD	Scientific Drilling
10/05/2010	4,050.00	88.89	271.99	Inc-MWD	Scientific Drilling
10/05/2010	4,082.00	89.16	271.67	Inc-MWD	Scientific Drilling
10/05/2010	4,113.00	89.36	271.31	Inc-MWD	Scientific Drilling
10/05/2010	4,144.00	88.59	270.80	Inc-MWD	Scientific Drilling
10/05/2010	4,176.00	89.70	271.23	Inc-MWD	Scientific Drilling
10/05/2010	4,207.00	89.87	271.05	Inc-MWD	Scientific Drilling
10/05/2010	4,239.00	90.00	272.07	Inc-MWD	Scientific Drilling
10/05/2010	4,271.00	90.91	273.10	Inc-MWD	Scientific Drilling
10/05/2010	4,303.00	90.88	272.57	Inc-MWD	Scientific Drilling
10/05/2010	4,334.00	91.38	271.54	Inc-MWD	Scientific Drilling
10/05/2010	4,366.00	90.34	271.71	Inc-MWD	Scientific Drilling
10/05/2010	4,398.00	89.97	271.69	Inc-MWD	Scientific Drilling
10/05/2010	4,430.00	89.02	274.62	Inc-MWD	Scientific Drilling
10/05/2010	4,461.00	89.23	275.22	Inc-MWD	Scientific Drilling
10/05/2010	4,493.00	89.56	275.73	Inc-MWD	Scientific Drilling
10/05/2010	4,525.00	90.03	275.58	Inc-MWD	Scientific Drilling
10/05/2010	4,557.00	90.47	274.97	Inc-MWD	Scientific Drilling
10/06/2010	4,589.00	91.01	274.70	Inc-MWD	Scientific Drilling
10/06/2010	4,620.00	90.13	276.10	Inc-MWD	Scientific Drilling
10/06/2010	4,652.00	90.37	275.96	Inc-MWD	Scientific Drilling
10/06/2010	4,684.00	90.77	274.67	Inc-MWD	Scientific Drilling
10/06/2010	4,715.00	91.21	275.10	Inc-MWD	Scientific Drilling
10/06/2010	4,747.00	89.87	273.74	Inc-MWD	Scientific Drilling
10/06/2010	4,779.00	89.43	272.06	Inc-MWD	Scientific Drilling
10/06/2010	4,811.00	88.35	270.49	Inc-MWD	Scientific Drilling
10/06/2010	4,842.00	88.79	270.12	Inc-MWD	Scientific Drilling
10/06/2010	4,874.00	89.16	270.05	Inc-MWD	Scientific Drilling
10/06/2010	4,906.00	89.70	270.35	Inc-MWD	Scientific Drilling
10/06/2010	4,937.00	89.93	273.06	Inc-MWD	Scientific Drilling
10/06/2010	4,969.00	89.87	274.58	Inc-MWD	Scientific Drilling
10/06/2010	5,001.00	89.60	276.06	Inc-MWD	Scientific Drilling
10/06/2010	5,033.00	89.73	277.11	Inc-MWD	Scientific Drilling
10/06/2010	5,073.00	90.20	278.46	Inc-MWD	Scientific Drilling
10/06/2010	5,115.00	90.67	279.81	Projection	Scientific Drilling

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.

7000 Delmondo

Subscribed and sworn to me this November 18, 2010

Crystal L. Tafaya ☺

Notary Public in and for San Juan County, New Mexico

My Commission expires 10/12/2014

ROAD NO. 22 '10
OIL CONS. DIV.

DIST. 3

ConocoPhillips

SJB (NM West)

SEC 07-T32N-R7W

SJ 32-7 #247H

API # 30.045.33900

Motherbore OH

Standard Survey Report

04 November, 2010

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

Robertson

Notorized this date 4th of November, 2010.

Carrin Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.

Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 32-7 #247H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6433.0ft (AWS 730)
Site:	SEC 07-T32N-R7W	MD Reference:	DFE @ 6433.0ft (AWS 730)
Well:	SJ 32-7 #247H	North Reference:	True
Wellbore:	Motherbore OH	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #33K0910147	Database:	edmCOP

Project	SJB (NM West), 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 West 3003		Using geodetic scale factor

Site		SEC 07-T32N-R7W			
Site Position:		Northing:	2,182,154.43 ft	Latitude:	36° 59' 48.204 N
From:	Lat/Long	Easting:	565,718.46 ft	Longitude:	107° 36' 29.850 W
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	0.14 °

Well	SJ 32-7 #247H, CBM HZ Re-entry					
Well Position	+N/-S	0.0 ft	Northing:	2,182,154.43 ft	Latitude:	36° 59' 48.204 N
	+E/-W	0.0 ft	Easting:	565,718.46 ft	Longitude:	107° 36' 29.850 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,418.0 ft

Wellbore	Motherbore OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	5/3/2010	9.99	63.78	51,038

Design	VH - Job #33K0910147			
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	134.36

Survey Program	Date 11/4/2010			
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
100.0	3,090.0	SDI Gyro (Motherbore OH)	Standard Keeper	Standard Wireline Keeper ver 1.0.2

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.39	169.10	100.0	-0.3	0.1	0.3	0.39	0.39	0.00	
200.0	0.73	178.34	200.0	-1.3	0.1	1.0	0.35	0.34	9.24	
300.0	0.93	161.00	300.0	-2.7	0.4	2.2	0.32	0.20	-17.34	
400.0	1.19	149.51	400.0	-4.4	1.2	3.9	0.33	0.26	-11.49	
500.0	1.25	149.91	499.9	-6.2	2.3	6.0	0.06	0.06	0.40	
600.0	1.09	148.84	599.9	-8.0	3.3	8.0	0.16	-0.16	-1.07	
700.0	1.07	139.71	699.9	-9.5	4.4	9.8	0.17	-0.02	-9.13	
800.0	0.85	151.10	799.9	-10.9	5.4	11.4	0.29	-0.22	11.39	
900.0	0.70	149.99	899.9	-12.0	6.1	12.7	0.15	-0.15	-1.11	
1,000.0	0.76	137.96	999.9	-13.1	6.8	14.0	0.16	0.06	-12.03	
1,100.0	0.83	144.22	1,099.9	-14.1	7.7	15.4	0.11	0.07	6.26	
1,200.0	0.93	142.66	1,199.9	-15.4	8.6	16.9	0.10	0.10	-1.56	

Scientific Drilling International, Inc.

Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 32-7 #247H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6433.0ft (AWS 730)
Site:	SEC 07-T32N-R7W	MD Reference:	DFE @ 6433.0ft (AWS 730)
Well:	SJ 32-7 #247H	North Reference:	True
Wellbore:	Motherbore OH	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #33K0910147	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)
1,300.0	0.99	149.98	1,299.8	-16.8	9.5	18.5	0.14	0.06	7.32
1,400.0	1.03	155.16	1,399.8	-18.3	10.3	20.2	0.10	0.04	5.18
1,500.0	0.96	154.79	1,499.8	-19.9	11.1	21.8	0.07	-0.07	-0.37
1,600.0	0.69	148.88	1,599.8	-21.2	11.7	23.2	0.28	-0.27	-5.91
1,700.0	0.63	139.93	1,699.8	-22.1	12.4	24.3	0.12	-0.06	-8.95
1,800.0	0.45	107.60	1,799.8	-22.6	13.1	25.2	0.35	-0.18	-32.33
1,900.0	0.41	112.07	1,899.8	-22.9	13.8	25.9	0.05	-0.04	4.47
2,000.0	0.57	102.70	1,999.8	-23.1	14.6	26.6	0.18	0.16	-9.37
2,100.0	0.52	105.96	2,099.8	-23.4	15.6	27.5	0.06	-0.05	3.26
2,200.0	0.47	116.93	2,199.8	-23.7	16.4	28.3	0.11	-0.05	10.97
2,300.0	0.44	124.35	2,299.8	-24.1	17.0	29.0	0.07	-0.03	7.42
2,400.0	0.31	101.53	2,399.8	-24.4	17.6	29.6	0.20	-0.13	-22.82
2,500.0	0.46	91.95	2,499.8	-24.4	18.3	30.2	0.16	0.15	-9.58
2,600.0	0.56	83.25	2,599.8	-24.4	19.2	30.8	0.13	0.10	-8.70
2,700.0	0.55	85.12	2,699.8	-24.3	20.1	31.4	0.02	-0.01	1.87
2,800.0	0.26	77.65	2,799.8	-24.2	20.8	31.8	0.29	-0.29	-7.47
2,900.0	0.60	80.19	2,899.8	-24.1	21.6	32.3	0.34	0.34	2.54
3,000.0	0.68	39.18	2,999.7	-23.5	22.5	32.5	0.45	0.08	-41.01
3,090.0	1.12	354.38	3,089.7	-22.2	22.7	31.8	0.89	0.49	-49.78

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Reese Mesa #104 WH	0.00	0.00	0.0	385.0	-4,158.3	2,182,529.61	561,559.61	36° 59' 52.008 N	107° 37' 21.108 W
- survey misses target center by 4176.1ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
Reese Mesa #1 WH	0.00	0.00	0.0	235.7	-3,682.3	2,182,381.40	562,035.95	36° 59' 50.532 N	107° 37' 15.240 W
- survey misses target center by 3689.8ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
SJ 32-7 #41 WH	0.00	0.00	0.0	126.2	113.5	2,182,280.91	565,831.65	36° 59' 49.452 N	107° 36' 28.451 W
- survey misses target center by 169.7ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
SJ 32-7 #247A BHL	0.00	0.00	3,070.0	463.7	-1,974.2	2,182,613.41	563,743.29	36° 59' 52.788 N	107° 36' 54.186 W
- survey misses target center by 2055.3ft at 3071.7ft MD (3071.4 TVD, -22.6 N, 22.7 E)									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,860.2	2,860.0	5 1/2"	5-1/2	7-7/8

Scientific Drilling International, Inc.
Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 32-7 #247H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6433.0ft (AWS 730)
Site:	SEC 07-T32N-R7W	MD Reference:	DFE @ 6433.0ft (AWS 730)
Well:	SJ 32-7 #247H	North Reference:	True
Wellbore:	Motherbore OH	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #33K0910147	Database:	edmCOP

Project	SJB (NM West), 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 West 3003		Using geodetic scale factor

Site		SEC 07-T32N-R7W			
Site Position:		Northing:	2,182,154.43 ft	Latitude:	36° 59' 48.204 N
From:	Lat/Long	Easting:	565,718.46 ft	Longitude:	107° 36' 29.850 W
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	0.14 °

Well	SJ 32-7 #247H, CBM HZ Re-entry					
Well Position	+N/-S	0.0 ft	Northing:	2,182,154.43 ft	Latitude:	36° 59' 48.204 N
	+E/-W	0.0 ft	Easting:	565,718.46 ft	Longitude:	107° 36' 29.850 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,418.0 ft

Wellbore	Motherbore OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	5/3/2010	9.99	63.78	51,038

Design		VH - Job #33K0910147		
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	282.53

Survey Program	Date	11/4/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.0	2,800.0	SDI Gyro (Motherbore OH)	Standard Keeper	Standard Wireline Keeper ver 1.0.2	
2,858.0	5,073.0	SDI EMWD (Motherbore OH)	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)
2,800.0	0.26	77.65	2,799.8	-24.2	20.8	-25.6	0.00	0.00	0.00
2,858.0	0.46	79.58	2,857.8	-24.1	21.2	-25.9	0.35	0.34	3.33
2,877.0	6.60	40.52	2,876.7	-23.3	22.0	-26.5	32.89	32.32	-205.58
2,899.0	7.04	350.07	2,898.6	-21.0	22.6	-26.6	26.43	2.00	-229.32
2,929.0	12.49	308.32	2,928.2	-17.2	19.7	-23.0	28.68	18.17	-139.17
2,935.0	13.55	304.72	2,934.0	-16.4	18.6	-21.7	22.24	17.67	-60.00
2,968.0	23.34	319.03	2,965.3	-9.2	11.1	-12.9	32.48	29.67	43.36
3,000.0	30.76	314.63	2,993.8	1.3	1.1	-0.8	24.00	23.19	-13.75
3,031.0	41.24	311.61	3,018.8	13.7	-12.2	14.9	34.28	33.81	-9.74
3,063.0	50.57	311.60	3,041.1	29.0	-29.3	34.9	29.16	29.16	-0.03
3,094.0	60.78	310.90	3,058.5	45.8	-48.6	57.4	32.99	32.94	-2.26
3,126.0	68.83	312.78	3,072.1	65.1	-70.1	82.6	25.71	25.16	5.88

Scientific Drilling International, Inc.

Survey Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 32-7 #247H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6433.0ft (AWS 730)
Site:	SEC 07-T32N-R7W	MD Reference:	DFE @ 6433.0ft (AWS 730)
Well:	SJ 32-7 #247H	North Reference:	True
Wellbore:	Motherbore OH	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #33K0910147	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)
3,158.0	80.12	310.00	3,080.7	85.5	-93.2	109.5	36.26	35.28	-8.69
3,195.0	85.28	306.21	3,085.4	108.1	-122.1	142.6	17.25	13.95	-10.24
3,227.0	85.96	303.13	3,087.8	126.3	-148.3	172.2	9.83	2.13	-9.63
3,258.0	86.60	301.85	3,089.8	142.9	-174.4	201.3	4.61	2.06	-4.13
3,290.0	88.28	301.69	3,091.3	159.7	-201.6	231.4	5.27	5.25	-0.50
3,322.0	90.17	299.50	3,091.7	176.0	-229.1	261.8	9.04	5.91	-6.84
3,354.0	91.58	300.08	3,091.2	191.9	-256.9	292.4	4.76	4.41	1.81
3,386.0	92.39	299.15	3,090.1	207.7	-284.7	323.0	3.85	2.53	-2.91
3,418.0	92.69	298.45	3,088.7	223.1	-312.7	353.7	2.38	0.94	-2.19
3,449.0	92.29	295.29	3,087.3	237.1	-340.3	383.7	10.27	-1.29	-10.19
3,481.0	93.74	294.91	3,085.7	250.6	-369.3	414.8	4.68	4.53	-1.19
3,513.0	94.18	295.23	3,083.4	264.2	-398.2	446.0	1.70	1.38	1.00
3,544.0	92.96	293.93	3,081.5	277.0	-426.3	476.3	5.75	-3.94	-4.19
3,576.0	92.22	291.08	3,080.1	289.3	-455.9	507.7	9.19	-2.31	-8.91
3,608.0	91.92	289.00	3,078.9	300.2	-485.9	539.4	6.56	-0.94	-6.50
3,640.0	92.19	288.83	3,077.8	310.6	-516.2	571.2	1.00	0.84	-0.53
3,671.0	91.48	287.44	3,076.8	320.2	-545.6	602.1	5.03	-2.29	-4.48
3,703.0	91.72	287.26	3,075.9	329.8	-576.1	633.9	0.94	0.75	-0.56
3,735.0	92.29	286.40	3,074.8	339.0	-606.7	665.8	3.22	1.78	-2.69
3,766.0	92.12	284.31	3,073.6	347.2	-636.6	696.8	6.76	-0.55	-6.74
3,798.0	91.62	282.57	3,072.5	354.7	-667.7	728.7	5.65	-1.56	-5.44
3,830.0	91.75	280.14	3,071.6	361.0	-699.1	760.7	7.60	0.41	-7.59
3,861.0	91.62	278.56	3,070.7	366.0	-729.6	791.7	5.11	-0.42	-5.10
3,893.0	90.03	274.79	3,070.2	369.7	-761.4	823.5	12.78	-4.97	-11.78
3,925.0	88.22	270.59	3,070.7	371.2	-793.4	855.0	14.29	-5.66	-13.13
3,957.0	87.56	269.10	3,071.9	371.1	-825.3	886.2	5.09	-2.06	-4.66
3,988.0	87.54	270.82	3,073.2	371.1	-856.3	916.4	5.54	-0.06	5.55
4,019.0	88.65	270.08	3,074.2	371.4	-887.3	946.7	4.30	3.58	-2.39
4,050.0	88.89	271.99	3,074.9	371.9	-918.3	977.1	6.21	0.77	6.16
4,082.0	89.16	271.67	3,075.4	372.9	-950.3	1,008.5	1.31	0.84	-1.00
4,113.0	89.36	271.31	3,075.8	373.7	-981.3	1,039.0	1.33	0.65	-1.16
4,144.0	88.59	270.80	3,076.4	374.3	-1,012.2	1,069.3	2.98	-2.48	-1.65
4,176.0	89.70	271.23	3,076.9	374.9	-1,044.2	1,100.7	3.72	3.47	1.34
4,207.0	89.87	271.05	3,077.0	375.5	-1,075.2	1,131.1	0.80	0.55	-0.58
4,239.0	90.00	272.07	3,077.0	376.4	-1,107.2	1,162.5	3.21	0.41	3.19
4,271.0	90.91	273.10	3,076.8	377.8	-1,139.2	1,194.0	4.29	2.84	3.22
4,303.0	90.88	272.57	3,076.3	379.4	-1,171.1	1,225.5	1.66	-0.09	-1.66
4,334.0	91.38	271.54	3,075.7	380.5	-1,202.1	1,256.0	3.69	1.61	-3.32
4,366.0	90.34	271.71	3,075.2	381.4	-1,234.1	1,287.4	3.29	-3.25	0.53
4,398.0	89.97	271.69	3,075.1	382.4	-1,266.1	1,318.9	1.16	-1.16	-0.06
4,430.0	89.02	274.62	3,075.4	384.1	-1,298.0	1,350.4	9.63	-2.97	9.16
4,461.0	89.23	275.22	3,075.8	386.8	-1,328.9	1,381.2	2.05	0.68	1.94
4,493.0	89.56	275.73	3,076.2	389.8	-1,360.8	1,412.9	1.90	1.03	1.59
4,525.0	90.03	275.58	3,076.3	393.0	-1,392.6	1,444.7	1.54	1.47	-0.47
4,557.0	90.47	274.97	3,076.2	395.9	-1,424.5	1,476.4	2.35	1.38	-1.91
4,589.0	91.01	274.70	3,075.7	398.6	-1,456.4	1,508.1	1.89	1.69	-0.84
4,620.0	90.13	276.10	3,075.4	401.5	-1,487.2	1,538.9	5.33	-2.84	4.52
4,652.0	90.37	275.96	3,075.3	404.9	-1,519.0	1,570.7	0.87	0.75	-0.44
4,684.0	90.77	274.67	3,075.0	407.9	-1,550.9	1,602.4	4.22	1.25	-4.03
4,715.0	91.21	275.10	3,074.4	410.5	-1,581.8	1,633.2	1.98	1.42	1.39
4,747.0	89.87	273.74	3,074.1	413.0	-1,613.7	1,664.8	5.97	-4.19	-4.25
4,779.0	89.43	272.06	3,074.3	414.6	-1,645.6	1,696.4	5.43	-1.38	-5.25
4,811.0	88.35	270.49	3,075.0	415.3	-1,677.6	1,727.8	5.95	-3.38	-4.91
4,842.0	88.79	270.12	3,075.7	415.5	-1,708.6	1,758.0	1.85	1.42	-1.19

Scientific Drilling International, Inc.

Survey Report

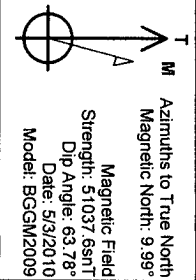
Company:	ConocoPhillips	Local Co-ordinate Reference:	Well SJ 32-7 #247H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6433.0ft (AWS 730)
Site:	SEC 07-T32N-R7W	MD Reference:	DFE @ 6433.0ft (AWS 730)
Well:	SJ 32-7 #247H	North Reference:	True
Wellbore:	Motherbore OH	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #33K0910147	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)	
4,874.0	89.16	270.05	3,076.3	415.5	-1,740.6	1,789.3	1.18	1.16	-0.22	
4,906.0	89.70	270.35	3,076.6	415.6	-1,772.6	1,820.6	1.93	1.69	0.94	
4,937.0	89.93	273.06	3,076.7	416.6	-1,803.6	1,851.0	8.77	0.74	8.74	
4,969.0	89.87	274.58	3,076.8	418.7	-1,835.5	1,882.6	4.75	-0.19	4.75	
5,001.0	89.60	276.06	3,076.9	421.7	-1,867.4	1,914.4	4.70	-0.84	4.63	
5,033.0	89.73	277.11	3,077.1	425.3	-1,899.2	1,946.2	3.31	0.41	3.28	
5,073.0	90.20	278.46	3,077.1	430.7	-1,938.8	1,986.1	3.57	1.18	3.38	

Design Targets										
Target Name										
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting			
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude	
Reese Mesa #104 WH	0.00	0.00	0.0	385.0	-4,158.3	2,182,529.61	561,559.61	36° 59' 52.008 N	107° 37' 21.108 W	
- survey misses target center by 3794.3ft at 5073.0ft MD (3077.1 TVD, 430.7 N, -1938.8 E)										
- Circle (radius 5.0)										
Reese Mesa #1 WH	0.00	0.00	0.0	235.7	-3,682.3	2,182,381.40	562,035.95	36° 59' 50.532 N	107° 37' 15.240 W	
- survey misses target center by 3542.1ft at 5073.0ft MD (3077.1 TVD, 430.7 N, -1938.8 E)										
- Circle (radius 5.0)										
SJ 32-7 #41 WH	0.00	0.00	0.0	126.2	113.5	2,182,280.91	565,831.65	36° 59' 49.452 N	107° 36' 28.451 W	
- survey misses target center by 2805.3ft at 2800.0ft MD (2799.8 TVD, -24.2 N, 20.8 E)										
- Circle (radius 5.0)										
SJ 32-7 #247A BHL	0.00	0.00	3,070.0	463.7	-1,974.2	2,182,613.41	563,743.29	36° 59' 52.788 N	107° 36' 54.186 W	
- survey misses target center by 48.9ft at 5073.0ft MD (3077.1 TVD, 430.7 N, -1938.8 E)										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
2,860.2	2,860.0	5 1/2"		5-1/2	7-7/8

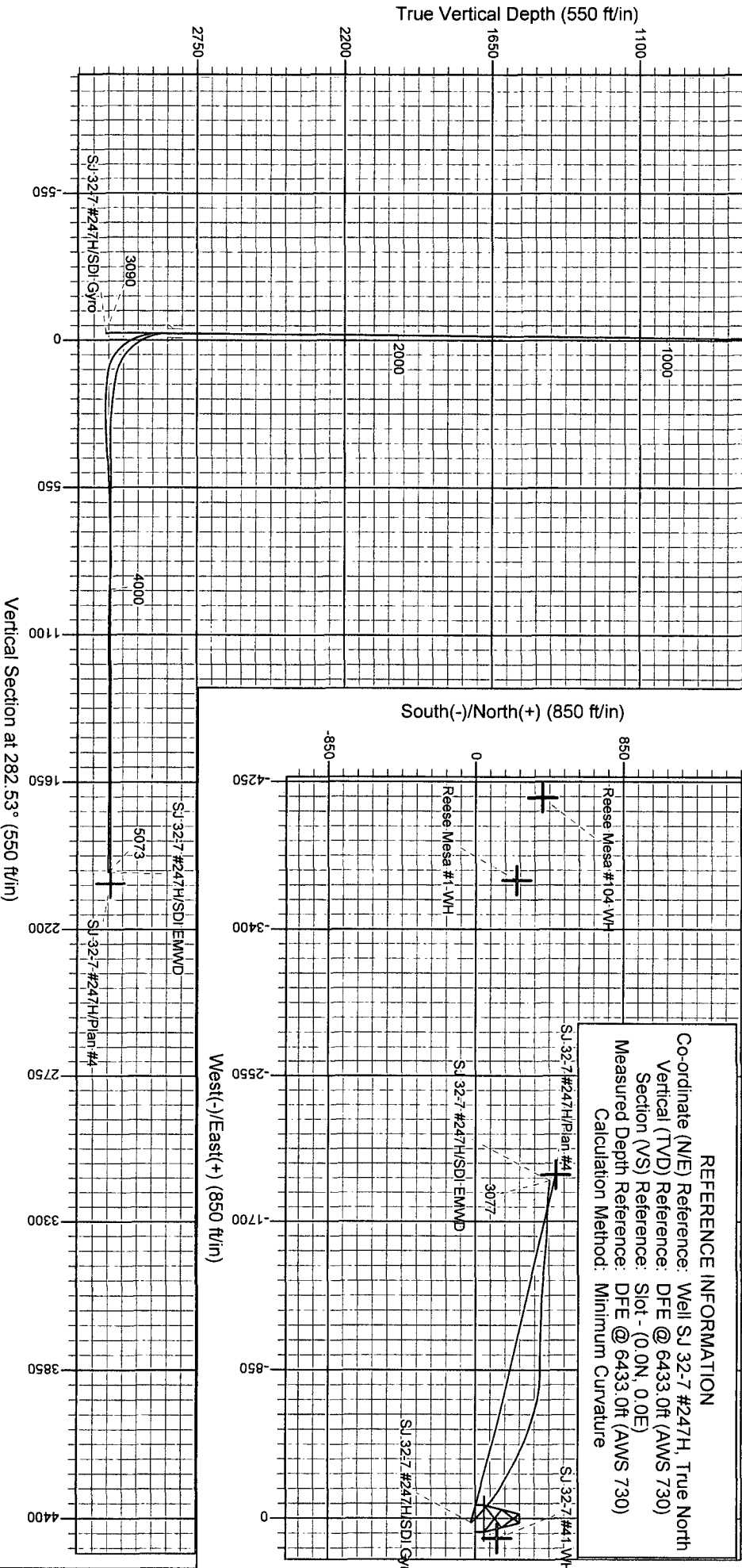
Project: SJB (NM West)
Site: SEC 07-T32N-R7W
Well: SJ 32-7 #247H
Wellbore: Motherbore OH
Design: VH - Job #33K0910147



+N/-S	+E/-W	Northing
0.0	0.0	2182154.43

WELL DETAILS: SJ 32-7 #247H	
DFE @ 6433.0ft (AWS 730)	Ground Level: 6418.0
Easting 565718.46	Latitude 36° 59' 48.204 N
	Longitude 107° 36' 29.850 W
	Slot

REFERENCE INFORMATION
Co-ordinate (NE) Reference: Well SJ 32-7 #247H, True North
Vertical (TVD) Reference: DFE @ 6433.0ft (AWS 730)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: DFE @ 6433.0ft (AWS 730)
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 West)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

SITE DETAILS: SEC 07-T32N-R7W
San Juan County NM
Site Centre Latitude: 36° 59' 48.204 N
Longitude: 107° 36' 29.850 W
Positional Uncertainty: 0.0
Convergence: 0.14
Local North: True