

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
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-24291	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 22045	⁵ Property Name San Juan 32-5 Unit NP	⁶ Well Number #106
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION	⁹ Elevation 6386'

¹⁰ Surface Location

UL or lot no. N	Section 26	Township 32N	Range 06W	Lot Idn	Feet from the 655	North/South line South	Feet from the 1685	East/West line West	County RIO ARRIBA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. E	Section 26	Township 32N	Range 06W	Lot Idn	Feet from the 1906	North/South line South	Feet from the 100	East/West line West	County RIO ARRIBA
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¹² Dedicated Acres	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.

	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: Vicki Donaghey Date: 06/22/10 Printed Name: Vicki Donaghey
	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. July 21, 1988 Date of Survey Original Survey Conducted and Recorded By Neale C. Edwards 6857 Certificate Number



Energen Resources

Rio Arriba County

Eul Canyon

San Juan 32-5 Unit NP #106 Sidetrack

ST01

Survey: MWD #1

DIST. 3

Energen EOW

GIL CONS. DIV.

26 May, 2010

RCVD JUL 9 '10

PATHFINDER

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit NP #106 Sidetrack
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well San Juan 32-5 Unit NP #106 Sidetrack
TVD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
MD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project	Rio Arriba County
Map System:	US State Plane 1983
Geo Datum:	North American Datum 1983
Map Zone:	New Mexico Central Zone
System Datum:	Mean Sea Level

Site	Eul Canyon				
Site Position:		Northing:	2,173,184.728 ft	Latitude:	36° 57' 59.000 N
From:	Lat/Long	Easting:	1,296,505.935 ft	Longitude:	107° 25' 38.000 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	-0.71 °

Well	San Juan 32-5 Unit NP #106 Sidetrack					
Well Position	+N/-S	0.00 ft	Northing:	2,165,794.086 ft	Latitude:	36° 56' 45.800 N
	+E/-W	0.00 ft	Easting:	1,295,416.034 ft	Longitude:	107° 25' 50.300 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	6.385.00 ft	Ground Level:	6.386.00 ft	

Wellbore	ST01				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	11/11/2009	9.96	63.75	51,085

Design	ST01			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	308.14

Survey Program	Date	05/26/2010
From	To	
(ft)	(ft)	
101.00	4,922.00	MWD #1 (ST01)
		Tool Name
		MWD
		Description
		MWD - Standard

MD	Inc	Azi	TVD	N/S	E/W	DLeg	V. Sec
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101.00	0.14	307.50	101.00	0.08	-0.10	0.14	0.12
201.00	0.24	165.59	201.00	-0.05	-0.14	0.36	0.08
301.00	0.40	146.96	301.00	-0.55	0.10	0.19	-0.42
401.00	0.40	127.72	401.00	-1.05	0.57	0.13	-1.10
501.00	0.16	151.25	500.99	-1.39	0.91	0.26	-1.57
601.00	0.50	320.80	600.99	-1.18	0.70	0.66	-1.28
701.00	0.50	300.22	700.99	-0.62	0.05	0.18	-0.42
801.00	0.38	275.55	800.99	-0.37	-0.66	0.22	0.29
901.00	0.44	265.64	900.98	-0.36	-1.37	0.09	0.85
1,001.00	0.48	252.29	1,000.98	-0.52	-2.15	0.11	1.37
1,101.00	0.37	267.32	1,100.98	-0.66	-2.88	0.16	1.85

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit NP #106 Sidetrack
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well San Juan 32-5 Unit NP #106 Sidetrack
TVD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
MD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
1,201.00	0.27	285.95	1,200.98	-0.61	-3.42	0.14	2.32
1,301.00	0.29	283.28	1,300.98	-0.49	-3.90	0.02	2.76
1,401.00	0.35	282.56	1,400.97	-0.36	-4.44	0.06	3.27
1,501.00	0.28	300.22	1,500.97	-0.18	-4.95	0.12	3.79
1,601.00	0.42	334.40	1,600.97	0.28	-5.32	0.25	4.36
1,701.00	0.45	352.70	1,700.97	1.00	-5.53	0.14	4.96
1,801.00	0.60	11.34	1,800.96	1.90	-5.48	0.23	5.48
1,901.00	0.75	32.28	1,900.96	2.97	-5.02	0.29	5.78
2,001.00	0.68	19.68	2,000.95	4.08	-4.47	0.17	6.04
2,101.00	0.76	26.21	2,100.94	5.23	-3.98	0.11	6.36
2,201.00	0.86	53.04	2,200.93	6.28	-3.09	0.39	6.31
2,301.00	1.28	27.32	2,300.91	7.72	-1.98	0.63	6.32
2,401.00	1.35	23.43	2,400.89	9.80	-1.00	0.11	6.83
2,501.00	1.36	14.69	2,500.86	12.03	-0.23	0.21	7.60
2,601.00	1.45	18.65	2,600.83	14.37	0.48	0.13	8.50
2,696.94	1.41	23.50	2,696.74	16.60	1.34	0.13	9.20
2,761.30	11.08	333.20	2,760.66	22.87	-1.14	15.90	15.02
2,792.50	16.80	332.91	2,790.93	29.56	-4.55	18.33	21.84
2,823.80	23.21	330.14	2,820.33	38.95	-9.68	20.70	31.67
2,854.90	29.02	324.40	2,848.24	50.41	-17.13	20.35	44.61
2,886.10	31.39	315.33	2,875.22	62.35	-27.26	16.46	59.95
2,917.00	33.41	306.12	2,901.32	73.09	-39.80	17.24	76.44
2,948.30	38.25	301.48	2,926.70	83.24	-55.03	17.72	94.69
2,979.40	42.47	307.68	2,950.40	94.70	-71.57	18.72	114.77
3,010.70	46.43	305.01	2,972.74	107.67	-89.23	13.99	136.67
3,042.10	50.21	306.28	2,993.62	121.34	-108.28	12.41	160.10
3,073.40	54.87	306.89	3,012.65	136.14	-128.22	14.97	184.92
3,104.80	60.41	308.89	3,029.45	152.44	-149.13	18.44	211.44
3,135.30	65.77	310.91	3,043.25	169.88	-169.98	18.54	238.61
3,177.00	73.16	308.43	3,057.87	194.78	-200.03	18.57	277.61
3,208.00	75.71	306.01	3,066.19	212.83	-223.81	11.14	307.47
3,222.00	76.98	306.10	3,069.50	220.84	-234.80	9.09	321.06
3,238.00	78.44	306.21	3,072.90	230.06	-247.43	9.15	336.69
3,251.00	79.54	306.25	3,075.38	237.61	-257.72	8.49	349.44
Top of Coal - 3251.00'MD,79.54°INC,306.25°AZI,3075.38'TVD							
3,269.00	81.07	306.31	3,078.41	248.11	-272.02	8.49	367.17
3,300.00	84.94	306.51	3,082.19	266.37	-296.78	12.50	397.92
3,331.00	87.76	306.37	3,084.16	284.74	-321.67	9.11	428.84
3,362.00	90.40	305.34	3,084.66	302.89	-346.79	9.14	459.81
3,391.00	90.13	305.01	3,084.53	319.60	-370.49	1.47	488.77
3,422.00	89.78	304.29	3,084.55	337.22	-395.99	2.58	519.71
3,453.00	90.13	303.94	3,084.57	354.61	-421.66	1.60	550.64
3,484.00	89.43	302.89	3,084.69	371.68	-447.53	4.07	581.53
3,515.00	89.43	304.30	3,085.00	388.83	-473.35	4.55	612.43

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit NP #106 Sidetrack
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well San Juan 32-5 Unit NP #106 Sidetrack
TVD Reference: WELL @ 6400 00ft (14' KB CORRECTION)
MD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
3,546.00	89.78	305.48	3,085.22	406.57	-498.78	3.97	643.38
3,566.00	90.31	305.80	3,085.20	418.22	-515.03	3.10	663.36
3,598.00	89.60	305.63	3,085.22	436.90	-541.01	2.28	695.33
3,629.00	89.60	306.74	3,085.44	455.20	-566.03	3.58	726.31
3,660.00	89.87	306.27	3,085.58	473.64	-590.95	1.75	757.30
3,692.00	90.40	306.57	3,085.51	492.64	-616.70	1.90	789.29
3,723.00	90.22	306.66	3,085.34	511.13	-641.58	0.65	820.27
3,754.00	90.13	307.11	3,085.25	529.74	-666.38	1.48	851.27
3,785.00	89.87	306.91	3,085.25	548.40	-691.13	1.06	882.26
3,816.00	90.22	308.19	3,085.22	567.29	-715.71	4.28	913.26
3,847.00	90.84	308.33	3,084.94	586.48	-740.05	2.05	944.26
3,879.00	90.48	308.43	3,084.57	606.35	-765.13	1.17	976.25
3,910.00	90.31	309.52	3,084.35	625.85	-789.23	3.56	1,007.25
3,941.00	90.40	309.85	3,084.16	645.64	-813.09	1.10	1,038.24
3,972.00	90.75	310.41	3,083.85	665.62	-836.79	2.13	1,069.22
4,004.00	91.36	309.49	3,083.26	686.17	-861.32	3.45	1,101.20
4,035.00	92.24	308.68	3,082.29	705.70	-885.37	3.86	1,132.17
4,066.00	92.15	308.70	3,081.10	725.07	-909.55	0.30	1,163.15
4,097.00	91.89	309.00	3,080.01	744.50	-933.67	1.28	1,194.13
4,129.00	91.10	308.92	3,079.17	764.61	-958.55	2.48	1,226.11
4,160.00	91.71	308.26	3,078.41	783.94	-982.77	2.90	1,257.10
4,191.00	91.63	308.91	3,077.51	803.27	-1,006.99	2.11	1,288.09
4,223.00	91.19	308.36	3,076.72	823.24	-1,031.98	2.20	1,320.08
4,254.00	90.84	307.82	3,076.17	842.36	-1,056.37	2.08	1,351.07
4,284.00	90.84	307.98	3,075.73	860.79	-1,080.04	0.53	1,381.07
4,315.00	91.71	308.90	3,075.04	880.06	-1,104.32	4.08	1,412.06
4,346.00	92.07	307.49	3,074.02	899.21	-1,128.67	4.69	1,443.04
4,378.00	91.80	308.05	3,072.94	918.80	-1,153.95	1.94	1,475.02
4,408.00	91.71	308.87	3,072.02	937.45	-1,177.43	2.75	1,505.01
4,440.00	91.71	308.91	3,071.07	957.53	-1,202.33	0.12	1,536.99
4,471.00	91.54	309.67	3,070.19	977.16	-1,226.31	2.51	1,567.97
4,502.00	91.28	309.04	3,069.42	996.81	-1,250.27	2.20	1,598.96
4,534.00	91.28	309.39	3,068.71	1,017.04	-1,275.06	1.09	1,630.94
4,565.00	90.84	309.67	3,068.14	1,036.76	-1,298.96	1.68	1,661.93
4,596.00	91.28	308.06	3,067.56	1,056.21	-1,323.10	5.38	1,692.92
4,628.00	90.57	308.90	3,067.05	1,076.12	-1,348.14	3.44	1,724.92
4,659.00	90.31	307.82	3,066.81	1,095.36	-1,372.45	3.58	1,755.91
4,691.00	90.75	306.74	3,066.51	1,114.74	-1,397.91	3.64	1,787.91
4,722.00	90.48	306.81	3,066.18	1,133.30	-1,422.74	0.90	1,818.90
4,753.00	89.96	306.17	3,066.06	1,151.73	-1,447.66	2.66	1,849.88
4,783.00	90.31	305.32	3,065.99	1,169.26	-1,472.01	3.06	1,879.86
4,814.00	90.22	305.89	3,065.85	1,187.30	-1,497.21	1.86	1,910.83
4,846.00	90.04	305.99	3,065.77	1,206.09	-1,523.12	0.64	1,942.80
4,922.00	90.04	305.99	3,065.72	1,250.75	-1,584.62	0.00	2,018.75

BHL-4922.00°MD,90.04°INC,305.99°AZI, 3065.72°TVD, 2018.75°VS, 1250.75°N, -1584.62°E

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit NP #106 Sidetrack
Wellbore: ST01
Design: ST01

Local Co-ordinate Reference: Well San Juan 32-5 Unit NP #106 Sidetrack
TVD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
MD Reference: WELL @ 6400.00ft (14' KB CORRECTION)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
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Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Land Curve (copy) (cc)	0.00	0.00	3,094.00	-777.24	-97.73	2,165,018.114	1,295,308.680	36° 56' 38.115 N	107° 25' 51.504 W
- survey misses target center by 865.34ft at 2823.80ft MD (2820.33 TVD, 38.95 N, -9.68 E)									
- Point									
TD Lateral (copy) (co)	0.00	0.00	3,094.00	1,245.00	-1,585.00	2,167,058.624	1,293,846.578	36° 56' 58.109 N	107° 26' 9.825 W
- survey misses target center by 28.70ft at 4918.91ft MD (3065.72 TVD, 1248.93 N, -1582.12 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,251.00	3,075.38	237.61	-257.72	Top of Coal - 3251.00'MD,79.54°INC,306.25°AZI,3075.38'TVD
4,922.00	3,065.72	1,250.75	-1,584.62	BHL-4922.00'MD,90.04°INC,305.99°AZI, 3065.72'TVD, 2018.75°VS, 12

Checked By: _____ Approved By: _____ Date: _____

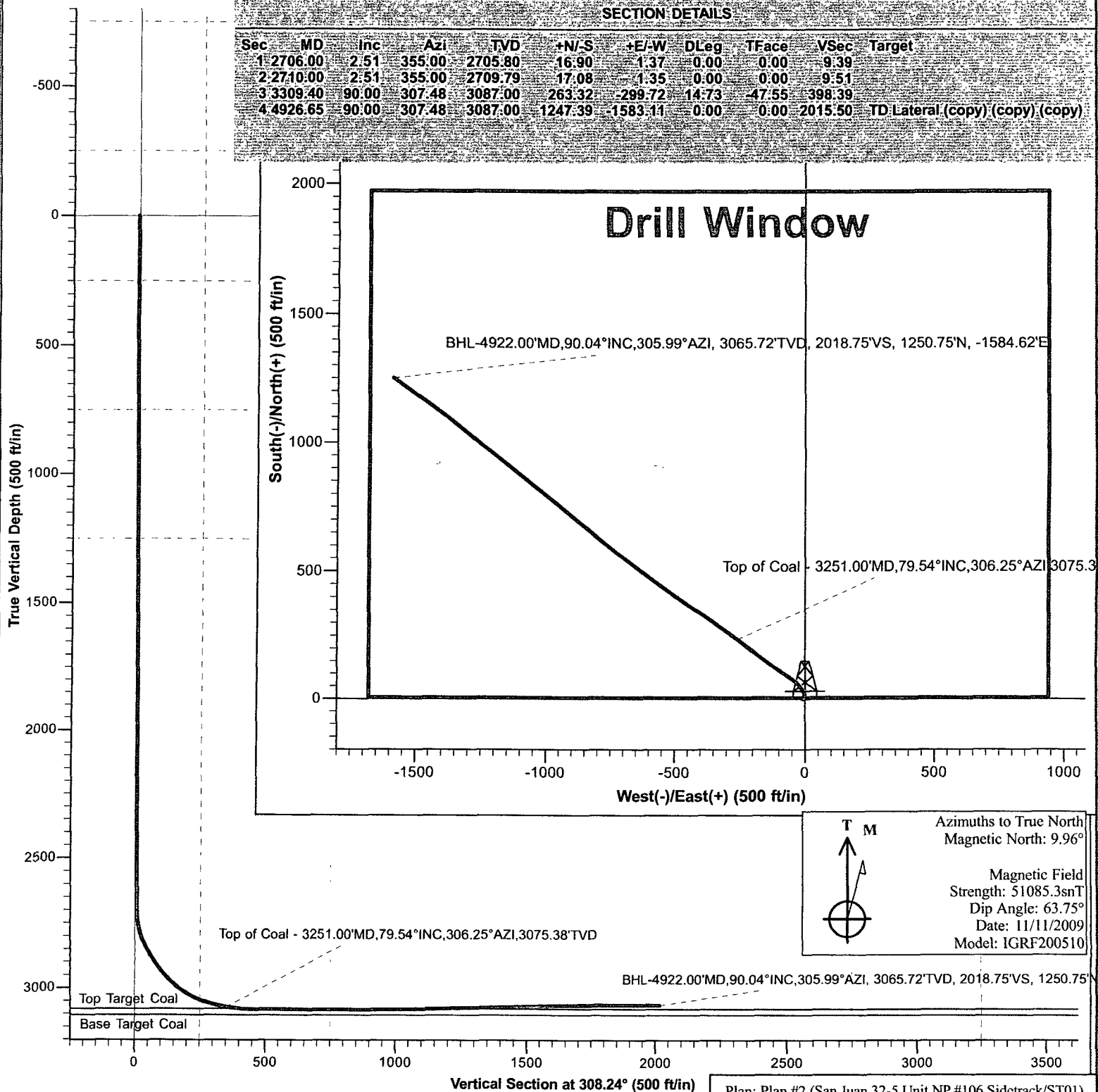
WELL DETAILS: San Juan 32-5 Unit NP #106 Sidetrack

Ground Elevation: 6386.00
 RKB Elevation: WELL @ 6400.00ft (14' KB CORRECTION)
 Rig Name: 14' KB CORRECTION

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	2165794.086	1295416.034	36° 56' 45.800 N	107° 25' 50.300 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2706.00	2.51	355.00	2705.80	16.90	1.37	0.00	0.00	9.39	
2	2710.00	2.51	355.00	2709.79	17.08	1.35	0.00	0.00	9.51	
3	3309.40	90.00	307.48	3087.00	263.32	-299.72	14.73	-47.55	398.39	
4	4926.65	90.00	307.48	3087.00	1247.39	-1583.11	0.00	0.00	2015.50	TD Lateral (copy) (copy) (copy)



Azimuths to True North
 Magnetic North: 9.96°

Magnetic Field
 Strength: 51085.3snT
 Dip Angle: 63.75°
 Date: 11/11/2009
 Model: IGRF200510