

"As Drilled"

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 July 16, 2010

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27267	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 21996	⁵ Property Name San Juan 32-5 Unit	⁶ Well Number 104 S
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 6291'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 1 dn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	32N	6W		1105'	North	1215'	West	Rio Arriba

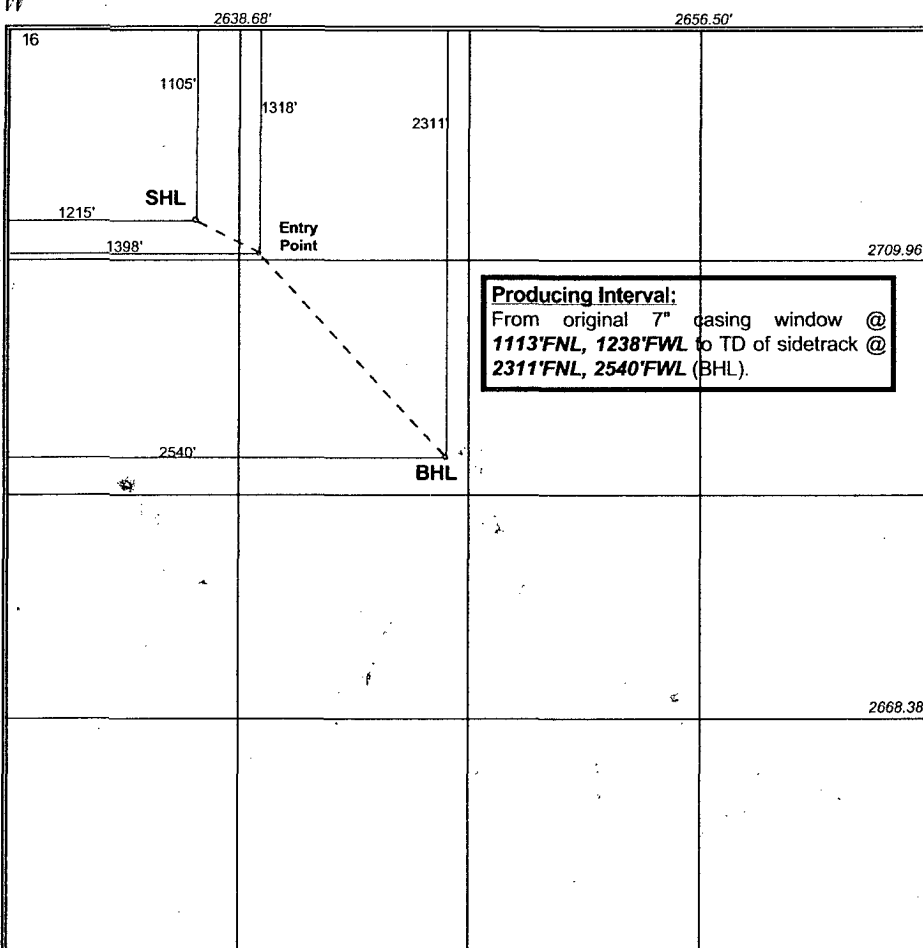
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1 dn	Feet from the	North/South line	Feet from the	East/West line	County
F	25	32N	6W		2311'	North	2540'	West	Rio Arriba

¹² Dedicated Acres 320 W/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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RCVD OCT 7 '10
OIL CONS. DIV
DIST. 3

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.

Stephen Byers 10/4/2010
Signature Date

Stephen Byers
Printed Name

sbyers@energen.com
E-mail Address

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.

October 25, 2002
Date of Survey

Signature and Seal of Professional Surveyor:

Jason C. Edwards
Certificate Number 15269



RCVD OCT 7 '10
OIL CONS. DIV.

DIST. 3

Energen Resources

**Rio Arriba County
Eul Canyon
San Juan 32-5 Unit #104S Sidetrack
OH**

Survey: MWD

Energen EOW

04 October, 2010



A Schlumberger Company

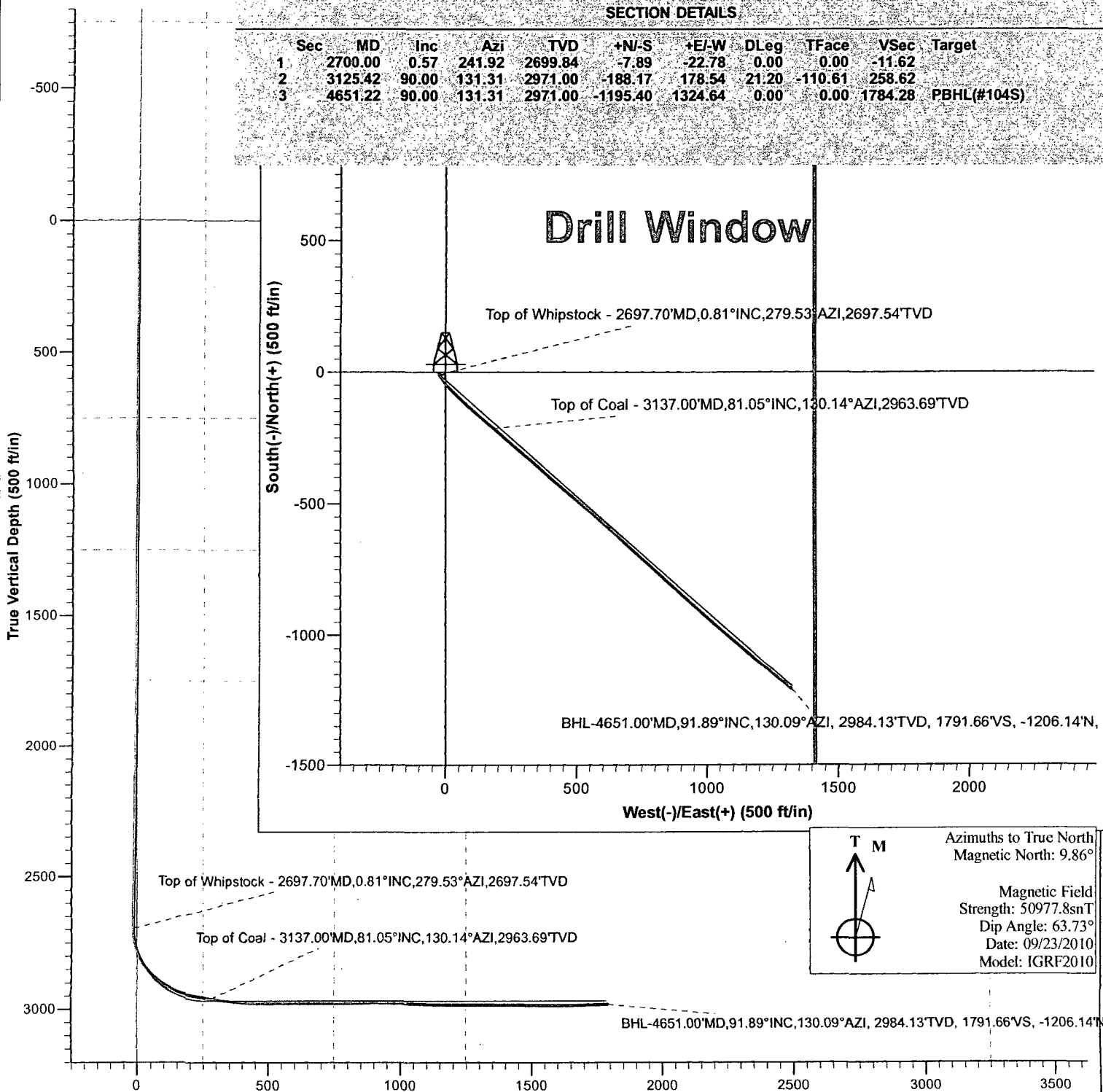
WELL DETAILS: San Juan 32-5 Unit #104S Sidetrack

Ground Elevation: 6291.00
 RKB Elevation: WELL @ 6306.00ft (Original Well Elev)
 Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	2169161.830	1300326.070	36° 57' 19.692 N	107° 24' 50.328 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2700.00	0.57	241.92	2699.84	-7.89	-22.78	0.00	0.00	-11.62	
2	3125.42	90.00	131.31	2971.00	-188.17	178.54	21.20	-110.61	258.62	
3	4651.22	90.00	131.31	2971.00	-1195.40	1324.64	0.00	0.00	1784.28	PBHL(#104S)



Azimuths to True North
 Magnetic North: 9.86°
 Magnetic Field
 Strength: 50977.8nT
 Dip Angle: 63.73°
 Date: 09/23/2010
 Model: IGRF2010

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit #104S Sidetrack
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well San Juan 32-5 Unit #104S Sidetrack
TVD Reference: WELL @ 6306.00ft (Original Well Elev)
MD Reference: WELL @ 6306.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

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

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

Well	San Juan 32-5 Unit #104S Sidetrack		
Well Position	+N/-S	0.00 ft	Northing: 2,169,161.830 ft
	+E/-W	0.00 ft	Easting: 1,300,326.070 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	36° 57' 19.692 N
		Longitude:	107° 24' 50.328 W
		Ground Level:	6,291.00ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	09/23/10	(°)
			9.86
		Dip Angle	(°)
		63.73	
		Field Strength	(nT)
		50,978	

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
		Direction	(°)
		132.05	

Survey Program	Date 10/04/10		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
200.00	4,651.00	MWD (OH)	MWD
			Description
			MWD - Standard

Survey								
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	0.00
200.00	0.22	215.47	200.00	-0.31	-0.22	0.11	0.04	
400.00	0.16	247.20	400.00	-0.73	-0.70	0.06	-0.03	
600.00	0.26	259.90	600.00	-0.92	-1.41	0.05	-0.43	
800.00	0.26	317.54	800.00	-0.67	-2.16	0.13	-1.16	
1,000.00	0.49	230.03	999.99	-0.88	-3.12	0.27	-1.73	
1,200.00	0.41	257.37	1,199.99	-1.59	-4.48	0.11	-2.26	
1,400.00	0.69	214.25	1,399.98	-2.74	-5.85	0.24	-2.51	
1,600.00	0.76	226.31	1,599.96	-4.65	-7.49	0.08	-2.45	
1,800.00	0.87	232.80	1,799.94	-6.48	-9.66	0.07	-2.83	
2,000.00	1.01	251.09	1,999.91	-7.97	-12.53	0.16	-3.97	
2,200.00	0.98	266.27	2,199.89	-8.66	-15.91	0.13	-6.02	

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit #104S Sidetrack
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well San Juan 32-5 Unit #104S Sidetrack
TVD Reference: WELL @ 6306.00ft (Original Well Elev)
MD Reference: WELL @ 6306.00ft (Original Well Elev)
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)
2,400.00	0.85	273.03	2,399.86	-8.69	-19.10	0.08	-8.36
2,600.00	0.62	292.15	2,599.84	-8.20	-21.58	0.17	-10.53
2,697.70	0.81	279.53	2,697.54	-7.89	-22.75	0.25	-11.61
Top of Whipstock - 2697.70°MD,0.81°INC,279.53°AZI,2697.54°TVD							
2,774.40	16.09	145.48	2,773.26	-16.62	-17.22	21.73	-1.66
2,805.10	23.74	146.44	2,802.11	-25.29	-11.39	24.94	8.48
2,836.20	32.18	145.30	2,829.55	-37.33	-3.20	27.19	22.63
2,867.00	40.10	140.03	2,854.41	-51.70	7.86	27.60	40.47
2,897.20	47.31	134.23	2,876.24	-66.93	22.09	27.29	61.23
2,928.00	53.02	134.23	2,895.96	-83.42	39.03	18.54	84.85
2,957.80	56.72	135.02	2,913.10	-100.54	56.37	12.60	109.20
2,988.30	63.14	132.91	2,928.38	-118.84	75.37	21.88	135.56
3,018.00	70.96	131.50	2,939.95	-137.19	95.62	26.69	162.89
3,049.00	77.56	131.68	2,948.36	-156.99	117.92	21.30	192.71
3,080.00	79.84	131.06	2,954.43	-177.07	140.73	7.61	223.10
3,110.00	80.90	130.45	2,959.45	-196.38	163.14	4.06	252.67
3,137.00	81.05	130.14	2,963.69	-213.63	183.47	1.26	279.32
Top of Coal - 3137.00°MD,81.05°INC,130.14°AZI,2963.69°TVD							
3,141.00	81.07	130.09	2,964.31	-216.17	186.50	1.33	283.27
3,171.00	82.66	129.92	2,968.55	-235.27	209.24	5.33	312.95
3,200.00	83.54	130.53	2,972.04	-253.86	231.23	3.68	341.73
3,231.00	84.06	130.27	2,975.38	-273.83	254.69	1.87	372.53
3,262.00	85.21	130.45	2,978.28	-293.82	278.21	3.75	403.38
3,292.00	87.49	130.09	2,980.19	-313.17	301.05	7.69	433.31
3,322.00	89.60	130.36	2,980.95	-332.54	323.95	7.09	463.28
3,353.00	90.31	130.71	2,980.98	-352.68	347.51	2.55	494.27
3,383.00	90.75	130.97	2,980.70	-372.30	370.21	1.70	524.26
3,415.00	90.57	131.24	2,980.33	-393.34	394.32	1.01	556.25
3,445.00	89.96	131.33	2,980.19	-413.13	416.86	2.06	586.25
3,476.00	89.34	130.62	2,980.38	-433.46	440.26	3.04	617.24
3,507.00	89.43	129.57	2,980.72	-453.42	463.98	3.40	648.22
3,537.00	89.78	130.09	2,980.92	-472.64	487.01	2.09	678.20
3,568.00	89.69	130.36	2,981.07	-492.66	510.68	0.92	709.18
3,599.00	89.43	129.92	2,981.30	-512.64	534.38	1.65	740.17
3,628.00	90.92	130.53	2,981.22	-531.37	556.52	5.55	769.15
3,659.00	90.84	131.68	2,980.74	-551.75	579.88	3.72	800.14
3,690.00	91.19	131.85	2,980.19	-572.39	603.00	1.26	831.14
3,721.00	91.19	132.29	2,979.55	-593.16	626.00	1.42	862.13
3,751.00	90.92	132.29	2,978.99	-613.34	648.19	0.90	892.12
3,781.00	89.87	132.99	2,978.79	-633.66	670.26	4.21	922.12
3,812.00	89.25	133.08	2,979.03	-654.82	692.92	2.02	953.12
3,843.00	87.76	131.76	2,979.83	-675.72	715.79	6.42	984.10
3,874.00	88.37	131.85	2,980.88	-696.37	738.89	1.99	1,015.08
3,905.00	87.49	132.55	2,982.00	-717.18	761.84	3.63	1,046.06
3,935.00	87.05	132.55	2,983.43	-737.45	783.91	1.47	1,076.03

Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon
Well: San Juan 32-5 Unit #104S Sidetrack
Wellbore: OH
Design: OH

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North Reference: True
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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
3,966.00	88.55	131.41	2,984.62	-758.16	806.94	6.08	1,107.00
3,998.00	89.96	131.50	2,985.04	-779.35	830.92	4.42	1,139.00
4,030.00	89.34	132.38	2,985.23	-800.73	854.72	3.36	1,171.00
4,062.00	89.60	131.76	2,985.53	-822.17	878.48	2.10	1,203.00
4,094.00	89.43	132.20	2,985.80	-843.58	902.26	1.47	1,235.00
4,125.00	89.60	131.94	2,986.06	-864.35	925.28	1.00	1,265.99
4,156.00	90.13	132.47	2,986.13	-885.17	948.24	2.42	1,296.99
4,188.00	90.13	131.85	2,986.06	-906.65	971.96	1.94	1,328.99
4,220.00	90.04	130.88	2,986.01	-927.80	995.98	3.04	1,360.99
4,252.00	89.78	130.45	2,986.06	-948.65	1,020.25	1.57	1,392.98
4,283.00	89.52	130.53	2,986.25	-968.78	1,043.82	0.88	1,423.97
4,315.00	89.52	131.15	2,986.52	-989.70	1,068.03	1.94	1,455.96
4,347.00	88.72	130.97	2,987.01	-1,010.72	1,092.16	2.56	1,487.95
4,378.00	88.20	131.33	2,987.85	-1,031.11	1,115.49	2.04	1,518.94
4,410.00	88.90	130.01	2,988.66	-1,051.96	1,139.75	4.67	1,550.92
4,441.00	90.40	129.57	2,988.84	-1,071.80	1,163.57	5.04	1,581.89
4,473.00	90.66	129.13	2,988.55	-1,092.09	1,188.32	1.60	1,613.85
4,505.00	90.92	129.30	2,988.11	-1,112.32	1,213.11	0.97	1,645.81
4,536.00	90.84	130.09	2,987.63	-1,132.11	1,236.96	2.56	1,676.78
4,568.00	91.89	130.09	2,986.87	-1,152.71	1,261.43	3.28	1,708.75
4,644.35	91.89	130.09	2,984.35	-1,201.85	1,319.81	0.00	1,785.01
PBHL(#104S)							
4,651.00	91.89	130.09	2,984.13	-1,206.14	1,324.90	0.00	1,791.66
BHL-4651.00°MD,91.89°INC,130.09°AZI, 2984.13°TVD, 1791.66°VS, -1206.14°N, 1324.90°E							

Targets
Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL(#104S)	0.00	0.00	2,971.00	-1,195.00	1,325.00	2,167,950.734	1,301,636.374	36° 57' 7.877 N	107° 24' 34.005 W
- survey misses target center by 15.88ft at 4644.35ft MD (2984.35 TVD, -1201.85 N, 1319.81 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,697.70	2,697.54	-7.89	-22.75	Top of Whipstock - 2697.70°MD,0.81°INC,279.53°AZI,2697.54°TVD
3,137.00	2,963.69	-213.63	183.47	Top of Coal - 3137.00°MD,81.05°INC,130.14°AZI,2963.69°TVD
4,651.00	2,984.13	-1,206.14	1,324.90	BHL-4651.00°MD,91.89°INC,130.09°AZI, 2984.13°TVD, 1791.66°VS, -1206.14°N, 1324.90°E

Checked By: _____ Approved By: _____ Date: _____