

"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 30-039-27266	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 106 S
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 6364'

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
C	26	32N	6W		955'	North	2105'	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
D	26	32N	6W		1106'	North	228'	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 29 '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.

5464.14'			
16	1106'	955'	
	970'		
2105'		SHL	
228'	1864'	Entry Point	2648.58'
BHL			
Producing Interval for Sidetrack: From Original 7" vertical casing @ 955'FNL, 2105'FWL; To TD of the sidetrack well @ BHL of 1106'FNL, 228'FWL.			
5274.72'	26		
2601.06'			
2632.74'			
2657.82'			

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 9/28/2010
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 9, 2002
Date of Survey

Signature and Seal of Professional Surveyor:

Jason C. Edwards
Certificate Number 15269



RCVD OCT 29 '10
OIL CONS. DIV.
DIST. 3

Energen Resources

**Rio Arriba County
Eul Canyon
San Juan 32-5 Unit #106S
Re-Entry Sidetrack**

Survey: MWD #1

Energen EOW

23 September, 2010



A Schlumberger Company

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

Local Co-ordinate Reference: Well San Juan 32-5 Unit #106S
TVD Reference: WELL @ 6379.00ft (Original Well Elev)
MD Reference: WELL @ 6379.00ft (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	Latitude:	36° 57' 59.000 N
From:	Lat/Long	Easting:	1,296,505.935ft	Longitude:	107° 25' 38.000 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	-0.71 °

Well	San Juan 32-5 Unit #106S				
Well Position	+N/-S	0.00 ft	Northing:	2,169,440.391ft	Latitude: 36° 57' 21.924 N
	+E/-W	0.00 ft	Easting:	1,296,030.737ft	Longitude: 107° 25' 43.284 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level: 6,364.00ft

Wellbore	Re-Entry Sidetrack				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/24/10	9.88	63.73	50,984

Design	Re-Entry Sidetrack				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	265.70	

Survey Program	Date 09/23/10				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	4,744.00	MWD #1 (Re-Entry Sidetrack)	CB-GYRO-MS	Camera based gyro multishot	

Survey								
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.44	343.99	100.00	0.37	-0.11	0.44	0.08	0.08
200.00	0.17	151.60	200.00	0.61	-0.14	0.61	0.10	0.10
300.00	0.45	209.27	300.00	0.13	-0.26	0.39	0.25	0.25
400.00	0.63	195.96	399.99	-0.74	-0.61	0.22	0.66	0.66
500.00	0.64	192.09	499.99	-1.81	-0.87	0.04	1.01	1.01
600.00	0.63	199.83	599.98	-2.87	-1.18	0.09	1.39	1.39
700.00	0.70	196.38	699.97	-3.98	-1.54	0.08	1.83	1.83
800.00	0.60	193.90	799.97	-5.07	-1.83	0.10	2.21	2.21
900.00	0.47	188.34	899.96	-5.99	-2.02	0.14	2.46	2.46
1,000.00	0.50	196.93	999.96	-6.81	-2.21	0.08	2.71	2.71
1,100.00	0.32	205.18	1,099.96	-7.48	-2.45	0.19	3.01	3.01

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

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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	EW (ft)	DLeg (°/100ft)	V. Sec (ft)
1,200.00	0.35	228.05	1,199.95	-7.94	-2.80	0.14	3.39
1,300.00	0.35	256.24	1,299.95	-8.21	-3.32	0.17	3.93
1,400.00	0.41	285.11	1,399.95	-8.19	-3.96	0.20	4.57
1,500.00	0.39	286.16	1,499.95	-8.00	-4.64	0.02	5.22
1,600.00	0.66	295.59	1,599.94	-7.66	-5.48	0.28	6.04
1,700.00	0.83	304.15	1,699.94	-7.01	-6.60	0.20	7.11
1,800.00	0.86	300.14	1,799.92	-6.22	-7.85	0.07	8.29
1,900.00	0.80	301.26	1,899.91	-5.48	-9.10	0.06	9.48
2,000.00	0.65	280.86	1,999.91	-5.01	-10.25	0.30	10.60
2,100.00	0.52	255.12	2,099.90	-5.02	-11.24	0.29	11.59
2,200.00	0.88	258.07	2,199.89	-5.30	-12.43	0.36	12.80
2,300.00	1.05	258.90	2,299.88	-5.63	-14.09	0.17	14.47
2,400.00	1.03	266.07	2,399.86	-5.87	-15.88	0.13	16.28
2,500.00	0.73	266.67	2,499.85	-5.97	-17.41	0.30	17.81
2,600.00	0.78	253.33	2,599.84	-6.20	-18.70	0.18	19.11
2,700.00	0.84	254.19	2,699.83	-6.60	-20.06	0.06	20.50
2,799.90	18.82	266.25	2,797.86	-7.86	-36.98	18.02	37.47
2,830.70	24.18	266.07	2,826.51	-8.62	-48.24	17.40	48.75
2,861.80	29.37	268.18	2,854.27	-9.30	-62.23	16.96	62.75
2,892.60	35.79	268.53	2,880.21	-9.77	-78.80	20.85	79.31
2,923.00	42.12	268.09	2,903.84	-10.34	-97.89	20.84	98.39
2,952.90	47.66	265.72	2,925.01	-11.50	-118.95	19.35	119.48
2,983.70	51.79	265.89	2,944.92	-13.22	-142.38	13.42	142.97
3,013.90	55.57	268.71	2,962.80	-14.35	-166.68	14.60	167.29
3,044.40	60.59	270.47	2,978.93	-14.52	-192.56	17.17	193.10
3,075.00	65.86	269.85	2,992.71	-14.45	-219.87	17.32	220.33
3,098.00	70.16	269.19	3,001.32	-14.63	-241.19	18.88	241.60
Coal Entry Point - 3098.00°MD,70.16°INC,269.19°AZI,3001.32°TVD,18.88°DLS, 241.60°VS, -14.63°N, -241.19°E							
3,106.00	71.67	268.97	3,003.93	-14.75	-248.75	19.05	249.15
3,137.20	78.00	268.53	3,012.09	-15.41	-278.84	20.33	279.21
3,166.80	85.12	268.71	3,016.43	-16.11	-308.09	24.06	308.43
3,197.60	89.96	268.18	3,017.75	-16.95	-338.84	15.81	339.16
3,228.00	91.36	265.54	3,017.40	-18.61	-369.19	9.83	369.55
3,258.60	92.15	264.58	3,016.47	-21.25	-399.66	4.06	400.13
3,289.10	92.51	264.58	3,015.23	-24.13	-430.00	1.18	430.60
3,319.90	92.51	264.31	3,013.88	-27.10	-460.62	0.88	461.36
3,349.70	92.77	263.79	3,012.51	-30.19	-490.23	1.95	491.12
3,380.50	91.71	262.47	3,011.30	-33.87	-520.79	5.49	521.86
3,411.20	90.48	262.38	3,010.71	-37.92	-551.21	4.02	552.50
3,442.00	90.04	263.43	3,010.58	-41.72	-581.78	3.70	583.27
3,473.00	91.01	265.02	3,010.29	-44.84	-612.62	6.01	614.25
3,503.00	90.48	264.31	3,009.90	-47.63	-642.48	2.95	644.25
3,534.00	90.48	263.79	3,009.64	-50.84	-673.32	1.68	675.23
3,565.00	90.13	263.35	3,009.48	-54.31	-704.12	1.81	706.21

Company: Energen Resources
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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
3,595.00	89.87	263.08	3,009.48	-57.86	-733.91	1.25	736.18
3,626.00	90.22	262.82	3,009.45	-61.66	-764.68	1.41	767.15
3,657.00	90.04	262.03	3,009.38	-65.75	-795.40	2.61	798.10
3,688.00	89.87	262.20	3,009.41	-70.00	-826.11	0.78	829.03
3,718.00	89.87	262.73	3,009.47	-73.94	-855.85	1.77	858.99
3,749.00	89.69	262.20	3,009.59	-78.00	-886.58	1.81	889.94
3,780.00	90.22	262.64	3,009.62	-82.09	-917.31	2.22	920.89
3,810.00	90.48	262.56	3,009.43	-85.95	-947.06	0.91	950.84
3,841.00	90.40	261.50	3,009.20	-90.25	-977.76	3.43	981.78
3,871.00	90.48	262.06	3,008.97	-94.54	-1,007.45	1.89	1,011.71
3,901.00	89.87	263.25	3,008.87	-98.38	-1,037.21	4.46	1,041.66
3,932.00	87.32	263.92	3,009.63	-101.84	-1,068.00	8.50	1,072.63
3,963.00	84.94	263.66	3,011.73	-105.19	-1,098.74	7.72	1,103.54
3,995.00	86.00	263.88	3,014.25	-108.65	-1,130.46	3.38	1,135.42
4,027.00	85.38	263.98	3,016.66	-112.02	-1,162.19	1.96	1,167.31
4,059.00	86.35	265.16	3,018.97	-115.04	-1,193.96	4.77	1,199.22
4,090.00	87.05	266.09	3,020.75	-117.40	-1,224.82	3.75	1,230.17
4,122.00	87.41	266.69	3,022.30	-119.41	-1,256.72	2.18	1,262.13
4,154.00	87.93	268.24	3,023.60	-120.83	-1,288.66	5.11	1,294.09
4,186.00	89.78	269.27	3,024.24	-121.52	-1,320.64	6.62	1,326.04
4,218.00	90.04	268.77	3,024.29	-122.07	-1,352.64	1.76	1,357.98
4,249.00	90.22	267.77	3,024.22	-123.01	-1,383.62	3.28	1,388.95
4,281.00	89.87	267.07	3,024.19	-124.45	-1,415.59	2.45	1,420.94
4,312.00	90.13	268.10	3,024.19	-125.75	-1,446.56	3.43	1,451.92
4,344.00	89.87	268.23	3,024.19	-126.78	-1,478.54	0.91	1,483.89
4,375.00	89.96	267.81	3,024.24	-127.85	-1,509.53	1.39	1,514.86
4,407.00	89.87	267.74	3,024.29	-129.09	-1,541.50	0.36	1,546.84
4,438.00	89.96	266.55	3,024.33	-130.64	-1,572.46	3.85	1,577.83
4,470.00	89.60	265.73	3,024.45	-132.79	-1,604.39	2.80	1,609.83
4,503.00	91.36	266.23	3,024.18	-135.10	-1,637.31	5.54	1,642.83
4,535.00	93.12	266.19	3,022.93	-137.22	-1,669.21	5.50	1,674.80
4,567.00	92.95	266.30	3,021.23	-139.31	-1,701.10	0.63	1,706.75
4,598.00	93.65	266.12	3,019.45	-141.35	-1,731.98	2.33	1,737.70
4,630.00	93.47	266.11	3,017.46	-143.52	-1,763.84	0.56	1,769.64
4,662.00	93.65	266.26	3,015.47	-145.64	-1,795.71	0.73	1,801.58
4,744.00	93.65	266.26	3,010.25	-150.98	-1,877.37	0.00	1,883.41

BHL-4744.00°MD,93.65°INC,266.26°AZI, 3010.25°TVD, 1883.41°VS, -150.98°N, -1877.37°E

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

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Database: Midland Database

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,098.00	3,001.32	-14.63	-241.19	Coal Entry Point - 3098.00'MD,70.16°INC,269.19°AZI,3001.32'TVD,18.1°VS,-14.63'
4,744.00	3,010.25	-150.98	-1,877.37	BHL-4744.00'MD,93.65°INC,266.26°AZI, 3010.25'TVD, 1883.41'VS, -150.98'

Checked By: _____ Approved By: _____ Date: _____

WELL DETAILS: San Juan 32-5 Unit #106S

Ground Elevation: 6364.00
 RKB Elevation: WELL @ 6379.00ft (Original Well Elev)
 Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	2169440.391	1296030.737	36° 57' 21.924 N	107° 25' 43.284 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2696.00	0.84	254.16	2695.83	-6.58	-20.00	0.00	0.00	20.44	
2	2953.50	44.99	265.85	2927.20	-14.06	-117.47	17.15	11.87	118.20	
3	3211.20	90.00	265.86	3023.32	-30.82	-348.87	17.47	0.01	350.20	
4	4871.01	90.00	265.86	3023.32	-150.65	-2004.35	0.00	0.00	2010.00	

