"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

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	[2] Pool Code	[3] Pool Name
30-039-30552	71629	Basin Fruitland Coal

[4] Property Code	[5] Property Name	[6] Well Number
22034	Quintana Mesa Com	100R

[7] OGRID No	[8] Operator Name	[9] Elevation
162928	Energen Resources Corporation	6820'

[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
E	33	32N	05W		1955'	North	1120'	West	Rio Arriba

[11] Bottom Hole Location If Different From Surface

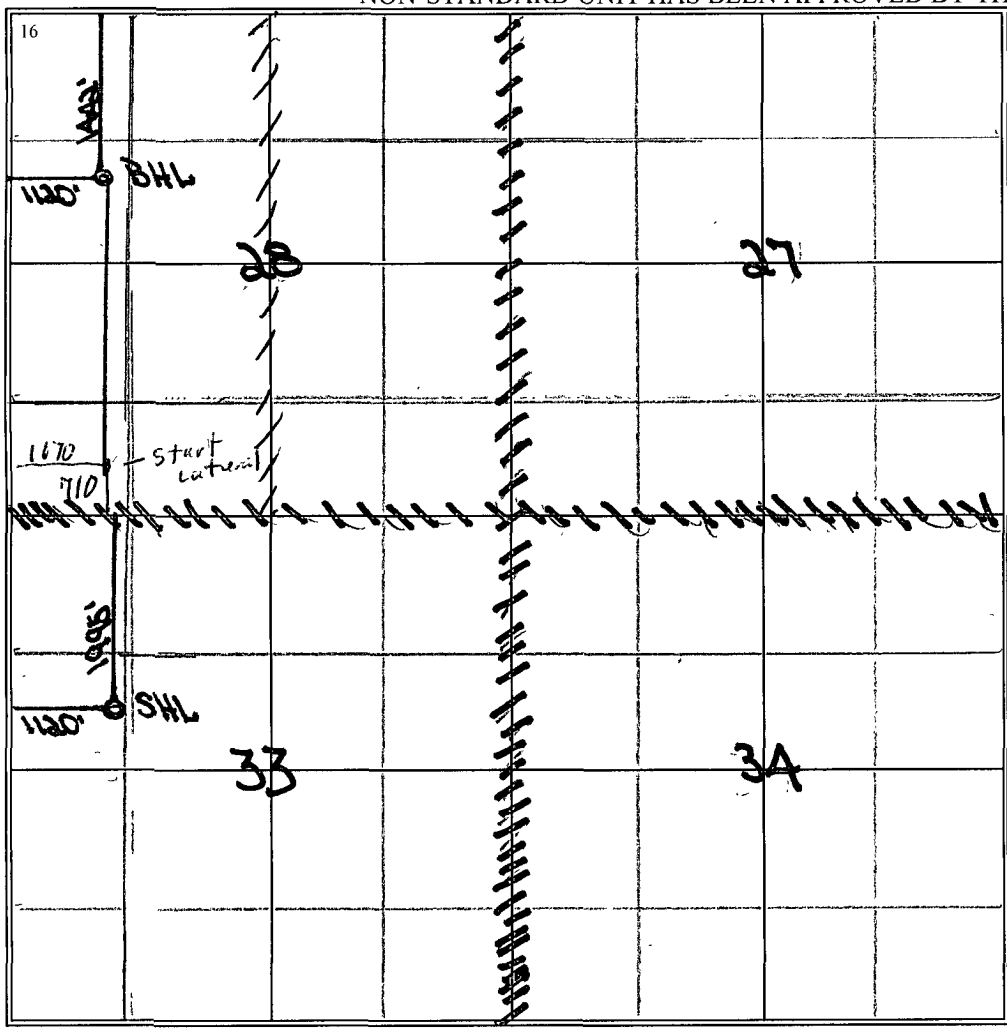
UL or lot no	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	32N	05W		1442'	North	1045'	West	Rio Arriba

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 W/2			

RCVD OCT 22'08
OIL CONS. DIV.
DIST. 3

10-23-08

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

Vicki Donaghey — 10/21/08
Signature — Date

Vicki Donaghey
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

04/17/2008
Date of Survey

Signature and Seal of Professional Surveyer
original survey conducted and recorded by: David Russell

10201
Certificate Number

RCVD OCT 22 '08
OIL CONS. DIV.
DIST. 3

SJ BR

NW Sec 28, T32N, R6W
Eul Canyon
Quintana Mesa #100R
Final Survey

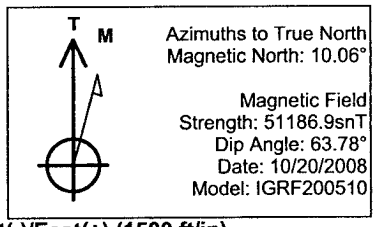
Plan: EOW Report

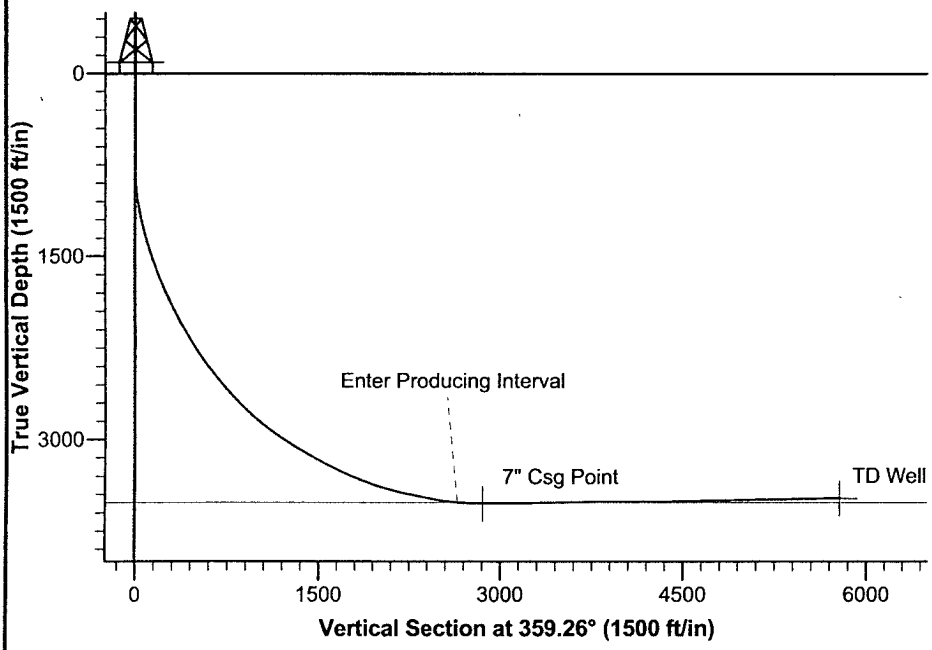
Final Survey

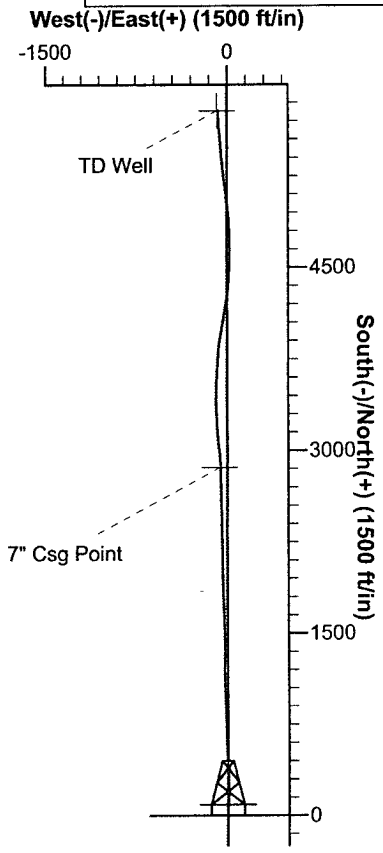
20 October, 2008

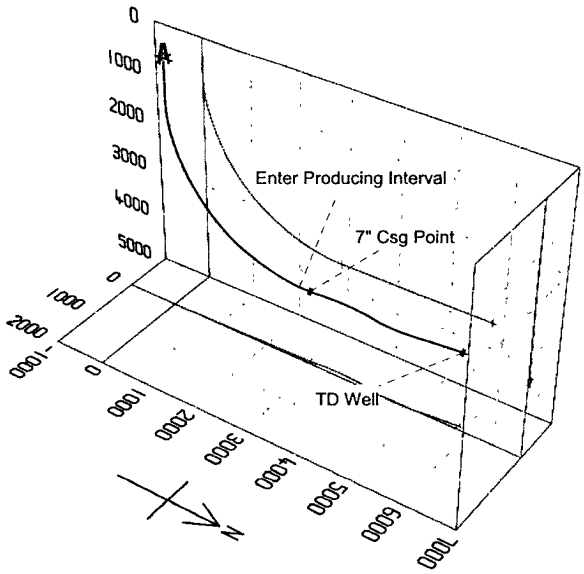
Project: NW Sec 28, T32N, R6W
Site: Eul Canyon
Well: Quintana Mesa #100R
Wellbore: Final Survey
Plan: EOW Report (Quintana Mesa #100R/Final Survey)

PROJECT DETAILS: NW Sec 28, T32N, R6W	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Central Zone
System Datum:	Mean Sea Level









Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Project	NW Sec 28, T32N, R6W		
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:**	2,162,901.37 ft	**Latitude:**	36° 56' 19.212 N
From:	Lat/Long	**Easting:**	1,312,248.39 ft	**Longitude:**	107° 22' 22.548 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	-0.67 °

Well	Quintana Mesa #100R					
Well Position	**+N/-S**	0.0 ft	**Northing:**	2,162,901.37 ft	**Latitude:**	36° 56' 19.212 N
	+E/-W	0.0 ft	**Easting:**	1,312,248.39 ft	**Longitude:**	107° 22' 22.548 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	6,820.0 ft	**Ground Level:**	6,820.0 ft

Wellbore	Final Survey			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	10/20/2008	10.06	63.78	51,187

Design	EOW Report				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0 0	0.0	0.0	359.26	

Survey Tool Program		**Date** 10/20/2008		
From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.0	8,088.0	EOW Report (Final Survey)		

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
0.0	0.0	0.00	0 00	0.0	-1,955.0	1,120.0
100.0	100.0	0.00	0.00	0.0	-1,955.0	1,120.0
200.0	200.0	0.00	0.00	0.0	-1,955.0	1,120.0
241.0	241.0	0.00	0.00	0.0	-1,955.0	1,120.0
299.0	299.0	0.71	209.55	-0.3	-1,955.3	1,119.8
300.0	300.0	0.71	209.42	-0.3	-1,955.3	1,119.8
400.0	400.0	0.53	191.65	-1.3	-1,956.3	1,119.4
421.0	421.0	0.50	186.44	-1.5	-1,956.5	1,119.4
451.0	451.0	0.31	190.34	-1.7	-1,956.7	1,119.4
482.0	482.0	0.35	219.25	-1.9	-1,956.9	1,119.3
500 0	500.0	0.38	198 95	-2.0	-1,957.0	1,119.2
513.0	513.0	0.43	187.18	-2.0	-1,957.1	1,119 2

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832 0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
544.0	544.0	0.25	183.08	-2.2	-1,957.2	1,119.2
574.0	574.0	0.44	169.27	-2.4	-1,957.4	1,119.2
606.0	606.0	0.41	160.77	-2.6	-1,957.6	1,119.3
643.0	643.0	0.35	150.81	-2.9	-1,957.9	1,119.4
673.0	673.0	0.21	68.43	-2.9	-1,957.9	1,119.5
704.0	704.0	0.61	18.67	-2.7	-1,957.8	1,119.6
735.0	735.0	1.02	5.30	-2.3	-1,957.3	1,119.7
766.0	766.0	1.42	3.19	-1.7	-1,956.7	1,119.7
796.0	796.0	1.81	1.30	-0.8	-1,955.8	1,119.7
800.0	800.0	1.86	1.22	-0.7	-1,955.7	1,119.7
826.0	825 9	2.22	0.81	0.2	-1,954.8	1,119.7
857.0	856.9	2.98	1.04	1.6	-1,953.4	1,119.8
888.0	887.9	3.81	0.38	3.5	-1,951.5	1,119.8
900.0	899.8	4.19	359.93	4.3	-1,950.7	1,119.8
918.0	917 8	4.76	359.39	5.7	-1,949.3	1,119.8
949.0	948.6	5.53	1.43	8.5	-1,946.5	1,119.8
979.0	978.5	6 44	1.56	11.6	-1,943.4	1,119.9
1,000.0	999.3	6.98	1.82	14.1	-1,940.9	1,120.0
1,010.0	1,009.3	7.23	1.93	15.3	-1,939.7	1,120.0
1,040.0	1,039.0	8.44	2.63	19.4	-1,935.6	1,120.2
1,070.0	1,068.6	9.81	2 90	24 1	-1,930.8	1,120.4
1,101.0	1,099.1	10.58	3.69	29.6	-1,925.4	1,120.7
1,131.0	1,128.6	11.30	2.90	35.3	-1,919.7	1,121.0
1,162.0	1,158.9	11.86	2.48	41.5	-1,913.5	1,121.3
1,191.0	1,187.3	12.41	2.59	47.6	-1,907.4	1,121.6
1,200.0	1,196.1	12.59	2.53	49.5	-1,905.4	1,121.7
1,220.0	1,215.6	12.98	2.40	54.0	-1,901.0	1,121.9
1,251.0	1,245.8	13.54	2.36	61.1	-1,893.9	1,122.2
1,282.0	1,275.8	14.21	2.08	68.5	-1,886.5	1,122.5
1,300.0	1,293.3	14.57	1.85	73.0	-1,882.0	1,122.6
1,312.0	1,304.9	14.81	1.71	76.0	-1,879.0	1,122.7
1,343.0	1,334.8	15.46	1.44	84.1	-1,870.9	1,122.9
1,374.0	1,364.6	16.17	0.40	92.5	-1,862.4	1,123.1
1,400.0	1,389.6	16.64	0.38	99.9	-1,855.1	1,123.1
1,436.0	1,424.0	17.30	0.35	110.4	-1,844.6	1,123.2
1,467.0	1,453.6	17.97	1 36	119.8	-1,835.2	1,123.3
1,498.0	1,483.0	18.51	0.06	129.5	-1,825.5	1,123.4
1,500.0	1,484.9	18.54	0.12	130.1	-1,824.8	1,123.4
1,529.0	1,512.4	18.97	0.94	139.4	-1,815.5	1,123.5
1,561 0	1,542.6	19.41	1.22	149.9	-1,805.0	1,123.7
1,592.0	1,571.8	20.10	0.92	160.4	-1,794.5	1,123.9
1,600.0	1,579.3	20.25	0.91	163.2	-1,791.8	1,124.0
1,623.0	1,600.8	20.67	0.89	171.2	-1,783.7	1,124.1
1,654.0	1,629.8	21.31	0.57	182.3	-1,772.6	1,124.2

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
1,684.0	1,657.6	21.91	0.86	193.3	-1,761.6	1,124.4
1,700.0	1,672.5	22.25	0.94	199.4	-1,755.6	1,124.5
1,716.0	1,687.3	22.60	1.02	205.5	-1,749.5	1,124.6
1,747.0	1,715.8	22.93	0.53	217.4	-1,737.5	1,124.7
1,778.0	1,744.4	23.09	359.69	229.6	-1,725.4	1,124.8
1,807.0	1,771.0	23.20	359.13	241.0	-1,714.0	1,124.6
1,838.0	1,799.5	23.76	358.91	253.3	-1,701.6	1,124.4
1,869.0	1,827.8	24.53	359 19	266.0	-1,688.9	1,124.2
1,900.0	1,855.9	25.19	358.98	279.0	-1,675.9	1,124.0
1,931.0	1,883.9	25.66	358.92	292.3	-1,662 6	1,123.8
1,961 0	1,910.9	26.25	358.98	305.5	-1,649.5	1,123.5
1,992.0	1,938.6	26.90	358.81	319.3	-1,635.6	1,123.3
2,000.0	1,945.7	27.03	358.72	323.0	-1,632.0	1,123.2
2,022.0	1,965.3	27.39	358.47	333.0	-1,621.9	1,122.9
2,053.0	1,992.7	28.03	358.35	347.4	-1,607.5	1,122.5
2,085.0	2,020.9	28.66	357.94	362.6	-1,592.3	1,122.0
2,100.0	2,034.0	28.93	358.03	369.8	-1,585.1	1,121.8
2,116.0	2,048.0	29.21	358.12	377.6	-1,577.3	1,121.5
2,147.0	2,075.0	29.87	357.67	392.9	-1,562.1	1,121.0
2,177.0	2,101.0	30.33	357.41	407.9	-1,547.0	1,120.3
2,207.0	2,126.8	30.60	357.78	423.1	-1,531.8	1,119.7
2,237.0	2,152.6	31.11	357.47	438.5	-1,516.5	1,119.0
2,267.0	2,178.2	31.41	357.16	454.1	-1,500.9	1,118.3
2,298.0	2,204.6	31.87	357.29	470.3	-1,484.7	1,117.5
2,300.0	2,206.3	31.90	357.28	471.4	-1,483.6	1,117.5
2,329.0	2,230.9	32.35	357.13	486.8	-1,468.2	1,116.7
2,360.0	2,257.0	32.93	357.27	503.5	-1,451.5	1,115.9
2,392.0	2,283.7	33.46	357.63	521.0	-1,434.0	1,115.1
2,400.0	2,290.4	33.59	357.68	525.4	-1,429.6	1,114.9
2,422.0	2,308.7	33.96	357.81	537.7	-1,417.4	1,114.5
2,453.0	2,334.3	34.57	357.01	555.1	-1,399.9	1,113.7
2,483.0	2,359.0	35.02	357.41	572.2	-1,382.8	1,112.8
2,500.0	2,372.8	35.40	357.64	582.0	-1,373.0	1,112.4
2,514.0	2,384.2	35.72	357.83	590.1	-1,364.9	1,112.1
2,546.0	2,410.1	36.45	357.95	609.0	-1,346.1	1,111.4
2,577.0	2,434.9	37.20	357.88	627.6	-1,327.5	1,110 7
2,608 0	2,459.5	37.78	358.00	646.4	-1,308.6	1,110.1
2,639.0	2,483 9	38.49	358.18	665.6	-1,289.5	1,109.4
2,670.0	2,508.0	39.17	358.50	685.0	-1,270.1	1,108.9
2,701.0	2,531.9	39.96	358.77	704.7	-1,250.3	1,108.4
2,732.0	2,555.6	40.40	358.79	724.7	-1,230.3	1,108.0
2,761.0	2,577.6	40.92	358.81	743.6	-1,211.5	1,107.6
2,793.0	2,601 7	41.39	358.85	764.7	-1,190.4	1,107.1
2,800.0	2,607.0	41.55	358.83	769.3	-1,185.8	1,107.0

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
2,824.0	2,624.8	42.08	358.77	785.3	-1,169.8	1,106.7
2,855.0	2,647.8	42.62	359.02	806.2	-1,148.9	1,106.3
2,889.0	2,672.6	43.41	359.23	829.4	-1,125.7	1,105.9
2,900.0	2,680.6	43.82	359.14	837.0	-1,118.1	1,105.8
2,920.0	2,694.9	44.56	358.99	850.9	-1,104 2	1,105.6
2,951.0	2,717.0	44.84	359.05	872.7	-1,082.4	1,105.2
2,981.0	2,738.1	45.50	358.15	894.0	-1,061.1	1,104.7
3,000.0	2,751.4	45.97	357.64	907.6	-1,047.5	1,104 2
3,012.0	2,759.7	46.26	357.33	916.3	-1,038.9	1,103.8
3,043.0	2,780.9	47.34	357.17	938.8	-1,016.3	1,102.8
3,073.0	2,801.0	48.59	357.65	961.1	-994.0	1,101.7
3,103.0	2,820.6	49.58	358.90	983.8	-971.4	1,101.1
3,134.0	2,840.7	49.83	359.06	1,007.4	-947.7	1,100.6
3,163.0	2,859.4	49.66	358.32	1,029.6	-925.6	1,100.1
3,194.0	2,879.3	50.64	357.67	1,053.4	-901.8	1,099.3
3,200.0	2,883.1	50.93	357.61	1,058.0	-897.2	1,099.1
3,225.0	2,898.6	52.12	357.39	1,077.6	-877.6	1,098.3
3,256.0	2,917.5	52.95	357.99	1,102.2	-853.0	1,097.3
3,287.0	2,936.0	53.81	358.44	1,127.0	-828.2	1,096.5
3,300.0	2,943.6	54.35	358.83	1,137.6	-817.7	1,096.2
3,318.0	2,954.0	55.10	359.35	1,152.3	-803.0	1,096.0
3,350.0	2,972.1	55.98	0.95	1,178.6	-776.6	1,096.1
3,381.0	2,989.4	56.18	1.65	1,204.3	-750.9	1,096 7
3,400.0	3,000.0	56.43	1.79	1,220.1	-735.1	1,097.1
3,412.0	3,006.6	56.58	1.87	1,230.1	-725.1	1,097.5
3,441.0	3,022.4	57.15	1.61	1,254.4	-700.8	1,098.2
3,472.0	3,039.0	58.33	0 63	1,280.6	-674.6	1,098.7
3,503.0	3,054.9	59.77	0.50	1,307.2	-648.0	1,099.0
3,533.0	3,070.0	59.79	0.23	1,333.1	-622.1	1,099.1
3,564.0	3,085.6	59.97	0.36	1,359.9	-595.3	1,099.3
3,595 0	3,101.1	59.90	0.36	1,386.7	-568.4	1,099.4
3,600.0	3,103.6	59.82	0.31	1,391.0	-564.1	1,099.5
3,624.0	3,115.8	59.42	0.04	1,411.7	-543.4	1,099.5
3,656.0	3,131.8	60.25	359.73	1,439.4	-515.7	1,099.5
3,686.0	3,146.6	61.00	359.46	1,465.6	-489.6	1,099.3
3,700.0	3,153.3	61.25	359.19	1,477.8	-477.3	1,099.1
3,717.0	3,161.4	61.55	358.86	1,492.7	-462.4	1,098 9
3,748.0	3,176.2	61.64	358.53	1,520.0	-435.1	1,098.3
3,779.0	3,190.9	61.83	358.11	1,547.3	-407.9	1,097 5
3,800.0	3,200.7	62.38	357.87	1,565.9	-389.3	1,096.8
3,810.0	3,205.3	62.64	357.76	1,574.7	-380.4	1,096.5
3,841.0	3,219.3	63.86	357.89	1,602.4	-352.8	1,095.4
3,872.0	3,232.9	63.96	358.03	1,630.2	-325.0	1,094.4
3,904.0	3,246.8	64.72	357.97	1,659.1	-296.1	1,093.4
3,934.0	3,259.4	65.56	357.62	1,686.3	-268.9	1,092.4

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
3,965.0	3,272.1	66.09	356.96	1,714.5	-240.7	1,091.0
3,996.0	3,284.5	66.79	356.53	1,742.9	-212.3	1,089.4
4,000.0	3,286.0	66.80	356.66	1,746.6	-208.6	1,089.2
4,028.0	3,297.0	66.88	357.60	1,772.3	-182.9	1,087.9
4,059.0	3,309.2	66.81	357.99	1,800.8	-154.4	1,086.8
4,088.0	3,320.4	67.73	358.49	1,827.6	-127.7	1,086.0
4,100.0	3,324.9	68.15	358 66	1,838.7	-116.6	1,085.7
4,119.0	3,331.9	68.81	358.93	1,856.4	-98.9	1,085.4
4,150.0	3,342.9	69.72	359.13	1,885.4	-69.9	1,084.9
4,182.0	3,353.8	70.59	358.78	1,915.5	-39.8	1,084.3
4,200.0	3,359.7	70.98	358.50	1,932.5	-22.9	1,083.9
4,213.0	3,363.9	71.26	358.29	1,944.8	-10.6	1,083.6
4,243.0	3,373.3	72.06	358.35	1,973.2	17.9	1,082.7
4,274.0	3,382.7	72.70	358 60	2,002.8	47.4	1,081.9
4,304.0	3,391.4	73.49	358.83	2,031.5	76.1	1,081.3
4,334.0	3,399.8	74.07	359.30	2,060.3	104.9	1,080.8
4,365.0	3,408.3	74.25	359.65	2,090.1	134.8	1,080.6
4,397.0	3,416.7	75.22	359.93	2,121.0	165.6	1,080.4
4,400.0	3,417.5	75.27	359.92	2,123.9	168.5	1,080.4
4,428 0	3,424.5	75.75	359.86	2,151.0	195.6	1,080.4
4,459.0	3,432.0	76.27	359.83	2,181.1	225.7	1,080.3
4,491.0	3,439.3	77.34	359 94	2,212.2	256.9	1,080.3
4,500.0	3,441.2	77.69	359.84	2,221.0	265.7	1,080.2
4,520.0	3,445 3	78 46	359.63	2,240.6	285.2	1,080.1
4,551.0	3,451.3	79.24	359.43	2,271.0	315.6	1,079.9
4,580.0	3,456.7	79.36	359.04	2,299.5	344.1	1,079.5
4,610.0	3,462.4	78.92	358.47	2,328.9	373.6	1,078.9
4,642.0	3,468.6	78.60	357.83	2,360.3	405.0	1,077.9
4,673.0	3,474 8	78.54	357.74	2,390 7	435.3	1,076.7
4,703.0	3,480.6	79.19	357.59	2,420.1	464.7	1,075.5
4,735.0	3,486 5	79.54	358.14	2,451.6	496.2	1,074.3
4,766.0	3,492.1	79.57	358.34	2,482.0	526.6	1,073.4
4,796.0	3,497.4	79.93	358.72	2,511.6	556.2	1,072.6
4,800.0	3,498.1	80.04	358.75	2,515.5	560.1	1,072.5
4,827.0	3,502.6	80.77	358.93	2,542.1	586.7	1,072.0
4,858.0	3,507.2	82.33	359.06	2,572.8	617.4	1,071.5
4,889.0	3,510.7	84.58	359.21	2,603.6	648.2	1,071.0
4,900.0	3,511.7	85.19	359 18	2,614.5	659.1	1,070.8
4,920.0	3,513.2	86.31	359.12	2,634 5	679.1	1,070.5
4,936.0	3,514.2	86.41	358 99	2,650.4	695.0	1,070.3
Enter Producing Interval – Fruitland Coal						
4,951.0	3,515.1	86.51	358 86	2,665.4	710.0	1,070.0
4,982.0	3,516.9	86.75	358.77	2,696.4	740.9	1,069.4
5,000.0	3,517.9	86.97	358.84	2,714.3	758.9	1,069.0

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
5,013.0	3,518.6	87.13	358.89	2,727.3	771.9	1,068.7
5,045.0	3,520.1	87.51	358.52	2,759.3	803.8	1,068.0
5,075.0	3,521.3	87.93	358.53	2,789.2	833.8	1,067 2
5,106.0	3,522.0	89.51	358.50	2,820.2	864.8	1,066.4
5,151.0	3,522.2	89.80	357.21	2,865.2	909.7	1,064.7 7" Csg Point
5,204.0	3,522.3	90.14	355.70	2,918.2	962.6	1,061.5
5,236.0	3,522.1	90.55	354.48	2,950.1	994.5	1,058.7
5,268.0	3,522.0	89.83	353.85	2,981.9	1,026.4	1,055.5
5,300.0	3,521.9	90.24	353.65	3,013.8	1,058.2	1,052.0
5,331.0	3,521.9	90.03	353.20	3,044.6	1,089.0	1,048 4
5,350.0	3,521.7	90.98	354.08	3,063.5	1,107.8	1,046.3
5,362.0	3,521.4	91.58	354.64	3,075.5	1,119.8	1,045.2
5,394.0	3,520.4	92.09	355.98	3,107.4	1,151.7	1,042.5
5,400 0	3,520.2	91.88	356.15	3,113.4	1,157.6	1,042.1
5,426.0	3,519.6	90.96	356.87	3,139.4	1,183.6	1,040.5
5,458.0	3,519.0	90.99	357.50	3,171.3	1,215.5	1,039.0
5,490.0	3,518.7	90.27	357.30	3,203.3	1,247.5	1,037.5
5,500.0	3,518.6	90.08	357.21	3,213.3	1,257.5	1,037.0
5,521.0	3,518.7	89 69	357.01	3,234.3	1,278.5	1,036.0
5,584.0	3,518.4	90.83	357.56	3,297 2	1,341.4	1,033.0
5,600.0	3,518.2	90.86	357.86	3,313.2	1,357.4	1,032.4
5,647 0	3,517.4	90.96	358.74	3,360.2	1,404.4	1,031.0
5,710.0	3,515.9	91.72	0.47	3,423.2	1,467.3	1,030.5
5,774.0	3,514.6	90.59	0.95	3,487.2	1,531.3	1,031.3
5,800.0	3,514.3	90.78	1.38	3,513.2	1,557.3	1,031.9
5,838.0	3,513.7	91.06	2.01	3,551.1	1,595.3	1,033.0
5,902.0	3,512.4	91.27	3.24	3,615.0	1,659 2	1,035.9
5,965.0	3,511.2	91.00	3 76	3,677.8	1,722.1	1,039.8
6,000 0	3,510.6	90.93	3.77	3,712.7	1,757.0	1,042.1
6,026.0	3,510.2	90.87	3.77	3,738.6	1,782.9	1,043.8
6,088.0	3,509.8	89.87	3.01	3,800.4	1,844.8	1,047.4
6,100.0	3,509.8	90.27	3.63	3,812.4	1,856.8	1,048.1
6,149.0	3,508.8	91.90	6.16	3,861.2	1,905.6	1,052.3
6,200 0	3,507.2	91.85	8.97	3,911.6	1,956.1	1,059.0
6,211.0	3,506 8	91.84	9.58	3,922.4	1,967.0	1,060.8
6,273.0	3,505.1	91.28	11.54	3,983.2	2,027.9	1,072.1
6,300.0	3,504.8	90.27	10.36	4,009.6	2,054.4	1,077.3
6,334.0	3,505.0	89.00	8.88	4,043.1	2,087.9	1,083.0
6,396.0	3,505.9	89.38	9.59	4,104.1	2,149.1	1,092.9
6,400.0	3,505.9	89.34	9.55	4,108.1	2,153.1	1,093.6
6,457.0	3,506.8	88 76	9.03	4,164.2	2,209.3	1,102.8
6,500.0	3,507.7	88.88	9.40	4,206.5	2,251.7	1,109.7
6,519.0	3,508.1	88.94	9.56	4,225.2	2,270.5	1,112.8
6,580.0	3,508 8	89.81	8.36	4,285 3	2,330 7	1,122.3

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
6,600.0	3,508.8	90.14	7 42	4,305.1	2,350.5	1,125.0
6,640.0	3,508.4	90.81	5.55	4,344.8	2,390.3	1,129.5
6,702 0	3,506.5	92.73	3.61	4,406.5	2,452.1	1,134.5
6,764.0	3,504.0	91.88	2.36	4,468.3	2,513.9	1,137.7
6,800.0	3,503.0	91.40	1.56	4,504.3	2,549.9	1,139.0
6,824.0	3,502.5	91.08	1.02	4,528.2	2,573.9	1,139.5
6,886.0	3,501.4	90.88	359.91	4,590.2	2,635.9	1,140.0
6,900.0	3,501 2	91.08	359.99	4,604.2	2,649.9	1,140.0
6,947.0	3,500.0	91.76	0.24	4,651.2	2,696.8	1,140.1
7,009.0	3,498.4	91.22	359.95	4,713.2	2,758.8	1,140.2
7,070.0	3,496.9	91.63	358.30	4,774.1	2,819.8	1,139.2
7,100.0	3,496.1	91.30	358.19	4,804.1	2,849.8	1,138.3
7,132.0	3,495.5	90.94	358.08	4,836.1	2,881.7	1,137.3
7,193.0	3,494.9	90.15	355.17	4,897.0	2,942.6	1,133.7
7,200.0	3,494.9	90.24	355.00	4,904.0	2,949.6	1,133.1
7,254.0	3,494.3	90.90	353.69	4,957.8	3,003.3	1,127.8
7,300.0	3,493.7	90.64	352.93	5,003.6	3,049.0	1,122.4
7,316.0	3,493.6	90.55	352.67	5,019.5	3,064.9	1,120.4
7,377.0	3,493.0	90.58	352.17	5,080.0	3,125 4	1,112.4
7,400.0	3,492.7	90.59	352 17	5,102.8	3,148.1	1,109.2
7,439.0	3,492.3	90.62	352.17	5,141.5	3,186.8	1,103.9
7,500.0	3,491.1	91.58	352.93	5,202.1	3,247.2	1,096.0
7,562.0	3,489.6	91.24	353.14	5,263.7	3,308.8	1,088.5
7,600.0	3,488.8	91.30	353.51	5,301.5	3,346.5	1,084.1
7,624.0	3,488.2	91.34	353.74	5,325.4	3,370.3	1,081.4
7,687.0	3,486.9	91.10	355.03	5,388.2	3,433.0	1,075.3
7,700.0	3,486.6	91.13	355.13	5,401 1	3,446.0	1,074.1
7,749.0	3,485.6	91.24	355 52	5,450.0	3,494.8	1,070.1
7,800 0	3,484.5	91.26	355.68	5,500.9	3,545.6	1,066.2
7,811.0	3,484.2	91.27	355.72	5,511.9	3,556.6	1,065.4
7,875.0	3,482 8	91.27	355.27	5,575.7	3,620.4	1,060.4
7,900.0	3,482 3	91 21	355.18	5,600.6	3,645.3	1,058.3
7,938.0	3,481.5	91.13	355.05	5,638.5	3,683.2	1,055.1
8,001.0	3,480.5	90.69	355.94	5,701.4	3,746 0	1,050.1
8,032.0	3,480.1	90 89	356.56	5,732.3	3,776.9	1,048 1
8,088.0	3,479.3	90.78	357.23	5,788.3	3,832.8	1,045.1 TD

Energen

Final Survey

Company:	SJ BR	**Local Co-ordinate Reference:**	Well Quintana Mesa #100R
Project:	NW Sec 28, T32N, R6W	**TVD Reference:**	RKB @ 6832.0ft (D&J #2)
Site:	Eul Canyon	**MD Reference:**	RKB @ 6832.0ft (D&J #2)
Well:	Quintana Mesa #100R	**North Reference:**	True
Wellbore:	Final Survey	**Survey Calculation Method:**	Minimum Curvature
Design:	EOW Report	**Database:**	EDM 2003.16 Single User Db

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
TD Well - plan hits target - Point	0.00	0.00	3,479.3	5,787.3	-74.9	2,168,689.15	1,312,241.67	36° 57' 16.433 N	107° 22' 23.471 W
7" Csg Point - plan hits target - Point	0.00	0.00	3,522.0	2,864.7	-55.3	2,165,766.52	1,312,226.84	36° 56' 47.536 N	107° 22' 23.229 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,936.0	3,514.2	Enter Producing Interval	Coal	0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
4,936.0	3,514.2	2,650.0	-49.7	Enter Producing Interval

Checked By: _____ Approved By: _____ Date: _____