

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

Form C-102
Revised October 12, 2005

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

"As Drilled"

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30550	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 37321	⁵ Property Name Carracas Unit 33B	⁶ Well Number # 2
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 7295'

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
D	33	32N	04W		1135	North	1015	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
A	33	32N	04W		891	North	109	East	Rio Arriba

¹² Dedicated Acres 320 5/2 ¹³ Joint or Infill N/A	¹⁴ Consolidation Code	¹⁵ Order No.
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RCVD OCT 31 '08
OIL CON. 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 Signature: Vicki Donaghey Date: 10/30/08 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. Date of Survey: 04/28/2008 Signature and Seal of Professional Surveyer: original survey conducted and recorded by: David Russell Certificate Number: 10001

\$ 11/7

Energen Resources

**Carracas 33 B #2
Carson National Forest
Sec 33, T32N, R4W
EOW Survey**

RCVD OCT 31 '08

OIL CONS. DIV.

DIST. 3

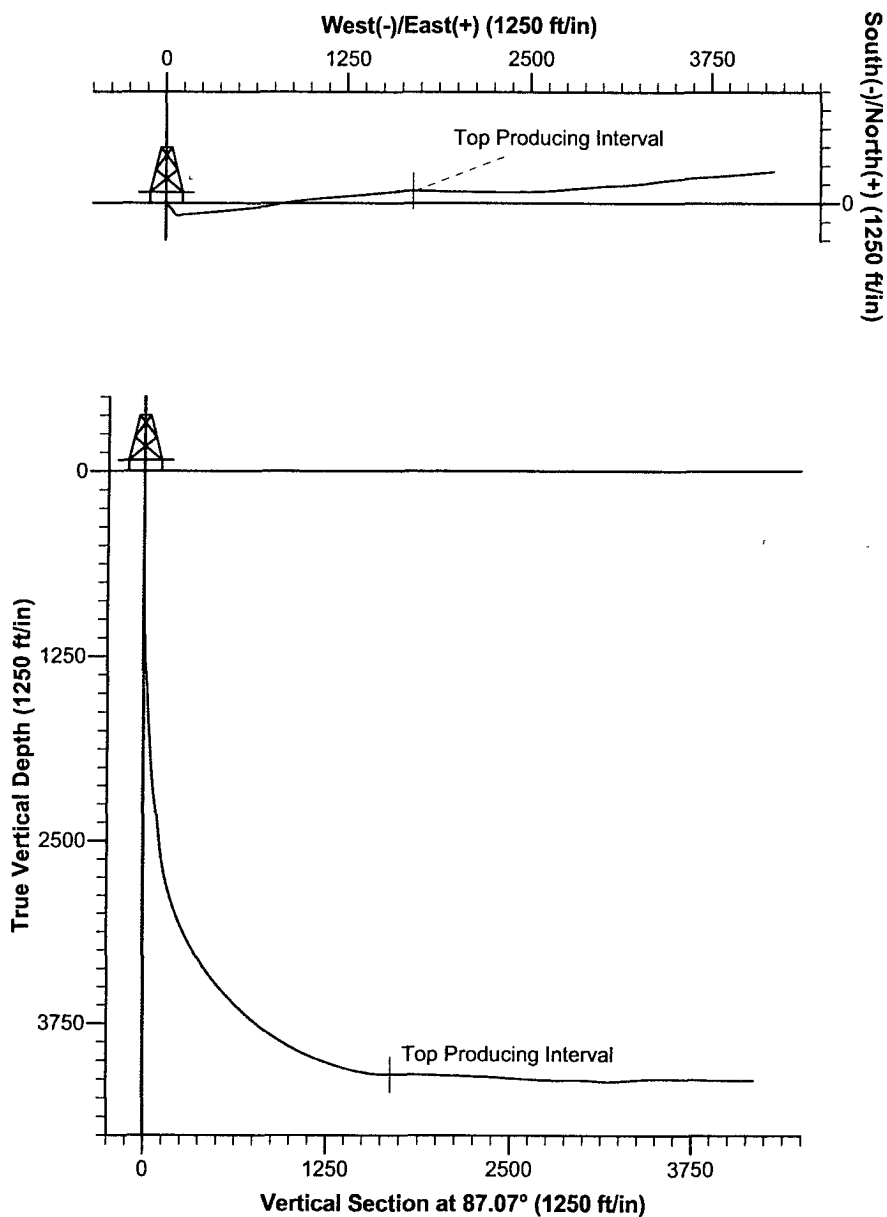
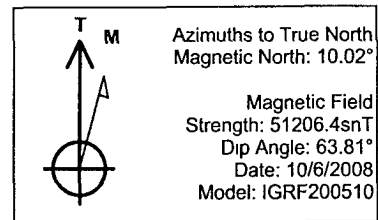
Plan: Final Survey

Final Survey

06 October, 2008

Project: Carracas 33 B #2
Site: Carson National Forest
Well: Sec 33, T32N, R4W
Wellbore: EOW Survey
Plan: Final Survey (Sec 33, T32N, R4W/EOW Survey)

PROJECT DETAILS: Carracas 33 B #2	
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: Energen Resources
Project: Carracas 33 B #2
Site: Carson National Forest
Well: Sec 33, T32N, R4W
Wellbore: EOW Survey
Design: Final Survey

Local Co-ordinate Reference: Well Sec 33, T32N, R4W
TVD Reference: KB @ 7307.0ft (AWS 289)
MD Reference: KB @ 7307.0ft (AWS 289)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project	Carracas 33 B #2		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Carson National Forest				
Site Position:		Northing:	2,165,757.07 ft	Latitude:	36° 56' 50.928 N
From:	Lat/Long	Easting:	1,343,647.04 ft	Longitude:	107° 15' 56.196 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-0.61 °

Well	Sec 33, T32N, R4W					
Well Position	+N/-S	0.0 ft	Northing:	2,165,757.07 ft	Latitude:	36° 56' 50.928 N
	+E/-W	0.0 ft	Easting:	1,343,647.04 ft	Longitude:	107° 15' 56.196 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	7,295.0 ft	Ground Level:	7,295.0 ft	

Wellbore	EOW Survey				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/6/2008	10.02	63.81	51,206

Design	Final Survey				
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	87.07	

Survey Tool Program	Date	10/6/2008			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	7,465.0	Final Survey (EOW Survey)	MWD	MWD - Standard	

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	-1,105.0	1,000.0
100.0	100.0	0.18	144.98	0.1	-1,105.1	1,000.1
200.0	200.0	0.36	144.98	0.3	-1,105.5	1,000.4
300.0	300.0	0.55	144.98	0.8	-1,106.2	1,000.8
400.0	400.0	0.73	144.98	1.3	-1,107.1	1,001.5
484.0	484.0	0.88	144.98	2.0	-1,108.0	1,002.1
500.0	500.0	0.90	145.11	2.1	-1,108.2	1,002.3
600.0	600.0	1.01	145.80	3.0	-1,109.6	1,003.2
700.0	699.9	1.12	146.35	3.9	-1,111.2	1,004.3
800.0	799.9	1.23	146.81	5.0	-1,112.9	1,005.4
900.0	899.9	1.34	147.19	6.1	-1,114.7	1,006.6
964.0	963.9	1.41	147.40	6.9	-1,116.0	1,007.4

Energen

Final Survey

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Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
1,000.0	999.9	1.59	143.59	7.4	-1,116.8	1,008.0
1,100.0	1,099.8	2.10	136.47	9.3	-1,119.3	1,010.0
1,200.0	1,199.7	2.64	132.19	12.1	-1,122.1	1,013.0
1,300.0	1,299.6	3.18	129.37	15.8	-1,125.4	1,016.9
1,329.0	1,328.6	3.34	128.72	17.0	-1,126.5	1,018.1
1,400.0	1,399.4	3.76	131.89	20.2	-1,129.3	1,021.5
1,500.0	1,499.2	4.36	135.32	25.1	-1,134.2	1,026.6
1,600.0	1,598.8	4.97	137.91	30.3	-1,140.1	1,032.2
1,692.0	1,690.5	5.54	139.78	35.5	-1,146.5	1,037.7
1,700.0	1,698.4	5.58	140.10	36.0	-1,147.1	1,038.2
1,800.0	1,797.9	6.08	143.75	41.8	-1,155.1	1,044.5
1,900.0	1,897.3	6.60	146.84	47.6	-1,164.1	1,050.7
1,933.0	1,930.1	6.77	147.75	49.6	-1,167.4	1,052.8
1,997.0	1,993.6	7.12	148.55	53.3	-1,173.9	1,056.9
2,000.0	1,996.6	7.08	148.45	53.5	-1,174.3	1,057.1
2,028.0	2,024.4	6.68	147.49	55.1	-1,177.1	1,058.9
2,057.0	2,053.2	6.33	141.52	56.9	-1,179.8	1,060.8
2,087.0	2,083.0	6.51	133.02	59.0	-1,182.2	1,063.0
2,100.0	2,095.9	6.59	128.40	60.1	-1,183.2	1,064.2
2,119.0	2,114.8	6.77	121.90	61.8	-1,184.5	1,066.0
2,151.0	2,146.5	7.30	114.02	65.2	-1,186.3	1,069.4
2,181.0	2,176.3	7.65	103.73	68.8	-1,187.5	1,073.1
2,200.0	2,195.1	7.84	100.90	71.3	-1,188.1	1,075.6
2,214.0	2,209.0	8.00	98.91	73.1	-1,188.4	1,077.5
2,244.0	2,238.7	8.35	96.56	77.3	-1,189.0	1,081.7
2,275.0	2,269.4	7.83	93.42	81.7	-1,189.4	1,086.1
2,306.0	2,300.1	7.56	92.15	85.8	-1,189.6	1,090.2
2,336.0	2,329.9	6.86	86.83	89.5	-1,189.5	1,094.0
2,367.0	2,360.6	6.60	81.73	93.2	-1,189.2	1,097.6
2,398.0	2,391.5	5.98	68.85	96.5	-1,188.4	1,100.9
2,400.0	2,393.4	5.98	68.47	96.7	-1,188.3	1,101.1
2,429.0	2,422.3	5.98	62.90	99.5	-1,187.0	1,103.8
2,461.0	2,454.1	5.80	61.57	102.5	-1,185.5	1,106.7
2,492.0	2,485.0	5.98	68.48	105.4	-1,184.2	1,109.6
2,500.0	2,492.9	6.01	70.85	106.2	-1,183.9	1,110.4
2,524.0	2,516.8	6.16	77.78	108.7	-1,183.2	1,112.8
2,554.0	2,546.6	6.95	83.66	112.1	-1,182.6	1,116.2
2,584.0	2,576.3	7.21	86.43	115.8	-1,182.3	1,119.9
2,600.0	2,592.2	7.65	86.82	117.8	-1,182.2	1,121.9
2,616.0	2,608.1	8.09	87.17	120.0	-1,182.1	1,124.1
2,648.0	2,639.7	9.06	88.03	124.8	-1,181.9	1,128.9
2,679.0	2,670.3	10.02	87.73	129.9	-1,181.7	1,134.0
2,700.0	2,690.9	10.56	87.24	133.7	-1,181.5	1,137.8
2,710.0	2,700.8	10.82	87.02	135.5	-1,181.4	1,139.6

Energen

Final Survey

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MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
2,742.0	2,732.1	11.70	86.47	141.8	-1,181.1	1,145.9
2,774.0	2,763.4	12.66	86.42	148.5	-1,180.7	1,152.6
2,805.0	2,793.6	13.89	86.14	155.7	-1,180.2	1,159.7
2,836.0	2,823.6	14.77	85.82	163.3	-1,179.7	1,167.4
2,868.0	2,854.5	15.56	85.20	171.7	-1,179.0	1,175.7
2,900.0	2,885.3	16.44	84.77	180.5	-1,178.2	1,184.5
2,932.0	2,915.9	17.59	85.07	189.9	-1,177.4	1,193.8
2,963.0	2,945.3	18.73	84.48	199.5	-1,176.5	1,203.4
2,994.0	2,974.6	19.96	84.29	209.8	-1,175.5	1,213.7
3,000.0	2,980.2	20.18	84.30	211.8	-1,175.3	1,215.7
3,025.0	3,003.6	21.10	84.36	220.6	-1,174.5	1,224.5
3,056.0	3,032.5	21.81	84.86	232.0	-1,173.4	1,235.8
3,087.0	3,061.2	22.51	85.06	243.7	-1,172.4	1,247.4
3,100.0	3,073.2	22.90	84.99	248.7	-1,171.9	1,252.4
3,119.0	3,090.6	23.48	84.90	256.2	-1,171.3	1,259.9
3,151.0	3,119.8	24.71	83.39	269.2	-1,169.9	1,272.9
3,182.0	3,147.9	26.03	83.41	282.5	-1,168.4	1,286.1
3,200.0	3,164.0	26.67	83.86	290.4	-1,167.5	1,294.0
3,214.0	3,176.5	27.17	84.20	296.8	-1,166.9	1,300.3
3,245.0	3,203.9	28.23	84.97	311.2	-1,165.5	1,314.7
3,277.0	3,232.0	29.02	85.60	326.5	-1,164.2	1,329.9
3,308.0	3,258.9	30.25	86.19	341.8	-1,163.1	1,345.2
3,338.0	3,284.8	30.95	86.08	357.1	-1,162.1	1,360.5
3,370.0	3,312.1	31.92	85.76	373.8	-1,160.9	1,377.1
3,401.0	3,338.3	32.62	85.15	390.3	-1,159.6	1,393.6
3,431.0	3,363.4	33.59	85.01	406.7	-1,158.2	1,409.9
3,463.0	3,389.9	34.91	84.49	424.7	-1,156.6	1,427.9
3,494.0	3,415.0	36.67	84.33	442.8	-1,154.8	1,445.9
3,500.0	3,419.8	36.90	84.26	446.4	-1,154.4	1,449.5
3,526.0	3,440.5	37.90	83.94	462.1	-1,152.8	1,465.2
3,557.0	3,464.8	38.87	84.14	481.4	-1,150.8	1,484.3
3,589.0	3,489.5	39.83	83.89	501.6	-1,148.7	1,504.5
3,600.0	3,497.9	40.21	83.77	508.7	-1,147.9	1,511.5
3,620.0	3,513.1	40.89	83.57	521.7	-1,146.5	1,524.5
3,652.0	3,537.0	42.38	83.26	542.9	-1,144.1	1,545.6
3,682.0	3,559.0	43.53	83.04	563.3	-1,141.6	1,565.9
3,700.0	3,572.0	44.24	83.06	575.7	-1,140.1	1,578.3
3,713.0	3,581.3	44.76	83.07	584.8	-1,139.0	1,587.3
3,745.0	3,603.8	45.64	83.00	607.5	-1,136.3	1,609.8
3,777.0	3,626.0	46.34	83.05	630.4	-1,133.5	1,632.7
3,809.0	3,648.0	46.87	82.64	653.6	-1,130.6	1,655.8
3,839.0	3,668.4	47.48	83.40	675.6	-1,127.9	1,677.6
3,871.0	3,689.8	48.45	82.61	699.3	-1,125.0	1,701.2
3,902.0	3,710.1	49.68	80.60	722.6	-1,121.6	1,724.4

Energen

Final Survey

Company: Energen Resources
Project: Carracas 33 B #2
Site: Carson National Forest
Well: Sec 33, T32N, R4W
Wellbore: EOW Survey
Design: Final Survey

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3,932.0	3,729.4	50.39	79.94	745.4	-1,117.7	1,747.0
3,963.0	3,749.1	50.83	79.45	769.2	-1,113.4	1,770.6
3,995.0	3,769.1	51.97	79.67	794.0	-1,108.9	1,795.2
4,000.0	3,772.1	52.12	79.68	797.9	-1,108.2	1,799.1
4,025.0	3,787.4	52.85	79.74	817.5	-1,104.6	1,818.6
4,055.0	3,805.2	54.17	80.65	841.5	-1,100.5	1,842.3
4,087.0	3,823.6	55.40	81.19	867.5	-1,096.4	1,868.2
4,100.0	3,831.0	56.08	81.56	878.2	-1,094.8	1,878.8
4,119.0	3,841.4	57.07	82.08	893.9	-1,092.5	1,894.5
4,150.0	3,858.0	58.39	82.84	920.1	-1,089.1	1,920.5
4,180.0	3,873.5	59.27	83.30	945.7	-1,086.0	1,945.9
4,200.0	3,883.7	59.72	83.58	962.9	-1,084.0	1,963.1
4,211.0	3,889.2	59.97	83.73	972.4	-1,083.0	1,972.5
4,240.0	3,903.5	60.85	84.23	997.5	-1,080.3	1,997.6
4,272.0	3,918.8	62.17	84.54	1,025.6	-1,077.6	2,025.6
4,302.0	3,932.4	63.84	84.70	1,052.3	-1,075.1	2,052.2
4,333.0	3,945.8	65.07	85.03	1,080.3	-1,072.6	2,080.1
4,364.0	3,958.6	65.86	85.40	1,108.5	-1,070.2	2,108.2
4,395.0	3,970.9	67.44	86.12	1,136.9	-1,068.1	2,136.5
4,400.0	3,972.8	67.57	86.03	1,141.6	-1,067.8	2,141.1
4,426.0	3,982.6	68.24	85.59	1,165.6	-1,066.0	2,165.2
4,457.0	3,993.8	69.56	85.66	1,194.6	-1,063.8	2,194.0
4,488.0	4,004.5	70.08	85.42	1,223.6	-1,061.6	2,223.0
4,500.0	4,008.5	70.43	85.47	1,234.9	-1,060.7	2,234.3
4,518.0	4,014.5	70.96	85.55	1,251.9	-1,059.3	2,251.2
4,549.0	4,024.4	71.84	85.41	1,281.3	-1,057.0	2,280.5
4,581.0	4,034.0	73.07	85.35	1,311.8	-1,054.6	2,310.9
4,600.0	4,039.5	73.50	84.96	1,330.0	-1,053.0	2,329.0
4,612.0	4,042.8	73.78	84.72	1,341.5	-1,052.0	2,340.5
4,643.0	4,051.4	74.04	84.43	1,371.2	-1,049.2	2,370.2
4,675.0	4,060.0	74.74	84.25	1,402.0	-1,046.1	2,400.8
4,698.0	4,065.9	75.71	84.33	1,424.2	-1,043.9	2,423.0
4,700.0	4,066.4	75.82	84.33	1,426.2	-1,043.7	2,424.9
4,729.0	4,073.1	77.38	84.39	1,454.3	-1,041.0	2,453.0
4,750.0	4,077.4	78.88	84.82	1,474.9	-1,039.0	2,473.4
4,761.0	4,079.5	79.67	85.04	1,485.7	-1,038.1	2,484.2
4,790.0	4,084.5	80.46	85.25	1,514.2	-1,035.7	2,512.7
4,800.0	4,086.1	80.83	85.18	1,524.1	-1,034.8	2,522.5
4,821.0	4,089.3	81.60	85.02	1,544.8	-1,033.1	2,543.2
4,851.0	4,092.9	84.86	85.11	1,574.6	-1,030.5	2,572.8
4,882.0	4,095.1	86.79	85.11	1,605.5	-1,027.9	2,603.6
4,900.0	4,096.0	87.32	85.20	1,623.5	-1,026.4	2,621.6
4,912.0	4,096.6	87.67	85.26	1,635.4	-1,025.4	2,633.5
4,950.0	4,097.4	89.68	87.21	1,673.4	-1,022.9	2,671.4

Energen

Final Survey

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Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
4,980.0	4,097.2	91.27	88.74	1,703.4	-1,021.8	2,701.4
Top Producing Interval						
5,002.0	4,096.5	92.51	89.84	1,725.4	-1,021.5	2,723.4
5,032.0	4,095.6	90.92	91.48	1,755.3	-1,021.9	2,753.4
5,050.0	4,095.5	89.64	91.63	1,773.3	-1,022.4	2,771.3
5,063.0	4,095.7	88.72	91.74	1,786.2	-1,022.7	2,784.4
5,094.0	4,096.5	88.20	92.14	1,817.1	-1,023.8	2,815.3
5,100.0	4,096.7	88.15	92.12	1,823.1	-1,024.0	2,821.3
5,125.0	4,097.6	87.93	92.05	1,848.0	-1,024.9	2,846.3
5,155.0	4,098.5	88.64	91.78	1,877.8	-1,025.9	2,876.3
5,186.0	4,099.3	88.37	91.67	1,908.7	-1,026.9	2,907.2
5,200.0	4,099.6	88.69	91.62	1,922.7	-1,027.3	2,921.2
5,217.0	4,100.0	89.08	91.56	1,939.6	-1,027.7	2,938.2
5,248.0	4,100.5	88.72	90.48	1,970.5	-1,028.3	2,969.2
5,278.0	4,101.3	88.46	90.62	2,000.5	-1,028.6	2,999.2
5,309.0	4,102.1	88.46	90.73	2,031.4	-1,028.9	3,030.2
5,339.0	4,102.9	88.37	90.47	2,061.3	-1,029.3	3,060.2
5,369.0	4,103.8	88.37	90.03	2,091.3	-1,029.4	3,090.2
5,400.0	4,104.8	87.93	90.65	2,122.2	-1,029.6	3,121.1
5,430.0	4,105.8	88.11	90.59	2,152.1	-1,029.9	3,151.1
5,460.0	4,106.7	88.72	90.60	2,182.1	-1,030.2	3,181.1
5,490.0	4,107.4	88.64	90.58	2,212.0	-1,030.5	3,211.1
5,500.0	4,107.6	88.41	90.31	2,222.0	-1,030.6	3,221.1
5,521.0	4,108.3	87.93	89.74	2,243.0	-1,030.6	3,242.1
5,551.0	4,109.4	87.93	90.47	2,272.9	-1,030.7	3,272.1
5,582.0	4,110.4	88.11	91.04	2,303.8	-1,031.1	3,303.0
5,600.0	4,111.1	88.00	91.32	2,321.7	-1,031.4	3,321.0
5,612.0	4,111.5	87.93	91.51	2,333.7	-1,031.7	3,333.0
5,643.0	4,112.8	87.23	90.76	2,364.6	-1,032.3	3,364.0
5,675.0	4,114.6	86.17	89.64	2,396.5	-1,032.5	3,395.9
5,706.0	4,116.7	86.09	89.11	2,427.4	-1,032.1	3,426.8
5,738.0	4,118.9	86.17	88.24	2,459.3	-1,031.4	3,458.8
5,770.0	4,120.9	86.61	88.34	2,491.2	-1,030.4	3,490.7
5,801.0	4,122.8	86.26	88.23	2,522.2	-1,029.5	3,521.6
5,833.0	4,124.7	86.97	87.27	2,554.1	-1,028.2	3,553.5
5,865.0	4,126.4	86.88	86.83	2,586.1	-1,026.6	3,585.4
5,897.0	4,128.2	86.61	86.59	2,618.0	-1,024.8	3,617.3
5,900.0	4,128.4	86.66	86.50	2,621.0	-1,024.6	3,620.3
5,928.0	4,129.9	87.14	85.69	2,649.0	-1,022.7	3,648.2
5,960.0	4,131.5	87.41	85.47	2,680.9	-1,020.2	3,680.1
5,992.0	4,132.9	87.41	85.18	2,712.9	-1,017.6	3,712.0
6,000.0	4,133.2	87.69	85.31	2,720.8	-1,017.0	3,719.9
6,024.0	4,134.0	88.55	85.70	2,744.8	-1,015.1	3,743.8
6,055.0	4,134.7	89.16	85.43	2,775.8	-1,012.7	3,774.7

Energen

Final Survey

Company: Energen Resources
Project: Carracas 33 B #2
Site: Carson National Forest
Well: Sec 33, T32N, R4W
Wellbore: EOW Survey
Design: Final Survey

Local Co-ordinate Reference: Well Sec 33, T32N, R4W
TVD Reference: KB @ 7307.0ft (AWS 289)
MD Reference: KB @ 7307.0ft (AWS 289)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
6,087.0	4,135.1	89.25	84.89	2,807.8	-1,010.0	3,806.6
6,100.0	4,135.2	89.43	84.83	2,820.8	-1,008.8	3,819.5
6,118.0	4,135.4	89.69	84.74	2,838.8	-1,007.2	3,837.5
6,150.0	4,135.4	90.22	84.62	2,870.8	-1,004.2	3,869.4
6,181.0	4,135.5	89.52	84.54	2,901.7	-1,001.3	3,900.2
6,200.0	4,135.5	90.25	84.18	2,920.7	-999.4	3,919.1
6,213.0	4,135.4	90.75	83.93	2,933.7	-998.1	3,932.0
6,245.0	4,134.9	91.10	85.21	2,965.6	-995.0	3,963.9
6,250.0	4,134.8	90.75	85.34	2,970.6	-994.6	3,968.9
6,276.0	4,134.9	88.90	86.02	2,996.6	-992.7	3,994.8
6,300.0	4,135.7	87.06	86.90	3,020.6	-991.2	4,018.7
6,308.0	4,136.2	86.44	87.20	3,028.6	-990.8	4,026.7
6,340.0	4,138.5	85.30	87.99	3,060.5	-989.4	4,058.6
6,371.0	4,141.1	85.12	87.92	3,091.4	-988.3	4,089.5
6,403.0	4,143.8	85.12	87.65	3,123.3	-987.1	4,121.3
6,435.0	4,145.7	88.02	87.10	3,155.2	-985.6	4,153.2
6,450.0	4,146.1	89.25	86.23	3,170.2	-984.8	4,168.2
6,466.0	4,146.1	90.57	85.29	3,186.2	-983.6	4,184.2
6,498.0	4,145.0	93.47	83.89	3,218.2	-980.6	4,216.0
6,500.0	4,144.8	93.52	83.84	3,220.1	-980.4	4,218.0
6,530.0	4,142.8	94.26	83.05	3,250.0	-976.9	4,247.7
6,562.0	4,140.4	94.35	83.14	3,281.9	-973.1	4,279.4
6,593.0	4,138.2	94.00	82.86	3,312.7	-969.3	4,310.1
6,600.0	4,137.7	94.12	82.64	3,319.6	-968.5	4,317.0
6,625.0	4,135.8	94.53	81.86	3,344.5	-965.1	4,341.7
6,657.0	4,133.0	95.41	82.23	3,376.3	-960.7	4,373.3
6,688.0	4,130.6	93.30	83.42	3,407.1	-956.8	4,404.0
6,700.0	4,130.0	92.61	83.61	3,419.0	-955.5	4,415.8
6,720.0	4,129.3	91.45	83.93	3,439.0	-953.3	4,435.7
6,752.0	4,128.5	91.63	84.01	3,470.9	-949.9	4,467.5
6,784.0	4,127.6	91.36	84.00	3,502.9	-946.6	4,499.4
6,800.0	4,127.3	91.18	84.29	3,518.8	-945.0	4,515.3
6,815.0	4,127.0	91.01	84.57	3,533.8	-943.5	4,530.2
6,847.0	4,126.7	89.96	85.25	3,565.8	-940.7	4,562.1
6,879.0	4,127.0	88.99	85.48	3,597.8	-938.1	4,594.0
6,900.0	4,127.3	89.34	85.64	3,618.8	-936.5	4,614.9
6,911.0	4,127.4	89.52	85.73	3,629.8	-935.6	4,625.9
6,942.0	4,127.7	89.34	86.03	3,660.8	-933.4	4,656.8
6,974.0	4,128.0	89.60	85.49	3,692.8	-931.0	4,688.7
7,006.0	4,128.6	88.29	85.39	3,724.7	-928.5	4,720.6
7,037.0	4,129.6	88.20	86.17	3,755.7	-926.2	4,751.5
7,069.0	4,130.4	88.72	85.85	3,787.7	-924.0	4,783.4
7,101.0	4,131.4	87.93	86.90	3,819.7	-922.0	4,815.3
7,133.0	4,132.3	88.72	87.94	3,851.7	-920.5	4,847.3

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MD Reference: KB @ 7307.0ft (AWS 289)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	+FSL/-FNL (ft)	+FWL/-FEL (ft)
7,164.0	4,132.9	89.08	86.70	3,882.7	-919.1	4,878.2
7,196.0	4,134.0	86.88	84.31	3,914.6	-916.6	4,910.1
7,200.0	4,134.2	87.16	84.31	3,918.6	-916.2	4,914.1
7,227.0	4,135.1	89.08	84.33	3,945.6	-913.5	4,940.9
7,259.0	4,135.6	89.16	84.49	3,977.5	-910.4	4,972.8
7,291.0	4,136.0	89.52	85.14	4,009.5	-907.5	5,004.7
7,300.0	4,136.0	89.88	85.20	4,018.5	-906.7	5,013.6
7,322.0	4,135.9	90.75	85.36	4,040.5	-904.9	5,035.5
7,354.0	4,135.6	90.22	84.55	4,072.5	-902.1	5,067.4
7,386.0	4,135.5	90.31	84.39	4,104.4	-899.0	5,099.3
7,400.0	4,135.4	90.31	84.39	4,118.4	-897.7	5,113.2
7,465.0	4,135.1	90.31	84.39	4,183.4	-891.3	5,177.9

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
Top Producing Interval - plan hits target - Point	0.00	0.00	4,097.2	83.2	1,701.4	2,165,822.13	1,345,349.23	36° 56' 51.750 N	107° 15' 35.237 W

Checked By: _____ Approved By: _____ Date: _____