"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

RECEIVED
JUL 21 2011
Farmington Field Office
Bureau of Land Management

Form C-102
Revised July 16, 2010
Submit one copy to appropriate District Office

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-30846	71629	Basin Fruitland Coal

[4] Property Code	[5] Property Name	[6] Well Number
35654	Carracas 15A	4 H

[7] OGRID No.	[8] Operator Name	[9] Elevation
162928	Energen Resources Corporation	7532'

[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
A	15	32N	5W		1030	North	580'	East	Rio Arriba

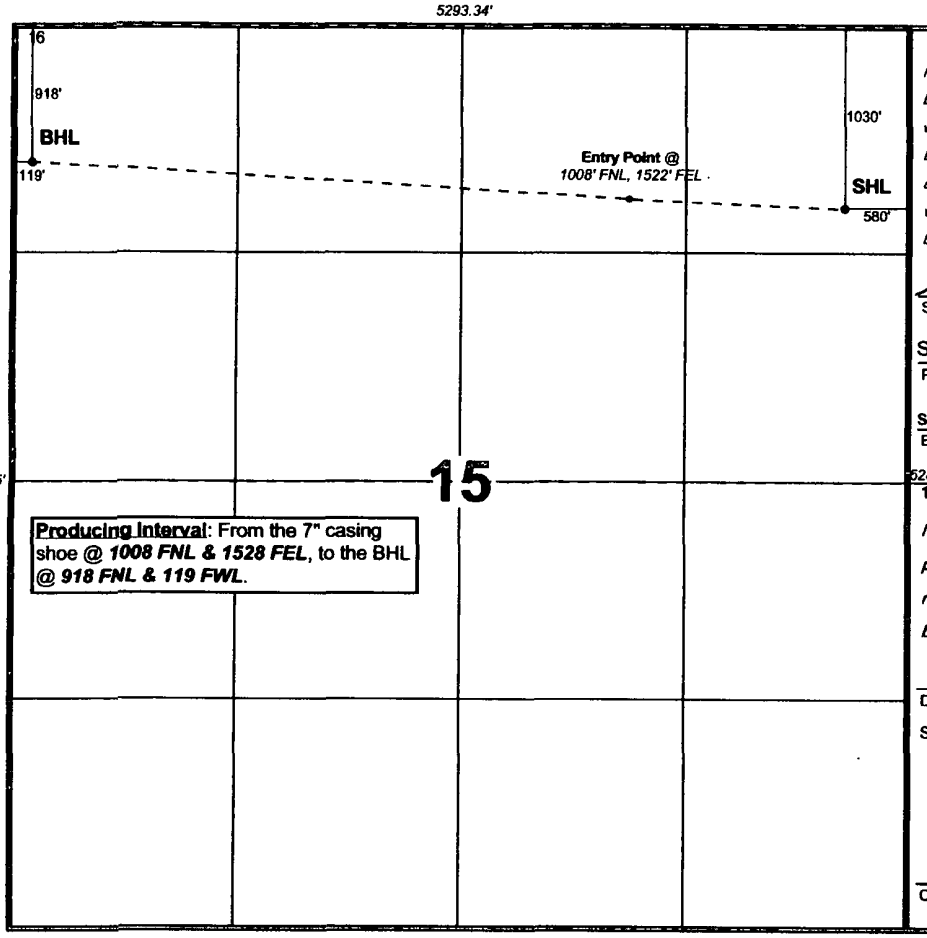
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	32N	5W		918'	North	119'	West	Rio Arriba

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 N/2			R-13119

RCVD JUL 25 '11
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.

Signature — Date: 7/20/2011

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.

June 23, 2008
Date of Survey

Signature and Seal of Professional Surveyor.

David R. Russell
Certificate Number 10201

NMOCD
A

ENERGEN RESOURCES CORP

Rio Arriba (NAD 27)
Carracas
Carracas 15A #4H

OH

Design: OH

Standard Survey Report

13 July, 2011

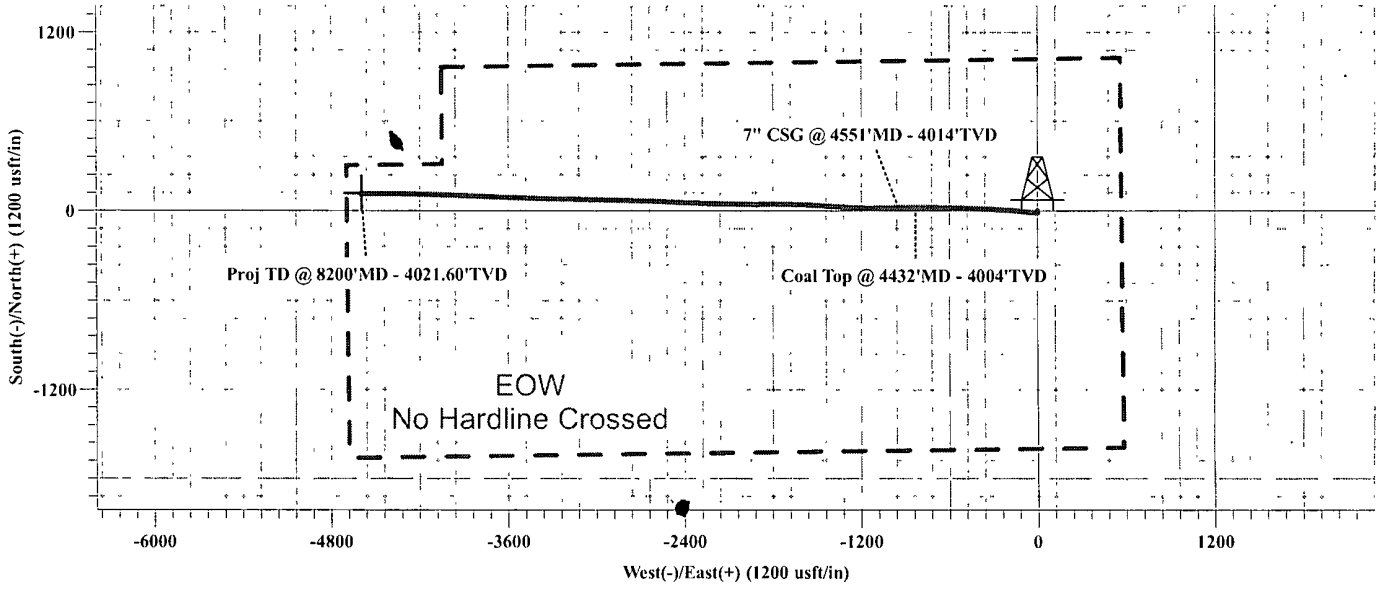
ENERGEN RESOURCES

PATHFINDER®
A Schlumberger Company

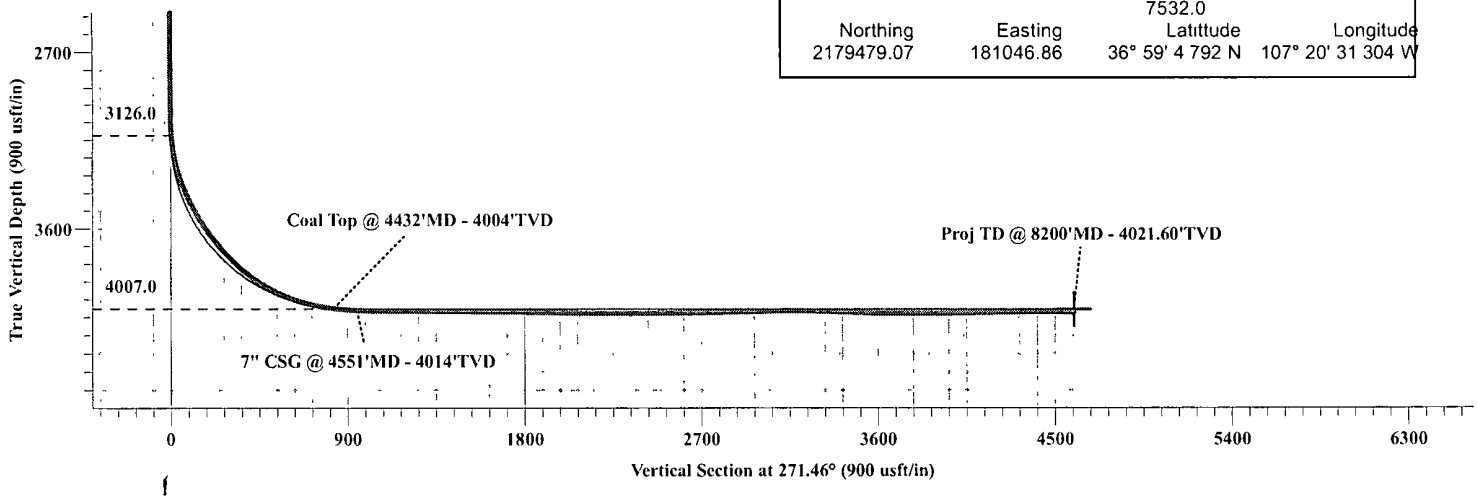
Carracas 15A #4H
Rio Arriba Co
GL: 7532' / KB: 13'

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
BHL (Carracas15A#4H)	4007.0	116 9	-4594.6	2179648 67	176453 87	Point



WELL DETAILS: Carracas 15A #4H			
		7532.0	
Northing	Easting	Latittude	Longitude
2179479.07	181046.86	36° 59' 4 792 N	107° 20' 31 304 W



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0 00	0 00	0.0	0.0	0.0	0.00	0.00	0.0	
3126.0	0 00	0 00	3126 0	0.0	0.0	0.00	0.00	0.0	
4509 9	90.00	271 46	4007.0	22 4	-880.7	6.50	271.46	881.0	
8225.0	90.00	271.46	4007.0	117.1	-4594.6	0.00	0 00	4596 1	BHL (Carracas15A#4H)

Plan: Plan #5 (Carracas 15A #4H/OH)

Created By: Frank C. Scardino Date: 7/13/2011

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545.0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Project Rio Arriba (NAD 27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site Carracas

Site Position:		**Northing:**	2,179,479 06 usft	**Latitude:**	36° 59' 4.792 N
From:	Map	**Easting:**	181,046 86 usft	**Longitude:**	107° 20' 31 304 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.66 °

Well Carracas 15A #4H

Well Position	**+N/-S**	0.0 usft	**Northing:**	2,179,479 06 usft	**Latitude:**	36° 59' 4.792 N
	+E/-W	0.0 usft	**Easting:**	181,046 86 usft	**Longitude:**	107° 20' 31 304 W
Position Uncertainty		0 0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	7,532.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/26/11	9 75	63 75	50,928

Design OH

Audit Notes:

Version:	1 0	**Phase:**	ACTUAL	**Tie On Depth:**	0 0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	271.46

Survey Program **Date** 07/13/11

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
278 0	8,200 0	Survey #1 (OH)	MWD	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 0	0.00	0 00	0 0	0 0	0.0	0 0	0 00	0 00	0 00
278 0	0 09	69 43	278 0	0.1	0.2	-0 2	0 03	0 03	0.00
373 0	0 09	85 09	373 0	0.1	0.3	-0.3	0 03	0 00	16 48
468 0	0 00	0 00	468 0	0 1	0 4	-0.4	0 09	-0 09	0 00
563 0	0 09	105 33	563 0	0 1	0.5	-0.5	0.09	0 09	0 00
659 0	0.00	22 90	659 0	0 1	0 6	-0 6	0.09	-0.09	0.00
754 0	0 18	313 62	754 0	0 2	0 5	-0 5	0 19	0.19	0.00
849 0	0.09	248.29	849.0	0.3	0.3	-0.3	0 17	-0.09	-68 77
945 0	0 09	223.09	945 0	0 2	0 2	-0 2	0 04	0.00	-26 25
1,040 0	0.26	223 41	1,040 0	0 0	0 0	0 0	0 18	0.18	0 34

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545.0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,135 0	0 44	208 28	1,135 0	-0 5	-0 4	0.3	0 21	0 19	-15.93
1,230.0	0.35	195.82	1,230 0	-1 1	-0.6	0 6	0 13	-0.09	-13 12
1,325 0	0 44	180 00	1,325 0	-1.8	-0 7	0 6	0.15	0 09	-16.65
1,417 0	0 44	163 89	1,417 0	-2 5	-0 6	0 5	0 13	0 00	-17 51
1,509 0	0 53	156 89	1,509 0	-3 2	-0.3	0 2	0 12	0 10	-7 61
1,600 0	0 62	166 22	1,600 0	-4 1	0.0	-0 1	0 14	0 10	10.25
1,691 0	0 53	177 22	1,691 0	-4.9	0 1	-0 2	0 16	-0 10	12 09
1,783 0	0 53	181 01	1,783 0	-5.8	0.1	-0 3	0.04	0.00	4.12
1,876 0	0 44	168 23	1,876 0	-6.6	0 2	-0 3	0.15	-0 10	-13 74
1,966 0	0 44	143 83	1,966.0	-7 2	0 4	-0.6	0 21	0.00	-27 11
2,055 0	0 79	176 16	2,055 0	-8 1	0.7	-0 9	0.54	0 39	36.33
2,144 0	0.70	150.10	2,144 0	-9 2	1 0	-1 2	0 39	-0 10	-29 28
2,234 0	0 62	147 12	2,233.9	-10 1	1 5	-1.8	0.10	-0 09	-3 31
2,325 0	0 62	143 62	2,324.9	-10 9	2 1	-2 4	0 04	0 00	-3 85
2,414 0	0 53	147.45	2,413 9	-11 6	2 6	-2 9	0 11	-0 10	4 30
2,504 0	0 53	155 84	2,503.9	-12 3	3 0	-3 3	0 09	0.00	9 32
2,592.0	0.35	192 01	2,591 9	-13.0	3 1	-3 4	0 37	-0.20	41 10
2,683 0	0 26	197 15	2,682 9	-13 4	3 0	-3 3	0.10	-0 10	5.65
2,773 0	0 18	192 50	2,772.9	-13 8	2 9	-3 3	0 09	-0 09	-5 17
2,864 0	0.26	169.61	2,863 9	-14.1	2 9	-3.3	0 13	0.09	-25 15
2,955 0	0.26	169.79	2,954 9	-14.5	3 0	-3 3	0 00	0 00	0.20
3,016 0	0 35	184.55	3,015 9	-14.8	3 0	-3.4	0 19	0.15	24 20
3,047 0	1 06	254 34	3,046.9	-15 0	2.7	-3 1	3 21	2 29	225.13
3,076 0	2.37	262.70	3,075.9	-15.2	1 9	-2 2	4 59	4 52	28 83
3,106 0	3 96	272 18	3,105 9	-15 2	0.2	-0 6	5 56	5 30	31.60
3,136 0	5.63	273 41	3,135 8	-15.1	-2 3	1 9	5 58	5.57	4 10
3,166 0	7 21	277 54	3,165 6	-14.7	-5 6	5 3	5.48	5 27	13 77
3,196 0	9 15	276 70	3,195 3	-14 2	-9.9	9 5	6 48	6.47	-2 80
3,228.0	11 08	278 76	3,226.8	-13 4	-15 4	15 1	6 14	6 03	6 44
3,259 0	12.84	277 95	3,257.1	-12 5	-21 8	21 5	5.70	5 68	-2 61
3,291.0	14 68	276 97	3,288 2	-11 5	-29 3	29 0	5 80	5 75	-3 06
3,323.0	16 97	277.38	3,319 0	-10 4	-38 0	37.7	7 16	7 16	1 28
3,355 0	19.43	277.06	3,349 4	-9.2	-47.9	47 7	7.69	7.69	-1 00
3,386 0	21.63	272 91	3,378 4	-8 3	-58 7	58 5	8 51	7 10	-13 39
3,418.0	23 48	274.31	3,407 9	-7.5	-71 0	70 8	6 02	5 78	4.38
3,450 0	25.15	276 59	3,437 1	-6 2	-84 1	83.9	5 99	5 22	7.13
3,481.0	26 82	276.52	3,465 0	-4.7	-97 6	97 4	5.39	5.39	-0 23
3,513 0	28.14	275 57	3,493.4	-3.1	-112 3	112.2	4 35	4 13	-2 97
3,545.0	29 63	276 44	3,521.4	-1 5	-127 6	127 6	4 84	4 66	2 72
3,577.0	31 30	274 67	3,549 0	0 1	-143.8	143.7	5 92	5 22	-5 53
3,608.0	32 98	274 64	3,575 2	1 4	-160 2	160 2	5 42	5 42	-0 10
3,640 0	34.73	272 59	3,601 8	2 5	-178 0	178 0	6.53	5.47	-6 41
3,672 0	36 93	271 94	3,627 7	3 3	-196 7	196 8	6 98	6.88	-2.03
3,703 0	38 69	272.56	3,652 2	4 0	-215.7	215 8	5.81	5.68	2.00

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,735 0	39 92	273.67	3,677 0	5 1	-236 0	236 0	4 43	3 84	3 47
3,767 0	41 33	274 30	3,701.3	6.6	-256.7	256.8	4 59	4 41	1.97
3,798 0	42 82	273 76	3,724 3	8 0	-277.5	277 6	4 95	4 81	-1.74
3,830 0	44 32	272 84	3,747 4	9 3	-299.5	299.6	5 09	4 69	-2 88
3,862.0	46 08	272 89	3,770 0	10.4	-322 2	322 3	5 50	5 50	0 16
3,894 0	47.75	272 68	3,791 9	11 6	-345 5	345.7	5.24	5 22	-0.66
3,925 0	49 77	272 28	3,812.3	12 6	-368.8	369 0	6 59	6 52	-1.29
3,957 0	51 97	272.15	3,832 5	13.5	-393 6	393 8	6 88	6 88	-0 41
3,989 0	54 34	271 78	3,851 7	14 4	-419 2	419 4	7 46	7 41	-1 16
4,020 0	56 89	271.98	3,869 2	15.2	-444.8	445 0	8 24	8 23	0 65
4,052 0	58 65	271 99	3,886 2	16 2	-471.8	472.1	5 50	5.50	0.03
4,084 0	60 32	272.11	3,902.5	17.2	-499 4	499.6	5 23	5 22	0.38
4,116.0	62 70	271 93	3,917 8	18 2	-527.5	527 8	7 45	7 44	-0 56
4,148 0	65 16	271.85	3,931 8	19.1	-556.2	556 5	7.69	7 69	-0 25
4,179 0	67 44	271 37	3,944 3	19 9	-584 6	584 9	7 49	7 35	-1.55
4,211 0	69 82	270 89	3,955 9	20.5	-614 4	614.7	7 57	7 44	-1.50
4,243 0	72 19	271.01	3,966.3	21 0	-644.6	644 9	7 41	7.41	0 38
4,275.0	74 66	270 76	3,975 5	21.5	-675 3	675.6	7 75	7 72	-0 78
4,307.0	76 94	269 83	3,983 3	21 6	-706 3	706 6	7 66	7 13	-2.91
4,339 0	79.40	270 67	3,989 9	21.8	-737 6	737.9	8 11	7 69	2 63
4,370 0	81 16	269 79	3,995 1	21 9	-768.2	768 5	6 33	5 68	-2 84
4,402 0	81 43	269 48	4,000 0	21 7	-799 8	800 1	1 28	0 84	-0 97
4,432 0	81 84	269 69	4,004.3	21 5	-829 5	829 7	1 53	1 37	0.69
Coal Top @ 4432'MD - 4004'TVD									
4,434 0	81 87	269.70	4,004.6	21 4	-831 4	831 7	1 53	1 38	0 69
4,472 0	85 03	269 99	4,008 9	21.3	-869 2	869 5	8 35	8 32	0.76
4,551 0	87 19	270 31	4,014 3	21 6	-948.0	948.3	2 76	2.73	0 41
7" CSG @ 4551'MD - 4014'TVD									
4,601.0	88 55	270 52	4,016 2	21 9	-998 0	998 2	2 76	2 73	0 41
4,632.0	89.16	268 78	4,016.8	21 7	-1,029 0	1,029.2	5 95	1 97	-5 61
4,663.0	89 25	267 25	4,017 2	20 7	-1,059.9	1,060.1	4 94	0 29	-4 94
4,693 0	89.34	266 31	4,017 6	19 0	-1,089 9	1,090 0	3.15	0 30	-3 13
4,724 0	89 16	266 62	4,018 0	17 1	-1,120 8	1,120.9	1 16	-0 58	1 00
4,754.0	90 22	268 51	4,018 2	15.8	-1,150.8	1,150 8	7 22	3 53	6.30
4,784.0	89.25	270 41	4,018 3	15 5	-1,180 8	1,180.8	7.11	-3 23	6.33
4,815.0	89.60	271.63	4,018.6	16 1	-1,211 8	1,211 8	4 09	1 13	3.94
4,846 0	90 66	273 43	4,018 5	17 4	-1,242.8	1,242.8	6 74	3 42	5 81
4,877.0	90 57	274 89	4,018 2	19 7	-1,273 7	1,273.8	4 72	-0 29	4 71
4,907 0	89.87	274.87	4,018 1	22 2	-1,303.6	1,303.7	2 33	-2 33	-0 07
4,938 0	89 43	275.09	4,018 3	24 9	-1,334 4	1,334 6	1.59	-1.42	0 71
4,969 0	89 25	275 14	4,018 6	27.7	-1,365 3	1,365 6	0 60	-0.58	0 16
4,999 0	89 34	274 12	4,019 0	30 1	-1,395 2	1,395.5	3.41	0 30	-3.40
5,030 0	89 78	273 78	4,019 2	32.2	-1,426 1	1,426.5	1 79	1.42	-1 10

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545.0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,061 0	89 78	273.88	4,019 4	34 3	-1,457 1	1,457 5	0 32	0 00	0 32
5,092 0	89 25	273 51	4,019.6	36 3	-1,488 0	1,488 5	2.09	-1.71	-1 19
5,123.0	89 69	273 51	4,019.9	38.2	-1,519 0	1,519.4	1 42	1.42	0.00
5,153 0	89 52	272 28	4,020 1	39.7	-1,548 9	1,549 4	4.14	-0.57	-4.10
5,184 0	89 60	272 15	4,020 4	40 9	-1,579.9	1,580.4	0 49	0.26	-0.42
5,214 0	89 69	271 36	4,020.5	41.8	-1,609.9	1,610.4	2 65	0 30	-2 63
5,245 0	89 43	271 56	4,020.8	42.6	-1,640.9	1,641 4	1 06	-0.84	0.65
5,276 0	89 34	272.17	4,021 1	43 6	-1,671 8	1,672.4	1 99	-0.29	1 97
5,306 0	88 90	271 33	4,021.6	44.5	-1,701.8	1,702 4	3.16	-1.47	-2.80
5,337 0	89 16	270 28	4,022 1	45 0	-1,732 8	1,733 4	3.49	0 84	-3 39
5,368 0	89 52	269 60	4,022 5	45 0	-1,763.8	1,764.4	2.48	1 16	-2.19
5,398 0	89 43	269.45	4,022 7	44 7	-1,793 8	1,794 4	0 58	-0 30	-0.50
5,429 0	89 43	268.43	4,023 0	44 1	-1,824 8	1,825 3	3 29	0 00	-3 29
5,460 0	88.90	268.19	4,023 5	43 2	-1,855 8	1,856 3	1 88	-1 71	-0 77
5,490 0	89.08	268.79	4,024 0	42 4	-1,885 8	1,886 2	2 09	0 60	2 00
5,520 0	89 25	270.34	4,024 5	42 2	-1,915 8	1,916 2	5 20	0 57	5 17
5,551.0	89 16	270 34	4,024 9	42.4	-1,946.8	1,947.2	0.29	-0 29	0.00
5,582 0	89 25	270 32	4,025.3	42.6	-1,977 8	1,978 2	0 30	0 29	-0 06
5,612 0	88 99	270.92	4,025.8	42.9	-2,007.8	2,008.2	2.18	-0.87	2.00
5,643 0	88 29	271 25	4,026.5	43 5	-2,038.7	2,039 2	2 50	-2.26	1 06
5,674.0	88 37	271.55	4,027.4	44.2	-2,069.7	2,070.2	1 00	0 26	0 97
5,704 0	88 20	271 47	4,028 3	45 0	-2,099.7	2,100.2	0.63	-0.57	-0 27
5,735 0	88 29	271 13	4,029 3	45 7	-2,130.7	2,131.1	1.13	0 29	-1 10
5,765 0	90 04	271.28	4,029 7	46 4	-2,160.7	2,161.1	5.85	5 83	0 50
5,796.0	90 22	271 43	4,029 6	47 1	-2,191 7	2,192 1	0.76	0.58	0 48
5,827.0	89.87	271.33	4,029.6	47 8	-2,222 6	2,223 1	1 17	-1.13	-0.32
5,858 0	90 04	272.17	4,029 6	48 8	-2,253 6	2,254 1	2.76	0.55	2 71
5,888 0	89 96	272 61	4,029 6	50 0	-2,283 6	2,284.1	1.49	-0 27	1.47
5,919.0	90.57	272.44	4,029 5	51.4	-2,314.6	2,315 1	2 04	1 97	-0.55
5,950 0	90 75	271.76	4,029 1	52.5	-2,345.5	2,346 1	2 27	0.58	-2 19
5,981 0	90.57	272 11	4,028 8	53 6	-2,376 5	2,377 1	1 27	-0 58	1.13
6,011 0	90 40	271.96	4,028.5	54 6	-2,406 5	2,407 1	0.76	-0 57	-0.50
6,042 0	90 31	272 45	4,028 3	55 8	-2,437 5	2,438 1	1 61	-0 29	1.58
6,073.0	90 04	272.37	4,028.2	57 1	-2,468 5	2,469.1	0 91	-0 87	-0.26
6,103 0	90 75	272 80	4,028.0	58 5	-2,498 4	2,499.1	2 77	2 37	1 43
6,134 0	90 66	273 00	4,027.6	60.1	-2,529 4	2,530.1	0 71	-0 29	0.65
6,164 0	90.84	272.88	4,027.2	61 6	-2,559.3	2,560 1	0 72	0 60	-0 40
6,195 0	90 92	272 36	4,026.8	63 0	-2,590 3	2,591.1	1 70	0.26	-1 68
6,227 0	91 10	271.55	4,026 2	64 1	-2,622.3	2,623.1	2 59	0.56	-2.53
6,257 0	90.92	271 47	4,025 7	64.9	-2,652.3	2,653.1	0.66	-0 60	-0 27
6,288 0	90 84	271.29	4,025 2	65 6	-2,683.3	2,684 1	0 64	-0 26	-0.58
6,318 0	91.10	271 06	4,024.7	66 3	-2,713.2	2,714.1	1 16	0 87	-0 77
6,349 0	91 01	271 41	4,024 1	66 9	-2,744 2	2,745 0	1 17	-0 29	1 13
6,380 0	90 66	271 22	4,023.7	67 6	-2,775.2	2,776 0	1.28	-1 13	-0 61

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,410 0	91 01	271 07	4,023 2	68 2	-2,805.2	2,806.0	1 27	1 17	-0.50
6,441 0	90 66	270 64	4,022 8	68 7	-2,836.2	2,837.0	1.79	-1 13	-1.39
6,472 0	91 01	271 53	4,022 3	69.3	-2,867.2	2,868 0	3 08	1 13	2.87
6,502.0	91 45	271 60	4,021 7	70.1	-2,897.2	2,898.0	1.49	1 47	0.23
6,533 0	91 89	271 75	4,020 8	71 0	-2,928 2	2,929 0	1.50	1 42	0 48
6,564.0	92 24	271 79	4,019 7	72 0	-2,959.1	2,960.0	1 14	1 13	0.13
6,594 0	92 15	271 81	4,018 5	72.9	-2,989.1	2,990.0	0 31	-0.30	0 07
6,626 0	91.71	271.57	4,017 4	73.9	-3,021 0	3,021.9	1 57	-1.38	-0 75
6,658 0	91 36	271 50	4,016 6	74 7	-3,053 0	3,053.9	1 12	-1 09	-0 22
6,690.0	90 92	270 95	4,015 9	75.4	-3,085.0	3,085 9	2 20	-1 38	-1.72
6,722.0	90.75	270.75	4,015.5	75 9	-3,117 0	3,117 9	0 82	-0.53	-0 63
6,754 0	90.04	271.23	4,015 3	76 4	-3,149 0	3,149.9	2 68	-2 22	1.50
6,786 0	89 69	271.43	4,015.3	77 2	-3,181 0	3,181.9	1.26	-1 09	0 63
6,817.0	89.52	271.85	4,015.5	78 1	-3,212 0	3,212.9	1 46	-0 55	1 35
6,849.0	89.34	271.75	4,015.9	79 1	-3,244 0	3,244.9	0.64	-0.56	-0 31
6,881 0	88 99	271 43	4,016 3	79.9	-3,275.9	3,276 9	1 48	-1 09	-1 00
6,913 0	88 55	271.17	4,017.0	80 7	-3,307.9	3,308.9	1 60	-1 38	-0.81
6,944 0	88 46	271 43	4,017.8	81 4	-3,338 9	3,339.9	0 89	-0.29	0 84
6,976.0	88.11	271 27	4,018.8	82 1	-3,370.9	3,371 9	1 20	-1 09	-0 50
7,008 0	87 58	271.09	4,020.0	82.8	-3,402 9	3,403.9	1.75	-1 66	-0 56
7,040 0	86.97	271.19	4,021 5	83 4	-3,434.8	3,435.8	1.93	-1 91	0.31
7,072 0	88 02	271 59	4,022.9	84 2	-3,466 8	3,467.8	3 51	3 28	1 25
7,103 0	87 93	270 95	4,024.0	84.9	-3,497 7	3,498 8	2 08	-0 29	-2 06
7,135 0	88 55	271.85	4,025 0	85 7	-3,529.7	3,530.8	3 41	1.94	2 81
7,167 0	88 90	272 21	4,025.7	86 8	-3,561 7	3,562 7	1.57	1 09	1.13
7,198.0	88.02	271 89	4,026 5	87.9	-3,592 7	3,593 7	3.02	-2 84	-1 03
7,230 0	88 55	271 89	4,027.5	89.0	-3,624.6	3,625 7	1 66	1 66	0 00
7,262 0	89 25	272 22	4,028.1	90 1	-3,656 6	3,657 7	2.42	2 19	1 03
7,294.0	90 04	272.68	4,028 3	91 5	-3,688.6	3,689 7	2 86	2.47	1 44
7,326 0	90 40	272 54	4,028.2	92 9	-3,720.5	3,721 7	1 21	1.13	-0 44
7,358.0	90 04	271 93	4,028.1	94.2	-3,752 5	3,753.7	2.21	-1 13	-1 91
7,389.0	90 48	272 14	4,027.9	95 3	-3,783 5	3,784.7	1 57	1 42	0 68
7,421 0	90 22	271.92	4,027 7	96.4	-3,815 5	3,816.7	1 06	-0.81	-0 69
7,453 0	90 92	272.54	4,027 4	97 7	-3,847.4	3,848 7	2 92	2 19	1.94
7,485 0	91 10	272.64	4,026 8	99 1	-3,879.4	3,880 7	0.64	0 56	0.31
7,517 0	90 66	272 16	4,026.3	100 4	-3,911.4	3,912 7	2.03	-1 38	-1.50
7,549.0	90.22	272 01	4,026.1	101 6	-3,943.4	3,944 7	1.45	-1 38	-0 47
7,580.0	90.40	271 84	4,025 9	102.7	-3,974.3	3,975.7	0.80	0 58	-0.55
7,612 0	90.04	272 32	4,025 8	103.8	-4,006 3	4,007.7	1.87	-1.13	1.50
7,644 0	89 69	272 41	4,025 9	105 1	-4,038 3	4,039 7	1 13	-1.09	0 28
7,676 0	91 36	271.87	4,025 6	106 3	-4,070.3	4,071.6	5 48	5 22	-1 69
7,708 0	91 63	271 77	4,024 8	107.3	-4,102 2	4,103.6	0 90	0 84	-0 31
7,740 0	91.36	271 36	4,023 9	108.2	-4,134 2	4,135.6	1.53	-0 84	-1 28

Survey Report

Company:	ENERGEN RESOURCES CORP	**Local Co-ordinate Reference:**	Well Carracas 15A #4H
Project:	Rio Arriba (NAD 27)	**TVD Reference:**	RKB-13' @ 7545.0usft (Original Well Elev)
Site:	Carracas	**MD Reference:**	RKB-13' @ 7545 0usft (Original Well Elev)
Well:	Carracas 15A #4H	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,771 0	91 10	271 57	4,023.3	109 0	-4,165.2	4,166 6	1 08	-0.84	0.68
7,803.0	90 75	271 56	4,022 7	109 9	-4,197 2	4,198 6	1 09	-1.09	-0.03
7,835.0	91 28	271 11	4,022 2	110 6	-4,229 2	4,230 6	2 17	1.66	-1 41
7,867.0	90 92	271 09	4,021 6	111 2	-4,261 2	4,262 6	1.13	-1.13	-0 06
7,899 0	91.19	271 07	4,021 0	111.8	-4,293.1	4,294.6	0.85	0 84	-0 06
7,930 0	90 75	270.97	4,020.4	112.4	-4,324.1	4,325.6	1.46	-1 42	-0 32
7,962 0	91 19	271 21	4,019 9	113 0	-4,356 1	4,357 6	1 57	1.38	0 75
7,994.0	91 01	270 91	4,019 3	113 6	-4,388.1	4,389.6	1.09	-0 56	-0 94
8,025 0	90 48	270 13	4,018 9	113 9	-4,419 1	4,420.6	3 04	-1 71	-2 52
8,057 0	89 78	269 62	4,018 8	113 8	-4,451 1	4,452.6	2.71	-2 19	-1 59
8,089.0	88.90	269 29	4,019.2	113 5	-4,483.1	4,484 5	2 94	-2 75	-1 03
8,120 0	88 72	269.22	4,019 8	113 1	-4,514.1	4,515.5	0.62	-0 58	-0 23
8,200 0	88 72	269 22	4,021 6	112 0	-4,594 1	4,595.4	0.00	0 00	0 00
Proj TD @ 8200'MD - 4021.60'TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,432 0	4,004 3	21 5	-829 5	Coal Top @ 4432'MD - 4004'TVD
4,551.0	4,014.3	21.6	-948.0	7" CSG @ 4551'MD - 4014'TVD
8,200.0	4,021.6	112.0	-4,594.1	Proj TD @ 8200'MD - 4021.60'TVD

Checked By: _____ Approved By: _____ Date. _____