Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NMNM 30014

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Carracas 28B # 2

2. Name of Operator
Energen Resources Corporation

9. API Well No.
30-039-30168

3a. Address
2198 Bloomfield Highway, Farmington, NM 87401

3b. Phone No. (*include area code*)
505.325.6800

10. Field and Pool, or Exploratory Area
Basin Fruitland Coal

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
1730 FNL, 780 FWL (E) Sec.27, T32N, R04W at surface
2630 FNL, 1980 FEL (G) Sec.28, T32N, R04W at bottom

11. County or Parish, State
Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change azimuth and dir. wellplan
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Energen Resources would like to change the planned azimuth to accomodate the formation dip of the Fruitland Coal. This change will aide in water drainage and production operations.

The change will increase the intermediate casing set depth to 5100' (MD). It will be cemented with 725 sks of lead followed by 125 sks of tail cement.

The new azimuth will be 251.94 degrees.

Attached is a revised C-102, Operations Plan, and Directional Drilling Wellplan.

RCVD JUL18'07
OIL CONS. DIV.
DIST. 3

Anticipated Total Measured Depth 6317'

HOLD C104 FOR directional survey

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*) Nathan Smith

Title Drilling Engineer

Date 07/16/07

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Troy L Salyers

Title Petroleum Engineer

Date 7/17/2007

Office FFO

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

8

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 October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-30168	71629	Basin Fruitland Coal

4 Property Code	5 Property Name	6 Well Number
35665	Carracas 28 B	#2

7 OGRID No.	8 Operator Name	9 Elevation
162928	Energen Resources Corporation	7241'

10 Surface Location

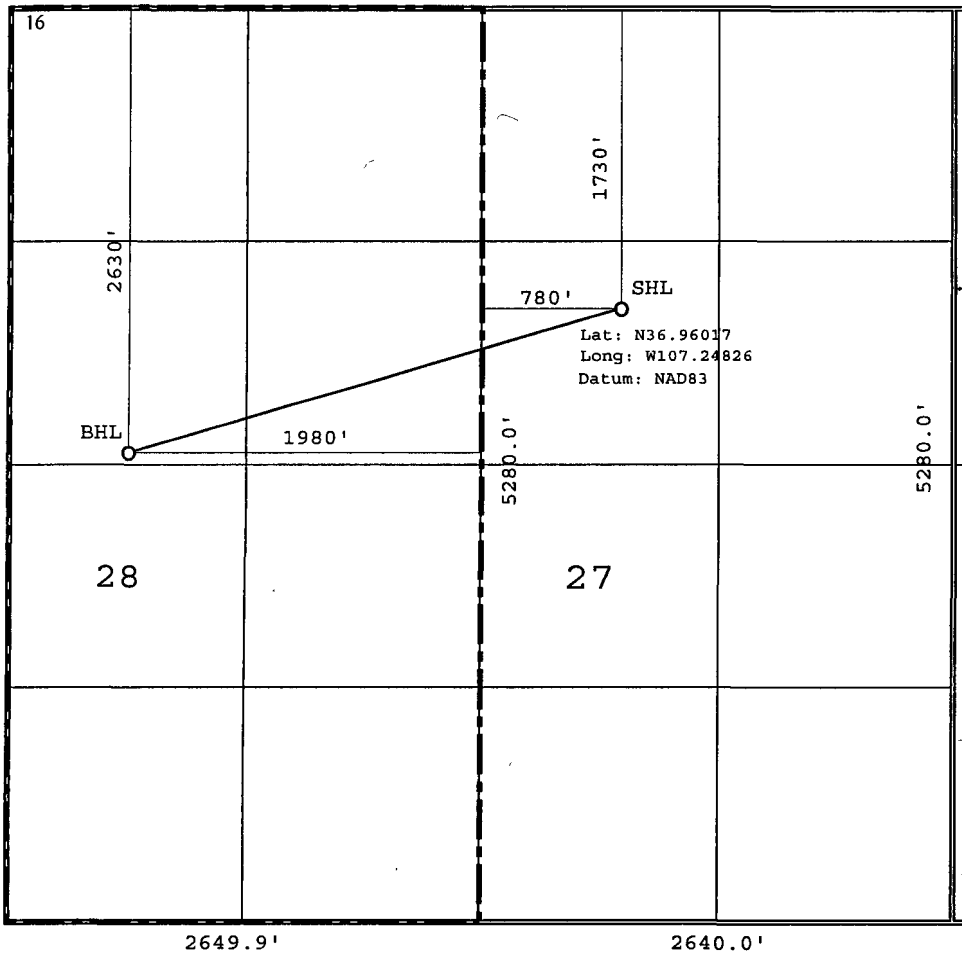
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	27	32N	4W		1730	North	780	West	Rio Arriba

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
G	28	32N	4W		2630	North	1980	East	Rio Arriba

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320.0 - E/2			

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: July 16, 2007

Nathan Smith
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.

August 16, 2006
Date of Survey

Signature and Seal of Professional Surveyor:
Original survey for surface location conducted and recorded by Jason C. Edwards

15269
Certificate Number

Operations Plan
Revised July 16, 2007

Carracas 28 B #2

General Information

Location	1730' fnl, 780' fwl at surface 2630' fnl, 1980' fel at bottom swne S28, T32N, R4W Rio Arriba County, New Mexico
Elevations	7241' GL
Total Depth	6317' (MD), 4095' (TVD)
Formation Objective	Basin Fruitland Coal

Formation Tops

San Jose	Surface
Nacimiento	2305' (TVD)
Ojo Alamo Ss	3453' (TVD), 3519' (MD)
Kirtland Sh	3630' (TVD), 3753' (MD)
Fruitland Fm	3685' (TVD), 3834' (MD)
Top Coal	4088' (TVD), 4939' (MD)
Bottom Coal	4103' (TVD)
Total Depth	**4095' (TVD), 6317' (MD)**

Drilling

The 12 ¼" wellbore will be drilled with a fresh water mud system.
The 8 ¾" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.9 ppg to 9.5 ppg.
Projected KOP is 2525' TVD with 3.68°/100' doglegs.
The 6 ¼" wellbore will be drilled with a fresh water or brine water system depending on reservoir characteristics. Anticipated BHP can be as high as 1100 psi.
Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: None
Mud logs: From 3685' (TVD), 3834' (MD) to TD.
Surveys: Surface to KOP every 500' and a minimum of every 250' for directional.

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-200'	12 ¼"	9 5/8"	32.3 ppf	H-40 ST&C
Intermediate	0'-4095'(TVD) 5100' (MD)	8 ¾"	7"	23.0 ppf	J-55 LT&C
Production	4088'-4103' (TVD) 4070'-6317' (MD)	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
Tubing	0'-4800'(MD)		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring and rigid centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Liner: Bull nose guide shoe on bottom of first joint, H-Latch liner drop off tool on top of last joint.

Wellhead

3000 psi 11" x 9 5/8" casing head. 9 5/8" x 7"x 2 3/8" 3000 psi Flanged Wellhead .

Cementing

Surface Casing: 125 sks Std (class B) with 2.0 % $CaCl_2$ and ¼ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk 148 ft^3 of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Intermediate Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 725 sks 65/35 with 6.0 % Bentonite, 2.0 % $CaCl_2$, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft^3/sk) and a tail of 125 sks Type V with ¼ #/sk Flocele (15.6 ppg, 1.18 ft^3/sk). (~~1498 ft^3~~ of slurry, 100 % excess to circulate to surface). Test casing to 1200 psi for 30 min. 1569 ft^3

Other Information

1) This well will be an open hole completion lined with an uncemented pre-drilled liner.
2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The intermediate string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
4) No abnormal temperatures or pressures are anticipated. This gas is dedicated.

Energen Resources

Carson National Forest-S28, T32N, R4W
Carracas Mesa
Carracas 28 B #2
Revised Wellpath

Plan: Plan #1

Final Design

16 July, 2007

ENERGEN

Project: Carson National Forest-S28, T32N, R4W
Site: Carracas Mesa
Well: Carracas 28 B #2
Wellbore: Revised Wellpath
Plan: Plan #1 (Carracas 28 B #2/Revised Wellpath)

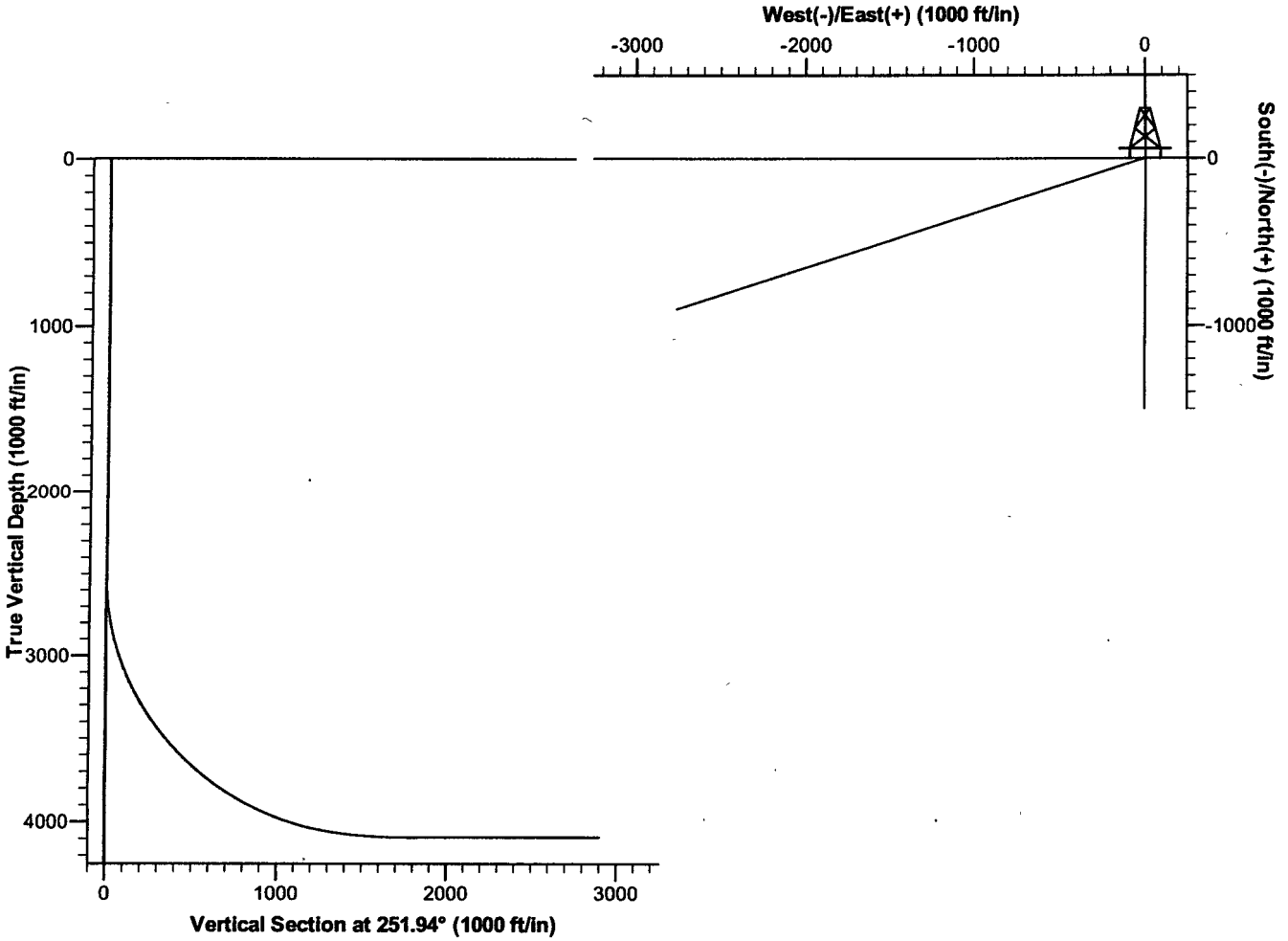
PROJECT DETAILS: Carson National Forest-S28, T32N, R4W	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Central Zone
System Datum:	Mean Sea Level

Azimuths to True North
Magnetic North: 10.17°

Magnetic Field
Strength: 51334.2snT
Dip Angle: 63.85°
Date: 7/16/2007
Model: IGRF200510

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2525.0	0.00	0.00	2525.0	0.0	0.0	0.00	0.00	0.0	
3	4698.5	80.00	251.94	4058.0	-398.8	-1223.0	3.68	251.94	1286.3	
4	5123.6	90.00	251.94	4095.0	-529.9	-1625.0	2.35	0.00	1709.3	
5	6317.6	90.00	251.94	4095.0	-900.0	-2760.2	0.00	0.00	2903.3	



Energen

Final Design

Company:	Energen Resources	**Local Co-ordinate Reference:**	Well Carracas 28 B #2
Project:	Carson National Forest-S28, T32N, R4W	**TVD Reference:**	KB @ 7256.0ft (Patterson 741)
Site:	Carracas Mesa	**MD Reference:**	KB @ 7256.0ft (Patterson 741)
Well:	Carracas 28 B #2	**North Reference:**	True
Wellbore:	Revised Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Project Carson National Forest-S28, T32N, R4W

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site Carracas Mesa

Site Position:		**Northing:**	2,170,323.62 ft	**Latitude:**	36° 57' 36.612 N
From:	Lat/Long	**Easting:**	1,348,765.40 ft	**Longitude:**	107° 14' 53.736 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	-0.60 °

Well Carracas 28 B #2

Well Position	**+N/-S**	0.0 ft	**Northing:**	2,170,323.62 ft	**Latitude:**	36° 57' 36.612 N
	+E/-W	0.0 ft	**Easting:**	1,348,765.40 ft	**Longitude:**	107° 14' 53.736 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	7,241.0 ft	**Ground Level:**	7,241.0 ft

Wellbore Revised Wellpath

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/16/2007	10.17	63.85	51,334

Design Plan #1

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	251.94

Survey Tool Program Date 7/16/2007

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,317.6	Plan #1 (Revised Wellpath)	MWD	MWD - Standard

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
100.0	100.0	0.00	0.00	0.00	0.0	0.0	0.0
200.0	200.0	0.00	0.00	0.00	0.0	0.0	0.0
300.0	300.0	0.00	0.00	0.00	0.0	0.0	0.0
400.0	400.0	0.00	0.00	0.00	0.0	0.0	0.0
500.0	500.0	0.00	0.00	0.00	0.0	0.0	0.0
600.0	600.0	0.00	0.00	0.00	0.0	0.0	0.0
700.0	700.0	0.00	0.00	0.00	0.0	0.0	0.0
800.0	800.0	0.00	0.00	0.00	0.0	0.0	0.0
900.0	900.0	0.00	0.00	0.00	0.0	0.0	0.0
1,000.0	1,000.0	0.00	0.00	0.00	0.0	0.0	0.0
1,100.0	1,100.0	0.00	0.00	0.00	0.0	0.0	0.0

Energen

Final Design

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Site:	Carracas Mesa	**MD Reference:**	KB @ 7256.0ft (Patterson 741)
Well:	Carracas 28 B #2	**North Reference:**	True
Wellbore:	Revised Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
1,200.0	1,200.0	0.00	0.00	0.00	0.0	0.0	0.0
1,300.0	1,300.0	0.00	0.00	0.00	0.0	0.0	0.0
1,400.0	1,400.0	0.00	0.00	0.00	0.0	0.0	0.0
1,500.0	1,500.0	0.00	0.00	0.00	0.0	0.0	0.0
1,600.0	1,600.0	0.00	0.00	0.00	0.0	0.0	0.0
1,700.0	1,700.0	0.00	0.00	0.00	0.0	0.0	0.0
1,800.0	1,800.0	0.00	0.00	0.00	0.0	0.0	0.0
1,900.0	1,900.0	0.00	0.00	0.00	0.0	0.0	0.0
2,000.0	2,000.0	0.00	0.00	0.00	0.0	0.0	0.0
2,100.0	2,100.0	0.00	0.00	0.00	0.0	0.0	0.0
2,200.0	2,200.0	0.00	0.00	0.00	0.0	0.0	0.0
2,300.0	2,300.0	0.00	0.00	0.00	0.0	0.0	0.0
2,400.0	2,400.0	0.00	0.00	0.00	0.0	0.0	0.0
2,500.0	2,500.0	0.00	0.00	0.00	0.0	0.0	0.0
2,525.0	2,525.0	0.00	0.00	0.00	0.0	0.0	0.0
2,600.0	2,600.0	2.76	251.94	3.68	1.8	-0.6	-1.7
2,700.0	2,699.6	6.44	251.94	3.68	9.8	-3.0	-9.3
2,800.0	2,798.6	10.12	251.94	3.68	24.2	-7.5	-23.0
2,900.0	2,896.4	13.80	251.94	3.68	45.0	-13.9	-42.7
3,000.0	2,992.7	17.48	251.94	3.68	71.9	-22.3	-68.4
3,100.0	3,087.0	21.16	251.94	3.68	105.0	-32.5	-99.8
3,200.0	3,179.0	24.84	251.94	3.68	144.1	-44.7	-137.0
3,300.0	3,268.4	28.53	251.94	3.68	189.0	-58.6	-179.7
3,400.0	3,354.6	32.21	251.94	3.68	239.5	-74.3	-227.7
3,500.0	3,437.5	35.89	251.94	3.68	295.5	-91.6	-280.9
3,600.0	3,516.6	39.57	251.94	3.68	356.7	-110.6	-339.1
3,700.0	3,591.6	43.25	251.94	3.68	422.8	-131.1	-402.0
3,800.0	3,662.1	46.93	251.94	3.68	493.6	-153.0	-469.3
3,900.0	3,728.0	50.61	251.94	3.68	568.8	-176.3	-540.8
4,000.0	3,789.0	54.29	251.94	3.68	648.1	-200.9	-616.1
4,100.0	3,844.7	57.97	251.94	3.68	731.1	-226.6	-695.1
4,200.0	3,895.0	61.65	251.94	3.68	817.5	-253.4	-777.2
4,300.0	3,939.6	65.33	251.94	3.68	907.0	-281.2	-862.3
4,400.0	3,978.4	69.01	251.94	3.68	999.1	-309.7	-949.9
4,500.0	4,011.2	72.69	251.94	3.68	1,093.6	-339.0	-1,039.7
4,600.0	4,037.8	76.37	251.94	3.68	1,189.9	-368.9	-1,131.3
4,698.5	4,058.0	80.00	251.94	3.68	1,286.3	-398.8	-1,223.0
4,700.0	4,058.3	80.04	251.94	2.35	1,287.8	-399.2	-1,224.4
4,800.0	4,073.5	82.39	251.94	2.35	1,386.6	-429.9	-1,318.3
4,900.0	4,084.7	84.74	251.94	2.35	1,486.0	-460.7	-1,412.8
5,000.0	4,091.9	87.09	251.94	2.35	1,585.7	-491.6	-1,507.6
5,100.0	4,094.9	89.45	251.94	2.35	1,685.7	-522.6	-1,602.6
5,123.6	4,095.0	90.00	251.94	2.35	1,709.3	-529.9	-1,625.0
5,200.0	4,095.0	90.00	251.94	0.00	1,785.7	-553.6	-1,697.7

Energen

Final Design

Company:	Energen Resources	**Local Co-ordinate Reference:**	Well Carracas 28 B #2
Project:	Carson National Forest-S28, T32N, R4W	**TVD Reference:**	KB @ 7256.0ft (Patterson 741)
Site:	Carracas Mesa	**MD Reference:**	KB @ 7256.0ft (Patterson 741)
Well:	Carracas 28 B #2	**North Reference:**	True
Wellbore:	Revised Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
5,300.0	4,095.0	90.00	251.94	0.00	1,885.7	-584.6	-1,792.8
5,400.0	4,095.0	90.00	251.94	0.00	1,985.7	-615.6	-1,887.9
5,500.0	4,095.0	90.00	251.94	0.00	2,085.7	-646.6	-1,982.9
5,600.0	4,095.0	90.00	251.94	0.00	2,185.7	-677.6	-2,078.0
5,700.0	4,095.0	90.00	251.94	0.00	2,285.7	-708.6	-2,173.1
5,800.0	4,095.0	90.00	251.94	0.00	2,385.7	-739.6	-2,268.2
5,900.0	4,095.0	90.00	251.94	0.00	2,485.7	-770.6	-2,363.2
6,000.0	4,095.0	90.00	251.94	0.00	2,585.7	-801.6	-2,458.3
6,100.0	4,095.0	90.00	251.94	0.00	2,685.7	-832.6	-2,553.4
6,200.0	4,095.0	90.00	251.94	0.00	2,785.7	-863.6	-2,648.4
6,300.0	4,095.0	90.00	251.94	0.00	2,885.7	-894.6	-2,743.5
6,317.6	4,095.0	90.00	251.94	0.00	2,903.3	-900.0	-2,760.2

Checked By: _____ Approved By: _____ Date: 7/16/07

DRILLING CONDITIONS OF APPROVAL

Operator:	**Energen Resources Corporation**
Lease No.:	**NMNM-30014**
Well Name:	**Carracas 28B #2**
Well Location:	**Sec. 27, T32N, R04W; 1730' FNL & 780' FWL**

1. Since no BOPE test pressures were proposed, it is recommended that Energen Resources test the BOP and related equipment according to Onshore Order No. 2 *Minimum Standards and Enforcement Provisions For Well Control Equipment Testing.*