

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**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. <b>NMSE 079483 A</b>	
2. Name of Operator <b>ENERGEN RESOURCES CORPORATION</b>		6. If Indian, Allottee or Tribe Name	
3a. Address <b>2198 Bloomfield Highway, Farmington, NM 87401</b>	3b. Phone No. (include area code) <b>(505) 325-6800</b>	7. If Unit or CA/Agreement, Name and/or No.	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>745' fnl, 1345' fel at surface (A S7, T30N, R4W) 760' fnl, 760' fwl at bottom (D S7, T30N, R4W)</b>		8. Well Name and No. <b>Carson 200S</b>	
		9. API Well No. <b>30-039-27589</b>	
		10. Field and Pool, or Exploratory Area <b>Basin Fruitland Coal</b>	
		11. County or Parish, State <b>Rio Arriba NM</b>	

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 recompleat 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 make the following changes to the Carson #200S:

\* Move from the APD approved new well pad site, twin the existing Carson #200 well pad, and directionally/horizontally drill to the drill block window of the Carson #200S.

\* Change the surface/bottom hole location from 1820' fnl, 685' fwl to a new surface hole location of 745' fnl, 1345' fel in UL A and new bottom hole location of 760' fnl, 760' fwl in UL D.

\* Change the setting depth of the 7" casing string to 3996' (TVD), 4750' (MD) and cement to surface with 650 sks 65/35 lead (1274 cuft) and tail with 125 sks class B (155 cuft).

\* Change the uncemented production liner to a 4 1/2" 11.6 ppf J-55 LT&C pre-drilled liner with setting depths of 3981'-3996' (TVD), 4700'-5796' (MD).

Information and indications attached on a revised C-102, Operations Plan, and Directional Drill Plan.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) <b>Nathan Smith</b>	Title <b>Drilling Engineer</b>
	Date <b>2/22/06</b>

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by <i>Bruce Hies</i>	Title <b>EPS</b>	Date <b>4/13/00</b>
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.	Office <b>FFO</b>	

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.

HOLD C104 FOR *Directional survey* NMUCD

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

DISTRICT II  
611 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Afton, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

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

RECEIVED  
AMENDED REPORT

OTD FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code	*Property Name CARSON	*Well Number 200S
*OGRD No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 7233'

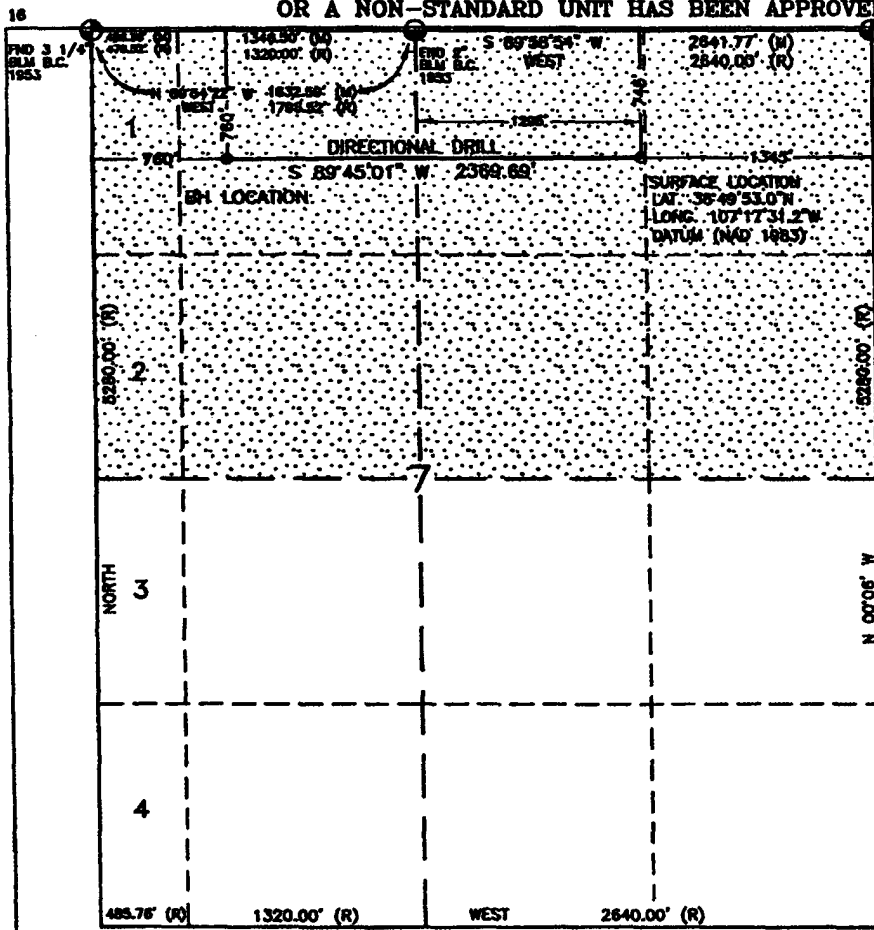
<sup>10</sup> Surface Location

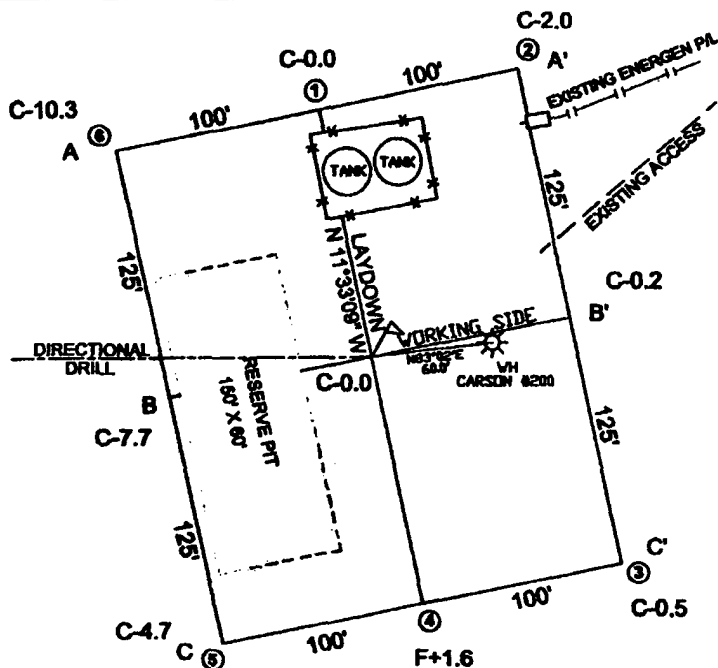
UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
B	7	30N	4W		745'	NORTH	1345'	EAST	RIO ARRIBA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
D	7	30N	4W		760'	NORTH	760'	WEST	RIO ARRIBA
Dedicated Acres 271.20 Acres - (N/2)			Joint or Infill		Consolidation Code		Order No.		

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



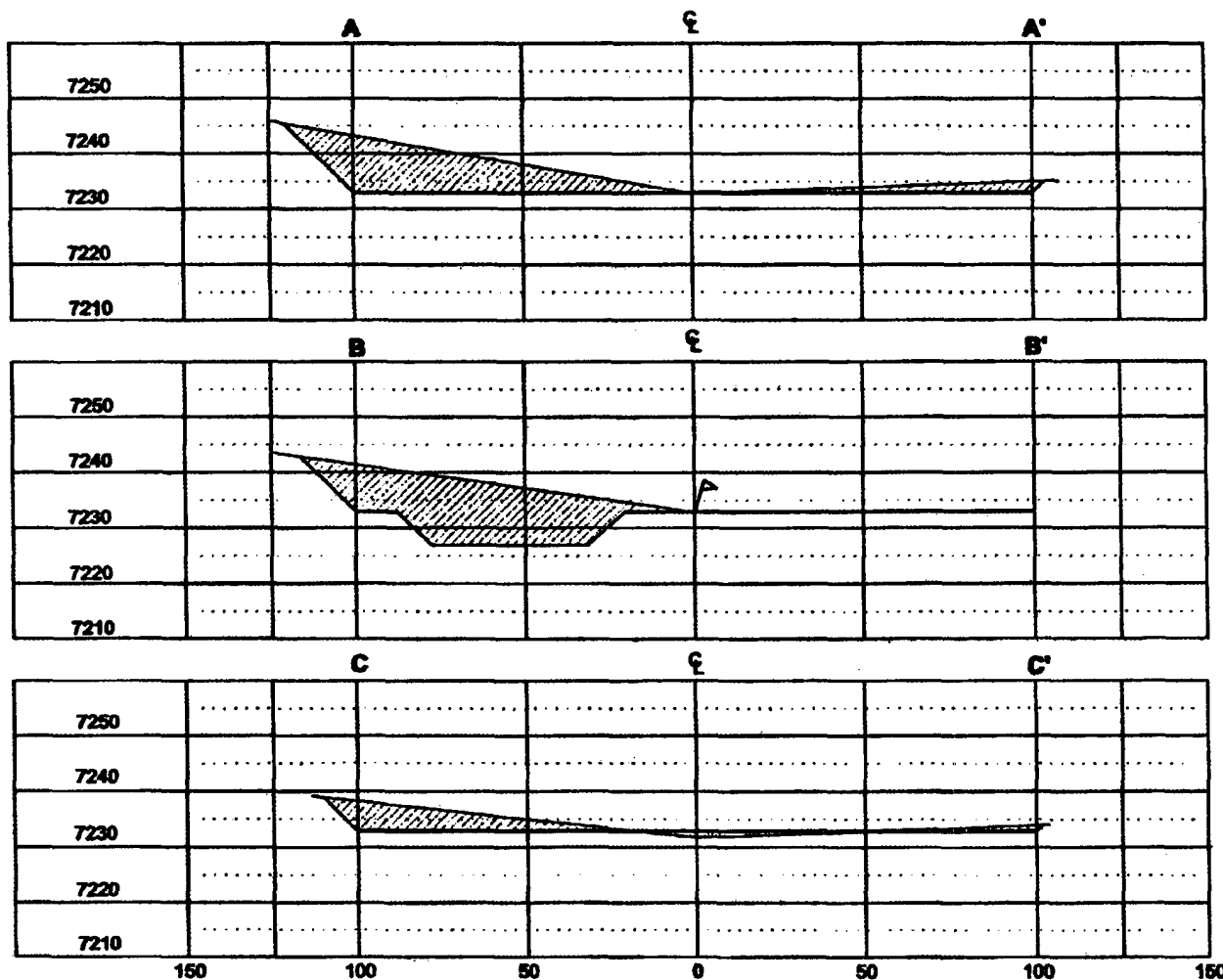


# ENERGEN RESOURCES CORPORATION

CARSON #200S  
 745' FNL & 1345' FEL  
 LOCATED IN THE NW/4 NE/4 OF SEC. 7,  
 T30N, R4W, N.M.P.M.,  
 RIO ARriba COUNTY, NEW MEXICO  
 ELEVATION: 7233', NAVD 88

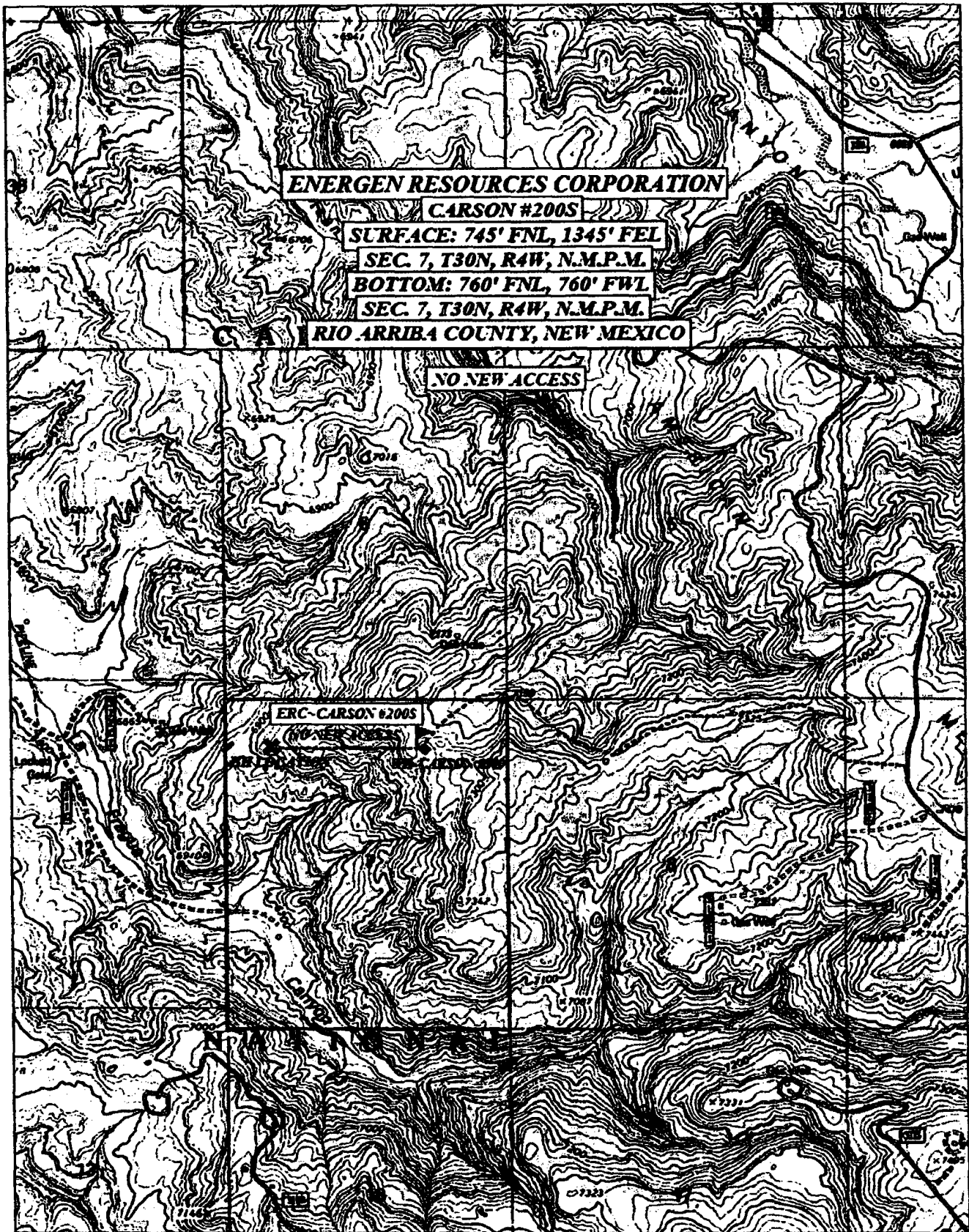


LATITUDE: 36°49'53.0"N  
 LONGITUDE: 107°17'31.2"W  
 DATUM: NAD 83



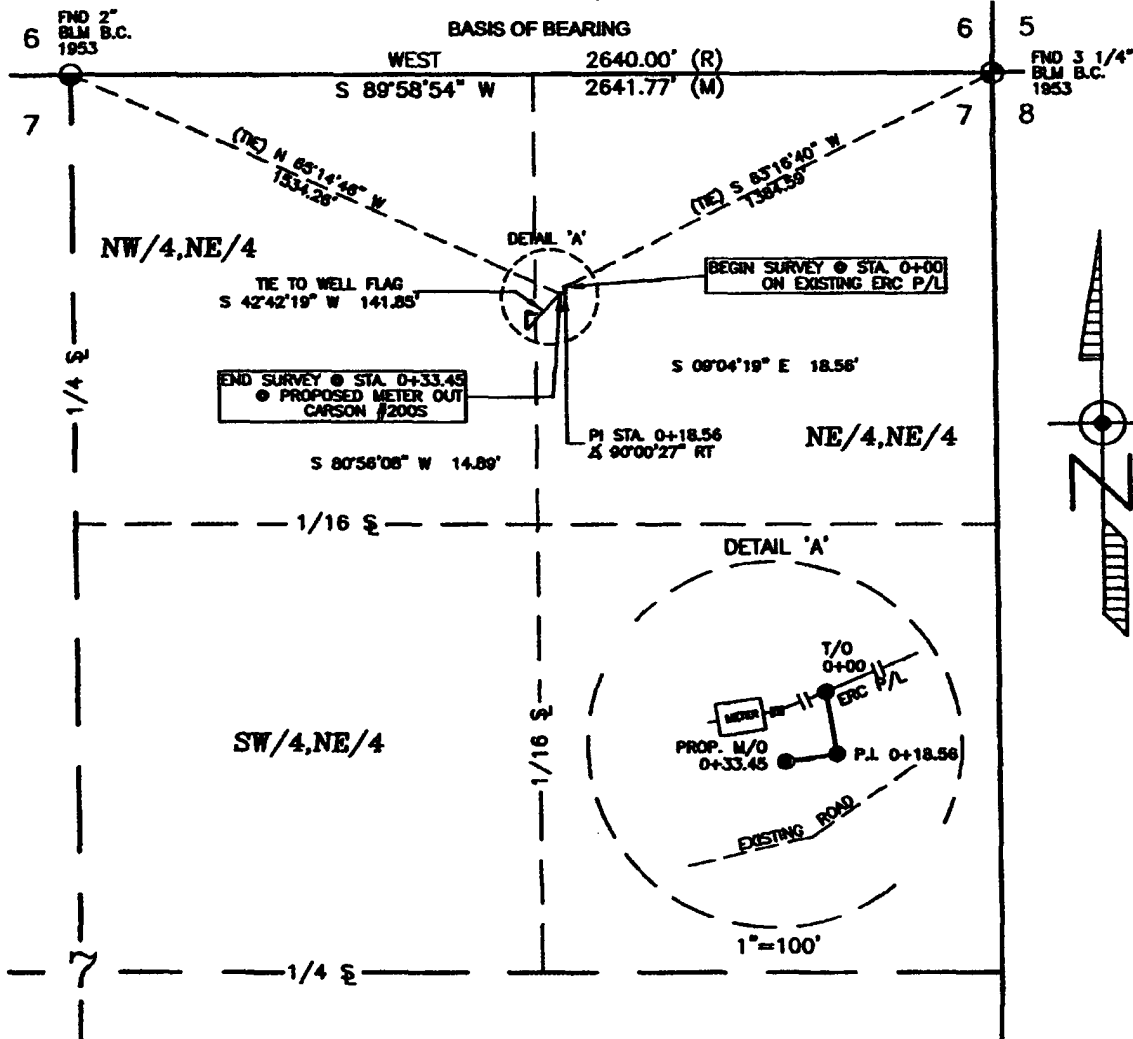
HORIZ. SCALE: 1"=50'  
 VERT. SCALE: 1"=30'

Russell Surveying  
 1409 W. Aztec Blvd. #5  
 Aztec, New Mexico 87410



Map created with TOPO! 8 ©2003 National Geographic (www.nationalgeographic.com topo)

A PROPOSED PIPELINE SURVEY  
FOR  
**ENERGEN RESOURCES CORPORATION**  
**CARSON #200S**  
LOCATED IN THE  
NE/4, NE/4 SECTION 7, T30N, R4W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO



**NOTES:**

1.) BASIS OF BEARING BETWEEN FOUND MONUMENTS AT THE NORTHEAST CORNER AND THE NORTH QUARTER CORNER OF SECTION 7, T30N, R4W, N.M.P.M. IS S 89°58'54" W 2641.77' (M). THE BEARING S 83°16'40" W A DISTANCE OF 2641.77 FEET AS MEASURED BY G.P.S.

2.) LOCATION OF UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. PRIOR TO CONSTRUCTION UNDERGROUND UTILITIES SHALL BE LOCATED BY G.P.S. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NEW MEXICO ONE-CM CONSTRUCTION ACT AND SHALL BE COMPLETED PRIOR TO CONSTRUCTION.

I, DAVID R. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR, CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAN MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

*David R. Russell*  
DAVID R. RUSSELL, PLS  
NEW MEXICO L.S. #10201



SURFACE OWNERSHIP	
CARSON NATIONAL FOREST	
0+00 TO 0+33.45	
33.45 FT / 2.03 RODS	
DATE OF SURVEY	11/28/05
BY	JLR



**Russell Surveying, Inc.**  
Specializing in Oil field Surveying  
1409 W. Aztec Blvd. #5, Aztec, N.M. 87410  
Phone (505) 334-8637 Fax (505) 334-8637  
REGISTERED LAND SURVEYOR  
NEW MEXICO LS #10201

**Drilling Plan**  
Revised February 22, 2006

**Carson #200S**

**General Information**

Location	745' fnl, 1345' fel at surface hole 760' fnl, 760' fwl at bottom hole nnnw S7, T30N, R04W Rio Arriba County, New Mexico
Elevations	7233' GL
Total Depth	3996' (TVD), 5796' (MD)
Formation Objective	Basin Fruitland Coal

**Formation Tops**

San Jose	Surface
Nacimiento	2060' (TVD)
Ojo Alamo Ss	3360' (TVD), 3400' (MD)
Kirtland Sh	3560' (TVD), 3640' (MD)
Fruitland Fm	3910' (TVD), 4250' (MD)
Top Coal	3981' (TVD), 4490' (MD)
Bottom Coal	3996' (TVD)
<b>Total Depth</b>	<b>3996' (TVD), 5796' (MD)</b>
Pictured Cliffs Ss	4040'

**Drilling**

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" 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 8.3 ppg to 8.9 ppg. Kick off point is at 2704' (TVD).

The 6 1/4" wellbore will be drilled with a fresh water or brine water system depending on reservoir characteristics.

**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: MWD gamma ray

Mud logs: From kick off point to TD

Natural Gauges: Surface and/or as needed for directional drilling

## 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	200'-3996' (TVD) 4750' (MD)	8 ¾"	7"	23.0 ppf	J-55 LT&C
Production	3981'-3996' (TVD) 4700'-5796' (MD)	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
Tubing	0'-4650'		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.

## Wellhead

11" x 9 5/8" 3000 psi Casing Head. 11" x 7 1/16" 3000 psi Christmas Tree.

## Cementing

Surface Casing: 125 sks Std (class B) with 1.0 % CaCl<sub>2</sub> and ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 147.5 ft<sup>3</sup> 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 650 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft<sup>3</sup>/sk) and a tail of 125 sks of Standard (Class B) cement with 5 #/sk Gilsonite, and ¼ #/sk Flocele (15.2 ppg, 1.24 ft<sup>3</sup>/sk). (1432 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface). WOC 12 hrs. Test casing to 1200 psi for 30 min.

Liner: NO CEMENT

## Other Information

- 1) This well will be an open hole completion.
- 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 are anticipated, however reservoir pressures may be 1200 psi.
- 5) This gas is dedicated.



## **Energen Resources Corporation**

**Rio Arriba, NM  
Sec.7 T30N-R4W  
CARSON 200S  
Wellbore #1**

**Plan: Plan #1**

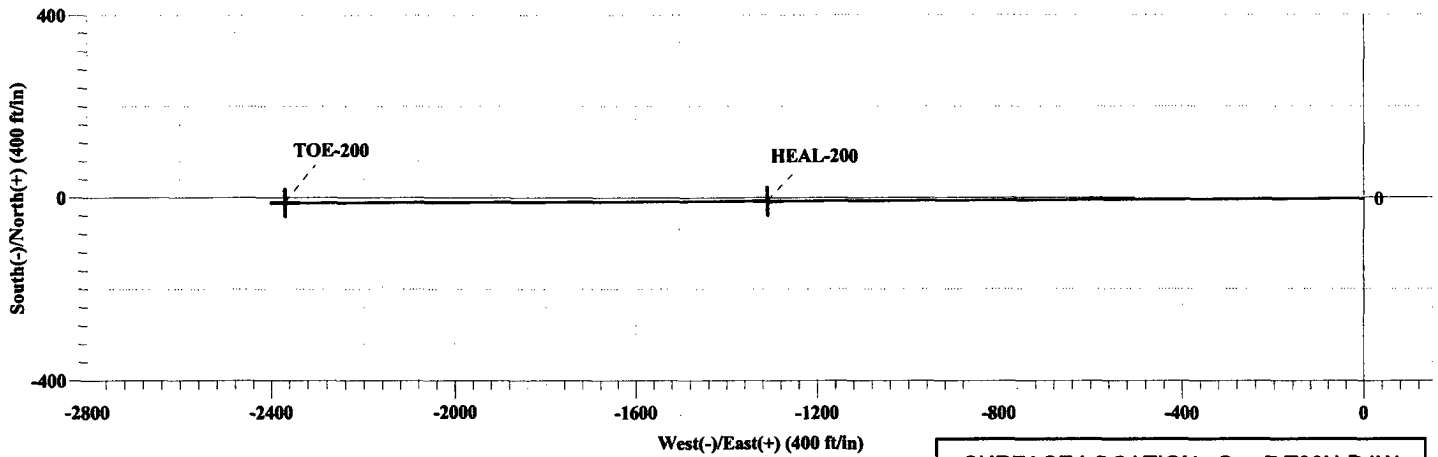
## **Standard Planning Report**

**22 February, 2006**



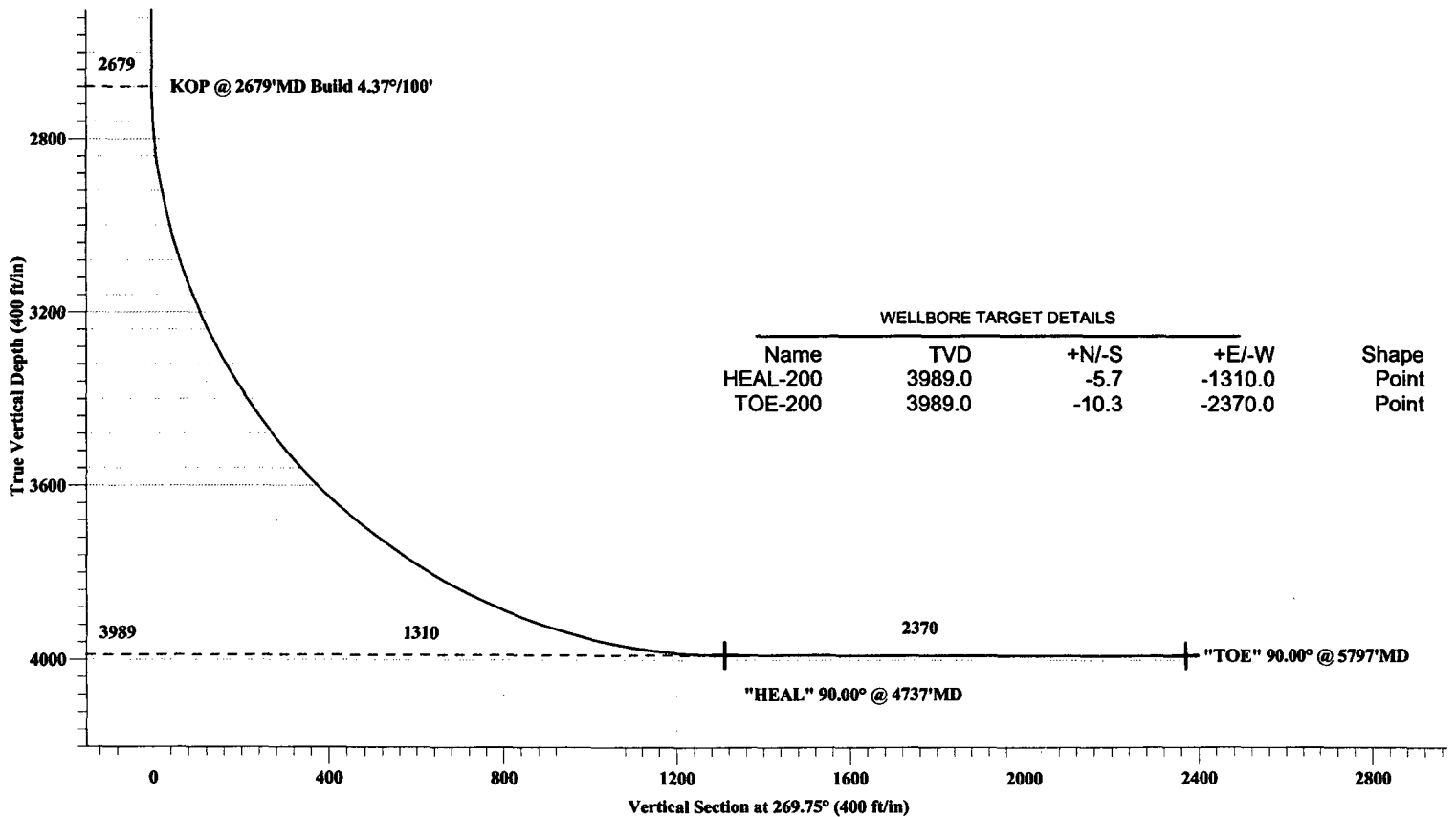
# Energen Resources Corp

CARSON 200S  
Sec.7 T30N-R4W  
Rio Arriba, NM



SURFACE LOCATION: Sec.7 T30N-R4W

745'FNL 1345'FEL



## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HEAL-200	3989.0	-5.7	-1310.0	Point
TOE-200	3989.0	-10.3	-2370.0	Point

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
2	2679.0	0.00		2679.0	0.0	0.0	0.00	0.0	
3	4736.7	90.00	269.75	3989.0	-5.7	-1310.0	4.37	269.75	HEAL-200
4	5796.7	90.00	269.75	3989.0	-10.3	-2370.0	0.00	0.00	TOE-200

Plan: Plan #1 (CARSON 200S/Wellbore #1)

Created By: Frank C. Scardino Date: 1/5/2006

**Database:** EDM 2003.14 Single User Db  
**Company:** Energen Resources Corporation  
**Project:** Rio Arriba, NM  
**Site:** Sec.7 T30N-R4W  
**Well:** CARSON 200S  
**Wellbore:** Wellbore #1  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well CARSON 200S  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	Rio Arriba, NM		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico Central 3002		

<b>Site</b>	Sec.7 T30N-R4W		
<b>Site Position:</b>		<b>Northing:</b>	-11,254,725.68 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	81,174,934.82 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	
		<b>Longitude:</b>	
		<b>Grid Convergence:</b>	0.01 °

<b>Well</b>	CARSON 200S		
<b>Well Position</b>	+N/-S	0.0 ft	<b>Northing:</b> -11,254,725.68 ft
	+E/-W	0.0 ft	<b>Easting:</b> 81,174,934.82 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	0° 0' 0.000 N
		<b>Longitude:</b>	1614° 28' 50.676 E
		<b>Ground Level:</b>	0.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005	12/31/2004			

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	269.75	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,679.0	0.00	0.00	2,679.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,736.7	90.00	269.75	3,989.0	-5.7	-1,310.0	4.37	4.37	0.00	269.75	HEAL-200
5,796.7	90.00	269.75	3,989.0	-10.3	-2,370.0	0.00	0.00	0.00	0.00	TOE-200

**Database:** EDM 2003.14 Single User Db  
**Company:** Energen Resources Corporation  
**Project:** Rio Arriba, NM  
**Site:** Sec.7 T30N-R4W  
**Well:** CARSON 200S  
**Wellbore:** Wellbore #1  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well CARSON 200S  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,679.0	0.00	0.00	2,679.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP @ 2679'MD Build 4.37°/100'</b>									
2,700.0	0.92	269.75	2,700.0	0.0	-0.2	0.2	4.37	4.37	0.00
2,800.0	5.29	269.75	2,799.8	0.0	-5.6	5.6	4.37	4.37	0.00
2,900.0	9.67	269.75	2,899.0	-0.1	-18.6	18.6	4.37	4.37	0.00
3,000.0	14.04	269.75	2,996.8	-0.2	-39.1	39.1	4.37	4.37	0.00
3,100.0	18.41	269.75	3,092.8	-0.3	-67.1	67.1	4.37	4.37	0.00
3,200.0	22.79	269.75	3,186.4	-0.4	-102.2	102.2	4.37	4.37	0.00
3,300.0	27.16	269.75	3,277.0	-0.6	-144.5	144.5	4.37	4.37	0.00
3,400.0	31.53	269.75	3,364.1	-0.8	-193.5	193.5	4.37	4.37	0.00
3,500.0	35.91	269.75	3,447.3	-1.1	-249.0	249.0	4.37	4.37	0.00
3,600.0	40.28	269.75	3,526.0	-1.4	-310.6	310.6	4.37	4.37	0.00
3,700.0	44.66	269.75	3,599.7	-1.6	-378.1	378.1	4.37	4.37	0.00
3,800.0	49.03	269.75	3,668.1	-2.0	-451.1	451.1	4.37	4.37	0.00
3,900.0	53.40	269.75	3,730.7	-2.3	-529.0	529.0	4.37	4.37	0.00
4,000.0	57.78	269.75	3,787.2	-2.7	-611.5	611.5	4.37	4.37	0.00
4,100.0	62.15	269.75	3,837.3	-3.0	-698.0	698.0	4.37	4.37	0.00
4,200.0	66.52	269.75	3,880.6	-3.4	-788.1	788.1	4.37	4.37	0.00
4,300.0	70.90	269.75	3,916.9	-3.8	-881.3	881.3	4.37	4.37	0.00
4,400.0	75.27	269.75	3,946.0	-4.3	-976.9	977.0	4.37	4.37	0.00
4,500.0	79.65	269.75	3,967.7	-4.7	-1,074.5	1,074.5	4.37	4.37	0.00
4,600.0	84.02	269.75	3,981.9	-5.1	-1,173.5	1,173.5	4.37	4.37	0.00
4,700.0	88.39	269.75	3,988.5	-5.6	-1,273.2	1,273.3	4.37	4.37	0.00
4,736.7	90.00	269.75	3,989.0	-5.7	-1,310.0	1,310.0	4.37	4.37	0.00
<b>"HEAL" 90.00° @ 4737'MD - HEAL-200</b>									
4,800.0	90.00	269.75	3,989.0	-6.0	-1,373.2	1,373.3	0.00	0.00	0.00
4,900.0	90.00	269.75	3,989.0	-6.4	-1,473.2	1,473.3	0.00	0.00	0.00
5,000.0	90.00	269.75	3,989.0	-6.9	-1,573.2	1,573.3	0.00	0.00	0.00
5,100.0	90.00	269.75	3,989.0	-7.3	-1,673.2	1,673.3	0.00	0.00	0.00
5,200.0	90.00	269.75	3,989.0	-7.7	-1,773.2	1,773.3	0.00	0.00	0.00
5,300.0	90.00	269.75	3,989.0	-8.2	-1,873.2	1,873.3	0.00	0.00	0.00
5,400.0	90.00	269.75	3,989.0	-8.6	-1,973.2	1,973.3	0.00	0.00	0.00
5,500.0	90.00	269.75	3,989.0	-9.0	-2,073.2	2,073.3	0.00	0.00	0.00
5,600.0	90.00	269.75	3,989.0	-9.5	-2,173.2	2,173.3	0.00	0.00	0.00
5,700.0	90.00	269.75	3,989.0	-9.9	-2,273.2	2,273.3	0.00	0.00	0.00
5,796.7	90.00	269.75	3,989.0	-10.3	-2,370.0	2,370.0	0.00	0.00	0.00
<b>"TOE" 90.00° @ 5797'MD - TOE-200</b>									

**Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
HEAL-200 - hit/miss target - Shape - Point	0.00	0.00	3,989.0	-5.7	-1,310.0	-11,253,415.76	81,174,921.03	0° 52' 22.965 S	1614° 28' 45.407 E
TOE-200 - plan hits target - Point	0.00	0.00	3,989.0	-10.3	-2,370.0	-11,252,355.81	81,174,909.88	1° 34' 46.123 S	1614° 28' 41.377 E

**Database:** EDM 2003.14 Single User Db  
**Company:** Energen Resources Corporation  
**Project:** Rio Arriba, NM  
**Site:** Sec.7 T30N-R4W  
**Well:** CARSON 200S  
**Wellbore:** Wellbore #1  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well CARSON 200S  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,679.0	2,679.0	0.0	0.0	KOP @ 2679'MD Build 4.37°/100'
4,736.7	3,989.0	-5.7	-1,310.0	"HEAL" 90.00° @ 4737'MD
5,796.7	3,989.0	-10.3	-2,370.0	"TOE" 90.00° @ 5797'MD