Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an

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

		_	_	_
5	Lease	Se	rial	No

MAM	28277
MAIM	252 I I

6. If Indian, Allottee or Tribe Name

abandoned well. Use Form	n 3160-3 (APD) fo.	r such proposals.	2007 FED -	7 M 6: 2	2
SUBMIT IN TRIPLICATE -	Other instructions	on reverse side	<u> </u>		Agreement, Name and/or No
1. Type of Well Oil Well X Gas Well Other 2. Name of Operator			C T M Park to po	8. Well Name an Arboles 20	
Energen Resources Corporation	<u> </u>	T::-:::		9. API Well No.	
3a. Address		3b. Phone No. (include are	ea code)	30-039-2745	3
2198 Bloomfield Hwy, Farmington, NM		505-325-6800			ol, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey I	-			Basin Fruit	land Coal
	20-32N-4W			11 County of D	onish State
At bottom: 1980' fsl, 2624' fwl				11. County or P	-
12. CHECK APPROPRIATE	BOX(ES) TO IN	DICATE NATURE OF	NOTICE REPO	Rio Arriba	NM SP DATA
TYPE OF SUBMISSION	BOX(E3) TO IIVE		PE OF ACTION	OKT, OK OTTI	LNDAIA
TIPE OF SUBMISSION			- COP ACTION		
X Notice of Intent	Acidize	Deepen	Production	(Start/Resume)	Water Shut-Off
	Alter Casing	Fracture Treat	Reclamatio	ո [Well Integrity
Subsequent Report	Casing Repair	New Construction	X Recomplete	. Г	Other
v	Change Plans	Plug and Abandon	Temporaril	_	
Final Abandonment Notice][-	
	Convert to Injecti	on Plug Back	Water Disp	oosal —	
following completion of the involved operations. It testing has been completed. Final Abandonment Metermined that the final site is ready for final inspection of the Energen Resources would like to describe the Final Resources would like to describe the Final and retriction of the Final and curve at 90 deg in the Final Curve at 90 deg in the Final Curve at 90 deg in the Final Run a 3 1/2" FJ 9.3 ppdf. J 4 1/2" J-55, S7C., 1/66 No below grade drilling pit will closed loop system.	Notices shall be filed or ction.) to a recompletic evable mechanic existing 7" 23 th a build up rate Fruitland Coal TD of 5957' MD, 55 pre-drilled	an of the Arboles 20 al set whipstockat ppf intermediate of 24.9 deg/100 at 4158' TVD. 4158' TVD according uncemented liner for	O A #1R as f 3928' TVD. casing. ft. ng to the at rown 3930'-59	n, have been composed to the c	pleted, and the operator has CVD APR6'07 IL CONS. DIV. DIST. 3 ectional plan.
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Nathan Smith		Title Drilli	ng Engineer		
		Date 2/5/07			
THIS	SPACE FOR FEE	ERAL OR STATE OF	FICE USE		
Approved by Original Signed: Stepho	en Mason	Title		Date	APR 0 & 2007
Conditions of approval, if any, are attached. Approval o certify that the applicant holds legal or equitable title to which would entitle the applicant to conduct operations the	those rights in the sub			L	, 0 0 200

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.

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

1220 S. St. Francis Dr., Santa Fe, NM 87505

District IV

2640.0

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, NM 87505

'API Number 'Pool Code 30-039-27453 71629		'Pool Name Basin Fruitland Coal		
'Property Code		perty Name es 20 A	'Well Number #1R	
OGRID No. 162928	'Ope Energen Resour	Elevation 7405 †		

¹⁰ Surface Location UL or lot no. Section Township Range Lot Idn North/South line Feet from the East/West line County L 20 32N 04W 14901 South 7901 West Rio Arriba 11 Bottom Hole Location If Different From Surface UL or lot no. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County Rang 1980' 2624' 32N 04W South 20 West Rio Arriba ¹ Dedicated Acres Joint or Infill Consolidation Code Order No. 320.00 S/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.

5270.10 16 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 g interest or unleased mineral interest in the land including the ttom hole location or has a right to drill this well at this location ct with an owner of such a mineral or working interest, 1/10/2007 Nathan Smith Printed Name 20 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by 2624' BHI. me or under my supervision, and that the same is true and correct to the best of my belief. SHL 790' April 16, 2003 Date of Survey Signature and Seal of Professional Surveyor: 1490 Original survey conducted and recorded by Jason C. Edwards 15269 Certificate Number

Energen Resources Carson Nat'l Forest; S20, T32N, R4W

Carson Nat'l Forest; S20, T32N, R4W Carracas Mesa Arboles 20 A #1R Arboles 20 A #1R ST API No.: 30-039-27453

Plan: Preliminary Design

Energen Resources - Survey

01 February, 2007



Project: Carson Nat'l Forest; S20, T32N, R4W

Site: Carracas Mesa Well: Arboles 20 A #1R

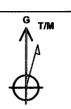
Wellbore: Arboles 20 A #1R ST

Plan: Preliminary Design (Arboles 20 A #1R/Arboles 20 A #1R ST)

PROJECT DETAILS: Carson Nat'l Forest; S20, T32N, R4W

Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: New Mexico Western Zone

System Datum: Mean Sea Level



Azimuths to Grid North True North: 89.57° Magnetic North: 89.57°

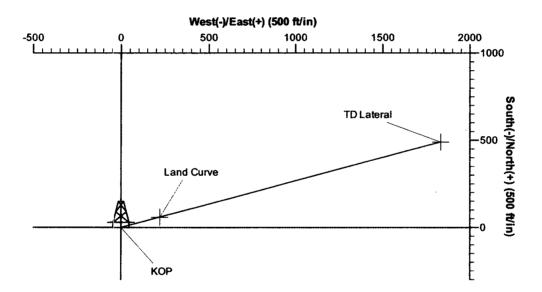
Magnetic Field Strength: 0.0snT Dip Angle: 0.00° Date: 2/1/2007 Model: IGRF200510

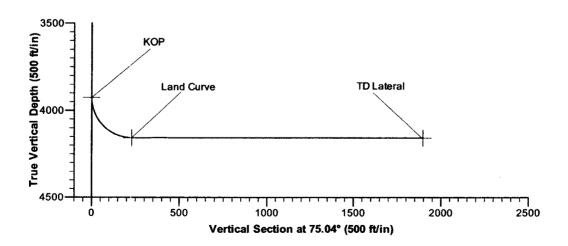
SURFACE LOCATION

86482229.87 Easting: Northing: -11255516.89

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	3928.0	0.00	0.00	3928.0	0.0	0.0	0.00	0.00	0.0	KOP
3	4289.3	90.00	75.04	4158.0	59.4	222.2	24.91	75.04	230.0	Land Curve
4	5957.3	90.00	75.04	4158.0	490.0	1833.7	0.00	0.00	1898.0	TD Lateral





Energen

Energen Resources - Survey



Company:

Energen Resources

Project:

Carson Nat'l Forest; S20, T32N, R4W

Site:

Carracas Mesa

Well: Wellbore: Design:

Arboles 20 A #1R Arboles 20 A #1R ST **Preliminary Design**

Local Co-ordinate Reference:

TVD Reference: MD Reference:

Well Arboles 20 A #1R KB @ 7420.0ft (Drilling Rig) KB @ 7420.0ft (Drilling Rig)

North Reference:

Survey Calculation Method:

Grid Minimum Curvature

EDM 2003.16 Single User Db

Carson Nat'l Forest; Si20, T32N, R4W Project Mean Sea Level Map System: US State Plane 1983 System Datum: North American Datum 1983 Geo Datum: Map Zone: New Mexico Western Zone Site Carracas Mesa Site Position: Northing: -11,255,516.89ft Latitude: Lat/Long Easting: 86,482,229.87ft Longitude: From: 0.01 ° 0.0 ft **Slot Radius: Grid Convergence: Position Uncertainty:**

Database:

Well Arboles 20 A #1R

Well Position

+N/-S

+E/-W

0.0 ft

0.0 ft

Northing:

Easting:

-11,255,516.89 ft 86,482,229.87 ft Latitude: Longitude:

0° 0' 0.000 N 1978° 37' 36.621 E

Position Uncertainty 0.0 ft Wellhead Elevation: 7,405.0 ft **Ground Level:** 7,405.0 ft

Wellbore Arboles 20 A #1R ST

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength (nT)

IGRF200510 2/1/2007

Design

Preliminary Design

Audit Notes:

Version:

Phase:

PROTOTYPE

Tie On Depth:

0.0

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.0 0.0 0.0 75.04

Survey Tool F	rogram		Date 2/1/2007			
From (ft)		To (ft)	Survey (Wellbore)	Tool Name	Description	
	0.0	5,957.	3 Preliminary Design (Arboles 20 A	A#1R ST) MWD	MWD - Standard	

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

Energen

Energen Resources - Survey



Company:

Energen Resources

Project: Site:

Carson Nat'l Forest; S20, T32N, R4W

Well: Wellbore: Carracas Mesa Arboles 20 A #1R Arboles 20 A #1R ST Preliminary Design

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:** Well Arboles 20 A #1R KB @ 7420.0ft (Drilling Rig)

KB @ 7420.0ft (Drilling Rig) Grid

Minimum Curvature

Design:	Preliminary Design		Database:		EDM 2003.		
Planned Surve	ру						
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)	
1,200.0	1,200.0	0.00	0.00	0.0	0.0	0.0	
1,300.0	1,300.0	0.00	0.00	0.0	0.0	0.0	
1,400.0	1,400.0	0.00	0.00	0.0	0.0	0.0	
1,500.0	1,500.0	0.00	0.00	0.0	0.0	0.0	
1,600.0	1,600.0	0.00	0.00	0.0	0.0	0.0	
1,700.0	1,700.0	0.00	0.00	0.0	0.0	0.0	
1,800.0	1,800.0	0.00	0.00	0.0	0.0	0.0	
1,900.0	1,900.0	0.00	0.00	0.0	0.0	0.0	
2,000.0	2,000.0	0.00	0.00	0.0	0.0	0.0	
2,000.0	2,100.0	0.00	0.00	0.0	0.0	0.0	
2,100.0	2,200.0	0.00	0.00	0.0	0.0	0.0	
2,300.0	2,300.0	0.00	0.00	0.0	0.0	0.0	
2,400.0	2,400.0	0.00	0.00	0.0	0.0	0.0	
2,500.0	2,500.0	0.00	0.00	0.0	0.0	0.0	
2,600.0	2,600.0	0.00	0.00	0.0	0.0	0.0	
2,700.0	2,700.0	0.00	0.00	0.0	0.0	0.0	
2,800.0	2,800.0	0.00	0.00	0.0	0.0	0.0	
2,900.0	2,900.0	0.00	0.00	0.0	0.0	0.0	
3,000.0	3,000.0	0.00	0.00	0.0	0.0	0.0	
3,100.0	3,100.0	0.00	0.00	0.0	0.0	0.0	
3,200.0	3,200.0	0.00	0.00	0.0	0.0	0.0	
3,300.0	3,300.0	0.00	0.00	0.0	0.0	0.0	
3,400.0	3,400.0	0.00	0.00	0.0	0.0	0.0	
3,500.0	3,500.0	0.00	0.00	0.0	0.0	0.0	
3,600.0	3,600.0	0.00	0.00	0.0	0.0	0.0	
3,700.0	3,700.0	0.00	0.00	0.0	0.0	0.0	
3,800.0	3,800.0	0.00	0.00	0.0	0.0	0.0	
3,900.0	3,900.0	0.00	0.00	0.0	0.0	0.0	
3,928.0	3,928.0	0.00	0.00	0.0	0.0	0.0	
KOP	•,			***			
3,940.0	3,940.0	2.99	75.04	0.3	0.1	0.3	
3,960.0	3,959.9	7.97	75.04	2.2	0.6	2.1	
3,980.0	3,979.6	12.95	75.04	5.9	1.5	5.7	
4,000.0	3,998.8	17.94	75.04	11.2	2.9	10.8	
4,020.0	4,017.6	22.92	75.04	18.2	4.7	17.5	
4,040.0	4,035.6	27.90	75.04	26.7	6.9	25.8	
4,060.0	4,052.9	32.88	75.04	36.8	9.5	35.6	
4,080.0	4,069.2	37.87	75.04	48.4	12.5	46.8	
4,100.0	4,084.4	42.85	75.04	61.4	15.8	59.3	
4,120.0	4,098.5	47.83	75.04		19.5·	73.0	
4,120.0 4,140.0	4,098.5 4,111.2	47.83 52.81	75.04 75.04	75.6 91.0	23.5	73.0 87.9	
4,140.0	4,122.6	52.61 57.79	75.04 75.04	107.4	23.5 27.7	103.8	
4,180.0	4,132.5	62.78	75.04 75.04	124.8	32.2	120.6	
4,200.0	4,140.9	67.76	75.04 75.04	142.9	36.9	138.1	

Energen

Energen Resources - Survey



Company:

Energen Resources

Project: Site:

Carson Nat'l Forest; S20, T32N, R4W

Well: Welibore: Carracas Mesa Arboles 20 A #1R Arboles 20 A #1R ST

Design:

Preliminary Design

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Database:

Well Arboles 20 A #1R

KB @ 7420.0ft (Drilling Rig) KB @ 7420.0ft (Drilling Rig)

Grid

Minimum Curvature

EDM 2003.16 Single User Db

-	,	•			Juana.				
Planned Survey									
MD (ft)	TVD (ft)		Inc (°)	Azi (°)		V. Sec (ft)	N/S (ft)	E/W (ft)	
4,220.0	4,147.6	7	2.74	75.04		161.8	41.8	156.3	
4,240.0	4,152.7	7	7.72	75.04		181.1	46.7	175.0	
4,260.0	4,156.1	8	32.71	75.04		200.8	51.8	194.0	
4,280.0	4,157.8	8	37.69	75.04		220.7	57.0	213.2	
4,289.3	4,158.0	9	00.00	75.04		230.0	59.4	222.2	
Land Curve									
4,300.0	4,158.0	g	00.00	75.04		240.7	62.1	232.6	
4,400.0	4,158.0		00.00	75.04		340.7	88.0	329.2	
4,500.0	4,158.0		0.00	75.04		440.7	113.8	425.8	
4,600.0	4,158.0		00.00	75.04		540.7	139.6	522.4	
4,700.0	4,158.0		00.00	75.04		640.7	165.4	619.0	
4,800.0	4,158.0		0.00	75.04		740.7	191.2	715.6	
4,900.0	4,158.0		0.00	75.04		840.7 940.7	217.0	812.2 908.8	
5,000.0	4,158.0 4.158.0		0.00	75.04 75.04			242.8		
5,100.0	4,158.0		0.00 0.00	75.04 75.04		1,040.7	268.7	1,005.4	
5,200.0	4,158.0	*	0.00	75.04		1,140.7	294.5	1,102.1	
5,300.0	4,158.0	9	0.00	75.04		1,240.7	320.3	1,198.7	
5,400.0	4,158.0	9	0.00	75.04		1,340.7	346.1	1,295.3	
5,500.0	4,158.0		00.00	75.04		1,440.7	371.9	1,391.9	
5,600.0	4,158.0	9	0.00	75.04		1,540.7	397.7	1,488.5	
5,700.0	4,158.0	9	0.00	75.04		1,640.7	423.5	1,585.1	
5,800.0	4,158.0	g	00.00	75.04		1,740.7	449.4	1,681.7	
5,900.0	4,158.0	9	0.00	75.04		1,840.7	475.2	1,778.3	
5,957.3	4,158.0	g	0.00	75.04		1,898.0	490.0	1,833.7	
TD Lateral									
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
KOP - plan hits target - Point	0.00	360.00	3,928.0	0.0	0.0	-11,255,516.89	86,482,229.87	0° 0' 0.000 N	1978° 37' 36.621 E
Land Curve - plan hits target - Point	0.00	0.00	4,158.0	59.4	222.2	-11,255,457.52	86,482,452.07	0° 3' 0.234 S	1978° 39' 19.273 E
TD Lateral - plan hits target - Point	0.00	0.00	4,158.0	490.0	1,833.7	-11,255,026.93	86,484,063.54	0° 24' 47.498 S	1978° 51' 43.776 E
Checked By:				Approved	By: //	whi-sh	2	Date: 2	15/07