

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Energen Resources Corporation

3a. Address

2198 Bloomfield Hwy, Farmington, NM 87401

3b. Phone No. (include area code)

505-325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

At surface: 755' fnl, 2375' fel

At bottom: 760' fnl, 760' fel

TSS

5. Lease Serial No.

NM4461

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Elk Horn #101

9. API Well No.

30-039-27450

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

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

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☒ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other

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 recompletable 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 recompletable 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.)

Due to being unable to pull the liner and re-cavitate the Elk Horn #101, Energen Resources proposes a re-completion of the Elk Horn #101 in the Basin Fruitland Coal by drilling a horizontal lateral off the existing vertical wellbore as indicated on the revised attached C-102 and directional wellplan. A whipstock will be set at 3245' +/- (TVD) and a window milled in the existing 7" casing. The lateral will be drilled to 4995' (MD), 3490' (TVD). This will be an open hole completion. 2 3/8" tubing will be landed at 3578' (TVD) in the 7" casing.

HOLD C104 FOR Directional Survey

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

Nathan Smith

Title

Drilling Engineer

Date 10/23/2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Office

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.

NMOC

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 June 10, 2003

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27450	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code	⁵ Property Name Elk Horn	⁶ Well Number #101
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 6815

¹⁰ Surface Location

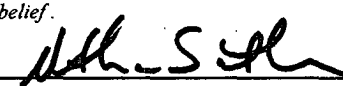
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	29	32N	5W		755	North	2375	East	Rio Arriba

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
A	29	32N	5W		760-755	North	760	East	Rio Arriba

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

16	755'	2375'	755'	760'	760'	SHL	BHL	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. 
								Signature
								Printed Name Nathan Smith Drilling Engineer
								Title and E-mail Address 10/23/06 Date
								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. April 21, 2003 Date of Survey Signature and Seal of Professional Surveyer: Original recorded and conducted by Jason C. Edwards. 15269 Certificate Number

Energen Resources

Quintana Mesa

S29 T32N R5W

Elkhorn #101 Sidetrack

Sidetrack Lateral

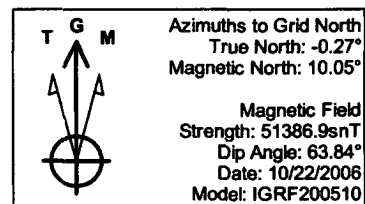
Plan: Plan #1

Energen Resources - Design

22 October, 2006



Project: Quintana Mesa
Site: Elkhorn #101
Well: Elkhorn #101 Sidetrack
Wellbore: Sidetrack Lateral
Plan: Plan #1 (Elkhorn #101 Sidetrack)

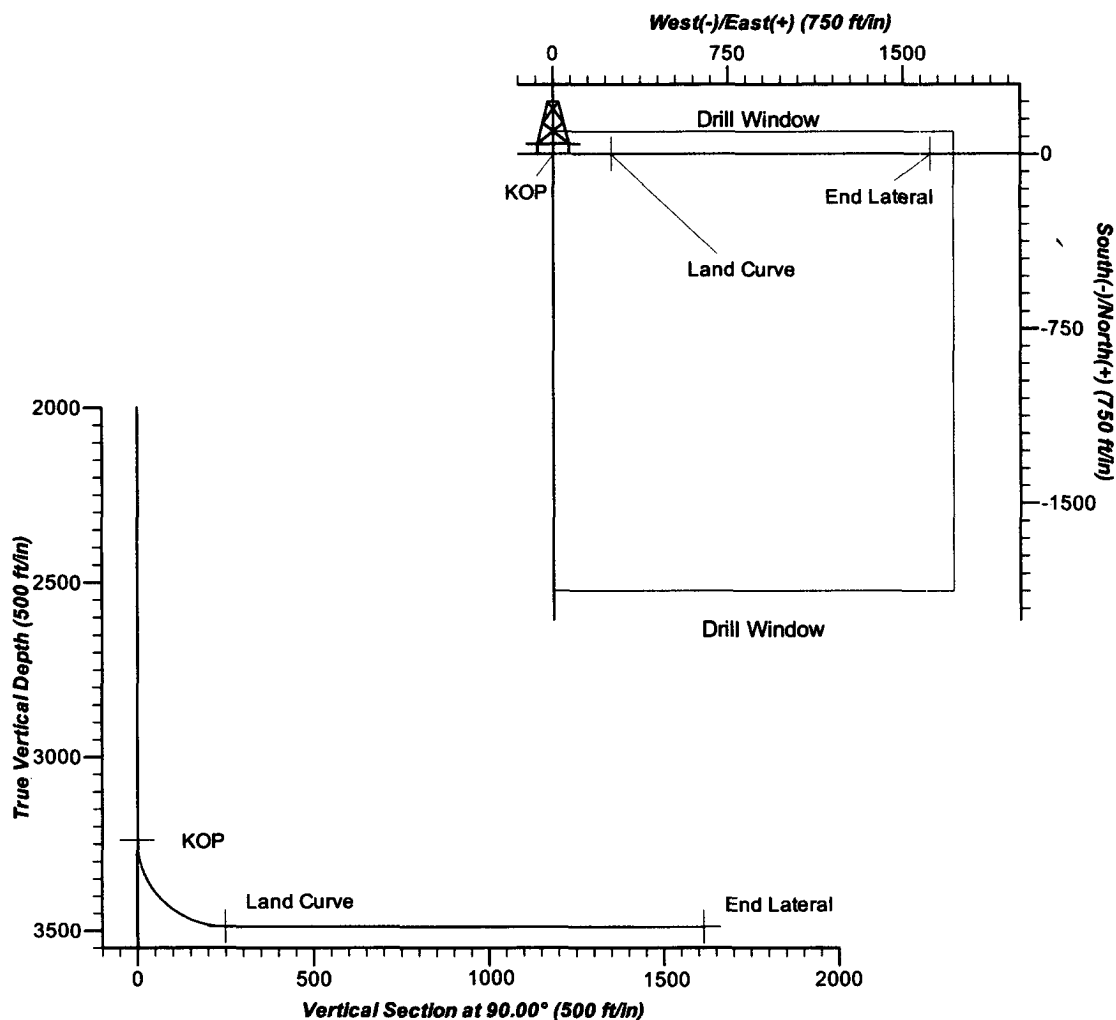


PROJECT DETAILS: Quintana Mesa	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Western Zone
System Datum:	Mean Sea Level

SURFACE LOCATION	
Easting:	2854246.07
Northing:	2167764.37

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	3240.0	0.00	0.00	3240.0	0.0	0.0	0.00	0.00	0.0	KOP
3	3632.7	90.00	90.00	3490.0	0.0	250.0	22.92	90.00	250.0	Land Curve
4	4997.7	90.00	90.00	3490.0	0.0	1615.0	0.00	0.00	1615.0	End Lateral



Energen
Energen Resources - Design



Company:	Energen Resources	Local Co-ordinate Reference:	Well Elkhorn #101 Sidetrack
Project:	Quintana Mesa	TVD Reference:	Rig Floor @ 6830.0ft (AWS 56)
Site:	Elkhorn #101	MD Reference:	Rig Floor @ 6830.0ft (AWS 56)
Well:	Elkhorn #101 Sidetrack	North Reference:	Grid
Wellbore:	Sidetrack Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Project	Quintana Mesa, Rio Arriba County, New Mexico, Re-Completion		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Elkhorn #101				
Site Position:		Northing:	2,167,764.37 ft	Latitude:	36° 57' 23.000 N
From:	Lat/Long	Easting:	2,854,246.07 ft	Longitude:	107° 23' 4.000 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.27 °

Well	Elkhorn #101 Sidetrack				
Well Position	+N/-S	0.0 ft	Northing:	2,167,764.37 ft	Latitude: 36° 57' 23.000 N
	+E/-W	0.0 ft	Easting:	2,854,246.07 ft	Longitude: 107° 23' 4.000 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	6,815.0 ft	Ground Level:	6,815.0ft

Wellbore	Sidetrack Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/22/2006	10.32	63.84	51,387

Design	Plan #1				
Audit Notes:					
Version:	1	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	90.00	

Survey Tool Program	Date 10/22/2006			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	0.0	Plan #1 (Sidetrack Lateral)		

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
0.0	0.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
100.0	100.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
200.0	200.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
300.0	300.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
400.0	400.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
500.0	500.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
600.0	600.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
700.0	700.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
800.0	800.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
900.0	900.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,000.0	1,000.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,100.0	1,100.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07

Energen
Energen Resources - Design



Company: Energen Resources
Project: Quintana Mesa
Site: Elkhorn #101
Well: Elkhorn #101 Sidetrack
Wellbore: Sidetrack Lateral
Design: Plan #1

Local Co-ordinate Reference: Well Elkhorn #101 Sidetrack
TVD Reference: Rig Floor @ 6830.0ft (AWS 56)
MD Reference: Rig Floor @ 6830.0ft (AWS 56)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
1,200.0	1,200.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,300.0	1,300.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,400.0	1,400.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,500.0	1,500.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,600.0	1,600.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,700.0	1,700.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,800.0	1,800.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
1,900.0	1,900.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,000.0	2,000.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,100.0	2,100.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,200.0	2,200.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,300.0	2,300.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,400.0	2,400.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,500.0	2,500.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,600.0	2,600.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,700.0	2,700.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,800.0	2,800.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
2,900.0	2,900.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
3,000.0	3,000.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
3,100.0	3,100.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
3,200.0	3,200.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
3,240.0	3,240.0	0.00	0.00	0.00	0.0	2,167,764.37	2,854,246.07
KOP							
3,250.0	3,250.0	2.29	90.00	22.92	0.2	2,167,764.37	2,854,246.27
3,275.0	3,274.9	8.02	90.00	22.92	2.4	2,167,764.37	2,854,248.51
3,300.0	3,299.4	13.75	90.00	22.92	7.2	2,167,764.37	2,854,253.23
3,325.0	3,323.4	19.48	90.00	22.92	14.3	2,167,764.37	2,854,260.38
3,350.0	3,346.5	25.21	90.00	22.92	23.8	2,167,764.37	2,854,269.88
3,375.0	3,368.5	30.94	90.00	22.92	35.6	2,167,764.37	2,854,281.64
3,400.0	3,389.3	36.67	90.00	22.92	49.5	2,167,764.37	2,854,295.54
3,425.0	3,408.6	42.40	90.00	22.92	65.4	2,167,764.37	2,854,311.45
3,450.0	3,426.2	48.13	90.00	22.92	83.1	2,167,764.37	2,854,329.20
3,475.0	3,441.9	53.86	90.00	22.92	102.6	2,167,764.37	2,854,348.62
3,500.0	3,455.6	59.59	90.00	22.92	123.4	2,167,764.37	2,854,369.51
3,525.0	3,467.2	65.32	90.00	22.92	145.6	2,167,764.37	2,854,391.67
3,550.0	3,476.4	71.05	90.00	22.92	168.8	2,167,764.37	2,854,414.87
3,575.0	3,483.4	76.78	90.00	22.92	192.8	2,167,764.37	2,854,438.88
3,600.0	3,487.9	82.51	90.00	22.92	217.4	2,167,764.37	2,854,463.46
3,625.0	3,489.9	88.24	90.00	22.92	242.3	2,167,764.37	2,854,488.37
3,632.7	3,490.0	90.00	90.00	22.92	250.0	2,167,764.37	2,854,496.07
Land Curve							
3,700.0	3,490.0	90.00	90.00	0.00	317.3	2,167,764.37	2,854,563.37
3,800.0	3,490.0	90.00	90.00	0.00	417.3	2,167,764.37	2,854,663.37
3,900.0	3,490.0	90.00	90.00	0.00	517.3	2,167,764.37	2,854,763.37
4,000.0	3,490.0	90.00	90.00	0.00	617.3	2,167,764.37	2,854,863.37

Energen
Energen Resources - Design



Company: Energen Resources	Local Co-ordinate Reference: Well Elkhorn #101 Sidetrack
Project: Quintana Mesa	TVD Reference: Rig Floor @ 6830.0ft (AWS 56)
Site: Elkhorn #101	MD Reference: Rig Floor @ 6830.0ft (AWS 56)
Well: Elkhorn #101 Sidetrack	North Reference: Grid
Wellbore: Sidetrack Lateral	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)	Northing (ft)	Easting (ft)
4,100.0	3,490.0	90.00	90.00	0.00	717.3	2,167,764.37	2,854,963.37
4,200.0	3,490.0	90.00	90.00	0.00	817.3	2,167,764.37	2,855,063.37
4,300.0	3,490.0	90.00	90.00	0.00	917.3	2,167,764.37	2,855,163.37
4,400.0	3,490.0	90.00	90.00	0.00	1,017.3	2,167,764.37	2,855,263.37
4,500.0	3,490.0	90.00	90.00	0.00	1,117.3	2,167,764.37	2,855,363.37
4,600.0	3,490.0	90.00	90.00	0.00	1,217.3	2,167,764.37	2,855,463.37
4,700.0	3,490.0	90.00	90.00	0.00	1,317.3	2,167,764.37	2,855,563.37
4,800.0	3,490.0	90.00	90.00	0.00	1,417.3	2,167,764.37	2,855,663.37
4,900.0	3,490.0	90.00	90.00	0.00	1,517.3	2,167,764.37	2,855,763.37
4,997.7	3,490.0	90.00	90.00	0.00	1,615.0	2,167,764.37	2,855,861.07

End 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
End Lateral - plan hits target - Point	0.00	0.00	3,490.0	0.0	1,615.0	2,167,764.37	2,855,861.07	36° 57' 22.924 N	107° 22' 44.102 W
KOP - plan hits target - Point	0.00	0.00	3,240.0	0.0	0.0	2,167,764.37	2,854,246.07	36° 57' 23.000 N	107° 23' 4.000 W
Land Curve - plan hits target - Point	0.00	0.00	3,490.0	0.0	250.0	2,167,764.37	2,854,496.07	36° 57' 22.988 N	107° 23' 0.920 W
Drill Window - plan hits target - Rectangle (sides W1,970.0 H1,615.0 D0.0)	0.00	0.00	0.0	0.0	0.0	2,167,764.37	2,854,246.07	36° 57' 23.000 N	107° 23' 4.000 W

Checked By: _____	Approved By: _____	Date: _____
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