

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

5. Lease Serial No.

NM 30351

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Carracas 22A #13

9. API Well No.

30-039-24412

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

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input checked="" type="checkbox"/> Recomplete     | <input type="checkbox"/> Other          |
| <input 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            |   |

3. 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 recompleate 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 recompleation 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 proposes a recompleation of the Carracas 22A #13 in the Basin Fruitland Coal by drilling a horizontal lateral off the existing vertical wellbore as indicated on the attached C-102 and directional wellplan. A whipstock will be set at 3507' +/- (TVD), and a window milled in the existing 5 1/2" casing. The lateral will be drilled to 5224' (MD), 3719' (TVD). This will be an open hole completion. 2 3/8" tubing will be landed at 3719' (TVD) in the 5 1/2" casing.



## CONDITIONS OF APPROVAL

Adhere to previously issued stipulations.

SEE ATTACHED FOR  
CONDITIONS OF APPROVALHOLD C104 FOR Directional Survey

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

Nathan Smith

Title

Drilling Engineer

Date 3/20/06

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Matt HalbertTitle PETE ENGDate 3/23/06

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

BLM-FFO

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.

NMUCD

DISTRICT I  
1825 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  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code	*Pool Name UP FRUITLAND COAL
*Property Code	*Property Name CARRACAS 22 A		*Well Number 13
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 7022'

<sup>10</sup> Surface Location

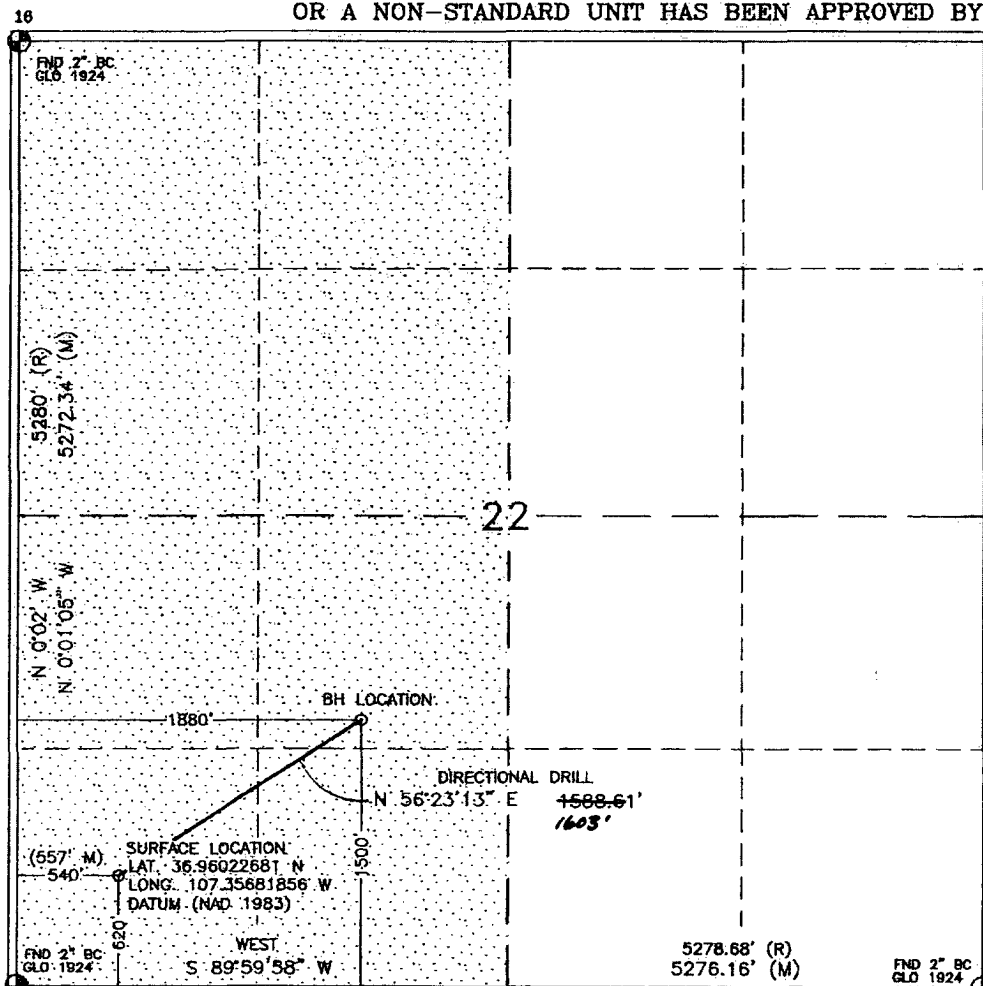
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	22	32N	5W		620'	SOUTH	540'	WEST	RIO ARRIBA

<sup>11</sup> 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
K	22	32N	5W		1500'	SOUTH	1880'	WEST	RIO ARRIBA

<sup>12</sup> Dedicated Acres 319.26 Acres - (W/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Nathan Smith*  
Signature  
Nathan Smith  
Printed Name  
Drilling Engineer  
Title  
3/14/06  
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.

FEBRUARY 24, 2006  
Date of Survey  
Signature and Seal of Professional Surveyor  
DAVID R. RUSSELL  
Certificate Number 10201



# **Energen Resources Corporation**

**Rio Arriba, NM**

**Sec.22 T32N-R5W NMPM**

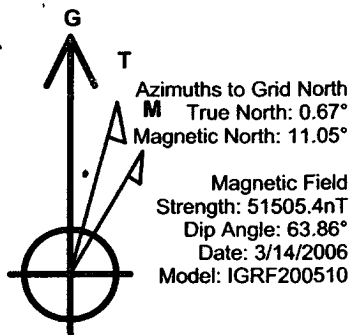
**Carracas 22A-13**

**Wellbore #1**

**Plan: Plan #1**

## **Standard Planning Report**

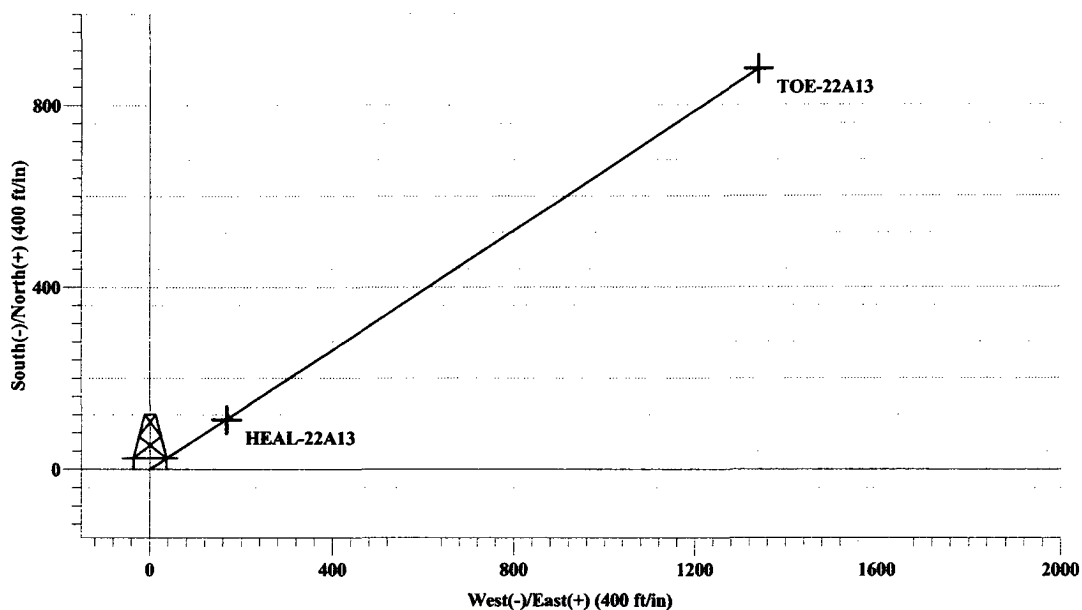
**14 March, 2006**



# Energen Resources Corp.

*Carracas 22A-13*  
*Sec.22 T32N-R5W NMPM*  
*RIO ARRIBA Co., NM*

**PATHFINDER**  
**ENERGY SERVICES**

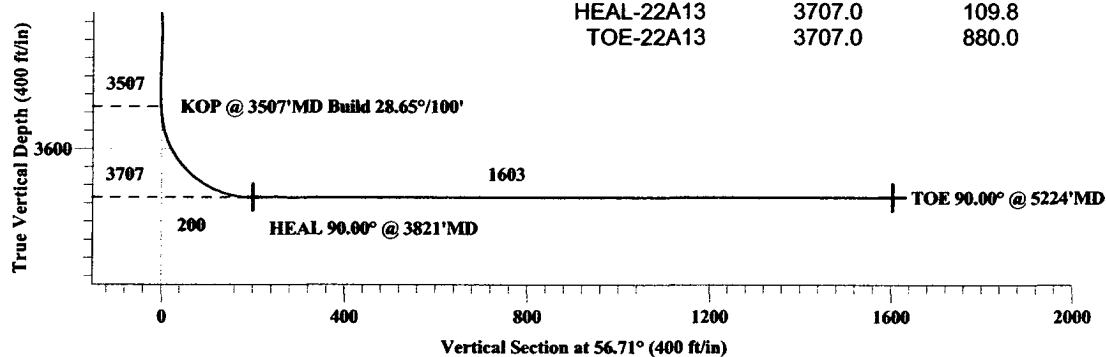


SURFACE LOCATION: Carracas 22A-13

620'FSL 540'FWL

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HEAL-22A13	3707.0	109.8	167.2	Point
TOE-22A13	3707.0	880.0	1340.0	Point



## 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	3507.0	0.00	0.00	3507.0	0.0	0.0	0.00	0.00	0.0	
3	3821.2	90.00	56.71	3707.0	109.8	167.2	28.65	56.71	200.0	HEAL-22A13
4	5224.4	90.00	56.71	3707.0	880.0	1340.2	0.00	0.00	1603.3	TOE-22A13

Plan: Plan #1 (Carracas 22A-13/Wellbore #1)

Created By: Frank C. Scardino Date: 3/14/2006

**Database:** EDM 2003.14 Single User Db  
**Company:** Energen Resources Corporation  
**Project:** Rio Arriba, NM  
**Site:** Sec.22 T32N-R5W NMPM  
**Well:** Carracas 22A-13  
**Wellbore:** Wellbore #1  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Carracas 22A-13  
**TVD Reference:** WELL @ 0.0ft (Original Well Elev)  
**MD Reference:** WELL @ 0.0ft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

**Project:** Rio Arriba, NM  
**Map System:** US State Plane 1983  
**Geo Datum:** North American Datum 1983  
**Map Zone:** New Mexico Central Zone  
**System Datum:** Mean Sea Level

**Site:** Sec.22 T32N-R5W NMPM  
**Site Position:**  
**From:** Lat/Long  
**Position Uncertainty:** 0.0 ft  
**Northing:** 2,170,694.68 ft  
**Easting:** 1,317,048.16 ft  
**Slot Radius:** \*  
**Latitude:** 36° 57' 36.817 N  
**Longitude:** 107° 21' 24.547 W  
**Grid Convergence:** -0.67 °

**Well:** Carracas 22A-13  
**Well Position:** +N/-S 0.0 ft  
**Well Position:** +E/-W 0.0 ft  
**Position Uncertainty:** 0.0 ft  
**Northing:** 2,170,694.68 ft  
**Easting:** 1,317,048.16 ft  
**Wellhead Elevation:** ft  
**Latitude:** 36° 57' 36.817 N  
**Longitude:** 107° 21' 24.547 W  
**Ground Level:** 0.0 ft

**Wellbore:** Wellbore #1  
**Magnetics:**  
**Model Name:** IGRF200510  
**Sample Date:** 3/14/2006  
**Declination (°):** 10.38  
**Dip Angle (°):** 63.86  
**Field Strength (nT):** 51,505

**Design:** Plan #1  
**Audit Notes:**  
**Version:** Phase: PROTOTYPE Tie On Depth: 0.0  
**Vertical Section:**  
**Depth From (TVD) (ft):** 0.0  
**+N/-S (ft):** 0.0  
**+E/-W (ft):** 0.0  
**Direction (°):** 56.71

**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	
3,507.0	0.00	0.00	3,507.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,821.2	90.00	56.71	3,707.0	109.8	167.2	28.65	28.65	0.00	56.71	HEAL-22A13
5,224.4	90.00	56.71	3,707.0	880.0	1,340.2	0.00	0.00	0.00	0.00	TOE-22A13

Database: EDM 2003.14 Single User Db  
 Company: Energen Resources Corporation  
 Project: Rio Arriba, NM  
 Site: Sec.22 T32N-R5W NMPM  
 Well: Carracas 22A-13  
 Wellbore: Wellbore #1  
 Design: Plan #1

Local Co-ordinate Reference: Well Carracas 22A-13  
 TVD Reference: WELL @ 0.0ft (Original Well Elev)  
 MD Reference: WELL @ 0.0ft (Original Well Elev)  
 North Reference: Grid  
 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)
3,507.0	0.00	0.00	3,507.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP @ 3507'MD Build 28.65°/100'</b>									
3,520.0	3.72	56.71	3,520.0	0.2	0.4	0.4	28.65	28.65	0.00
3,540.0	9.45	56.71	3,539.9	1.5	2.3	2.7	28.65	28.65	0.00
3,560.0	15.18	56.71	3,559.4	3.8	5.8	7.0	28.65	28.65	0.00
3,580.0	20.91	56.71	3,578.4	7.2	11.0	13.2	28.65	28.65	0.00
3,600.0	26.64	56.71	3,596.7	11.7	17.8	21.2	28.65	28.65	0.00
3,620.0	32.37	56.71	3,614.1	17.1	26.0	31.1	28.65	28.65	0.00
3,640.0	38.10	56.71	3,630.4	23.4	35.6	42.6	28.65	28.65	0.00
3,660.0	43.83	56.71	3,645.5	30.6	46.6	55.7	28.65	28.65	0.00
3,680.0	49.56	56.71	3,659.2	38.6	58.7	70.3	28.65	28.65	0.00
3,700.0	55.29	56.71	3,671.4	47.3	72.0	86.1	28.65	28.65	0.00
3,720.0	61.02	56.71	3,682.0	56.6	86.2	103.1	28.65	28.65	0.00
3,740.0	66.75	56.71	3,690.8	66.4	101.2	121.0	28.65	28.65	0.00
3,760.0	72.48	56.71	3,697.7	76.7	116.9	139.8	28.65	28.65	0.00
3,780.0	78.21	56.71	3,702.8	87.3	133.0	159.1	28.65	28.65	0.00
3,800.0	83.94	56.71	3,705.9	98.2	149.5	178.9	28.65	28.65	0.00
3,821.2	90.00	56.71	3,707.0	109.8	167.2	200.0	28.65	28.65	0.00
<b>HEAL 90.00° @ 3821'MD - HEAL-22A13</b>									
3,900.0	90.00	56.71	3,707.0	153.0	233.1	278.8	0.00	0.00	0.00
4,000.0	90.00	56.71	3,707.0	207.9	316.7	378.8	0.00	0.00	0.00
4,100.0	90.00	56.71	3,707.0	262.8	400.3	478.8	0.00	0.00	0.00
4,200.0	90.00	56.71	3,707.0	317.7	483.9	578.8	0.00	0.00	0.00
4,300.0	90.00	56.71	3,707.0	372.6	567.4	678.8	0.00	0.00	0.00
4,400.0	90.00	56.71	3,707.0	427.5	651.0	778.8	0.00	0.00	0.00
4,500.0	90.00	56.71	3,707.0	482.4	734.6	878.8	0.00	0.00	0.00
4,600.0	90.00	56.71	3,707.0	537.3	818.2	978.8	0.00	0.00	0.00
4,700.0	90.00	56.71	3,707.0	592.2	901.8	1,078.8	0.00	0.00	0.00
4,800.0	90.00	56.71	3,707.0	647.0	985.4	1,178.8	0.00	0.00	0.00
4,900.0	90.00	56.71	3,707.0	701.9	1,069.0	1,278.8	0.00	0.00	0.00
5,000.0	90.00	56.71	3,707.0	756.8	1,152.6	1,378.8	0.00	0.00	0.00
5,100.0	90.00	56.71	3,707.0	811.7	1,236.2	1,478.8	0.00	0.00	0.00
5,200.0	90.00	56.71	3,707.0	866.6	1,319.8	1,578.8	0.00	0.00	0.00
5,224.4	90.00	56.71	3,707.0	880.0	1,340.2	1,603.3	0.00	0.00	0.00
<b>TOE 90.00° @ 5224'MD - TOE-22A13</b>									

### 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
HEAL-22A13 - plan hits target - Point	0.00	360.00	3,707.0	109.8	167.2	2,170,804.45	1,317,215.34	36° 57' 37.921 N	107° 21' 22.503 W
TOE-22A13 - plan hits target - Point	0.00	0.00	3,707.0	880.0	1,340.0	2,171,574.68	1,318,388.16	36° 57' 45.670 N	107° 21' 8.164 W

<b>Database:</b>	EDM 2003.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Carracas 22A-13
<b>Company:</b>	Energen Resources Corporation	<b>TVD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Project:</b>	Rio Arriba, NM	<b>MD Reference:</b>	WELL @ 0.0ft (Original Well Elev)
<b>Site:</b>	Sec.22 T32N-R5W NMPM	<b>North Reference:</b>	Grid
<b>Well:</b>	Carracas 22A-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1		

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,507.0	3,507.0	0.0	0.0	KOP @ 3507'MD Build 28.65°/100'
3,821.2	3,707.0	109.8	167.2	HEAL 90.00° @ 3821'MD
5,224.4	3,707.0	880.0	1,340.2	TOE 90.00° @ 5224'MD

## **Bureau of Land Management Conditions of Approval:**

- 1) If cement squeeze work is necessary, contact Matt Halbert of the BLM Farmington Field Office @ (505) 599-6350.**
- 2) Pits must be lined with an impervious material at least 12 mils thick. The pit must be fenced on three (3) sides during workover operations and on the 4<sup>th</sup> side after the rig moves off location. Pits must be closed within 90 days of completion of the workover operations. Prior to closing the pit the liner must be cut off at mud level.**