

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

ATS-13-439

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

HOBBS OGD

NOV 26 2013

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM129262 129262
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator ENERGEN RESOURCES Contact: ANNA STOTTS E-Mail: astotts@energen.com		7. If Unit or CA Agreement, Name and No.
3a. Address 3300 NORTH A STREET BLDG 4 SUITE 100 MIDLAND, TX 79705		8. Lease Name and Well No. COX FEDERAL 35 1H
3b. Phone No. (include area code) Ph: 505-324-4154 Fx: 505-326-6112		9. API Well No. 30-025-41520
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE 200FSL 400FEL (P) At proposed prod. zone NENE 330FNL 400FEL (A)		10. Field and Pool, or Exploratory 2ND BONE SPRINGS TRISTE DRAW; BS (96603)
14. Distance in miles and direction from nearest town or post office APPROX 35 MI FROM JAL, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 35 T23S R32E Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200		12. County or Parish LEA
16. No. of Acres in Lease 320.00 1280.000		13. State NM
17. Spacing Unit dedicated to this well 160.		18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 3280
19. Proposed Depth 14835 MD 10991 TVD		20. BLM/BIA Bond No. on file NM2707
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3650 GL		23. Estimated duration 35 DAYS
22. Approximate date work will start 09/15/2013		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) NATHAN SMITH Ph: 505-324-4151	Date 05/21/2013
Title SUPV DRILLING ENGINEER		
Approved by (Signature) 	Name (Printed/Typed)	Date 11-25-2013
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

Additional Operator Remarks (see next page)

Electronic Submission #208198 verified by the BLM Well Information System
For ENERGEN RESOURCES, sent to the Hobbs

Committed to AFMSS for processing by KURT SIMMONS on 06/13/2013 ()

CARLSBAD CONTROLLED WATER BASIN

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHEDOPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **
SEE ATTACHED FOR
CONDITIONS OF APPROVAL
DEC 02 2013

Drilling Plan
Energen Resources Corporation

Cox Federal 35-1H

Surface Location: 200' FSL & 400' FEL

Section 35-23S-32E, 32° 15' 16.060"/-130° 38' 17.374"

Bottom Hole Location: 330' FNL & 400' FEL

Section 35-23S-32E, 32° 16' 03.092"/-130° 38' 17.403"

Lea Co., NM

1. The elevation of the unprepared ground is 3649.5 feet above sea level.
2. The geological name of the surface formation is Quaternary Eolian and Piedmont deposits
3. A rotary rig will be utilized to drill the well to a Proposed Total Depth of 10,991' TVD/14,835' MD.
4. Estimated top of important geological markers:

<u>FORMATION</u>	<u>DEPTH (TVD)(ft)</u>	<u>SUBSEA(ft)</u>
Rustler	1,162	2,509
Top of Evaporite	1,302	2,369
Base of Evaporite	4,732	-1,061
Bell Canyon	5,023	-1,352
Cherry Canyon	5,869	-2,198
Brushy Canyon	7,219	-3,548
Bone Springs	8,802	-5,131
Avalon	8,931	-5,260
1st Bone Spring Carbonate	9,849	-6,178
1st Bone Spring Sand	9,982	-6,311
2nd Bone Spring Carbonate	10,316	-6,645
2nd Bone Spring Sand	10,631	-6,960
3rd Bone Spring Carbonate	11,091	-7,420

5. Estimated depth at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

<u>FORMATION</u>	<u>DEPTH (TVD)(ft)</u>	<u>Water/HydroCarbon</u>
Rustler	1,162	Water
Top of Evaporite	1,302	NA
Base of Evaporite	4,732	NA
Bell Canyon	5,023	Oil/Gas
Cherry Canyon	5,869	Oil/Gas
Brushy Canyon	7,219	Oil/Gas
Bone Springs	8,802	NA
Avalon	8,931	Oil/Gas
1st Bone Spring Carbonate	9,849	NA
1st Bone Spring Sand	9,982	Oil/Gas
2nd Bone Spring Carbonate	10,316	NA
2nd Bone Spring Sand	10,631	Oil/Gas
3rd Bone Spring Carbonate	11,091	NA

6. All proposed casing is new and the program is as follows:

1280'

See COA

Casing	Size	Depth		Grade	Weight	Connection	PSI		
		MD	TVL				Burst	Collapse	Tension
Surface	13-3/8"	0-1,200'	0-1,200'	J-55	54.50	BTC	1130	2730	909
Intermediate	9-5/8"	0-4,850'	0-4,850'	J-55	40.00	BTC	2570	3950	714
Production (Atch C-1)	5-1/2"	0-14,835'	0-10,991'	P-110	20.00	TCPC	12640	11100	667

7. Cementing Program:

- a. 17-1/2" hole x 13-3/8" casing at 1,200' will have cement circulated to surface with 540 sx of Econocem – HLC with 1 lbm/sk Kol-Seal at 12.8 ppg (1.81 cf/sk) followed by 250 sx HalCem – C with 1 lbm/sk Kol-Seal at 14.8 ppg (1.33 cf/sk). Note: CEMENT MUST BE CIRCULATED TO SURFACE. STANDARD BOW SPRING CENTRALIZERS SHALL BE PLACED ON THE FIRST 3 (BOTTOM 3) JOINTS OF CASING (1 PER JOINT) AND 1 EVERY 3RD JOINT TO SURFACE.
- b. 12-1/4" hole x 9-5/8" casing at 4,850'. A fluid caliper will be run to determine the exact cement volume required. Cement will be circulated to surface with 890 sx of Econo-Cem – C with 2lbm/sk Kol- Seal, 0.25 lbm/sk D-AIR 5000 at 11.9 ppg (2.45 cf/sk) followed by 220 sx of HalCem-C with 1 lbm/sk Kol-Seal at 14.8 ppg (1.33 cf/sk). ONE CENTRALIZER PER JOINT FOR THE FIRST 3 JOINTS, THEN EVERY 3RD JOINT TO SURFACE.
- c. 8-3/4" hole x 5-1/2" casing at 14,835'. A fluid caliper will be run to determine the exact cement volume required to have TOC at 4,680'. 3100 sx of VersaCem-H with 0.4% Halad(R)-344, 0.3% Super CBL, 0.4% HR-800 at 14.4 ppg (1.25 cf/sk). DV tool will be utilized at 10,000' if losses are encountered. CENTRALIZERS TO BE USED AT DISCRETION IN LATERAL TO ACHIEVE 70% STAND OFF. CENTRALIZERS TO BE USED TO TIE BACK DEPTH OF 4,680' TO ACHIEVE 70% STAND OFF.

see COA 200' tieback required

- See COA

8. Pressure Control Equipment

- a. 12-1/4" hole section: The blowout preventer equipment (BOP) will consist of a 5,000 psi system double ram type preventer, a bag type (Hydril) preventer and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and corresponding pipe rams based on hole section being drilled. A 13-5/8" 5M x SOW will be installed on the 13-3/8" surface casing and utilized until the 9-5/8" casing is set. The BOP and associated equipment will be tested to rated pressure, before drilling out the 13-3/8" casing shoe the casing will be tested to 2,000 psi. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5,000 psi WP rating.
- b. 8-3/4" hole section: The blowout preventer equipment (BOP) will consist of a 5,000 psi system double ram type preventer, a bag type (Hydril) preventer and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and corresponding pipe rams based on hole section being drilled. A 13-3/8" 5M x 11" 10M wellhead will be installed. The BOP and associated equipment will be tested to rated pressure, before drilling out the 9-5/8" casing shoe the casing will be tested to 2,000 psi. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include an Upper and Lower Kelly cock, floor safety valve, choke lines and choke manifold having 5,000 psi WP rating. All equipment used will meet standards for a Hydrogen Sulfide environment.

Premium Couplings

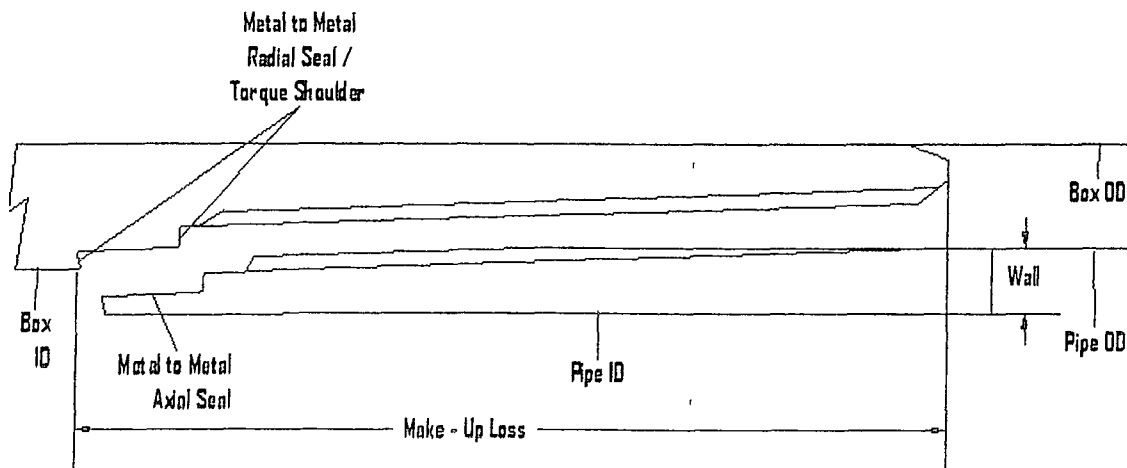
ALL SIZES ARE INCH, UNLESS STATED OTHERWISE

Size	Weight	Wall	Grade	Make Up			
5.500	20	0.361	P110	Torque Min (ft-lb)	Torque Opt (ft-lb)	Torque Max (ft-lb)	Loss (in.)
				8000	8500	9250	4.75

Max Allowable Torque 30,000 ft./lbs.

Connection Dimension		Performance Property	
Pipe ID	4.778	Yield (x 1000 lbs.)	641
Pin ID	4.778	Internal Pressure (psi)	12640
Coupling ID	4.778	Collapse (psi)	11100
Coupling OD	6.062	Tension (x 1000 lbs.)	667
Coupling Length	10.125	Compression (x 1000 lbs.)	667
		Drift Diameter	4.653

circled are diff
than P110
in T & C
for this
TCPC connection



- c. Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

9. Mud Program:

0' - 1,200' <i>1260</i>	Bentonite/Lime mud. Paper for losses and seepage. 8.5 to 9.0 ppg, 32 to 34 vis, PV 3 to 5, YP 5 to 7, WL NC
1,200' - 4,850'	Brine. As needed LCM for losses and seepage. 10.0 to 10.2 ppg, pH 10, 28 to 29 vis, PV 1, YP 1, WL NC
4,850' - 14,835'	Cut Brine. As needed LCM for losses and seepage. 9.0 to 9.5 ppg, pH 10, 28 to 36 vis, PV 4-6, YP 4-6, WL 12-15

****During drilling operations, all necessary products will be sufficiently stored on location for abnormal situations. The characteristics, use, testing of drilling mud and the implementation of related drilling procedures shall be designed to prevent the loss of well control. Sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring well control.**

****A pH of 10 or above in the fresh water base mud system shall be maintained to control the effects H₂S has on metallurgy of equipment used.**

Operating and Maintenance

Energen Resources Corporation will be using all above ground steel pits for fluid and cuttings while drilling. If any tank develops a leak we will have immediate visual discovery, we would then transfer the fluid to another tank then remove any contaminated soil and dispose of it in the cuttings bins for transportation. All leaks should be kept to less than 5 barrels. Rig crews will monitor the tanks at all times. A trip/surge tank will be used to monitor returns for circulation losses/gains.

Equipment:

2-Mongoose Shale Shakers

2-3400 High Speed Centrifuges with stands and pumps

3-Roll off bins with Tracks

2-500 bbl Open top Frac tanks

1-Mud/Gas Separator and Degasser

1-Trip/Surge Tank

Electronic or Visual monitoring system to indicate lost returns

10. Testing, Logging and Coring Program:

- Testing Program: No drillstem tests are anticipated
- Electric Logging Program: TBD - *See COA*
- LWD Program: TBD
- Coring Program: None.

11. Bottom Hole Pressure expected to be 5,430 psi

12. Bottom Hole Temperature expected to be 160 deg F.

Energen Resources

Delaware Basin

Cox Federal 35-1H

Triste Draw Bone Spring

Preliminary Design

Plan: Design #1

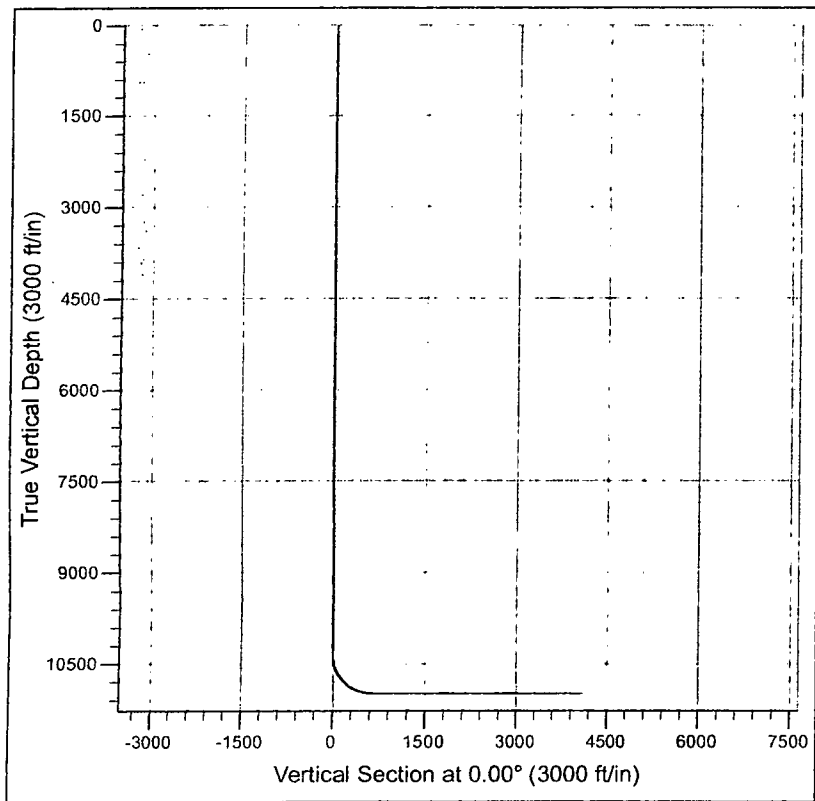
Preliminary Design

02 July, 2013



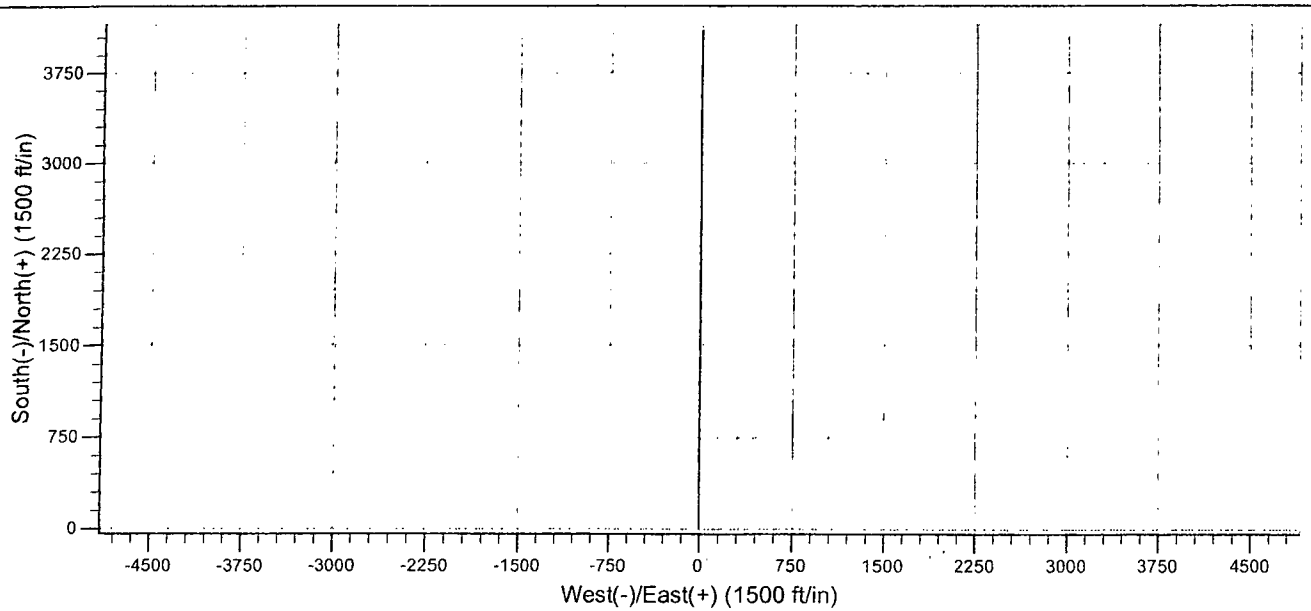
Company Name: Energen Resources

Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	10355.0	0.00	0.00	10355.0	0.0	0.0	0.00	0.00	0.0
3	11354.0	90.00	0.00	10991.0	636.0	0.0	9.01	0.00	636.0
4	14835.0	90.00	0.00	10991.0	4117.0	0.0	0.00	0.00	4117.0



Energen

Preliminary Design

Company: Energen Resources
Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1

Local Co-ordinate Reference: Site Cox Federal 35-1H
TVD Reference: WELL @ 4525.0ft (Original Well Elev)
MD Reference: WELL @ 4525.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Delaware Basin, Lea County, NM, 2nd Bone Spring Carbonate Sand		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Cox Federal 35-1H		
Site Position:		Northing:	0.00 m
From:	None	Easting:	0.00 m
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in
		Latitude:	0° 0' 0.000 N
		Longitude:	0° 0' 0.000 E
		Grid Convergence:	0.00 °

Well	Triste Draw Bone Spring		
Well Position	+N/-S	0.0 ft	Northing: 0.00 m
	+E/-W	0.0 ft	Easting: 0.00 m
Position Uncertainty	0.0 ft	Wellhead Elevation:	0.0 ft
		Latitude:	30° 59' 18.404 N
		Longitude:	106° 3' 38.987 W
		Ground Level:	4,500.0 ft

Wellbore	Preliminary Design		
Magnetics	Model Name	Sample Date	Declination
	User Defined	3/1/2013	0.00
			Dip Angle
			0.00
			Field Strength
			0

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			0.00

Survey Tool Program	Date: 4/23/2013		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
0.0	14,835.0	Design #1 (Preliminary Design)	MWD
			Description
			MWD - Standard

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

Energen

Preliminary Design

Company: Energen Resources
Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1

Local Co-ordinate Reference: Site Cox Federal 35-1H
TVD Reference: WELL @ 4525.0ft (Original Well Elev)
MD Reference: WELL @ 4525.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

TVD (ft)	MD (ft)	Inc (°)	Azi (azimuth) (°)	N/S (ft)	E/W (ft)	Build ("/100ft)	V. Sec (ft)
1,200.0	1,200.0	0.00	0.00	0.0	0.0	0.00	0.0
1,300.0	1,300.0	0.00	0.00	0.0	0.0	0.00	0.0
1,400.0	1,400.0	0.00	0.00	0.0	0.0	0.00	0.0
1,500.0	1,500.0	0.00	0.00	0.0	0.0	0.00	0.0
1,600.0	1,600.0	0.00	0.00	0.0	0.0	0.00	0.0
1,700.0	1,700.0	0.00	0.00	0.0	0.0	0.00	0.0
1,800.0	1,800.0	0.00	0.00	0.0	0.0	0.00	0.0
1,900.0	1,900.0	0.00	0.00	0.0	0.0	0.00	0.0
2,000.0	2,000.0	0.00	0.00	0.0	0.0	0.00	0.0
2,100.0	2,100.0	0.00	0.00	0.0	0.0	0.00	0.0
2,200.0	2,200.0	0.00	0.00	0.0	0.0	0.00	0.0
2,300.0	2,300.0	0.00	0.00	0.0	0.0	0.00	0.0
2,400.0	2,400.0	0.00	0.00	0.0	0.0	0.00	0.0
2,500.0	2,500.0	0.00	0.00	0.0	0.0	0.00	0.0
2,600.0	2,600.0	0.00	0.00	0.0	0.0	0.00	0.0
2,700.0	2,700.0	0.00	0.00	0.0	0.0	0.00	0.0
2,800.0	2,800.0	0.00	0.00	0.0	0.0	0.00	0.0
2,900.0	2,900.0	0.00	0.00	0.0	0.0	0.00	0.0
3,000.0	3,000.0	0.00	0.00	0.0	0.0	0.00	0.0
3,100.0	3,100.0	0.00	0.00	0.0	0.0	0.00	0.0
3,200.0	3,200.0	0.00	0.00	0.0	0.0	0.00	0.0
3,300.0	3,300.0	0.00	0.00	0.0	0.0	0.00	0.0
3,400.0	3,400.0	0.00	0.00	0.0	0.0	0.00	0.0
3,500.0	3,500.0	0.00	0.00	0.0	0.0	0.00	0.0
3,600.0	3,600.0	0.00	0.00	0.0	0.0	0.00	0.0
3,700.0	3,700.0	0.00	0.00	0.0	0.0	0.00	0.0
3,800.0	3,800.0	0.00	0.00	0.0	0.0	0.00	0.0
3,900.0	3,900.0	0.00	0.00	0.0	0.0	0.00	0.0
4,000.0	4,000.0	0.00	0.00	0.0	0.0	0.00	0.0
4,100.0	4,100.0	0.00	0.00	0.0	0.0	0.00	0.0
4,200.0	4,200.0	0.00	0.00	0.0	0.0	0.00	0.0
4,300.0	4,300.0	0.00	0.00	0.0	0.0	0.00	0.0
4,400.0	4,400.0	0.00	0.00	0.0	0.0	0.00	0.0
4,500.0	4,500.0	0.00	0.00	0.0	0.0	0.00	0.0
4,600.0	4,600.0	0.00	0.00	0.0	0.0	0.00	0.0
4,700.0	4,700.0	0.00	0.00	0.0	0.0	0.00	0.0
4,800.0	4,800.0	0.00	0.00	0.0	0.0	0.00	0.0
4,900.0	4,900.0	0.00	0.00	0.0	0.0	0.00	0.0
5,000.0	5,000.0	0.00	0.00	0.0	0.0	0.00	0.0
5,100.0	5,100.0	0.00	0.00	0.0	0.0	0.00	0.0
5,200.0	5,200.0	0.00	0.00	0.0	0.0	0.00	0.0
5,300.0	5,300.0	0.00	0.00	0.0	0.0	0.00	0.0
5,400.0	5,400.0	0.00	0.00	0.0	0.0	0.00	0.0
5,500.0	5,500.0	0.00	0.00	0.0	0.0	0.00	0.0

Energen

Preliminary Design

Company: Energen Resources
Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1

Local Co-ordinate Reference: Site Cox Federal 35-1H
TVD Reference: WELL @ 4525.0ft (Original Well Elev)
MD Reference: WELL @ 4525.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

TVD (ft)	MD (ft)	Inc (°)	Azi (azimuth) (°)	N/S (ft)	E/W (ft)	Build ("/100ft)	V. Sec (ft)
5,600.0	5,600.0	0.00	0.00	0.0	0.0	0.00	0.0
5,700.0	5,700.0	0.00	0.00	0.0	0.0	0.00	0.0
5,800.0	5,800.0	0.00	0.00	0.0	0.0	0.00	0.0
5,900.0	5,900.0	0.00	0.00	0.0	0.0	0.00	0.0
6,000.0	6,000.0	0.00	0.00	0.0	0.0	0.00	0.0
6,100.0	6,100.0	0.00	0.00	0.0	0.0	0.00	0.0
6,200.0	6,200.0	0.00	0.00	0.0	0.0	0.00	0.0
6,300.0	6,300.0	0.00	0.00	0.0	0.0	0.00	0.0
6,400.0	6,400.0	0.00	0.00	0.0	0.0	0.00	0.0
6,500.0	6,500.0	0.00	0.00	0.0	0.0	0.00	0.0
6,600.0	6,600.0	0.00	0.00	0.0	0.0	0.00	0.0
6,700.0	6,700.0	0.00	0.00	0.0	0.0	0.00	0.0
6,800.0	6,800.0	0.00	0.00	0.0	0.0	0.00	0.0
6,900.0	6,900.0	0.00	0.00	0.0	0.0	0.00	0.0
7,000.0	7,000.0	0.00	0.00	0.0	0.0	0.00	0.0
7,100.0	7,100.0	0.00	0.00	0.0	0.0	0.00	0.0
7,200.0	7,200.0	0.00	0.00	0.0	0.0	0.00	0.0
7,300.0	7,300.0	0.00	0.00	0.0	0.0	0.00	0.0
7,400.0	7,400.0	0.00	0.00	0.0	0.0	0.00	0.0
7,500.0	7,500.0	0.00	0.00	0.0	0.0	0.00	0.0
7,600.0	7,600.0	0.00	0.00	0.0	0.0	0.00	0.0
7,700.0	7,700.0	0.00	0.00	0.0	0.0	0.00	0.0
7,800.0	7,800.0	0.00	0.00	0.0	0.0	0.00	0.0
7,900.0	7,900.0	0.00	0.00	0.0	0.0	0.00	0.0
8,000.0	8,000.0	0.00	0.00	0.0	0.0	0.00	0.0
8,100.0	8,100.0	0.00	0.00	0.0	0.0	0.00	0.0
8,200.0	8,200.0	0.00	0.00	0.0	0.0	0.00	0.0
8,300.0	8,300.0	0.00	0.00	0.0	0.0	0.00	0.0
8,400.0	8,400.0	0.00	0.00	0.0	0.0	0.00	0.0
8,500.0	8,500.0	0.00	0.00	0.0	0.0	0.00	0.0
8,600.0	8,600.0	0.00	0.00	0.0	0.0	0.00	0.0
8,700.0	8,700.0	0.00	0.00	0.0	0.0	0.00	0.0
8,800.0	8,800.0	0.00	0.00	0.0	0.0	0.00	0.0
8,900.0	8,900.0	0.00	0.00	0.0	0.0	0.00	0.0
9,000.0	9,000.0	0.00	0.00	0.0	0.0	0.00	0.0
9,100.0	9,100.0	0.00	0.00	0.0	0.0	0.00	0.0
9,200.0	9,200.0	0.00	0.00	0.0	0.0	0.00	0.0
9,300.0	9,300.0	0.00	0.00	0.0	0.0	0.00	0.0
9,400.0	9,400.0	0.00	0.00	0.0	0.0	0.00	0.0
9,500.0	9,500.0	0.00	0.00	0.0	0.0	0.00	0.0
9,600.0	9,600.0	0.00	0.00	0.0	0.0	0.00	0.0
9,700.0	9,700.0	0.00	0.00	0.0	0.0	0.00	0.0
9,800.0	9,800.0	0.00	0.00	0.0	0.0	0.00	0.0
9,900.0	9,900.0	0.00	0.00	0.0	0.0	0.00	0.0

Energen

Preliminary Design

Company: Energen Resources
Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1

Local Co-ordinate Reference: Site Cox Federal 35-1H
TVD Reference: WELL @ 4525.0ft (Original Well Elev)
MD Reference: WELL @ 4525.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

TVD (ft)	MD (ft)	Inc (°)	Azi (azimuth) (°)	N/S (ft)	E/W (ft)	Build ("/100ft)	V. Sec (ft)
10,000.0	10,000.0	0.00	0.00	0.0	0.0	0.00	0.0
10,100.0	10,100.0	0.00	0.00	0.0	0.0	0.00	0.0
10,200.0	10,200.0	0.00	0.00	0.0	0.0	0.00	0.0
10,300.0	10,300.0	0.00	0.00	0.0	0.0	0.00	0.0
10,355.0	10,355.0	0.00	0.00	0.0	0.0	0.00	0.0
10,400.0	10,400.0	4.05	0.00	1.6	0.0	9.01	1.6
10,449.6	10,450.0	8.56	0.00	7.1	0.0	9.01	7.1
10,498.7	10,500.0	13.06	0.00	16.5	0.0	9.01	16.5
10,547.0	10,550.0	17.57	0.00	29.7	0.0	9.01	29.7
10,594.0	10,600.0	22.07	0.00	46.6	0.0	9.01	46.6
10,639.5	10,650.0	26.58	0.00	67.2	0.0	9.01	67.2
10,683.3	10,700.0	31.08	0.00	91.3	0.0	9.01	91.3
10,725.1	10,750.0	35.58	0.00	118.8	0.0	9.01	118.8
10,764.6	10,800.0	40.09	0.00	149.4	0.0	9.01	149.4
10,801.5	10,850.0	44.59	0.00	183.1	0.0	9.01	183.1
10,835.7	10,900.0	49.10	0.00	219.6	0.0	9.01	219.6
10,866.9	10,950.0	53.60	0.00	258.6	0.0	9.01	258.6
10,895.0	11,000.0	58.11	0.00	300.0	0.0	9.01	300.0
10,919.7	11,050.0	62.61	0.00	343.4	0.0	9.01	343.4
10,940.9	11,100.0	67.12	0.00	388.7	0.0	9.01	388.7
10,958.6	11,150.0	71.62	0.00	435.5	0.0	9.01	435.5
10,972.4	11,200.0	76.12	0.00	483.5	0.0	9.01	483.5
10,982.5	11,250.0	80.63	0.00	532.4	0.0	9.01	532.4
10,988.7	11,300.0	85.13	0.00	582.0	0.0	9.01	582.0
10,991.0	11,354.0	90.00	0.00	636.0	0.0	9.01	636.0
10,991.0	11,400.0	90.00	0.00	682.0	0.0	0.00	682.0
10,991.0	11,500.0	90.00	0.00	782.0	0.0	0.00	782.0
10,991.0	11,600.0	90.00	0.00	882.0	0.0	0.00	882.0
10,991.0	11,700.0	90.00	0.00	982.0	0.0	0.00	982.0
10,991.0	11,800.0	90.00	0.00	1,082.0	0.0	0.00	1,082.0
10,991.0	11,900.0	90.00	0.00	1,182.0	0.0	0.00	1,182.0
10,991.0	12,000.0	90.00	0.00	1,282.0	0.0	0.00	1,282.0
10,991.0	12,100.0	90.00	0.00	1,382.0	0.0	0.00	1,382.0
10,991.0	12,200.0	90.00	0.00	1,482.0	0.0	0.00	1,482.0
10,991.0	12,300.0	90.00	0.00	1,582.0	0.0	0.00	1,582.0
10,991.0	12,400.0	90.00	0.00	1,682.0	0.0	0.00	1,682.0
10,991.0	12,500.0	90.00	0.00	1,782.0	0.0	0.00	1,782.0
10,991.0	12,600.0	90.00	0.00	1,882.0	0.0	0.00	1,882.0
10,991.0	12,700.0	90.00	0.00	1,982.0	0.0	0.00	1,982.0
10,991.0	12,800.0	90.00	0.00	2,082.0	0.0	0.00	2,082.0
10,991.0	12,900.0	90.00	0.00	2,182.0	0.0	0.00	2,182.0
10,991.0	13,000.0	90.00	0.00	2,282.0	0.0	0.00	2,282.0
10,991.0	13,100.0	90.00	0.00	2,382.0	0.0	0.00	2,382.0
10,991.0	13,200.0	90.00	0.00	2,482.0	0.0	0.00	2,482.0
10,991.0	13,300.0	90.00	0.00	2,582.0	0.0	0.00	2,582.0

Energen

Preliminary Design

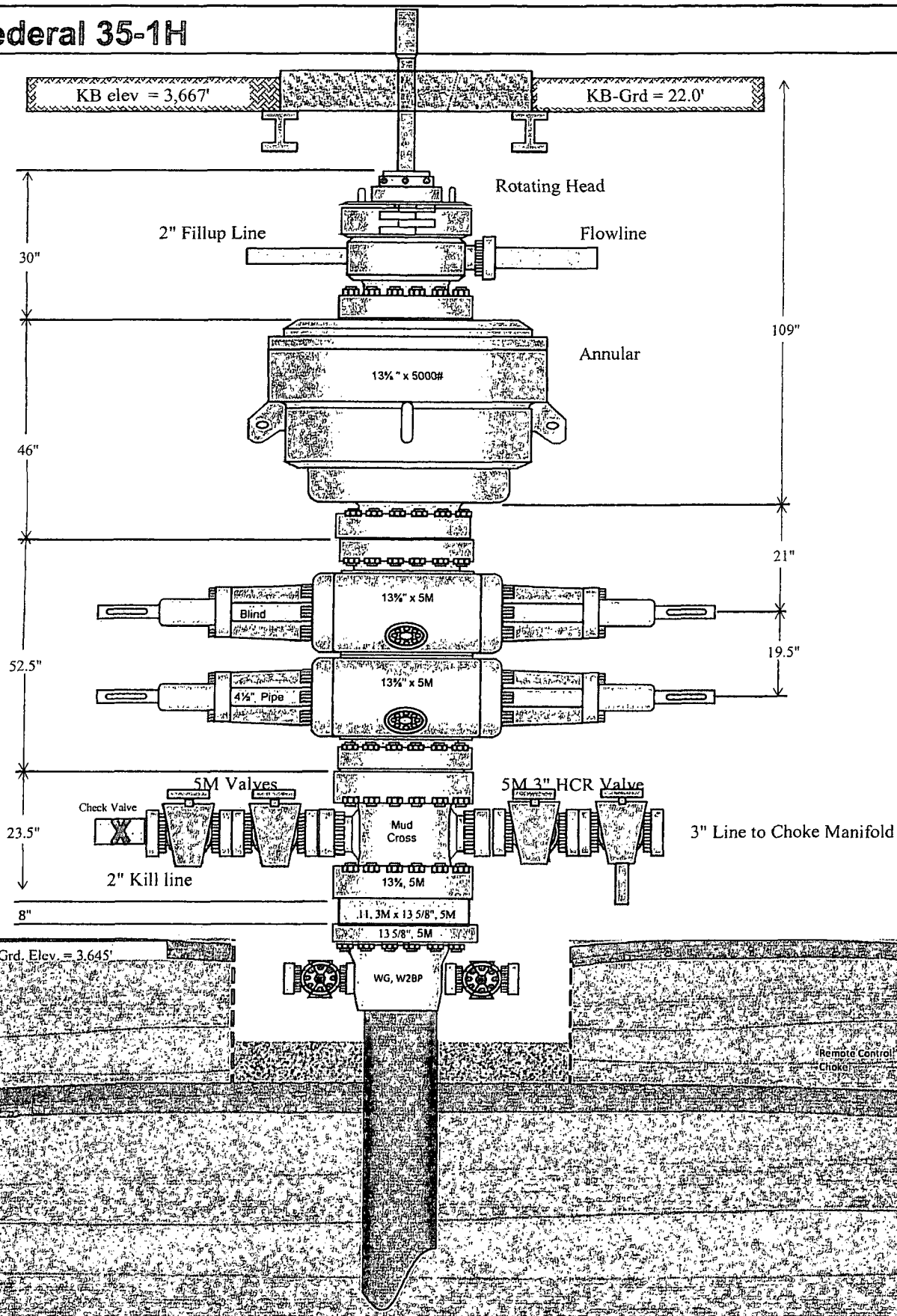
Company: Energen Resources
Project: Delaware Basin
Site: Cox Federal 35-1H
Well: Triste Draw Bone Spring
Wellbore: Preliminary Design
Design: Design #1

Local Co-ordinate Reference: Site Cox Federal 35-1H
TVD Reference: WELL @ 4525.0ft (Original Well Elev)
MD Reference: WELL @ 4525.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

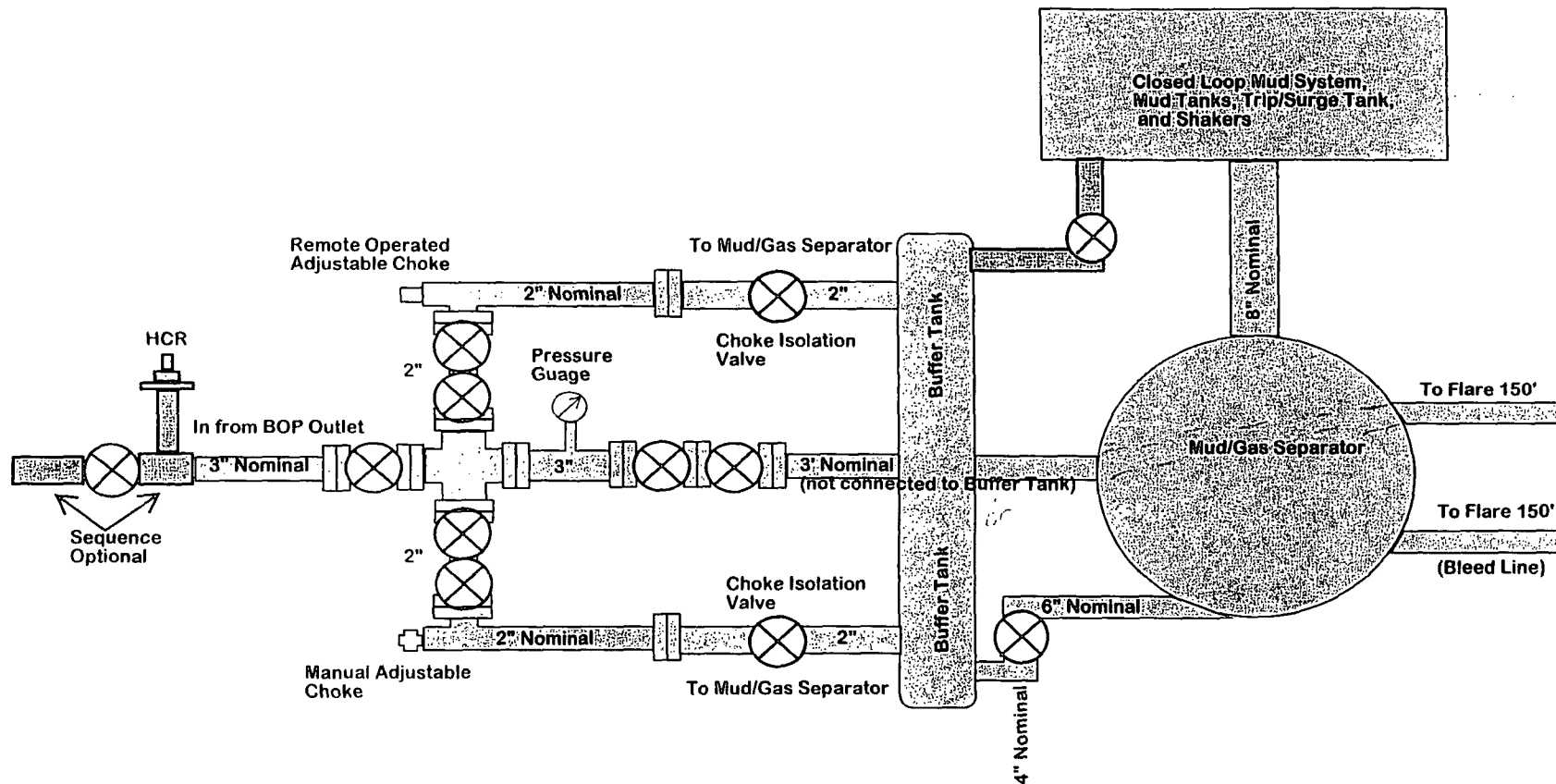
Planned Survey

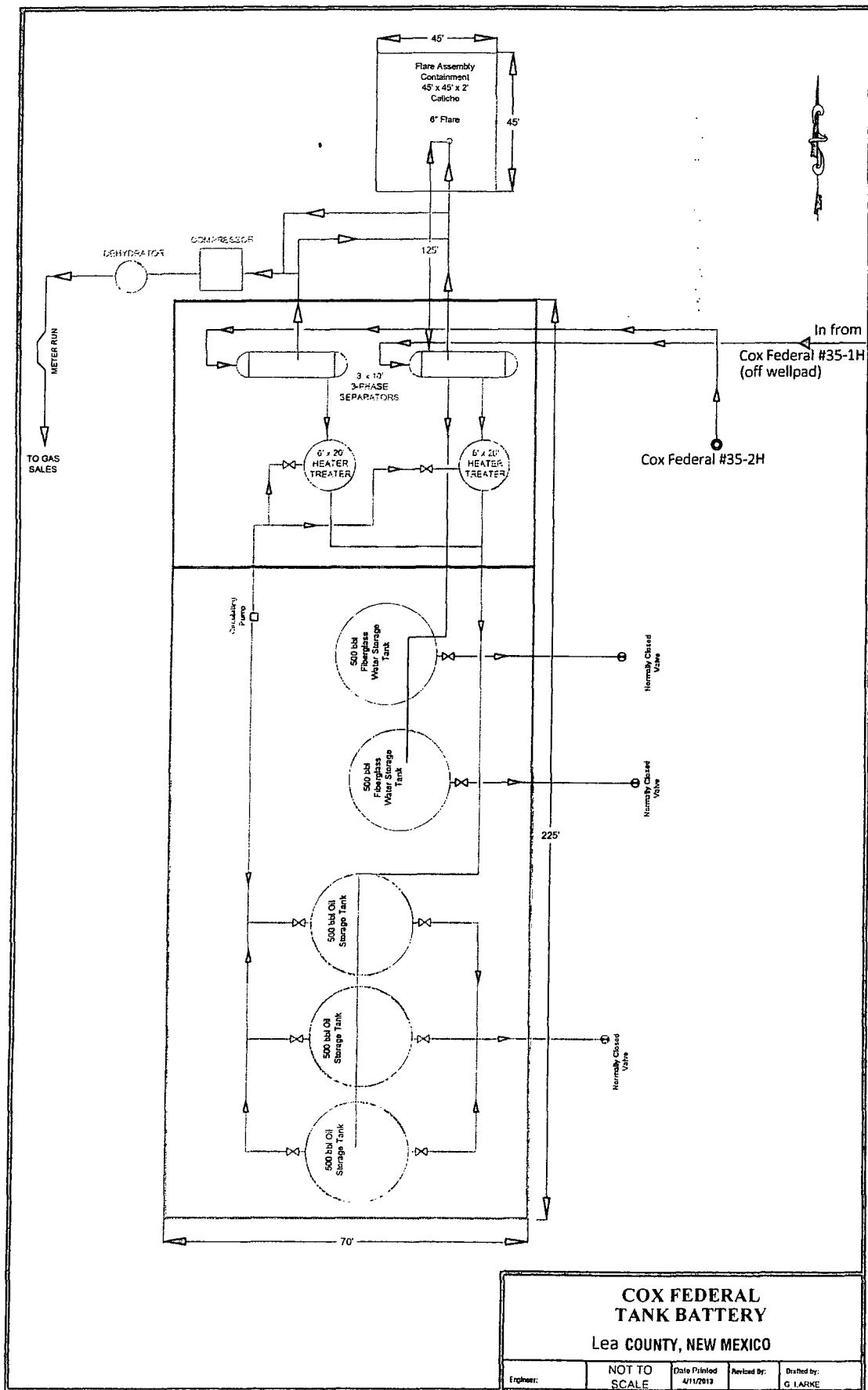
TVD (ft)	MD (ft)	Inc (°)	Azi (azimuth) (°)	N/S (ft)	E/W (ft)	Build (°/100ft)	V. Sec (ft)
10,991.0	13,400.0	90.00	0.00	2,682.0	0.0	0.00	2,682.0
10,991.0	13,500.0	90.00	0.00	2,782.0	0.0	0.00	2,782.0
10,991.0	13,600.0	90.00	0.00	2,882.0	0.0	0.00	2,882.0
10,991.0	13,700.0	90.00	0.00	2,982.0	0.0	0.00	2,982.0
10,991.0	13,800.0	90.00	0.00	3,082.0	0.0	0.00	3,082.0
10,991.0	13,900.0	90.00	0.00	3,182.0	0.0	0.00	3,182.0
10,991.0	14,000.0	90.00	0.00	3,282.0	0.0	0.00	3,282.0
10,991.0	14,100.0	90.00	0.00	3,382.0	0.0	0.00	3,382.0
10,991.0	14,200.0	90.00	0.00	3,482.0	0.0	0.00	3,482.0
10,991.0	14,300.0	90.00	0.00	3,582.0	0.0	0.00	3,582.0
10,991.0	14,400.0	90.00	0.00	3,682.0	0.0	0.00	3,682.0
10,991.0	14,500.0	90.00	0.00	3,782.0	0.0	0.00	3,782.0
10,991.0	14,600.0	90.00	0.00	3,882.0	0.0	0.00	3,882.0
10,991.0	14,700.0	90.00	0.00	3,982.0	0.0	0.00	3,982.0
10,991.0	14,800.0	90.00	0.00	4,082.0	0.0	0.00	4,082.0
10,991.0	14,835.0	90.00	0.00	4,117.0	0.0	0.00	4,117.0

Cox Federal 35-1H



Drilling Operations Choke Manifold System 5M Service



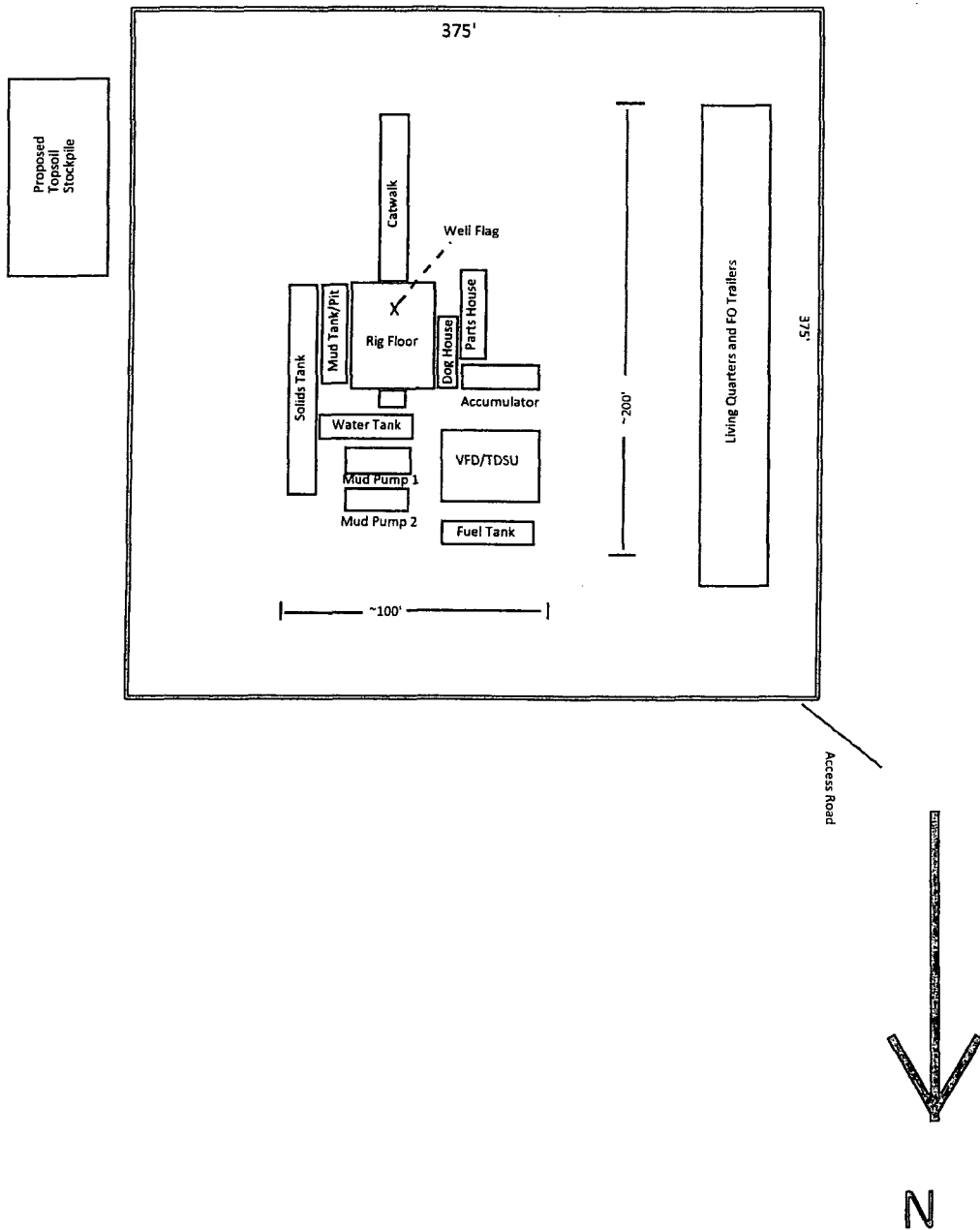


**COX FEDERAL
TANK BATTERY**
Lea COUNTY, NEW MEXICO

Engineer:	NOT TO SCALE	Date Printed 4/11/2013	Revised By:	Drafted by: G. LARKE
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Anticipated Rig Layout

Cox Federal 35-1H



ENERGEN

R E S O U R C E S

H2S CONTINGENCY PLAN

REVISED November 6, 2013