Form 3160-3
(September 2001)

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
SEP 15 2004
Bureau of Land Management
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM SF 0081226
6. If Indian, Allottee or Tribe Name: N/A
7. If Unit or CA Agreement, Name and No.: N/A

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: THOMAS F. BOLACK #1

2. Name of Operator: BOLACK MINERALS COMPANY

9. API Well No.: 30-045-32583

3a. Address: 3901 BLOOMFIELD HIGHWAY, FARMINGTON NM

3b. Phone No. *(include area code)*: 505-325-4275

10. Field and Pool, or Exploratory: WC30N16W3;Elbert

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface: NESE 1935' FSL 860' FEL
At proposed prod. zone: same

11. Sec., T., R., M., or Blk. and Survey or Area: I Sec 3, T. 30N., R.16W., N.M.P.M.

14. Distance in miles and direction from nearest town or post office*: 5.75 (straight line) mile northwest of Waterflow, New Mexico

12. County or Parish: San Juan
13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 860' from East Section line

16. No. of Acres in lease: 595.400

17. Spacing Unit dedicated to this well: 39.86 acres NE 1/4, SE 1/4

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 150' northeast of Bolack P&A Horseshoe Gallup Unit 249

19. Proposed Depth: 8,910'

20. BLM/BIA Bond No. on file: M0175

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 5,700' GL

22. Approximate date work will start*: December 1, 2004

23. Estimated duration: 60 days

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: Tommy Bolack — Name *(Printed/Typed)*: Tommy Bolack — Date: 8-21-04

Title: General Partner

Approved by *(Signature)*: Roland Adams — Name *(Printed/Typed)*: ROLAND ADAMS — Date: 08/08/05

Title: Acting AFM — Office: FARMINGTON DISTRICT OFFICE

Application approval 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.
Conditions of approval, if any, are attached.

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.

**(Instructions on reverse)*

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCD

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

RECEIVED
SEP 15 2004
Bureau of Land Management
Farmington Field Office

Form C - 102
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	97378	WC30N16W3;Elbert

Property Code	Property Name	Well Number
35062	THOMAS F. BOLACK	1

OGRID No.	Operator Name	Elevation
2647	BOLACK MINERALS CO.	5700'

Surface Location

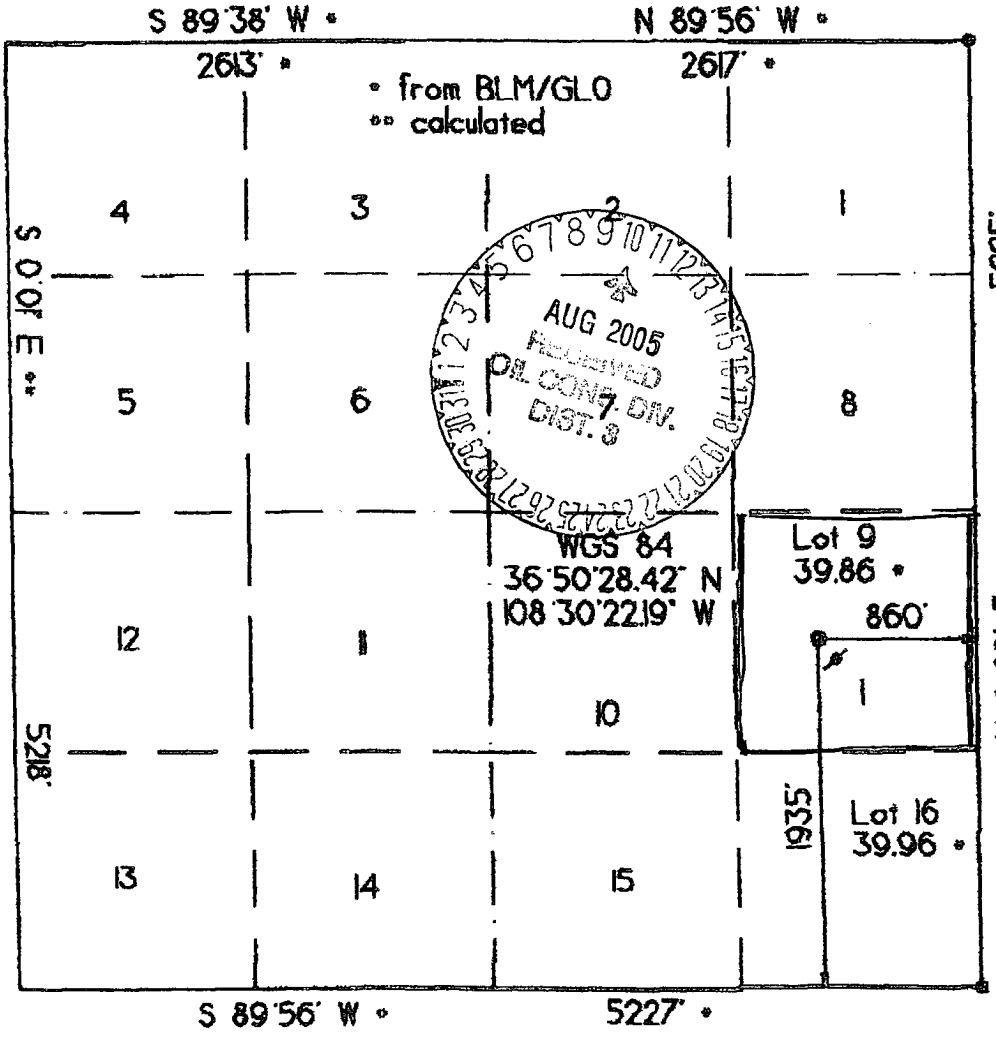
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet From>	North/South	Feet From>	East/West	County
I	3	30 N.	16 W.		1935'	SOUTH	860'	EAST	SAN JUAN

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet From>	North/South	Feet From>	East/West	County

Dedication	Joint ?	Consolidation	Order No.
39.86			

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature: Paul C. Thompson

Printed Name: PAUL C. THOMPSON

Title: AGENT

Date: 9/7/04

SURVEYOR CERTIFICATION

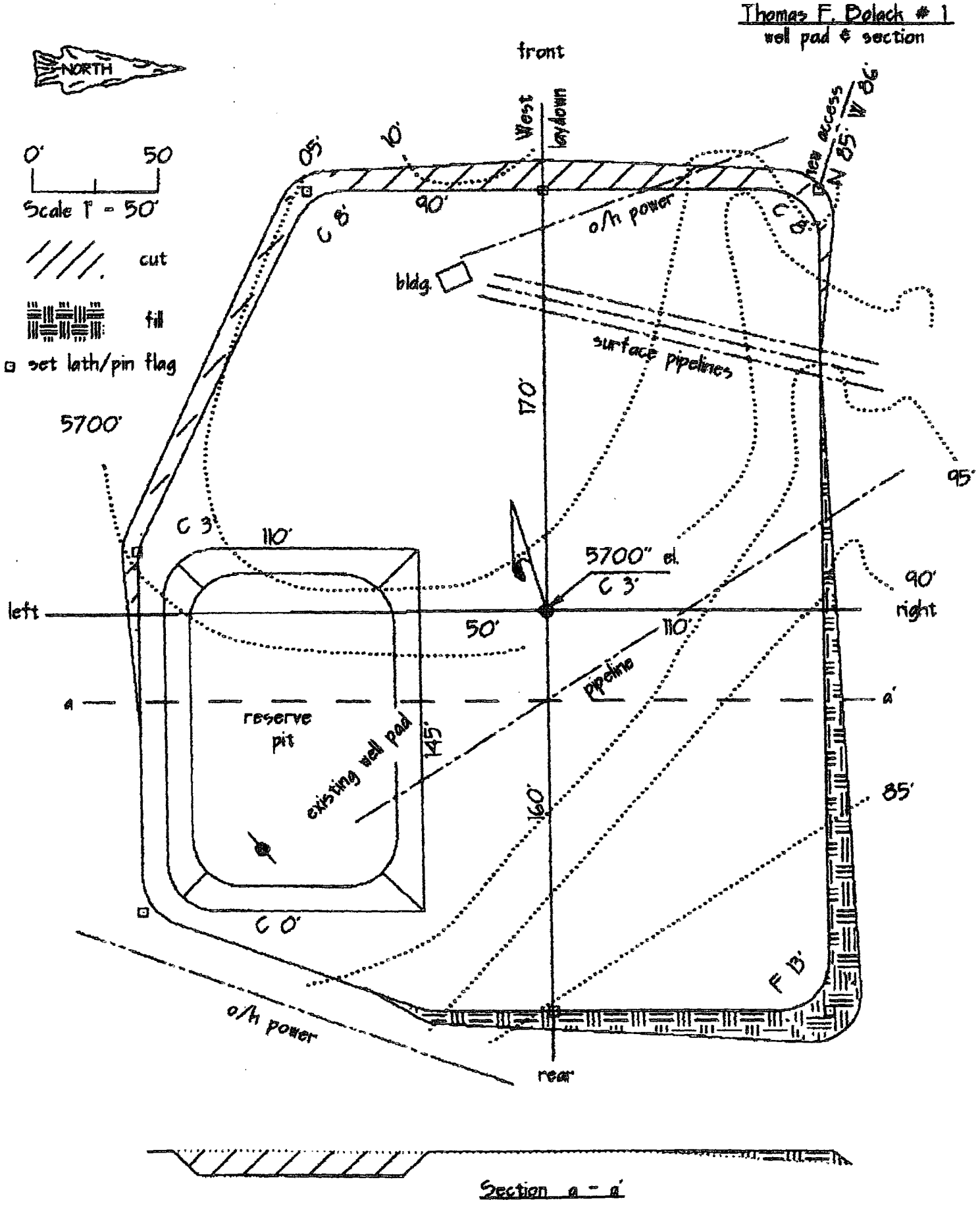
I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: 5-03-'04

Signature and Seal of Professional Surveyor:

GERALD A. HUDDLESTON
NEW MEXICO
8844
REGISTERED LAND SURVEYOR

FIGURE 4.0 WELL DIAGRAM



Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on reverse side

5. Lease Serial No.
NMSF 0081226

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Thomas F. Bolack #1

2. Name of Operator
Bolack Minerals c/o Walsh Engineering

9. API Well No.
3004532583

3a. Address
7415 E. Main, Farmington, NM, 87402

3b. Phone No. *(include area code)*
505-327-4892

10. Field and Pool, or Exploratory Area
Wildcat McCraken

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1935' FSL and 860' FEL, Sec. 3, T30N, R16W

11. County or Parish, State
San Juan, NM

RECEIVED
AUG 2005
BUREAU OF LAND MGMT.
FARMINGTON, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (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 recomplete 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 recompletion 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 site is ready for final inspection.)

Bolack Minerals intends to run 5-1/2", 17#, N-80 casing from TD to 6100' and 5-1/2", 17#, J-55 from 6100' to surface. All other aspects of the cementing program will remain the same.
The drilling rig will also use a 3000 psi BOP system. Please see the attached BOP and choke manifold diagram.

14. I hereby certify that the foregoing is true and correct

Name *(Printed/Typed)*
Paul C. Thompson, P.E.

Title
Agent

Signature
Paul C. Thompson

Date
October 25, 2004

THIS SPACE FOR FEDERAL OR STATE USE

Approved by
Roland Adams

Title
Acting AFM

Date
08/08/05

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
FARMINGTON DISTRICT OFFICE

Title 18 U.S.C. Section 1001, 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.

(Instructions on reverse)

NMOCD

BOLACK MINERALS COMPANY
OPERATIONS PLAN
Thomas F. Bolack #1

I. Location: 1935' FSL & 860' FEL
Sec 3, T30N, R16W
San Juan County, NM

Date: July 21, 2004

Field: Wildcat McCracken Sandstone

Elev: GL 5700'

Surface: **Navajo Nation Tribal Trust**
Minerals: **Federal NMSF0081226**

II. Geology: Surface formation _ Point Lookout Sand

A.

Formation Tops	Depths
Mancos Shale	325'
Tocito/Gallup Sand	1575'
Greenhorn Limestone	2150'
Graneros Shale	2200'
Dakota Sand	2300'
Morrison Shale/Sand	2450'
Bluff Sand	3250'
Summerville Shale	3310'
Todilto Anhydrite/Limestone	3400'
Entrada Sand	3500'
Chinle/Dolores Shale	3600'
Shinarump Sand	4840'
Moenkopi Shale	4870'
DeChelly Sand	5050'
Cutler Shale/Sand	5280'
Hermosa/Honaker Trail	6700'
Boundary Butte Shale	7450'
Ismay Limestone	7475'
Desert Creek Limestone	7700'
Akah Limestone	7800'
Barker Creek Limestone	7900'
Alkali Gulch Limestone	8110'
Pinkerton Trail Limestone	8200'
Molas Shale	8300'
Leadville Limestone	8650'
Devonian Ouray Limestone	8650'
Elbert Shale	8700'
McCraken Sandstone	8770'
Total Depth	8910'

Potential oil and gas bearing formations: Tocito/Gallup, Dakota, Shinarump Sandstone, Entrada, Paradox Carbonates (Ismay, Desert Creek, Akah, Barker Creek, Alkali Gulch), Leadville and Elbert/McCracken Sandstone.

Potential Helium formations: Paradox Carbonates and Leadville Limestone

Potential H2S formations: Barker Creek Limestone and Alkali Gulch

Potential water zones: Bluff Sandstone and DeChelly Sandstone

B. Logging Program: Induction/GR, density, sonic, and MRI logs at TD.

C. The Akah and Desert Creek, and Leadville formations may be over pressured. The mud weight will be elevated with barite to control any abnormal pressures. Max. BHP = 4,200 psig.

The Barker Creek and Alkali Gulch formations may contain H_2S. H2S monitors will be in place on the mud logging unit and the necessary personal protective equipment will be available on-site.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 9.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	500'	9-5/8"	36# J-55
8-3/4"	8910'-6200'	5-1/2"	17.0# N-80 LT&C
	6200' - 0'	5-1/2"	17.0# J-55 LT&C

B. Float Equipment:

a) Surface Casing: Notched collar on bottom and insert float on top of the bottom joint. 5 centralizers on the bottom 5 joints.

b) Production Casing: 5-1/2" cement float shoe and self fill. insert float collar. Place float one joint above shoe. Place stage tools at approximately 3,000' and 6,000' KB. Ten centralizers spaced every other joint above shoe and turbolizers above and below the stage tools and every fifth joint from 2600' to the surface casing.

V. Cementing:

Surface casing: 9-5/8" - Use 285 sx (336 cu. ft.) of Cl "B" with 2% $CaCl_2$ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

Production Casing: 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 20 bbls of fresh water and 30 sx of flyash - gel spacer. **1st Stage**: Cement with 835 sx (1219 cu.ft) of Cl "H" 50:50 poz with 0.9% Halad®-9 Fluid loss control, 0.1% HR-5 (retarder), 0.2% CFR-3 (dispersant), 5 #/sk gilsonite and ¼ #/sk flocele. (Yield = 1.46 cu.ft./sk; slurry weight = 13.0 PPG). Displace cement and bump the plug to 1500 psi. Open the stage tool at 6000' and circulate for four hours. Total cement volume is 1219 cu.ft. (65% excess to circulate the stage tool at 6000').

2nd Stage: Precede cement with 20 bbls of fresh water and 30 sx of flyash - gel spacer. **Lead** with 625 sx (1125 cu.ft) of TXI Lightweight cement with 0.6% Halad®-9 (fluid loss control), 2% CaCl2, 5 #/sk gilsonite and ¼ #/sk flocele. (Yield = 1.80 cu.ft./sk; slurry weight = 12.0 PPG). **Tail** with 90 sx (128 cu.ft.) of TXI Lightweight cement with 0.6% Halad®-9 (fluid loss control), 2% CaCl2, 5 #/sk gilsonite and ¼ #/sk flocele. (Yield = 1.42 cu.ft./sk; slurry weight = 13.0 PPG). Displace cement and bump the plug to 1500 psi. Open the stage tool at 3000' and circulate for four hours. Total cement volume is 1253 cu.ft. (65% excess to the stage tool at 3000').

3rd Stage: Precede cement with 20 bbls of fresh water and 30 sx of flyash - gel spacer. **Lead** with 625 sx (1125 cu.ft) of TXI Lightweight cement with 0.6% Halad®-9 (fluid loss control), 2% CaCl2, 5 #/sk gilsonite and ¼ #/sk flocele. (Yield = 1.80 cu.ft./sk; slurry weight = 12.0 PPG). **Tail** with 90 sx (128 cu.ft.) of TXI Lightweight cement with 0.6% Halad®-9 (fluid loss control), 2% CaCl2, 5 #/sk gilsonite and ¼ #/sk flocele. (Yield = 1.42 cu.ft./sk; slurry weight = 13.0 PPG). Displace cement and bump the plug to 1500 psi. Total cement volume is 1253 cu.ft. (65% excess to circulate cement to surface).

Paul C. Thompson, P.E.

Energen Resources Corp.

Well Control Equipment Schematic for 3M Service

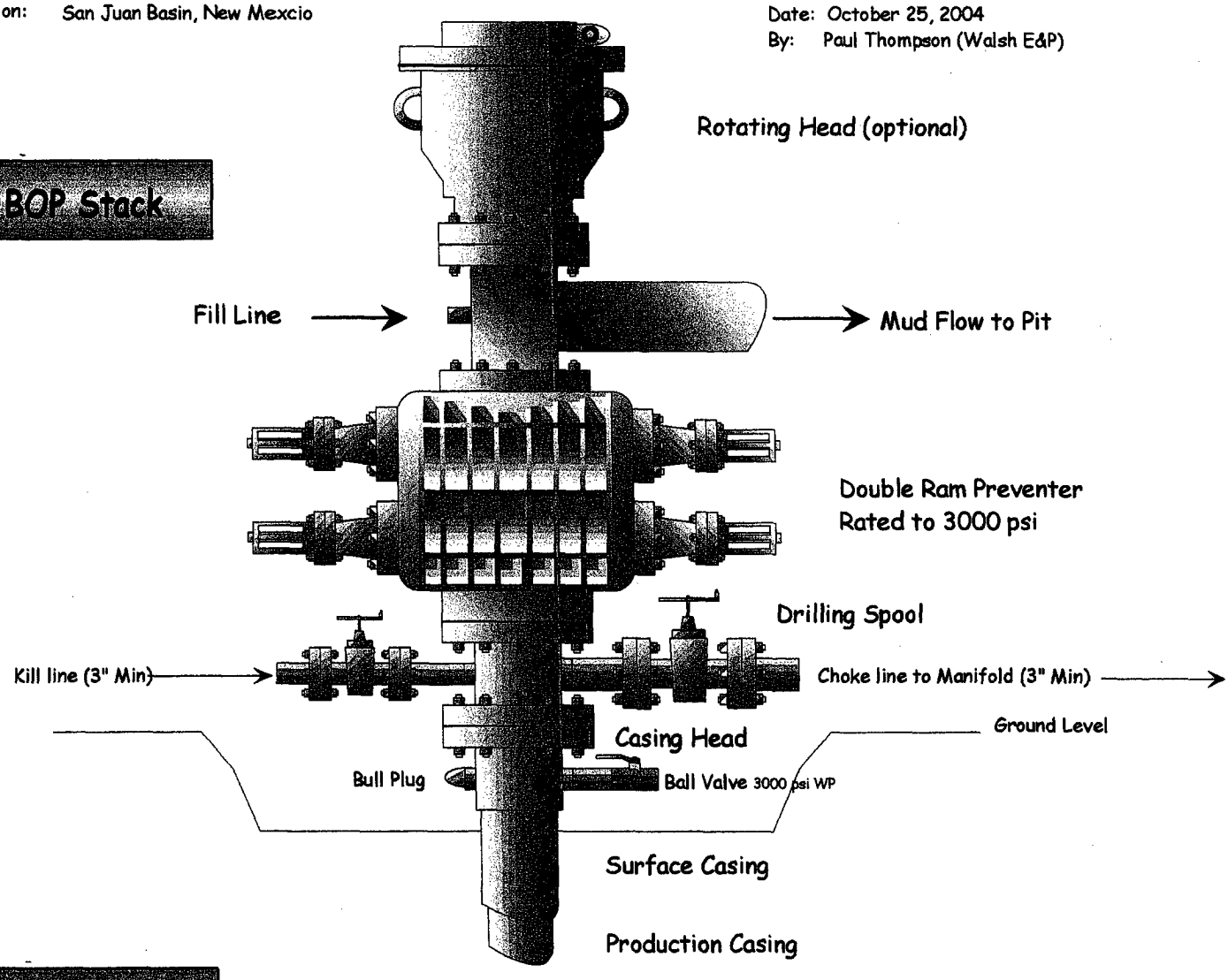
Attachment to Drilling Technical Program

Exhibit #1
Typical BOP setup

Location: San Juan Basin, New Mexcio

Date: October 25, 2004
By: Paul Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold