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RESUBMITTAL

Form 3160-3
(April 2004)

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.
NM LC060325

6 If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7 If Unit or CA Agreement, Name and No.

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
COLUMBUS "4" 1 (38296)

2 Name of Operator
THOMPSON, J. CLEO (11181)

9 API Well No.
30-015-38108

3a. Address P. O. BOX 12577
ODESSA, TX 79768

3b Phone No (include area code)
(432)550-8887

10 Field and Pool, or Exploratory (96718)
LOCO HILLS Glorieta-Yeso

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 453.5' FSL & 453.5' FEL (UL: P)
At proposed prod zone

11. Sec., T. R. M. or Blk. and Survey or Area
SEC. 4, T17S, R30E

14 Distance in miles and direction from nearest town or post office*
2 MILES NM OF LOCO HILLS, NM

12 County or Parish
EDDY

13 State
NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16 No. of acres in lease	17. Spacing Unit dedicated to this well
453.5'	80	40
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19 Proposed Depth**	**20 BLM/BIA Bond No on file**
288.9'	6,000'	NM0348
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	**22 Approximate date work will start***	**23 Estimated duration**
3702'GL	02/15/2010	30 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	Name (Printed/Typed)	Date
	JIM STEVENS	02/10/2010

Title
OPERATIONS MANAGER

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ Don Peterson	/s/ Don Peterson	AUG 06 2010
Title	**Office**	
FIELD MANAGER	CARLSBAD FIELD 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

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.

*(Instructions on page 2)

KZ 8/26/10

Roswell Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

DISTRICT I
1625 N French Dr., Hobbs, NM 88240

DISTRICT II
1301 W Grand Ave., Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St Francis Drive
Santa Fe, NM 87505

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Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-38108	96718	LOCO HILLS; GLORIETA-YESO

[4] Property Code	[5] Property Name	[6] Well Number
38296	COLUMBUS "4"	1

[7] OGRID No	[8] Operator Name	[9] Elevation
11181	J. CLEO THOMPSON & JAMES CLEO THOMPSON, JR., L.P.	3704'

[10] Surface Location

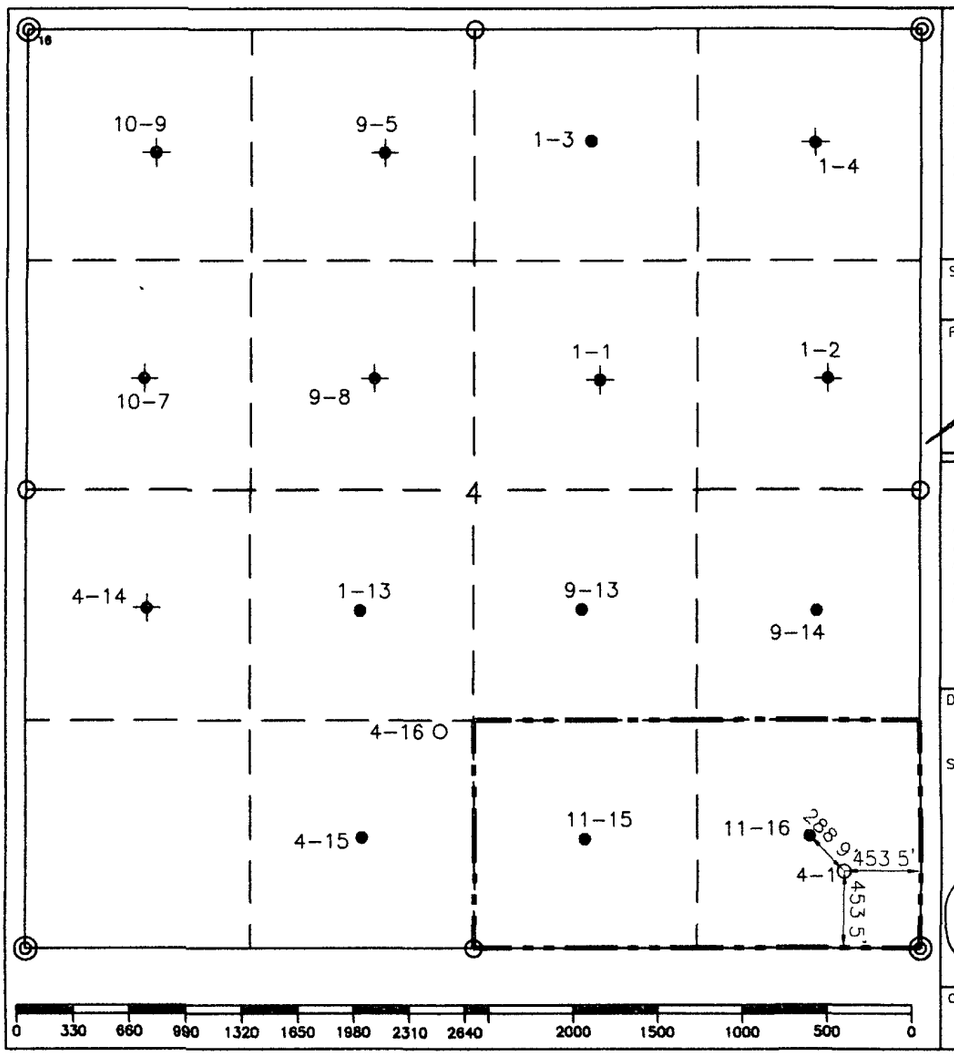
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	[7] County
P	4	17-S	30-E		453.5'	South	453.5'	East	Eddy

[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	[7] County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No
40			

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, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

11/13/09

Signature Date

Jim Stevens

Printed Name

[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 knowledge and belief

November 10, 2009

Date of Survey

Signature & Seal of Professional Surveyor

Certificate No 7254

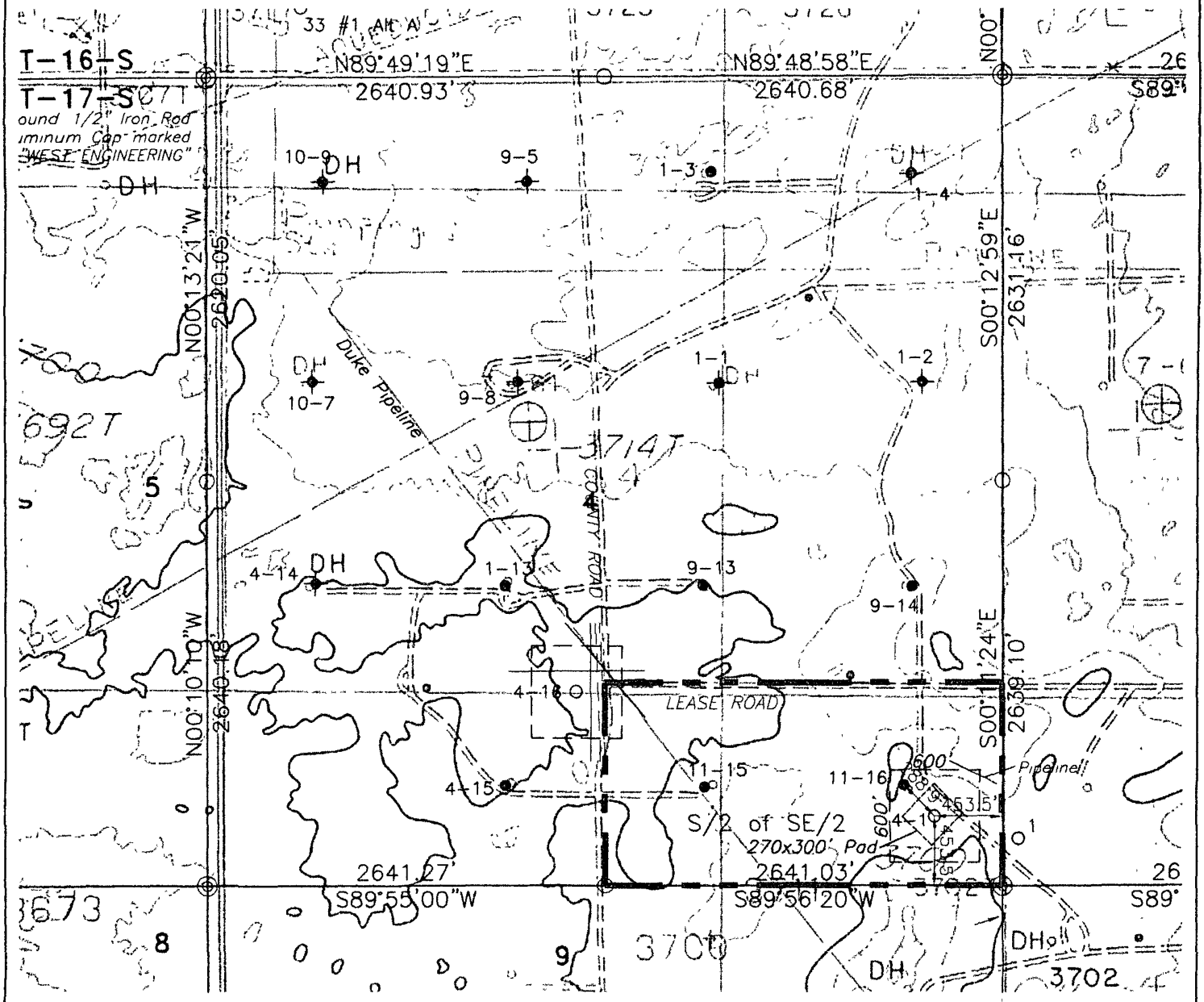
○ = Staked Location • = Producing Well ◆ = Injection Well ⊖ = Water Supply Well ✦ = Plugged & Abandon Well
◎ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found /4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates	
Northing 675895.98 (1927 NAD= 675832.22)	Easting 652956.14 (1927 NAD= 611777.26)
Latitude 32°51'27.119"	Longitude 103°58'11.412"

Zone	North American Datum	Combined Grid Factor	Coordinate File
East	1983	0.999749796	W_Square_Lake83.crd

Drawing File	Field Book
WestSquareLake.Dwg	Eddy #9, Pg. 35



LEGEND OF SYMBOLS

- = = = = Lease Road
- —E— = Proposed Electric Line
- —F— = Proposed Production Flow Line
- o = Staked Well Location
- ● = Producing Well Location
- ◢ = Water Injection Well
- ○ = Found 1" Iron Pipe with Brass Cap
- ◎ = Found 2" or 3" Iron Pipe with Brass Cap
- - - - = Unit or Lease Boundary

N

EXHIBIT "A"
ACCESS ROAD AND FACILITIES MAP

J. CLEO THOMPSON & JAMES CLEO THOMPSON, JR. L.P.

COLUMBUS "4" No. 1
Located 453.5' FSL & 453.5' FEL, Section 4,
T-17-S, R-30-E, NMPM, Eddy County, NM

Drawn by: Gene M Rodriguez	Scale: 1" = 1000'
Date: September 3, 2009	Attn.: Jim Stevens
Checked by: J. Stan Piper	Revised: 11/13/09 by GMR

DRILLING PROGRAM
J. Cleo Thompson & James Cleo Thompson, Jr., L. P.
Columbus '4', Well No. 1
453.5' FSL & 453.5' FEL, Section 4
T17S, R30E
Eddy County, New Mexico

In accordance with Form 3160 and out application to drill, please find the following items as included in the proposed drilling program.

1. **Estimated Tops of Geological Markers:**

Rustler	439'
Tansill	1194'
Yates	1327'
7 Rivers	1599'
Queen	2205'
Yeso/Glorietta	4502'
Tubb	5903'

2. **Possible Mineral Bearing Formations:**

San Andres	Oil
Yeso/Glorietta	Oil

3. **Proposed Casing Program:**

Hole Size	Setting Depth	Csg Size & Wgt	Class	Grade/Jt
See COA - 17-1/2"	0' – 450'	13-3/8", 48#/ft	New	H-40/ST&C
11"	0' – 2000'	8-5/8", 24#/ft	New	J-55/ST&C
7"	0' – 6000'	5-1/2", 15.5#/ft	New	J-55/LTC
Design Factors:	*Collapse: 1.2*	*Burst: 1.2*	*Tension 1.8*	

4. **Pressure Control Equipment:**
Exhibit 'C'- Intermediate and Production Casing – A minimum 8-5/8", 3000 PSI working pressure BOP consisting of one set of blind rams and one set of pipe rams, a choke manifold and a 120 gallon accumulator with floor and remote operating stations as well as an auxiliary power system will be utilized. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Ram-type BOP will be tested to 250 psi low and 2500 psi high by an independent service company.

The BOP unit will be hydraulically operated. Below intermediate casing shoe, BOP will be operated at least once a day while drilling and the blind rams will be operated on out-of-hole trips. No abnormal pressures or temperatures are expected while drilling this well.

See COA ~~We are requesting a variance for testing the 13-3/8" surface casing from Onshore Order No. 2, which states that all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of~~

DRILLING PROGRAM
J. Cleo Thompson & James Cleo Thompson, Jr., L. P.
Columbus '4', Well No. 1
453.5' FSL & 453.5' FEL, Section 4
T17S, R30E
Eddy County, New Mexico

See COA

~~the manufacturer's stated maximum internal yield. We are requesting to test the 13-3/8" casing to 1000 psi using rig pumps. The BOP will be tested to 1000 psi by an independent service company.~~

5. **Proposed Mud Program:**

Interval	Type	Weight(ppg)	Viscosity	Fluid Loss
0' – 450'	Fresh Water	8.3 – 9.0	34 – 38	NC
450' – 2000'	Brine	10.0 – 10.2	29 – 30	NC
2000' – 5950'	Cut Brine	8.8 – 9.2	28 – 29	NC
5950' – 6000'	Cut Brine	9.0 – 9.2	32 – 33	12-15

6. **Proposed Cementing Program:**

13-3/8" Surface: 470 sacks Class 'C' cement + 0.25 lbs/sx Celloflake + 2% Calcium Chloride
TOC: Surface **Yield:** 1.34 cu.ft./sx **Wgt:** 14.8 ppg

8-5/8" Intermediate: *Lead Cement:* 305 sacks 50:50 POZ C + 10% gel + 5% salt + 0.25 # Celloflake
Yield: 2.45 cu.ft./sx **Wgt:** 11.8 ppg
Tail Cement: 200 sxs Class 'C' Cement + 2% Calcium
TOC: Surface **Yield:** 1.34 cu.ft/sx **Wgt:** 14.8 ppg

5-1/2" Production: *Lead Cement:* 625 sxs 50/50 POZ C + 10% gel + 5% salt + 0.25 # Celloflake + 3# Kol-Seal
Yield: 2.45 cu.ft/sx **Wgt:** 11.8 ppg
Tail Cement: 200 sxs 50/50 POZ C + 2% gel + 5% salt + 8-10% C-16a
TOC: surface **Yield:** 1.30 cu.ft/sx **Wgt:** 14.3 ppg

7. **Auxiliary Equipment:**
Blowout preventer, gas detector, Kelly Cock and stabbing valve

8. **Testing, Logging and Coring Program** – See COA

Drill Stem Tests: None Anticipated
Logging: Platform Express, TD – 3000'
GR – N to surface
Coring: None Anticipated

DRILLING PROGRAM
J. Cleo Thompson & James Cleo Thompson, Jr. L. P.
Columbus 4, Well #1
453.5' FSL & 453.5' FEL, Section 4
T17S, R30E
Eddy County, New Mexico

9. Potential Hazards:
No abnormal pressures or temperatures are expected. The area has a potential H2S hazard. An H_2S drilling plan is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP	2300 psi	Estimated BHT	110°

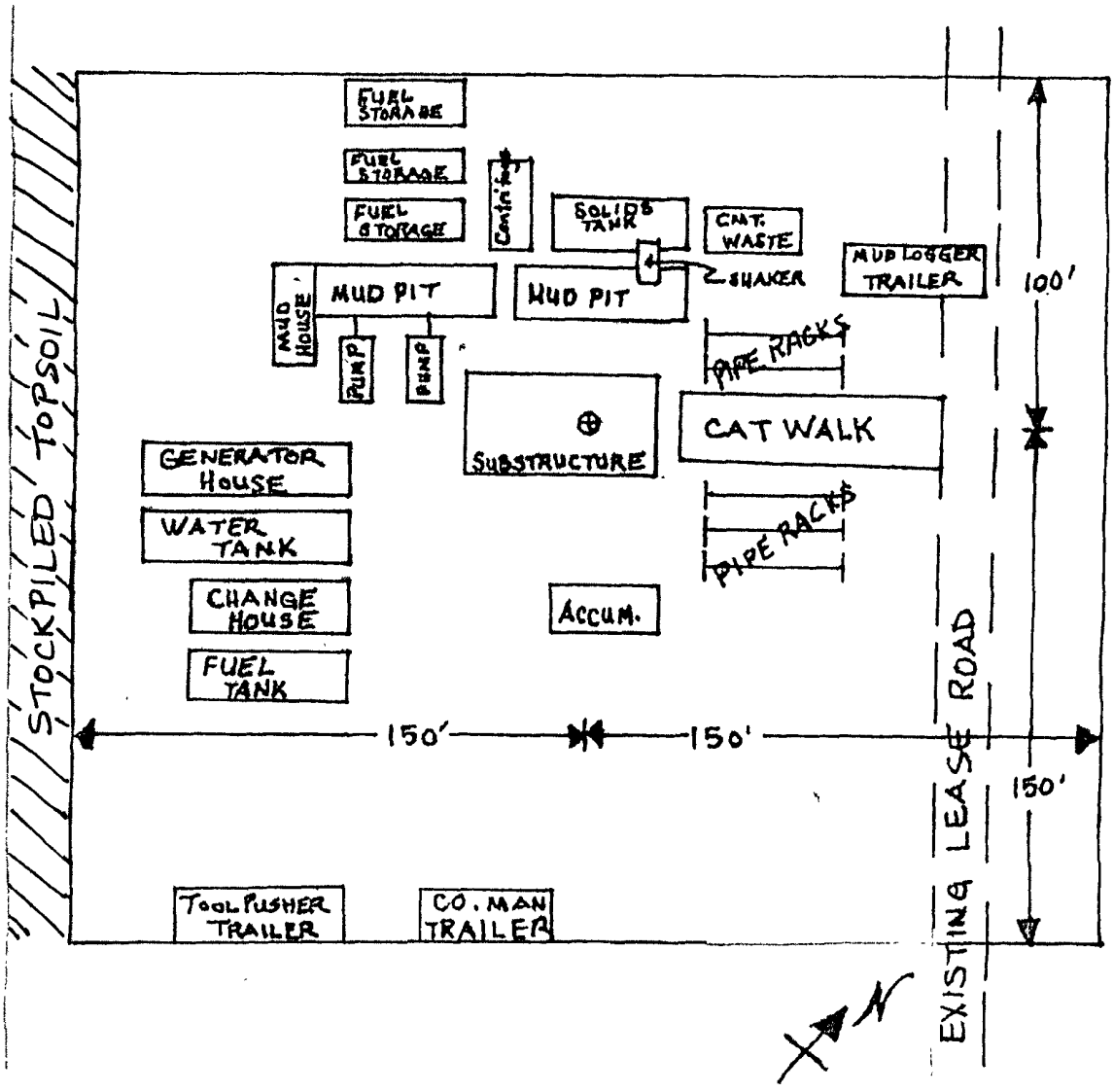
10. H_2S: None Anticipated

11. Anticipated Start Date: As soon as approved
Anticipated Drilling Time: 15 days

ATTACHMENT 'C'
WELLSITE LAYOUT

SURFACE USE PLAN

i. *Well Site Layout:* Diagram of well site with arrow indicating the north direction and the location of the stockpiled topsoil.



J. CLEO THOMPSON

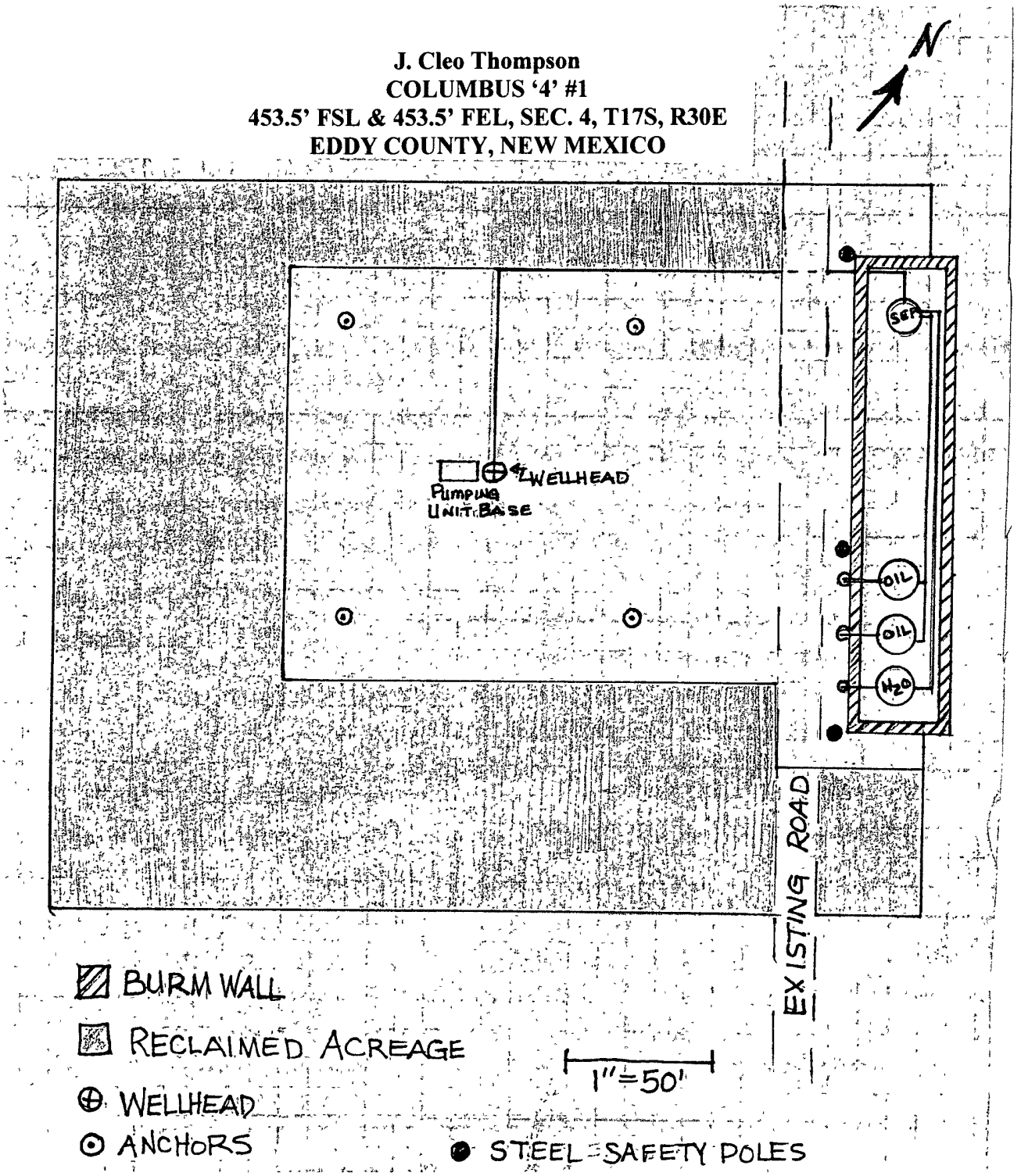
COLUMBUS '4' WELL NO. 1

WELL SITE LAYOUT
(WITH NORTH DIRECTION AND STOCKPILED SOIL)

ATTACHMENT 'E'
DIAGRAM OF PRODUCTION FACILITIES

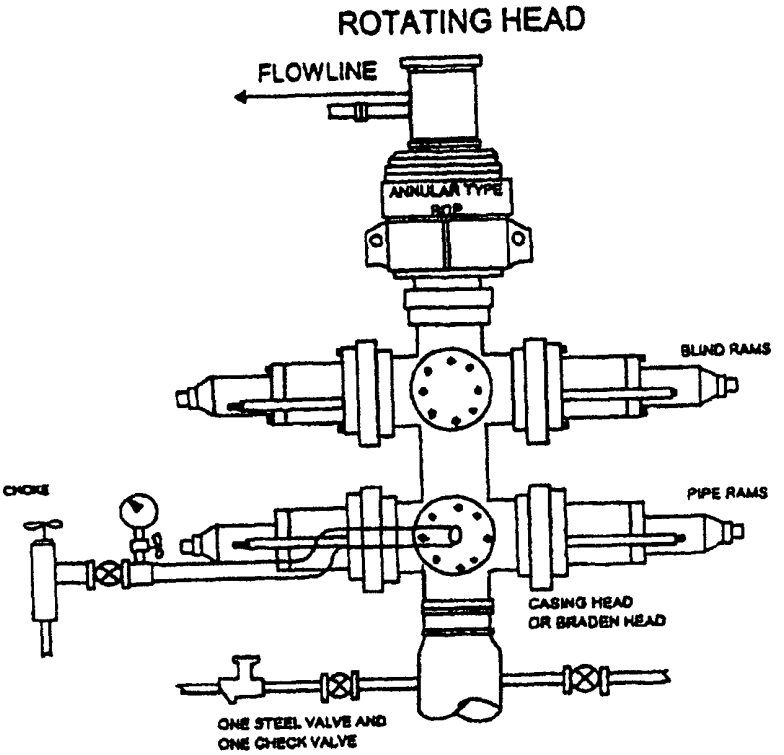
SURFACE USE PLAN

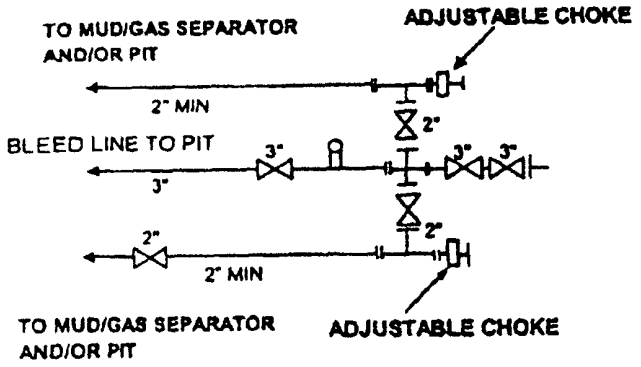
d. Location of Existing and /or Proposed Production Facilities: The necessary facilities, gas separation/process equipment and tank battery are to be located on the well site if a well is made. J. Cleo Thompson, at this time, foresees 2-300 bbl oil tanks, 1- 300 bbl water tank, a 4' x 20' heater treater and the necessary piping for this configuration.



ATTACHMENT 'A'

3-M WP BOP WITH 3-M WP ANNULAR AND CHOKE MANIFOLD SCHEMATIC





Revised

EXHIBIT C

J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
COLUMBUS "4" Well No. 1
BOP/Choke Manifold Schematic

J. Cleo Thompson & James Cleo Thompson, Jr., L.P.

Closed-Loop System Design Plan

Equipment List

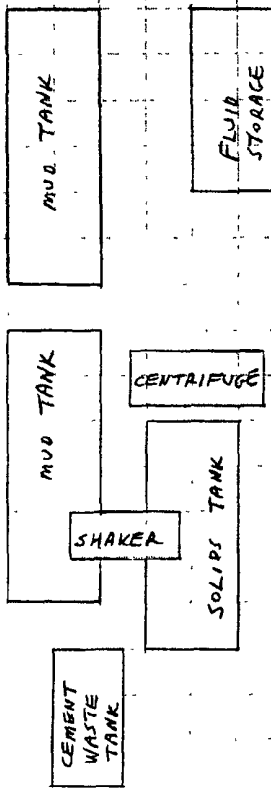
- Primary Shakers
- Mud Cleaner – Hydro-cyclones
- 1 Centrifuge
- De-watering system with pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing
- Drying Augur
- Sump Drying Augur
- Sump
- Cutting Boxes
- Reserve Fluids Tank Farm
- Wire mesh trash enclosure (spent motor oils will be kept in separate containers and latter sent to approved landfill)

Operations and Maintenance

Closure Plan

During drilling operations, all liquids, drilling fluids, and cuttings will be hauled off location via CRI (Controlled Recovery Incorporated, Permit R-9166).

TYPICAL CLOSED LOOP MUD SYSTEM



- RIG CREWS PERFORM DAILY MAINTENANCE ON EQUIPMENT.
- RIG CREWS MONITOR SYSTEM DAILY FOR SPILLS OR LEAKS.
- EQUIPMENT PROVIDER INSPECTS AND MAKES REPAIRS TO SYSTEM AS REQUIRED.
- OPERATOR RESPONSIBLE FOR HAUL OFF AND DISPOSAL OF ALL CUTTINGS AND DRILLING FLUID.

J. CLEO THOMPSON & JAMES CLEO THOMPSON, JR.
OIL PRODUCERS
325 NORTH ST. PAUL*SUITE 4300
DALLAS, TEXAS 75201

OFFICE. 214-953-1117
FAX: 214-969-7433

January 4, 2009

Oil Conservation Division
District II Office
1301 W. Grand Avenue
Artesia, New Mexico 88210
Attn: Ms. Kimberly Wilson

RE: STATEWIDE RULE 118
HYDROGEN SULFIDE CONTIGENCY PLAN
PROPOSED WELL: COLUMBUS 4 WELL NO. 1
EDDY COUNTY, NM

Dear Ms. Wilson:
In accordance with NMAC 19.15.3.118C.(1) governing the determination of the hydrogen sulfide concentration in gaseous mixtures in each of its operations, J. Cleo Thompson & James Cleo Thompson, Jr., L.P. do not anticipate that there will be enough H_2S from the surface to the Paddock formations to meet the OCD's minimum requirements for the submission of a contingency plan for the drilling and completions of the following well:

COLUMBUS 4 WELL NO. 1
Sec. 4, T17S, R30E
453.5' FSL & 453.5' FEL
Eddy County, New Mexico

If anything further is needed regarding this issue, or if you have any questions, please feel freel to contact the undersigned at 432-550-8887.

Sincerely,

J. E. Stevens
Operations Manager

Hydrogen Sulfide Drilling Operations Plan
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
Columbus '4' Well No. 1

1. All company and contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

    A. Characteristics of H_2S
    B. Physical effects and hazards
    C. Proper use of safety equipment and life support systems
    D. Principle and operation of H_2S detectors, warning system and briefing areas
    E. Evacuation procedure, routes and first aid
    F. Proper use of 30-minute pressure demand air pack

2. **H_2S Detection and Alarm System**
   H_2S detectors and an audible alarm system will be located at the bell nipple, end of the flow line (mud pit) and on the derrick floor or doghouse.
3. **Windsock and/or Wind Streamers:**
   A. Windsock/streamers to be placed at mudpit area high enough to be visible.
   B. Windsock/streamers to be placed in briefing area high enough to be visible.
4. **Condition Flags and Signs:**
   A. Warning sign to be placed on access to location
   B. Flags will be displayed on sign at entrance to location.
      - *Green Flag*: normal, safe conditions
      - *Yellow Flag*: potential pressure/H_2S danger
      - *Red Flag*: Danger, H_2S is present in dangerous concentrations, only emergency personnel admitted to location
5. **Well Control Equipment**
   A. See Exhibit E
6. **Communication:**
   A. While working under masks, chalkboards will be used for communication.
   B. Hand signals will be used where chalkboards are inappropriate.
   C. Two-way radios will be used to communicate off location in case of emergency help is required. In most cases cellular phones will be available in the drilling foreman's trailer/living quarters.
7. **Drillstem Testing:**
   No DSTs or cores are planned at this time
8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
9. If H_2S is encountered, mud system will be altered as necessary to maintain control of the formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.

Hydrogen Sulfide Drilling Operations Plan
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
Columbus '4' Well No. 1

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must:

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release
- Use the "Buddy System" to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the following:
  - ✓ Detection of H_2S,
  - ✓ Measures for protection against the gas,
  - ✓ Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to sulfur dioxide, SO_2. Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of gas.

Characteristics of H2S and SO2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 (Air=1)	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21(Air=1)	2 ppm	N/A	1,000 ppm

Contacting Authorities

J. Cleo Thompson & James Cleo Thompson, Jr., L.P. personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. J. Cleo Thompson & James Cleo Thompson, Jr., L.P. 's response will be in coordination with the State of New Mexico's Hazardous Materials Emergency Plan" (HMER).

Hydrogen Sulfide Drilling Operations Plan
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
Columbus '4' Well No. 1

J. Cleo Thompson, Odessa Office 432-550-8887

Key Personnel

Name	Title	Office	Mobile
Jim Stevens	Operations Manager	432-550-8887	432-664-2917
Doug Dietrich	Engineer	432-550-8887	432-664-2549
Jeff Bryden	Geologist	432-550-8887	432-661-0171
Johnnie Holder	Drilling Superintendent	432-550-8887	432-664-2891
Gary Moreau	Pumper		575-631-5643

Artesia

Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	575-746-2701
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

Carlsbad

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-3798
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

Santa Fe

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

National

National Emergency Response Center (Washington, D.C.)	800-424-8802

Medical

Flight for Life – 4000 24th St., Lubbock, TX	806-743-9911
Aerocare – R3, Box 49F, Lubbock, TX	806-747-8923
Med Flight Air Amb. – 2301 Yale Blvd S.E., #D3, Albuquerque, NM	505-842-4433
SB Air Med Service – 2505 Clark Carr Loop S.E., Albuquerque, NM	505-842-4949

Other

Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd Pressure Control	432-699-0139 or 432-563-3356
Halliburton	575-746-2757
B.J. Services	575-746-3569

SURFACE USE PLAN OF OPERATIONS
J. Cleo Thompson & James Cleo Thompson, Jr. L. P.
Columbus '4' Well No. 1
453.5' FSL & 453.5' FEL, SEC. 4
T17S, R30E
EDDY COUNTY, NEW MEXICO

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well; the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operations.

1. EXISTING ROADS:
   A. Exhibit "A" is a portion of a topographic map showing the location of the proposed well as staked. The well is approximately 3 miles north of Loco Hills, NM. Two thousand one-hundred twelve (2112') feet of an existing lease access road will be utilized from the County Road into location. The road will be crowned and ditched to a 14' width in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.
   B. **Directions**: From the junction of Hwy 82 and Goat Ropers Road, go north on Goat Ropers Road for 2.8 miles to lease road; turn east on lease road 0.3 mile; turn south on lease road for 0.1 mile.
2. PLANNED ACCESS ROAD
   A. **Length and Width**: 2112'and 14' wide existing lease access road will be utilized.
   B. **Construction**: The existing road will be constructed and repaired by grading and topping with compacted caliche. The surface will be crowned and ditched in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction to ensure proper drainage.
   C. **Turnouts**: No new
   D. **Culverts**: No new
   E. **Cuts and Fills**: No new
   F. **Gates and Cattle Guards**: None
   G. **Off Lease Right-of-Way**: None
3. LOCATION OF EXISTING WELLS: There are 15 existing wells in the section, one of which is in the same UL or lot number, 288.5' NW of this proposed well. Exhibit "A" and Exhibit "B", Well Location and Acreage Dedication Plat, show existing wells in the section.

SURFACE USE PLAN OF OPERATIONS
J. Cleo Thompson & James Cleo Thompson, Jr. L. P.
Columbus '4' Well No. 1
453.5' FSL & 453.5' FEL, SEC. 4
T17S, R30E
EDDY COUNTY, NEW MEXICO

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES: The necessary facilities, gas separation/process equipment and tank battery are to be located on the well site if a well is made. J. Cleo Thompson, at this time, foresees 2-300 bbl oil tanks, 1-300 bbl water tank, a 4' x 20' heater treater and the necessary piping for this configuration. See attached diagram. If, in fact this lay-out changes, J. Cleo Thompson will send in the necessary Sundry Notice.
5. LOCATION AND TYPE OF WATER SUPPLY: It is planned to drill the proposed well with fresh water that will be transported over the existing roads.
6. SOURCE OF CONSTRUCTION MATERIALS: The location will be scraped and the top soil stored on the SW side of the location, behind the closed-loop system. If adequate caliche exists, no further construction will take place. If in fact, additional construction is necessary, it is the intent of J. Cleo Thompson to obtain additional caliche from the state caliche pit off of Mallet Rd. Layers B and C will not be overturned as a source of construction material.
7. METHODS OF HANDLING WASTE:
   A. Drill cuttings will be disposed of in the closed-loop system.
   B. Water produced during the operations will be hauled to a disposal plant.
   C. Oil produced during the operation will be collected in production tanks.
   D. Trash, waste paper, garbage, and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.
   E. Current laws and regulations pertaining to the disposal of human waste will be observed.
8. ANCILLARY FACILITIES: None Required
9. WELL SITE LAYOUT:
   A. Exhibit "D" shows the relative dimensions of the well pad and major rig components. The pad and closed-loop system area to be staked will measure 300' x 250'.
   B. Cut and Fill: None required
   C. Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
   D. If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded as per BLM requirements. See attached map for interim remediation.

SURFACE USE PLAN OF OPERATIONS
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10. PLANS FOR RESTORATION OF THE SURFACE:

Rehabilitation of the location will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the soil pile will be placed over the disturbed area to the extent possible. Vegetation procedures will comply with BLM standards. If the well is a dry hole, the pad and road will be contoured to match the existing terrain. Topsoil will be placed to the extent possible. Vegetation procedures will comply with BLM standards. Should the well be a producer, the previous noted procedures will apply to those areas which are not required for production facilities.

11. OTHER INFORMATION

A. Topography: The proposed well site and access road are located on open, rolling coppice dune field formations, with varied dune height/blowout depth ranging from 0.2 to 2 meters.
B. Soil: Soils are tan/red loamy silty sands, mixed with an occasional surface exposure of substrata caliche.
C. Flora and Fauna: Area vegetation is dominated by shinoak, grasses, snakeweed, mesquite, hackberry, and yucca.
D. Ponds and Streams: None
E. Residences and Other Structures: None in the immediate vicinity
F. Land Use: Cattle grazing, but not at the present time
G. Surface Ownership: The proposed well site and the access road is on federal surface with federal minerals.
H. There is no evidence of archaeological, historical or cultural sites in the staked area.

12. OPERATOR'S REPRESENTATIVE

The field representative for assuring compliance with the approved use and operations plan is as follows:

J.E. (Jim) Stevens
Operations Manager
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
P. O. Box 12577
Odessa, TX 79768
Office Phone: (432) 550-8887
Cell Phone: (432) 664-2917

SURFACE USE PLAN OF OPERATIONS
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T17S, R30E
EDDY COUNTY, NEW MEXICO

13. CERTIFICATION:

I, J. E. Stevens, hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route as proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 14TH day of MAY, 2010

Signed: J E Stevens

Name: J. E. Stevens
Position Title: Operations Manager
Address: J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
P. O. Box 12577
Odessa, TX 79768
Telephone: (432) 550-8887

Field Representative: John Hughes
Address: P. O. Box 430
Whiteface, TX 79379
Telephone: (432) 661-5313

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	J. CLEO THOMPSON
LEASE NO.:	NMLC060325
WELL NAME & NO.:	COLUMBUS 4 # 1
SURFACE HOLE FOOTAGE:	453.5' FSL & 453.5' FEL
BOTTOM HOLE FOOTAGE	SAME
LOCATION:	Section 4, T. 17 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call theCarlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

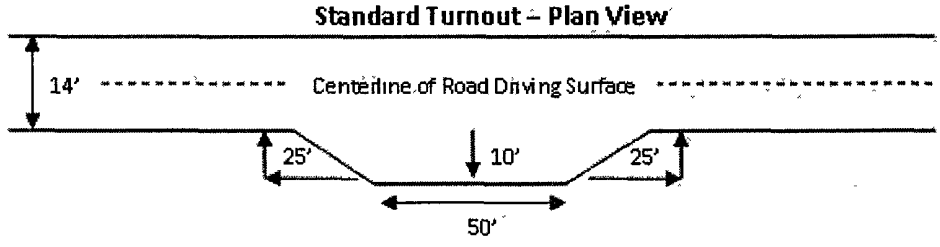
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

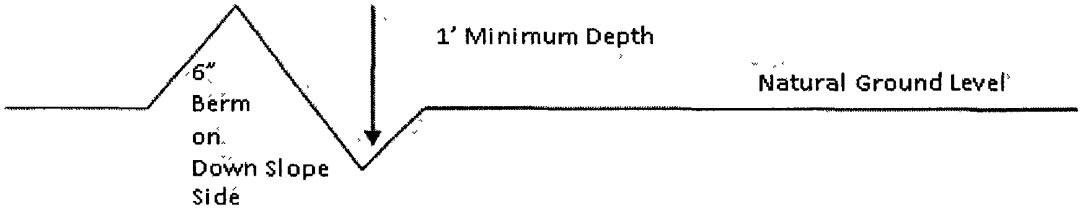


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

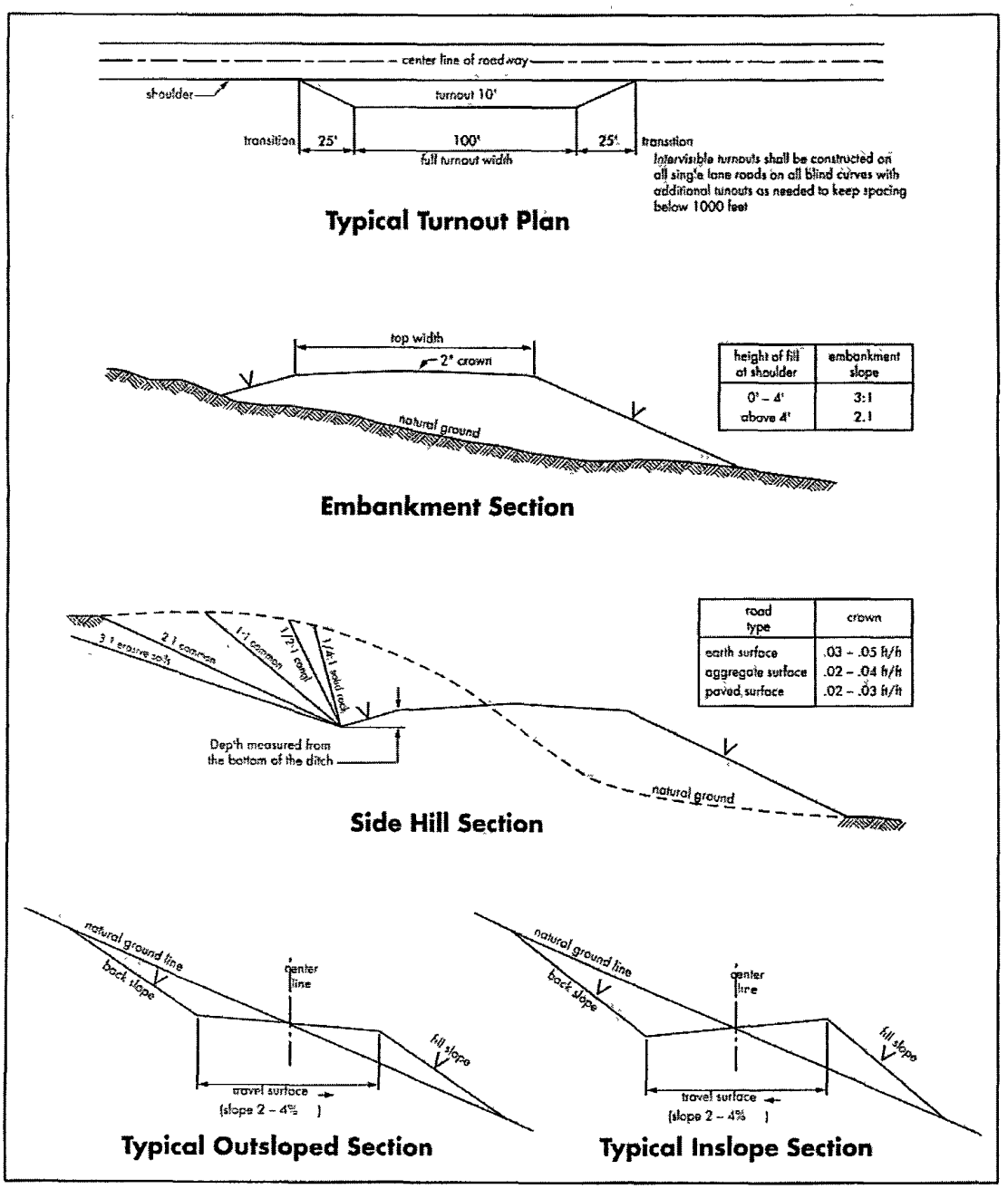
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

4. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.
No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Grayburg and San Andres Formations.
Possible water and brine flows in the Salado and Artesia Groups.

1. The **13-3/8** inch surface casing shall be set at **approximately 450 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If salt is encountered set the casing 25 feet above the top of salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period. Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

    b. The tests shall be done by an independent service company using a test plug.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

    f. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 032510

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

If the layout of the production facilities needs to be modified, the operator is required to submit a Form 3160-5, Sundry Notices requesting the production facility layout to be changed.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

**Four-winged Saltbush 5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed