ATS-12-519 EA-12-967

FORM APPROVED Form 3160-3 OMB No 1004-0137 Expires October 31, 2014 (March 2012) UNITED STATES Lease Serial No. DEPARTMENT OF THE INTERIOR NMNM2748 BUREAU OF LAND MANAGEMENT 6. If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7 If Unit or CA Agreement, Name and No. **✓** DRILL la Type of work: REENTER 8. Lease Name and Well No. ✓ Oil Well Gas Well Other lb. Type of Well: ✓ Single Zone | Multiple Zone Gissler B 92 Name of Operator Burnett Oil Co., Inc. 9 API Well No. 3a. Address 801 Cherry Street, Suite 1500 3b Phone No. (include area code) 10 Field and Pool, or Exploratory Fort Worth, Texas 76102 Grayburg Jackson San Andres Location of Well (Report location clearly and in accordance with 11. Sec., T. R. M. or Blk. and Survey or Area At surface 1650' FSL & 500' FWL Section 8, T 17S, R30E JUN 11 2012 At proposed prod. zone Same 12 County or Parish 13 State NMOCD ARTESIA 14 Distance in miles and direction from nearest town or post office\* Eddy NM Approximately 2 Miles North of Loco Hills, NM Distance from proposed\* 16 No. of acres in lease 17. Spacing Unit dedicated to this well 15 location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 18 Distance from proposed location\* to nearest well, drilling, completed, 19 Proposed Depth 20 BLM/BIA Bond No. on file NMB-000197 applied for, on this lease, ft Elevations (Show whether DF, KDB, RT, GL, etc.) 22 Approximate date work will start\* 23. Estimated duration 3667' GL 05/14/2012 30 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: 1. Well plat certified by a registered surveyor. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2 A Drilling Plan. 3 A Surface Use Plan (if the location is on National Forest System Lands, the Operator certification SUPO must be filed with the appropriate Forest Service Office) Such other site specific information and/or plans as may be required by the Name (Printed/Typed) Leslie M. Garvis 04/20/2012 Regulatory Coordinator Approved by (Signature) Is! James A. Amos Name (Printed/Typed) Dun 1 1 2012 PHI DISTRICTER Title Office 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

(Continued on page 2) Roswell Controlled Water Basin

conduct operations thereon.

Conditions of approval, if any, are attached.

Approval Subject to General Requirements & Special Stipulations Attached

RECEIVED

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.

JUN 1 1 2012

NMOCD ARTESIA

ATTACHED FOR

IDITIONS OF APPROVAL

APPROVAL FOR TWO YEARS

\*(Instructions on page 2)



#### FINAL CERTIFICATION MEMO

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently 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 Burnett Oil Co. Inc. is 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 20 day of 2012.

Sianed:

Printed Name: Mark A. Jacoby Position: Engineering Manager Company: Burnett Oil Co., Inc.

Address: 801 Cherry Street, Suite 1500, Unit #9, Fort Worth, Texas 76108

Telephone: 817.332.5108 Email: mjacoby@burnettoil.com □ DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 503-6161 Fax (575) 503-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 746-1233 Fax: (575) 746-9720

1000 Rio Brazos Rd., Aztec, NM 87410 Phone (505) 334-6176 Fax: (505) 334-6170

1220 S, St. Francis Dr., Santa Fe, NM 87505 Phone (505) 476-3460 Pax: (506) 476-3462

DISTRICT III

DISTRICT IV

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised August 1, 2011

Submit one copy to appropriate

#### OIL CONSERVATION DIVISION

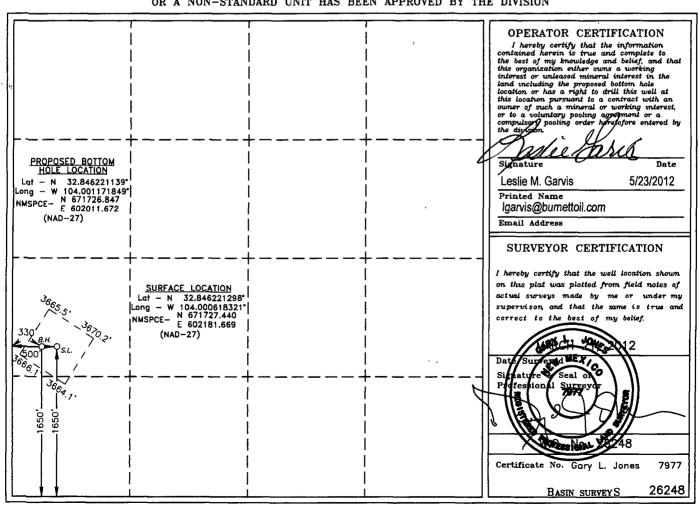
1220 South St. Francis Dr. Santa Fe, New Mexico 87505

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

30-0	30-015-40354			Pool Code Pool Name 28509 GRAYBURG JACKSON SAN ANDRE			ES .		
Property 2389	Property Code 2389		Property Name GISSLER B				Well Number 92		
03080			9	Operator Name BURNETT OIL COMPANY, INC.				Elevation 3667'	
					Surface Loca	ation			V # 00-5
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L .	8	17 S	30 E		1650	SOUTH	500	WEST	EDDY
			Bottom	Hole Loc	cation If Diffe	rent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	8	17 S	17 S   30 E		1650	SOUTH	330	WEST	EDDY
Dedicated Acre	Joint o	r Infill Co	nsolidation (	Code Or	der No.				

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





#### 1. Geological Name of Surface Formation with Estimated Depth:

<b>Geological Name</b>	<b>Estimate Top</b>	Anticipated Fresh Water, Oil or Gas
a. Alluvium	Surface	Fresh Water, Sand
b. Rustler	320'	
c. Salt	564'	
d. Base Salt	1190'	·
e. Yates	1378'	
f Seven Rivers	1640'	Oil
g. Queen	2259'	Oil
h. Grayburg	2661'	Oil
ı. San Andres	2962'	Oil
j. Total Depth	Refer to APD	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. Fresh water possible above Rustler. We will set 8 5/8" casing @ approx. +/- 530' in the Anhydrite, above the Salt and circulate cement to surface.

The oil zones will be isolated by running 5 1/2" casing to total depth and circulating cement to surface.

#### 2. Casing Program: (ALL CASING WILL BE NEW API APPROVED MATERIAL)

#### (MW = 10 PPG IN DESIGN FACTOR CALCULATIONS)

#### a. Design Safety Factors:

<u>Type</u>	Hole <u>Size</u>	Interval	OD Csg	Weight	<u>Collar</u>	<u>Grade</u>	Collapse Design <u>Factor</u>	Burst Design <u>Factor</u>	Tension Design <u>Factor</u>
Conductor	24"	0' – 90'	20"	Contr	actor Disc	retion			
Surface	10-3/4"	0' - 530'	8-5/8"	24.00#	ST & C	J55	1.125	1.00	1.80
Production	7-7/8"	0' - TD	5-1/2"	17.00#	LT & C	J55	1.125	1.00	1.80

#### b. Surface Casing Info

The proposed casing setting depth is 530' based on the attached cross sections which show the estimated top of the rustler and top of salt (Exhibits F-H). Drilling times will be plotted to find the hard section just above the salt. A mud logger will be on location to evaluate drill and cutting samples as long as circulation is maintained. If salt is penetrated, it will be obvious by the sudden increase in water salinity and surface casing will then be set above the top of salt. Our highly experienced drilling personnel has drilled many wells in this area and is able to easily identify the hard streak on the top of the salt.

#### 3. Cementing Program (Note Yields and DV Tool Depth if Multiple Stage.)

BLM to be notified prior to all cementing and tag operations in order to observe the operation if desired.

#### a. 8-5/8" Surface

- Lead: 20 bbl gel (WG-19) spacer + 150 sx Thixotropic + 2% CaCl, 1.64 CF/sx yield.
- Tail: 250 sx Class C cement + 2% CaCl 14.8 ppg, 1.35 cf/sx yield. TOC Surface. Excess cement 100%.

bee A COH

If cement does not circulate to surface, BLM will be notified of same, plus the plans to bring the cement to surface so BLM may witness tagging and cementing. The plan to bring the cement to surface will be to run 1" and tag top of cement at 0°, 90°, 180° and 270°. If surface pressures when circulating indicate cement is low in the annulus, data will be reviewed with BLM representative for recommendation on whether temperature survey or 1" is used to determine TOC.

Appropriate cement volumes will be pumped through 1" to bring cement to surface. In rare situations where severe lost circulation may exist, BLM may be requested to approve dumping pea gravel then cementing on top of it to the surface through 1".

#### b. 5-1/2" Production Casing

#### **Single Stage Cement:**

- Lead: 20 bbl gel (WG-19) spacer + 700 sx Halco Premium Lite + 125 lb Poly-E-Flake + 6lb salt, 14.2 ppg, yield 1.97 cf/sx. Circulate to surface.
- Tail: 350 sx VersaCem + 4% LAP -1 + .05% CFR-3 + .025lbm D-Air 3000 + 3lb Gilsonite + .125lb Poly-E-Flake 14.2 ppg, 1.27 cf/sx.

The above cement volumes may be revised pending the caliper measurement from the open hole logs. Casing/cementing design is to bring cement to the surface.

In the event cement does not circulate to surface, the BLM will be notified. A temperature survey will be run. Cement will then be brought to surface by running 1' to tag the top of cement and then cement through 1" to bring cement to surface. If top of the cement is too deep for running 1", an alternate plan will be developed (BLM will be included in discussions) to bring cement to surface.

#### 4. Pressure Control Equipment:

The blowout prevention equipment (BOPE) shown in **Exhibits D & E** will consist of a 2000 PSI Hydril Unit (annular) with hydraulic closing equipment. The equipment will comply with Onshore Order #2 and will be tested to 50% of rated working pressure (RWP), and maintained for at least ten (10) minutes. The 8-5/8" drilling head will be installed on the surface casing and in use continuously until total depth is reached. An independent testing company will be used for the testing. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 2000 PSI WP rating.

#### 5. Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve with the appropriate connections on the rig floor at all times.
- c. Hydrogen Sulfide detection and breathing equipment will be installed and in operation at drilling depth of 1800' (which is more than 500' above top of Grayburg) until 5-1/2" casing is cemented.
- d. An H2S compliance package will be on all sites while drilling.

#### 6. Proposed Mud Circulation System

<u>Depth</u>	Mud Wt	<u>Visc</u>	Fluid Loss	Type System
0' - 530'	8.6 - 9.5			Fresh Water
530' – TD' MD'	10.0 max		1	Brine Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

## 7. Logging, Coring and Testing program: See CoA

- a. Any drill stem tests will be based on geological sample shows and planned before spudding.
- b. The open hole electrical logging program will be:
  - Total depth to 1000': Dual Laterolog-Micro Laterolog with Compensated Neutron, Spectral Density log with Spectral Gamma Ray and Caliper.
  - 2 Total depth to Surface: Compensated Neutron with Spectral Gamma Ray.
  - 3. Coring program will be planned and submitted on a well by well basis.
  - Additional testing will be done subsequent to setting the 5 1/2" production casing. The
     specific Intervals will be based on log evaluation, geological sample shows and drill stem
     tests.

#### 8. Potential Hazards:

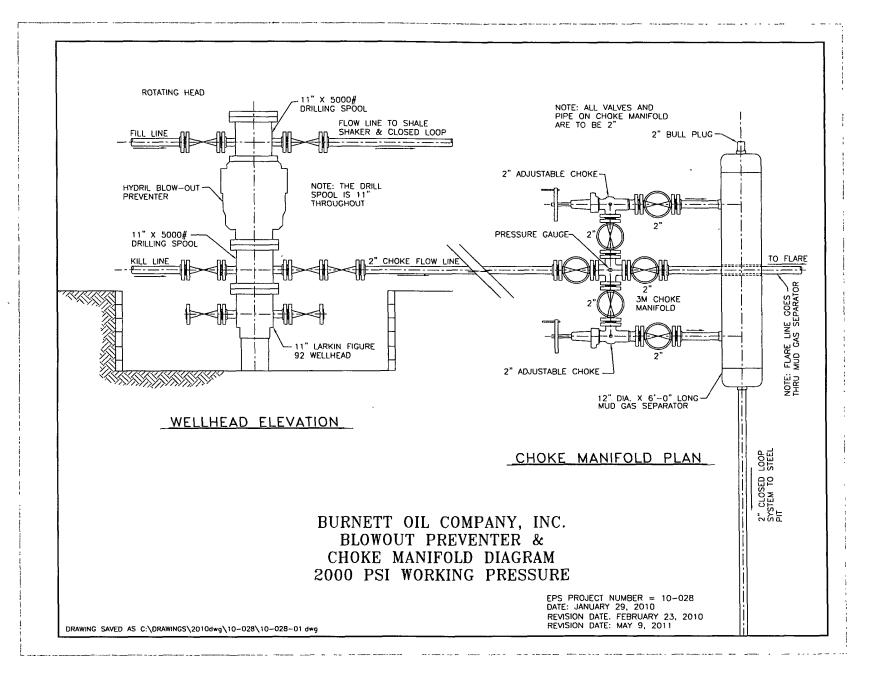
No abnormal pressures or temperatures are expected. Lost circulation is expected in the surface hole and not expected in production Water flows can occur periodically at various depths in the production hole. All personnel will be familiar with the safe operation of the equipment being used to drill this

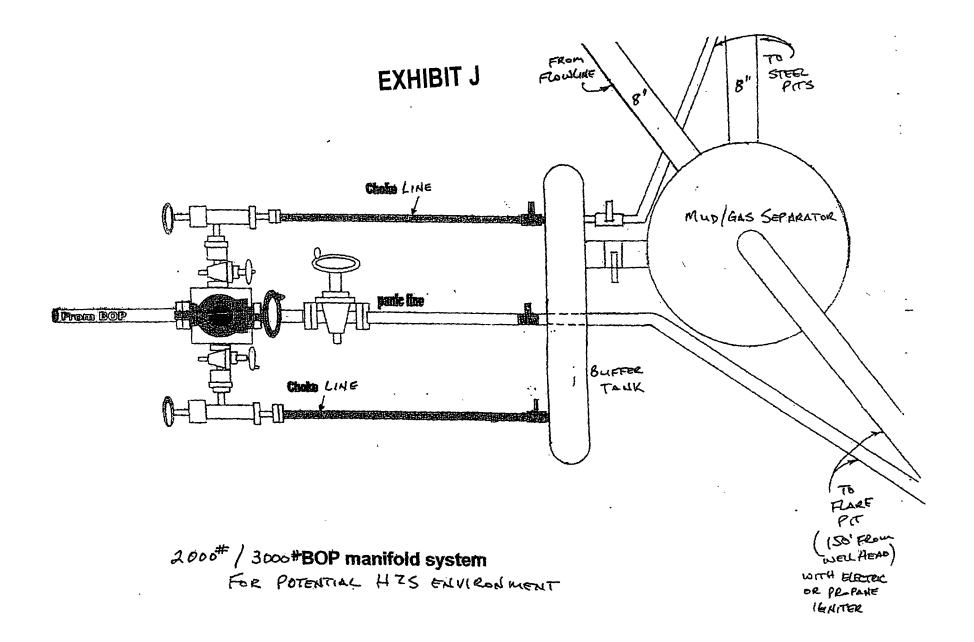
well. The maximum anticipated bottom hole pressure is 1647#. This is based upon the following formula of .445 x BH ft. estimate. The anticipated bottom hole temperature is 105°F. This is based upon logs of drilled wells surrounding this well.

There is known H2S in this area. Refer to the attached H2S plan for details.

#### 9. Anticipated Start Date and Duration of Operation

Road and location construction will begin after BLM has approved the APD and has approved the start of the location work. Anticipated spud date will be as soon as the location building work has been completed and the drilling rig is available to move to the location. Move in and drilling is expected to take approximately 14 days. If production casing is run, an additional 60 days would be required to complete the well and install the necessary surface equipment (pumping unit, electricity, flowline and storage facility) to place the well on production.

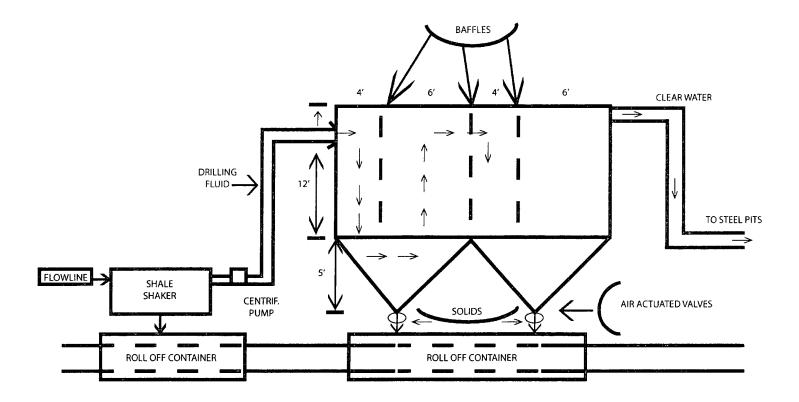




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BURNETT OIL CO., INC.

### **EXHIBIT K**



#### **OPERATIONS & MAINTENANCE**

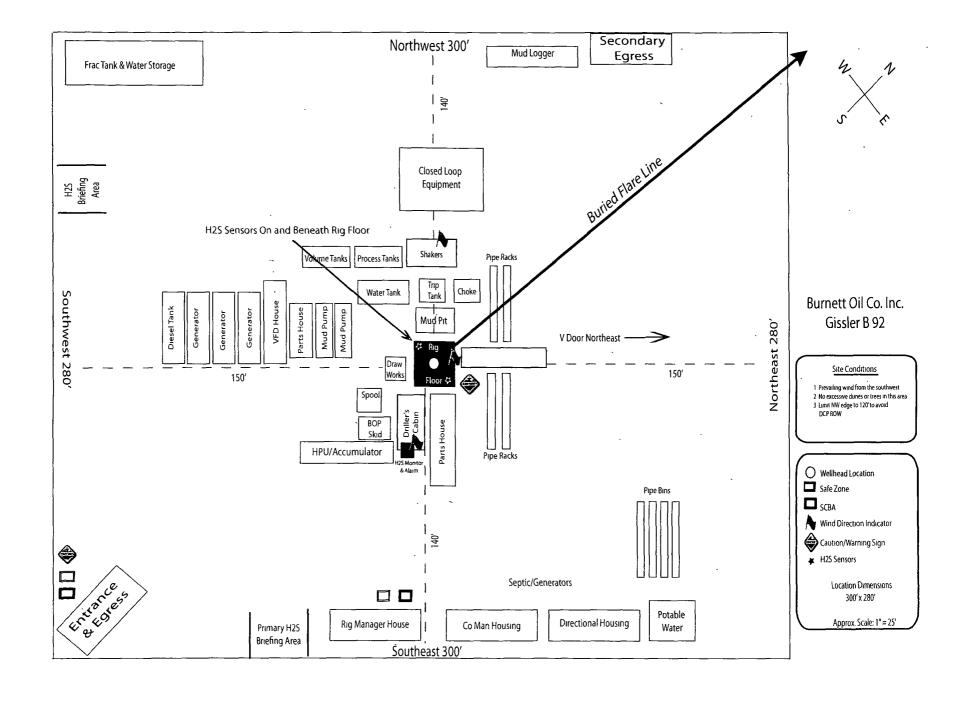
Drilling Fluids from the wellbore will go through the flow line across the shale shaker. Solids will drop into roll off containers with baffles as drawn above. Baffles slow fluid velocity to allow solids to fall down through 6" air actuated valves into roll off containers. Clean water goes back out to the drilling fluid steel pits. Solids and any leftover liquid will be hauled to disposal.

#### **INSPECTION**

The closed loop equipment will be inspected daily by each tour and any necessary maintenance performed. Any leak in the system will be repaired and/or contained immediately. OCD will be notified within 48 hours. Remediation process started.

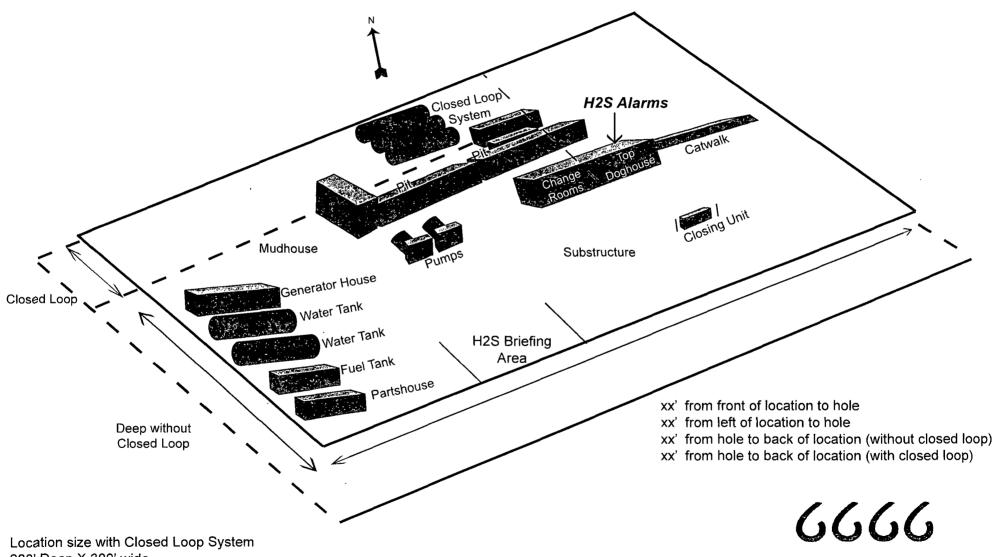
#### **CLOSURE PLAN**

During drilling operations, all liquids, drilling fluids and cutting will be hauled off via CRO (Controlled Recovery Incorporated Permit R-9166)



### **EXHIBIT L**

## H2S BRIEFING AREAS AND ALARM LOCATIONS



Burnett Oil Co. Inc.

280' Deep X 300' wide

Location size without Closed Loop System xx' Deep X xx' Wide



#### **HYDROGEN SULFIDE (H2S) PLAN & TRAINING**

This plan was developed in accordance with 43 CFR 3162.3-1, section III.C, Onshore Oil and Gas Operations Order No. 6.

Based on our area testing H2S at 100 PPM has a radius of 139' and does not get off our well sites. There are no schools, residences, churches, parks, public buildings, recreation area or public within 2+ miles of our area.

#### A. Training

#### 1. Training of Personnel

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in accordance with 43 CFR 3162.3-1, section III.C.3.a. Training will be given in the following areas prior to commencing drilling operations on each well:

- a. The hazards and characteristics of Hydrogen Sulfide (H2S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and the prevailing wind.
- d. The proper techniques for first aid and rescue procedures.
- e. ATTACHED HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN DRILLING EXHIBIT N
- f. ATTACHED EMERGENCY CALL LIST FOR ANY ON SITE EMERGENCY DRILLING EXHIBIT O.

#### 2. Training of Supervisory Personnel

In addition to the training above, supervisory personnel will also be trained in the following areas:

- a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well, blowout prevention and well control procedures.
- c. The contents and requirements of the H2S Drilling Operations Plan and the Public Protection Plan (if applicable.)

#### 3. Initial and Ongoing Training

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan (if applicable). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

#### B. H2S Drilling Operations Plan

- 1. Well Control Equipment
  - a. Flare line(s) and means of ignition
  - b. Remote control choke
  - c. Flare gun/flares
  - d. Mud-gas separator

#### 2. Protective equipment for essential personnel:

- a. Mark II Surviveair (or equivalent) 30 minute units located in the dog house and at the primary briefing area (to be determined.)
- b. Means of communication when using protective breathing apparatus.

#### 3. H2S detection and monitoring equipment:

- a. Three (3) portable H2S monitors positioned on location for best coverage and response. These units have warning lights at 10 PPM and warning lights and audible sirens when H2S levels of 15 PPM is reached. A digital display inside the doghouse shows current H2S levels at all three (3) locations.
- b. An H2S Safety compliance set up is on location during all operations.
- c. We will monitor and start fans at 1- ppm or less, an increase over 10 ppm results in the shutdown and installation of the mud/gas separator.
- d. Portable H2S and SO2 monitor(s).

#### 4. Visual warning systems:

- a. Wind direction indicators will be positioned for maximum visibility.
- b. Caution/Danger signs will be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

#### 5. Mud program:

a. The mud program has been designed to minimize the volume of H2S circulated to the surface Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

#### 6. Metallurgy:

- a. All drill strings, casings, tubing, wellheads, Hydril BOPS, drilling spools, kill lines, choke manifold, valves and lines will be suitable for H2S service.
- b. All elastomers used for packing and seals shall be H2S trim.

### 7. Communication:

- a. Cellular Telephone and/or 2-way radio will be provided at well site.
- b. Landline telephone is located in our field office.



## BURNETT OIL CO., INC.

### **EXHIBIT N - HYDROGEN SULFIDE (H2S) CONTIGENCY PLAN**

#### A. Emergency Procedures

In the event of a release of gas containing H2S, the first responder(s) must

- 1. Isolate the area and prevent entry by other persons into the 100 PPM ROE. Assumed 100PPM ROE = 3000'.
- 2. Evacuate any public places encompassed by 100 PPM ROE.
- 3. Be equipped with H2S monitors and air packs in order to control release.
- 4. Use the "buddy system" to ensure no injuries occur during the response.
- 5. Take precautions to avoid personal injury during this operation.
- 6. Have received training in the following:
  - a. H2S detection
  - b. Measures for protection against this gas
  - c. Equipment used for protection and emergency response.

#### B. Ignition of Gas Source

Should control of the well be considered lost and ignition considered, care will be taken to protect against exposure to Sulfur Dioxide (SO2). Intentional ignition will be coordinated with the NMOCD and local officials. Additionally, the New Mexico State Police may become involved. NM State Police shall be the incident command on scene of any major release. Care will be taken to protect downwind whenever there is an ignition of gas.

#### C. Characteristics of H2S and SO2

Common Name	Chemical <u>Formula</u>	Specific <u>Gravity</u>	Threshold <u>Limit</u>	Hazardous Limit	Lethal <u>Concentration</u>
Hydrogen Sulfide	H2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21 Air = 1	2 ppm	NA	1000 ppm

#### D. Contacting Authorities

Burnett Oil Co., Inc. personal will liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD will be notified of the release as soon as possible but no later than four (4) hours after the incident. Agencies will ask for information such as type and volume of release, wind and direction, location of release, etc. Be sure all is written down and ready to give to contact list attached. Burnett's response must be in coordination with the State of New Mexico's Hazardous Materials Emergency Response Plan.

Directions to the site are as follows:

Burnett Office 87 Square Lake Road (CR #220) Loco Hills, NM 88255

Loco Hills, New Mexico (2 miles East of Loco Hills on US Hwy 82 to C #220. Then North on CR #220 approximately one (1) mile to office.



## BURNETT OIL CO., INC.

#### **EXHIBIT O - EMERGENCY NOTIFICATION LIST**

#### **BURNETT CONTACTS**

Burnett's New Mexico Office

575.677.2313

87 Square Lake Road (CR #220) Loco Hills, New Mexico 88255

Directions: Loco Hills, NM - 2 miles east of Loco Hills on US Hwy 82 to CR#220. Then North on CR #220 approximately one (1) mile to office.

Belton Mathews - BOCI District Superintendent (NM)

Cell - 575.703.9601

**Burnett Oil Home Office** 

817.332.5108

Burnett Plaza - Suite 1500 | 801 Cherry Street - Unit #9| Fort Worth, Texas 76102

Mark Jacoby – BOCI Engineering Manager (TX)

Cell - 817-312-2751

#### **SHERIFF/POLICE CONTACTS**

Eddy Count y Sheriff	911 or 575.677.2313
New Mexico State Police	575.746.2701

#### **FIRE DEPARTMENT**

Loco Hills Fire Department (VOLUNTEER ONLY)	911 or 575.677.2349
For Medical and Fire (Artesia)	575.746.2701

#### AIR AMBULANCE

Flight for Life Air Ambulance	(Lubbock)	806.743.9911
Aerocare Air Ambulance	(Lubbock)	806.747.8923
Med Flight Air Ambulance	(Albuq)	505.842.4433
S B Med Svc Air Ambulance	(Albuq)	505.842.4949

#### **FEDERAL AND STATE**

US Bureau of Land Management (Carlsbad)	575.361.2822	575.234.5972
New Mexico Oil Conservation Division (Artesia)		575.748.1283
New Mexico Emergency Response Commission (24	575.827.9126	
Local Emergency Planning Operation Center (Artesi	a)	505.842.4949
National Emergency Response Center (Washington	, DC)	800.424.8802

#### OTHER IMPORTANT NUMBERS

Boots & Coots IWC	800.256.9688
Cudd Pressure Control	432.570.5300
Halliburton Services	575.746.2757
BJ Service	575.746.2293

THIS MUST BE POSTED AT THE RIG WHILE ON LOCATION

## **EXHIBIT P**

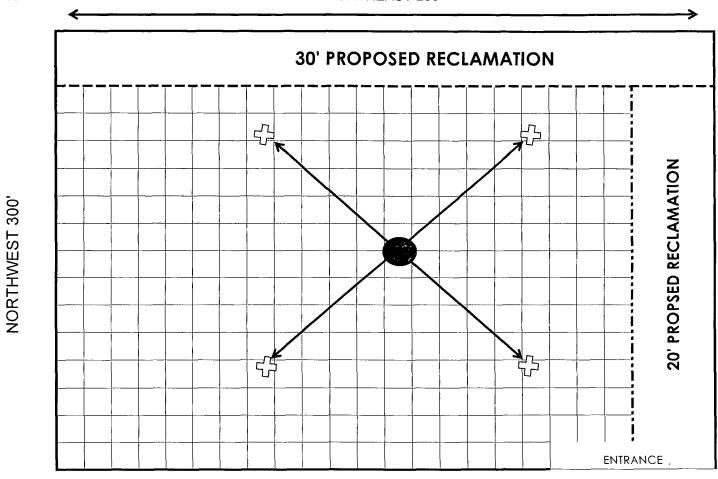
### **BURNETT OIL CO., INC.**

INTERIM RECLAMATION PLAT

GISSLER B 92

PIPELINE ROW

NORTHEAST 280'



 $\ \, \ \, \hbox{$\stackrel{\textstyle \longleftarrow}{$}$} \ \, \hbox{anchor}$ 

75' FROM WELLHEAD TO ANCHORS

- NOT TO SCALE



## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: BURNETT OIL COMPANY
LEASE NO.: NM02748
WELL NAME & NO.: 92 – GISSLER B
SURFACE HOLE FOOTAGE: 1650'/S & 500'/W
BOTTOM HOLE FOOTAGE
LOCATION: Section 8, T. 17 S., R. 30 E., NMPM
COUNTY: Eddy County, New Mexico

### TABLE OF CONTENTS

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.

•
General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Lesser Prairie-Chicken Timing Stipulations
<u> </u>
Ground-level Abandoned Well Marker
☐ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
☐ Road Section Diagram
Drilling
H2S Requirements-Onshore Order #6
Logging Requirements
Waste Material and Fluids
<b>∑</b> Production (Post Drilling)
Well Structures & Facilities
Pipelines
<b>☑</b> Interim Reclamation
Final Abandonment & Reclamation