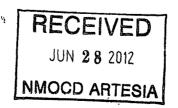
OCD Artesia

EA-12-1023

Form 3160-3 (March 2012)	,			OMB N	APPROVED No 1004-0137 October 31, 201	
UNITED STAT DEPARTMENT OF THE	İ	5 Lease Serial No.				
BUREAU OF LAND MA APPLICATION FOR PERMIT TO				6. If Indian, Allotee	or Tribe Na	ame
AFFLICATION FOR FERMIT	O DRILL O	n necivien				
la. Type of work:	NTER			7 If Unit or CA Agre		e and No.
1b Type of Well: ✓ Oil Well ☐ Gas Well ☐ Other	✓s	ingle Zone Multip	ple Zone		Well No. - 238	<i>5</i> >
2. Name of Operator Burnett Oil Co., Inc.		< 3080	7	9 API Well No.	- 40	9431
3a. Address 801 Cherry Street, Suite 1500 Fort Worth, Texas 76102		0. (include area code) 5108 x6326		10 Field and Pool, or I Loco Hills Glorieta		96718
4. Location of Well (Report location clearly and in accordance with	arty State requires	ments *)	_	11. Sec., T R. M. or B	lk. and Surve	ey or Area
At surface 1700' FSL & 330' FWL, Unit L				Section 14, T. 17S,	R. 30E	
At proposed prod. zone SAME						
14 Distance in miles and direction from nearest town or post office* Approximately 2 Miles North of Loco Hills, NM				12 County or Parish Eddy	1	3. State NM
15 Distance from proposed* 330' location to nearest property or lease line, ft (Also to nearest drig unit line, if any)	16. No. of 240	acres in lease	17 Spacin 40	g Unit dedicated to this v	well	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19 Propose 6100'	19 Proposed Depth 20 BLM/BIA Bond No. on file 6100' NM-B000197				
21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	imate date work will sta-	rt*	23. Estimated duration	n	
3692' GL	07/17/20			30 days		
		chments				
The following, completed in accordance with the requirements of Ons	hore Oil and Gas	Order No 1, must be at	ttached to thi	s form:		
 Well plat certified by a registered surveyor. A Drilling Plan. 		Item 20 above).	•	ns unless covered by an	existing bor	nd on file (see
3. A Surface Use Plan (if the location is on National Forest Syste SUPO must be filed with the appropriate Forest Service Office)	m Lands, the	5 Operator certific 6. Such other site BLM.		ormation and/or plans as	may be req	uired by the
25 Stanting Salo Balls		(Printed/Typed) e M. Garvis			Date 05/04/20	012
Title Parallel Constitution					;	*
Regulatory Coordinator Approved by (Signature) /s/ Don Peterson	Name	(Printed/Typed)			Date JUN	2 6 2012
Title FIELD MANAGER	Office	;	CARLS	SBAD FIELD OFFIC		
Application approval does not warrant or certify that the applicant he conduct operations thereon. Conditions of approval, if any, are attached.	olds legal or equ	itable title to those righ			ntitle the app	="
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a States any false, fictitious or fraudulent statements or representations	crime for any pas to any matter v	person knowingly and v within its jurisdiction	villfully to m	ake to any department o	r agency of	the United
(Continued on page 2)				*(Inst	ructions o	on page 2)

Roswell Controlled Water Basin

. 🚉



Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL



FINAL CERTIFICATION MEMO

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 86240
Phone (676) 393-6161 Fax: (576) 393-0720
DISTRICT II
611 S. First St., Artesia, NM 88210
Phone (676) 746-1238 Fax: (575) 746-9720

Phone (878) 748-1283 Fax: (578) 748-9720

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

Phone (505) 334-6170 Fax: (505) 334-6170

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe. NM 87505 Phone (505) 476-3460 Fax: (505) 476-3462 State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised August 1, 2011

Submit one copy to appropriate
District Office

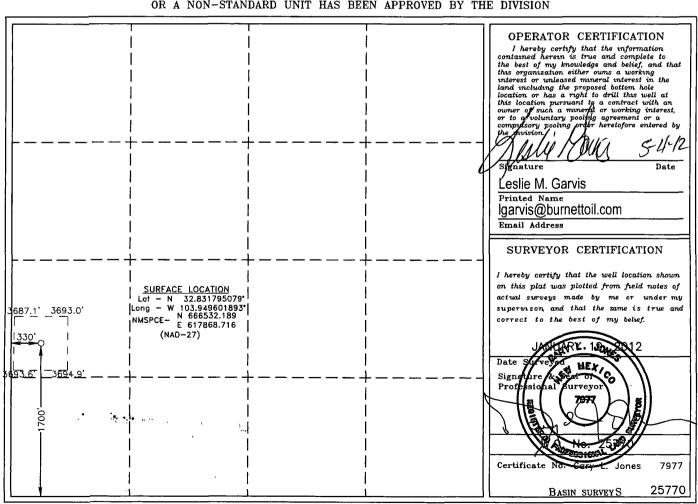
OIL CONSERVATION DIVISION

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

□ AMENDED REPORT

Phone (505) 476-3460 F	gi (000) 470-0		WELL LO	CATION	AND ACRE	AGE DEDICATI	ON PLAT	☐ AMENDED	REPORT
API	Number			Pool Code			Pool Name		
30-015	? <i>0-0!\$~ 404</i> \$(96718		LO	CO HILLS GLO	RIETA YESO	
Property (ode				Property Nar			Well Nu	ımber
2389]			GISSLER "	B"		89	
OGRID No					Operator Nar	ne		Eleva	
03080				BURNETT OIL COMPANY, INC. 3692'				2'	
Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	14	17 S	30 E		1700	SOUTH	330	WEST	EDDY
Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	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:

<u>Ge</u>	eological Name	Estimate Top	Anticipated Fresh Water, Oil or Gas
a.	Alluvium	Surface	Fresh Water, Sand
b.	Anhydrite	255'	
C.	Salt	450'	
d.	Base Salt	1290'	
e.	Yates	1450'	
f.	Seven Rivers	1604'	Oil
g.	Queen	2222'	Oil
h.	Grayburg	2670'	Oil
i.	San Andres	2985'	Oil
j.	Glorieta	4460'	Oil
k.	Yeso	4580'	Oil
I.	Total Depth	Refer to APD	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. Deepest water is expected to be above 400'. We will set 10-3/4" casing @ approx. +/- 445' in the Anhydrite, above the salt and circulate cement to surface.

We will isolate the oil zones by running 7" 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>Туре</u>	<u>Hole</u> <u>Size</u>	<u>Interval</u>	OD Csg	<u>Weight</u>	<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	cretion			
coA	Surface	14-3/4"	0' - <u>440</u>	10-3/4"	32.75#	ST & C	H40	1.125	1.00	1.80
V -	Production	8-3/4"	0' - TD	7"	23.00#	LT & C	J55	*1.125	1.00	1.80

* 500' of fresh water gradient (.433 psi/ft) fluid will be maintained inside casing to keep SF 1.125. If fluid is not at the surface, the fluid level inside 7" Casing will be determined by wireline to ensure a 500' minimum of standing fluid.

b. Surface Casing Info

The proposed casing setting depth is 445' based on the attached cross sections which show the estimated top of the rustler and top of salt (Exhibits H & I). 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. 10-3/4" Surface Cement to surface Lead with 150 sx Class C thix. cement + 10#/sk Cal-Seal 60 (Accelerator), +10#/sx LCM, 1% CaCl, 0.125#/sk Poly-E-Flake (LC), 14.2 ppg, 1.67 CF/Sk Yield. Tail with 250 sks Class C cement + 2% CaCl.14.2 ppg, 1.35 CF/Sx yield. TOC Surface. Excess cement 100%.



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 DV Tool moves then cement will be adjusted accordingly. 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. 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. 7" Production Casing

Stage 1 Cement: 550 sks VERSACEM – C (50:50 Poz (Fly Ash) Class C cement + 2% Bentonite) + 0.4% LAP-1 (FLC) + 0.3 % CFR-3 (Disp) + .025 lb/sk D-Air 5000 + 3 lb/sx Kol-Seal (LC) + 0.125 lb/sk Poly-E-Flake (LC) . 14.2 ppg, <u>Yield 1.28 CF/Sx.</u> **DV @ approx. 2600'. 30% excess cement.**

Stage 2 Cement: Lead with 525 sks/ ECONOCEM (35:65) Poz (Fly Ash):Class C cement + 6% Bentonite) + .125 lbs/sx Poly-E-Flake (LC) + 2% CaCl, , 12.7 ppg, <u>Yield 1.87 CF/Sx.</u> Tail with 100 sx Class C + 2% CaCl. 14.8 ppg, <u>Yield 1.62 CF/sx, TOC Surface. 140% excess cement.</u>

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.

4. Pressure Control Equipment:

The blowout prevention equipment (BOPE) shown in **Exhibits J & K** 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 10-3/4" 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 7" 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' - 445 440	8.6 - 9.5			Fresh Water
445' - TD' MD	10.0 max			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:

- 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:
 - 1. 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.
 - 4. Additional testing will be done subsequent to setting the 7" production casing. The specific Intervals will be based on log evaluation, geological sample shows and drill stem tests.

8. Potential Hazards:

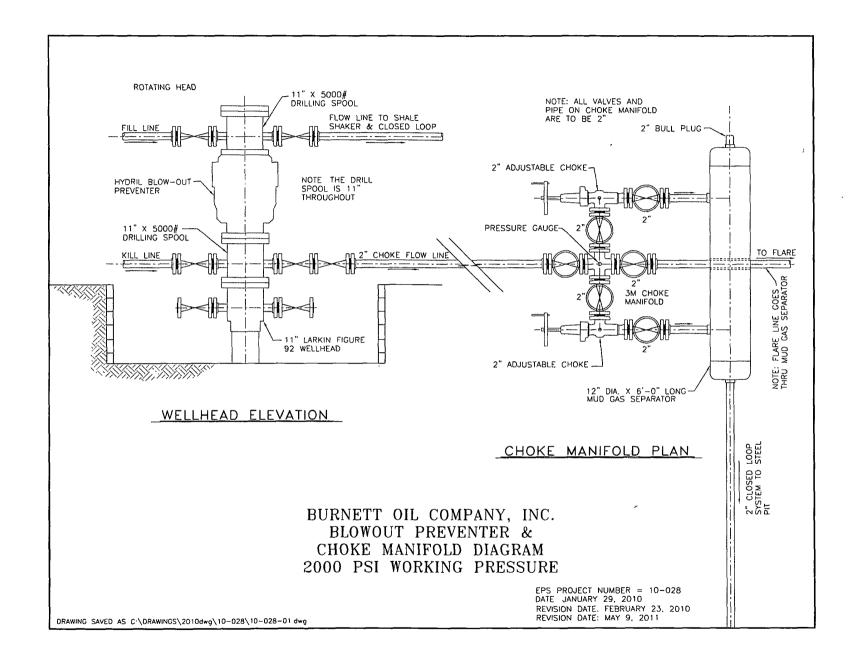
No abnormal pressures or temperatures are expected. Lost circulation is expected in the surface hole and not expected in production Water flows can occur periodically at various depths in the production hole. All personnel will be familiar with the safe operation of the equipment being used to drill this well. The maximum anticipated bottom hole pressure is 2715#. This is based upon the following

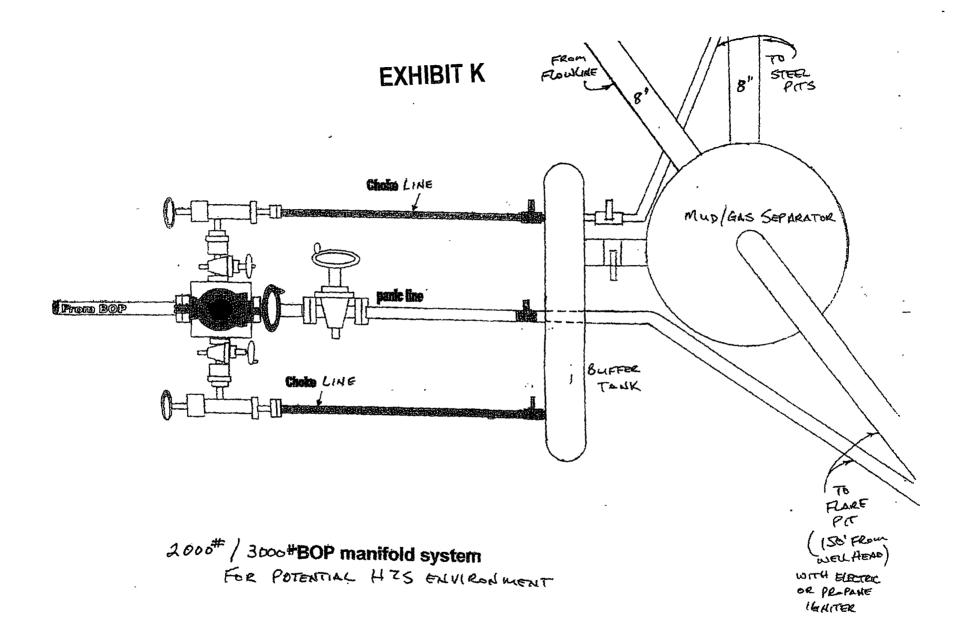
formula of .445 x BH ft. estimate. The anticipated bottom hole temperature is 105°F. This is based upon logs of drilled wells surrounding this well

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

9. Anticipated Start Date and Duration of Operation

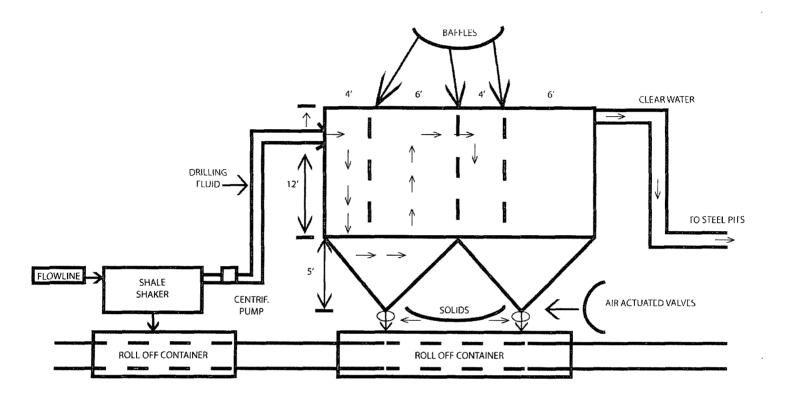
Road and location construction will begin after BLM has approved the APD and has approved the start of the location work. Anticipated spud date will be as soon as the location building work has been completed and the drilling rig is available to move to the location. Move in and drilling is expected 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.







BURNETT OIL CO., INC. EXHIBIT L



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.

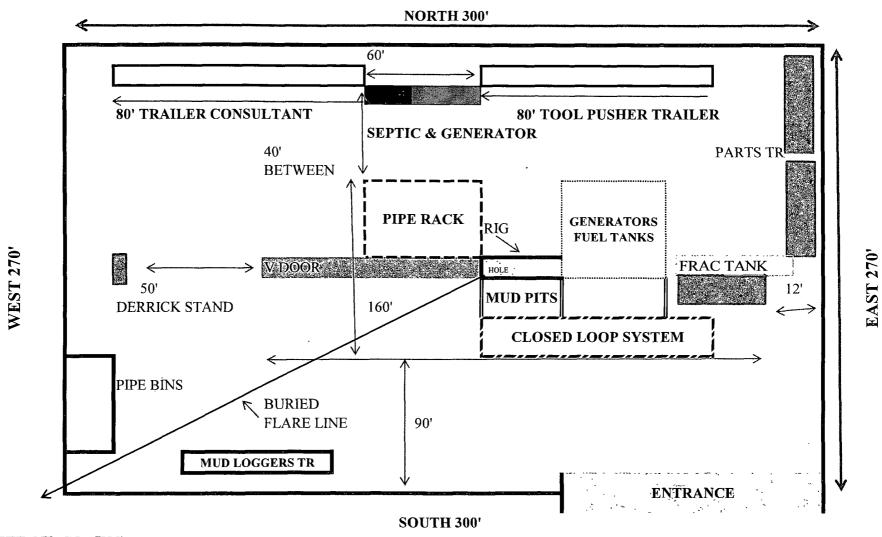
INSPECTION

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 N



BURNETT OIL CO., INC.

RIG LAYOUT GISSLER B 89 PAD SIZE: 300' X 270'

NOT TO SCALE



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 O
- f. ATTACHED EMERGENCY CALL LIST FOR ANY ON SITE EMERGENCY DRILLING EXHIBIT P.

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 O - 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 Concentration
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



BURNETT OIL CO., INC.

EXHIBIT P - 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 County Sheriff New Mexico State Police 911 or 575.677.2313

575.746.2701

FIRE DEPARTMENT

Loco Hills Fire Department (VOLUNTEER ONLY) For Medical and Fire (Artesia)

911 or 575.677.2349

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	(Albug)	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	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

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

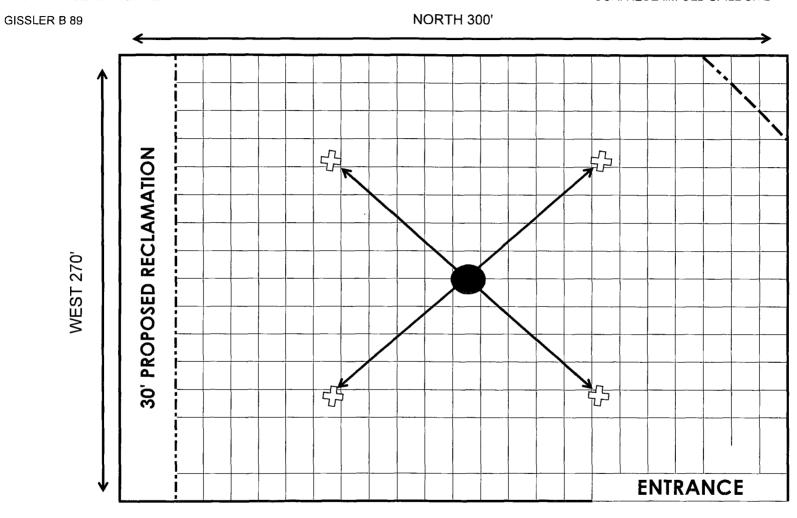
Loco Hills, New Mexico (2 miles East of Loco Hills on US Hwy 82 to C #220. Then North on CR #220 approximately one (1) mile to office.

EXHIBIT Q

BURNETT OIL CO., INC.

INTERIM RECLAMATION PLAT

COA: RECLAIM OLD SPILL SITE



₩ ANCHOR

75' FROM WELLHEAD TO ANCHORS

NOT TO SCALE



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
BURNETT OIL COMPANY
NM07439
89-GISSLER B
1700'/S. & 0330'/W.
Section 14, T. 17 S., R. 30 E., NMPM
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 Site
Noxious Weeds
Special Requirements
Lesser Prairie-Chicken Timing Stipulations
Ground-level Abandoned Well Marker
Pad Restriction
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
☑ Production (Post Drilling)
Well Structures & Facilities
Pipelines
Interim Reclamation
Final Abandonment & Reclamation