District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Pure Resources, L. P. 500 W. Illinois Midland, Texas 79701	150628
	[3] API Number 30-025-36924

[5] Property Code	[5] Property Name	[6] Well No.
34373	RED CLOUD "8" STATE	1

[9] Proposed Pool 1	[10] Proposed Pool 2
~~Grama Ridge; Morrow, East~~ (Gas) Rock Lake Morrow North	San Simon; Strawn, Southwest (Gas) / San Simon; Wolfcamp (Oil) / San Simon; Strawn, South ~~(Gas)~~ / Wildcat; Atoka

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	22S	35E		660	South	1,980	West	Lea

[8] Proposed 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

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R (0'-13,500')	S	3,591'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	13,500'	Morrow	Nabors	ASAP

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
N/A, No wells listed on State Engr. Web Site	>1 Mile	> 1 Mile

Pit: Liner: Synthetic ☒ _12__mils thick Clay ☐ Pit Volume:2000__bbls

Closed-Loop System ☐

Drilling Method:

Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	54.5# K-55	1,400'	1,125sx "C"	Surface
12-1/4"	9-5/8"	40# J-55 & HCK-55	5,800'	1,700sx "C" 2 Stgs.	Surface
8-3/4"	7"	26# P 110	11,650'	660sx "H"	TOC @ 5,300'
6-1/8"	4-1/2" Liner	13.5# P110	13,500', TOL 11,450'	160sx "H"	(CIR to TOL)

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Pure Resources, L. P. is proposing to drill and complete this well into the principal targeted Grama Ridge; Morrow, East (Gas) Pool with alternate plug back pools being the San Simon; Strawn, Southwest (Gas) / Wildcat; Atoka (Gas) / San Simon; Wolfcamp (Oil) / San Simon; Strawn, South (Oil) pools. The 7" intermediate casing depth may vary-intent is to set at the top of Wolfcamp zone as determined by mud logging. The pit contents will be handled according to NMOCD guidelines. See attached Casing/Cement program & BOP Schematic, mud program, site layout plat, and additional topographical maps, vicinity maps and plats.

Permit Expires 1 Year From Approval Date Unless Drilling Underway

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Printed name: Alan W. Bohling

Title: Regulatory Agent

E-mail Address: abohling@pureresources.com

Date: 10/25/2004 Phone: (432) 498-8662

OIL CONSERVATION DIVISION

Approved by:

Title: PETROLEUM ENGINEER

Approval Date: OCT 28 2004 Expiration Date:

Conditions of Approval Attached ☐

Pure Resources, L.P.
Red Cloud "8" State No. 1
Unit "N" Section 8
T22S – R35E Lea County, NM
10/20/04

1) Set 20" conductor 40' below GL and cement to surface with ready-mix cement.

2) Drill 17-1/2" hole to 1,400'. Run and set 1400' of 13-3/8" 54.5# K55 LTC casing. Cement with:

   a) Lead Cement: ±825 sx of 35:65 Poz:Class C cement + 2% CaCl2 + 6% bentonite + ¼ pps celloflakes.
   b) Tail Cement: 300 sx of Class C cement + 1% $CaCl_2$. Circulate cement to surface.

3) Drill 12-1/4" hole to 5800'. Run and set 5800' of 9-5/8" 40# J55 and HCK55 LTC casing. Cement in two stages with DV tool at ±3800'. Circulate cement to surface by pumping:

   a) 1st Stage Lead Cement: ±450 sx Interfill "C" + ¼ pps celloflakes
   b) 1st Stage Tail Cement: 200 sx Class C + 0.5% Halad R-447
   c) 2nd Stage Lead Cement: ±950 sx Interfill "C" + ¼ pps celloflakes
   d) 2nd Stage Tail Cement: 100 sx Class C neat

4) Drill 8-3/4" to 11,650'. Run and set 11,650' of 7" 26# P110 LTC casing. Cement with:

   a) Lead Cement: ±460 sx Interfill "H" + ¼ pps celloflakes
   b) Tail Cement: 200 sx 50:50 Poz:Class H + 2% bentonite + 0.5% Halad R-9 + 0.2% CFR3 + 5% Salt.

   Estimated TOC @ 5300' from surface.

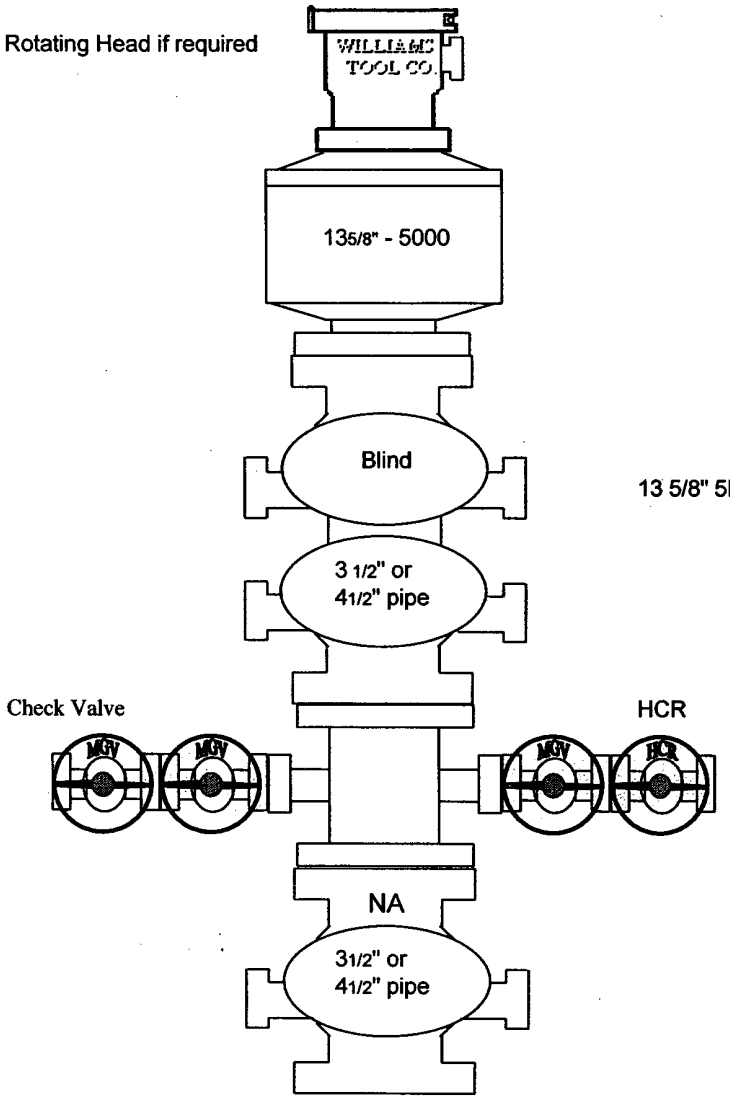
5) Drill 6-1/8" hole to 13,500'. Run and set 2050' of 4-1/2" 13.5# P110 LTC liner from TD back to 11,450'. Cement with:

   a) ±160 sx of Super H Cement + 0.5% Halad R344 + 0.4% CFR3 + 5 pps gilsonite + 1 pps salt + 0.2% HR7.

   Estimated TOC at liner top.

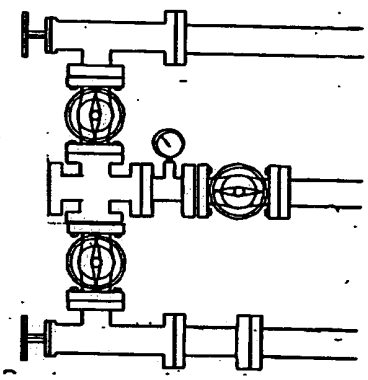
BOPE Schematic

Red Cloud "8" State No. 1



13 5/8" 5K Stack

Remote Adjustable Choke



Adjustable choke

2" min 10000 Double valve manifold

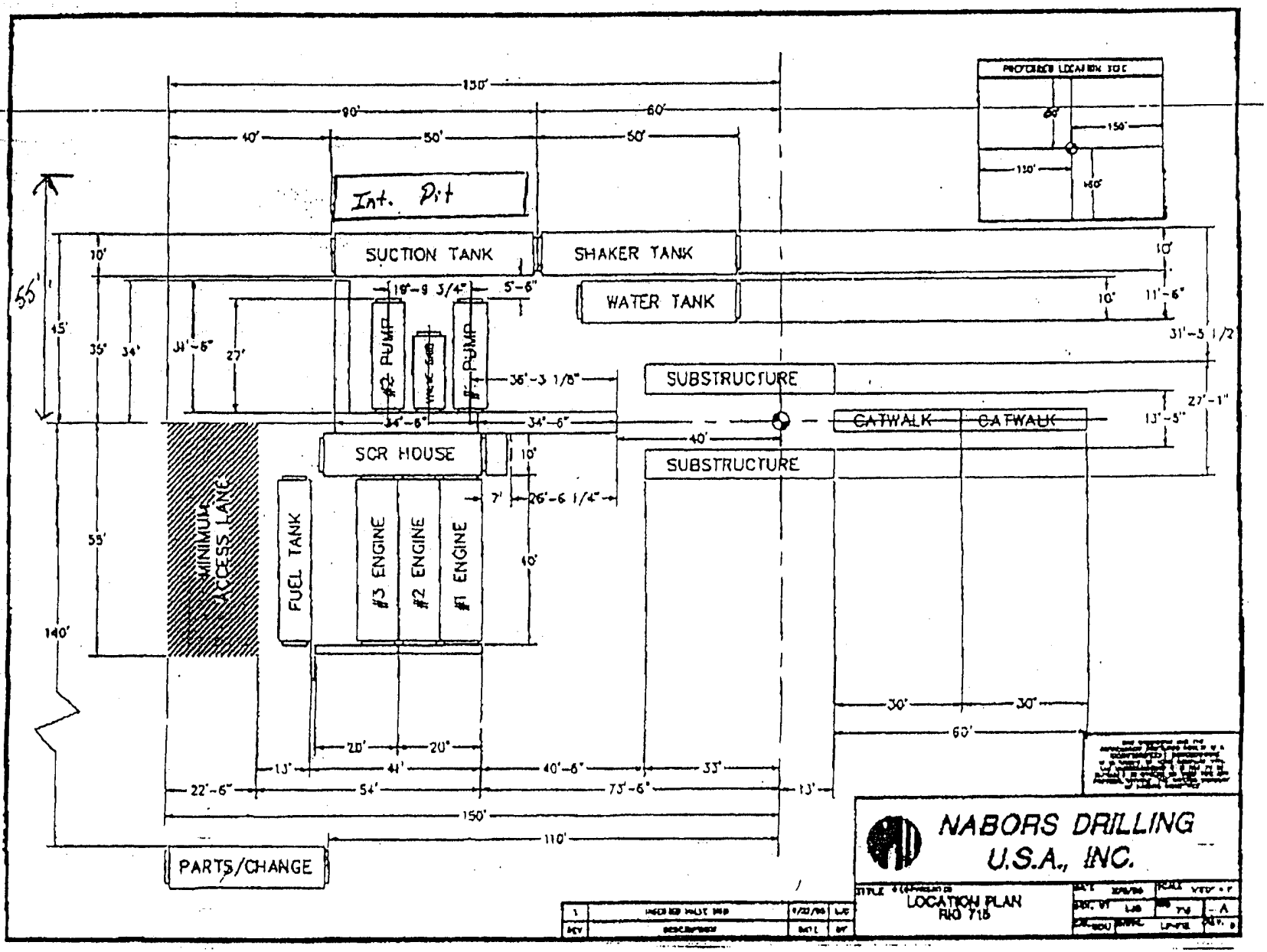
Other instructions:

1. Keep inside BOP and full-open TIW safety valve on the rig floor at all times. Test when pressure testing BOP's.all test will be charted, low pressure test will be held for minimum of 1 minute, high pressure test will be held for a minimum of 5 minutes.
2. Test plug of same manufacture of wellhead will be kept on location with spare O-rings.
3. Before all trips in and out, fill out trip sheet's and montior trip tank every 5 stand's of drill pipe and every stand of drill collars pulled and document on trip sheet to ensure the hole is taking the proper amount of fluid. Fill the hole periodically if drill string is on the bank for extended period of time.
4. All trips should be made at moderate speeds to prevent excessive surge and swab pressures.
5. Open HCR valve and close blind ram's while changing out bit or lower part of BHA. Inform rig crew before opening ram's.
6. Mud pits will be marked and monitored, upon any gain in pit volume due to a kick, stop drilling, raise kelly slowly with mud pump running, kick out pump and check for flow.
7. On drilling breaks, drill 1'- 3' of break and check for flow.
8. Record slow pump rates on both pumps daily, and record on IADC sheet.
9. Observe flowline for flow during logging operations. Keep hole loaded if hole is seeping.
10. BOP and choke manifold will be mechanically checked on each trip and pressure tested every 4 weeks or as dictated by lengtl
11. BOP drills will be held weekly on each tour.
12. Double valve active annulus. Bull plug on one side is acceptable.

Red Cloud "8" State No. 1
Section 8-T22S-R35E
Lea County, New Mexico
10/25/04

Recommended Mud Properties

MD (feet)	Mud Type	Fluid Density (ppg)	Viscosity (sec/1000 cc)	PV (cps)	YP (lbs/100 ft2)	API WL (cm3/30 min)	pH	Solids (%)
0 - 1400'	FW / Spud	8.4	26-32	4-8	8-16	NC	9.5	<5
1400' - 5800'	Brine Water	10.0	26-30	1-3	1-3	NC	10.0	<5
5800' - 11,650'	Fresh Water	8.4 – 8.8	28-30	1-3	1-3	NC	10.0	<5
11,650 - 13,500	Brine / Polymer	8.5 - 12.0	32-42	8-16	8-16	6 - 15	9.5-10.0	<5


Int. Pit
SUCTION TANK
SHAKER TANK
WATER TANK
#2 PUMP
#1 PUMP
SUBSTRUCTURE
CATWALK
CATWALK
SCR HOUSE
SUBSTRUCTURE
FUEL TANK
#3 ENGINE
#2 ENGINE
#1 ENGINE
MINIMUM ACCESS LANE
PARTS/CHANGE
130'
90'
60'
40'
50'
50'
55'
45'
35'
34'
31'-6"
27'
10'
18'-9 3/4"
5'-6"
36'-3 1/8"
34'-6"
34'-6"
40'
10'
7'
26'-6 1/4"
55'
140'
10'
10'
11'-6"
31'-5 1/2
27'-1"
13'-5"
30'
30'
60'
20'
20'
13'
41'
40'-6"
33'
22'-6"
54'
75'-6"
13'
150'
110'
NABORS DRILLING
U.S.A., INC.
LOCATION PLAN
RIG 715

Pure Resources, L. P.
Red Cloud "8" State Well No. 1
660' FSL & 1,980' FWL
UL N, Sec. 8, T-22-S, R-35-E
Lea County, New Mexico

H2S and Safety Statement

Although Pure Resources, L. P. is not aware of any known presence of H2S in the area of this well and does not anticipate encountering any H2S during the drilling of this well, we are taking precautions to ensure the safety of all workers and personnel on this location and its immediately surrounding area.

Attached to this APD is a copy of Pure Resources, L. P. "Contingency Plan - Drilling Operations", standard to our drilling operations and operating policies and relevant to this well.

10/25/04

State of New Mexico
Energy, Minerals and Natural Resources Department

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OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-36924	~~77690~~ 83955	Rock Lake Morrow North ~~Crama Ridge; Morrow, East~~ (Gas)

Property Code	Property Name	Well Number
34373	RED CLOUD "8" STATE	1

OGRID No.	Operator Name	Elevation
150628	PURE RESOURCES, L.P.	3591'

Surface Location

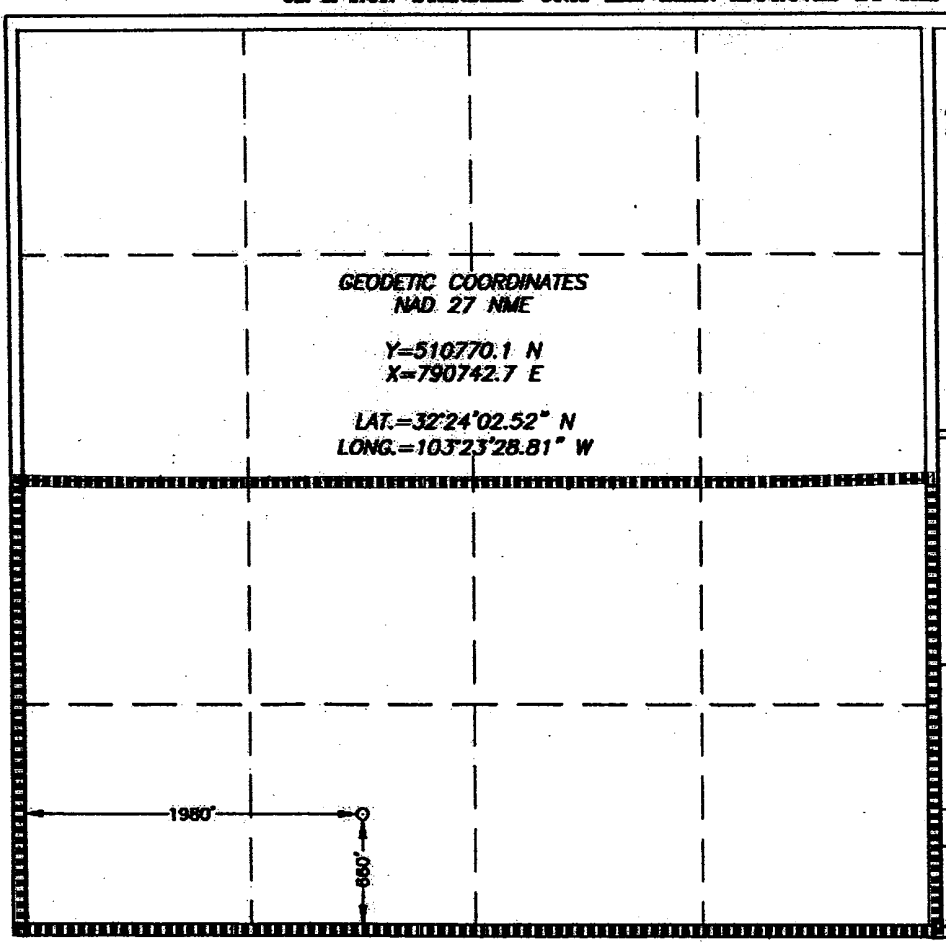
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	22-S	35-E		660	SOUTH	1980	WEST	LEA

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 or Infill	Consolidation Code	Order No.
320			

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



OPERATOR CERTIFICATION

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

Alan W. Bohling
Signature

Alan W. Bohling
Printed Name

Regulatory Agent
Title

October 25, 2004
Date

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 supervison, and that the same is true and correct to the best of my belief.

OCTOBER 10, 2004
Date Surveyed JR

Signature & Seal of Professional Surveyor

04.11.1273

Certificate No. GARY EIDSON 12641

State of New Mexico

Energy, Minerals and Natural Resources Department

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API Number	Pool Code	Pool Name
	97091	San Simon; Strawn, Southwest (Gas)

Property Code	Property Name	Well Number
	RED CLOUD "8" STATE	1

OGRID No.	Operator Name	Elevation
150628	PURE RESOURCES, L.P.	3591'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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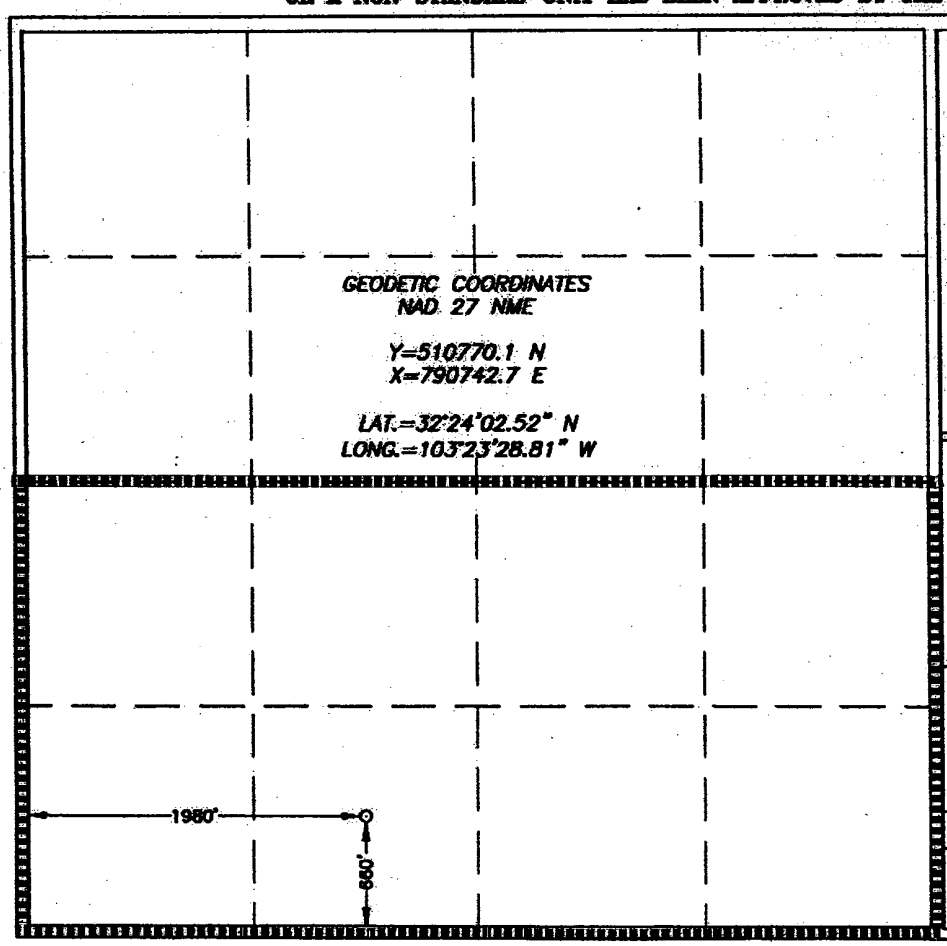

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		Wildcat;(Atoka)

Property Code	Property Name	Well Number
	RED CLOUD "8" STATE	1

OGRID No.	Operator Name	Elevation
150628	PURE RESOURCES, L.P.	3591'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Bottom Hole Location If Different From Surface

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Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
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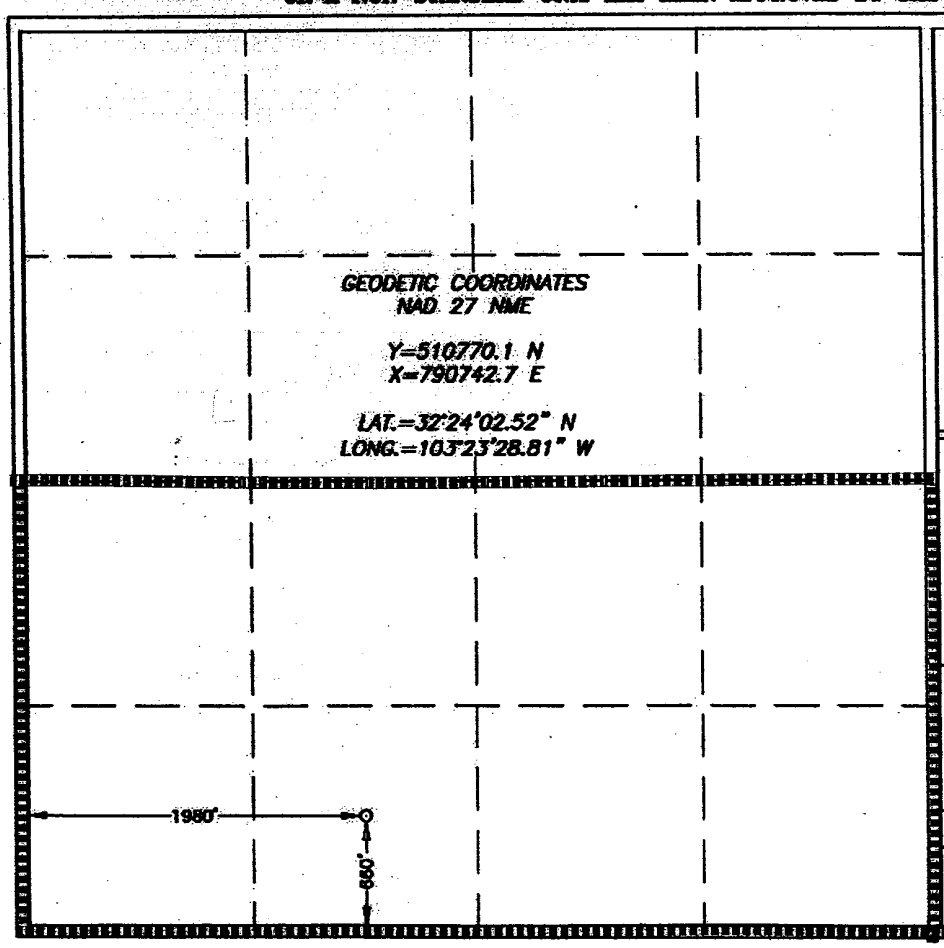

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	53690	San Simon; Wolfcamp (Oil)

Property Code	Property Name	Well Number
3	RED CLOUD "8" STATE	1

OGRID No.	Operator Name	Elevation
150628	PURE RESOURCES, L.P.	3591'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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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 or Infill	Consolidation Code	Order No.
160			

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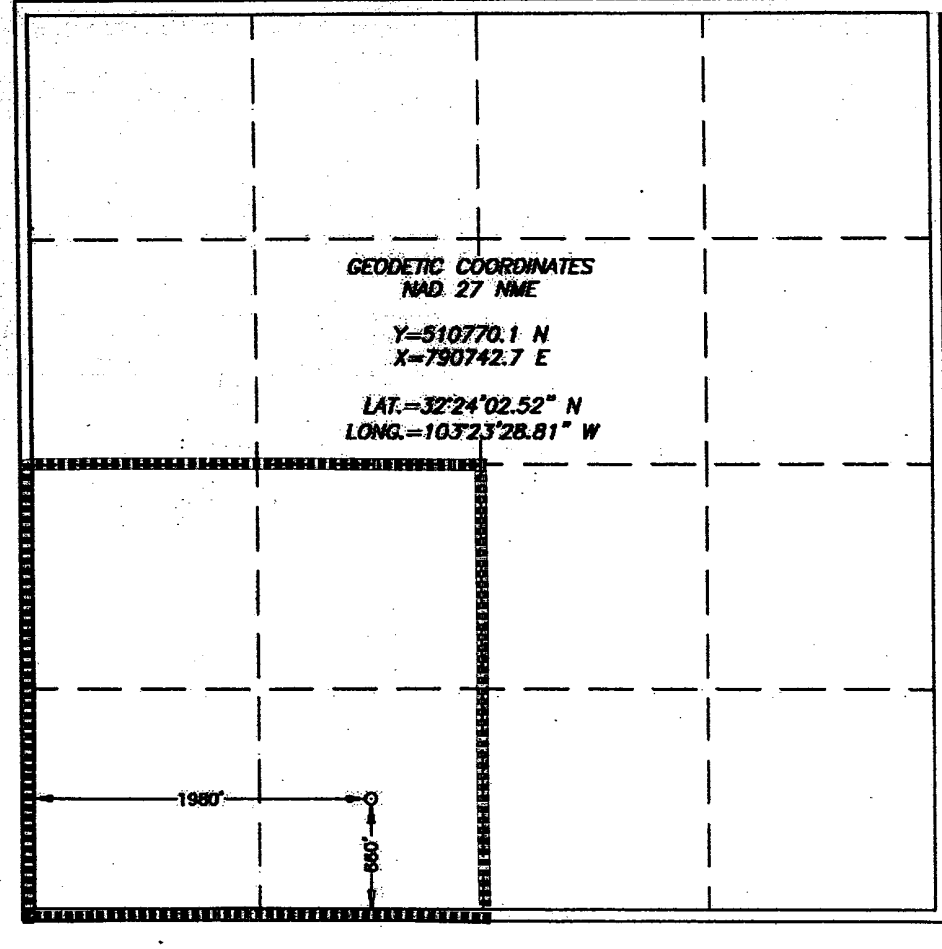

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WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-36924	96837	San Simon; Strawn, South (Oil)

Property Code	Property Name	Well Number
34373	RED CLOUD "8" STATE	1

OGRID No.	Operator Name	Elevation
150628	PURE RESOURCES, L.P.	3591'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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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 or Infill	Consolidation Code	Order No.
40			

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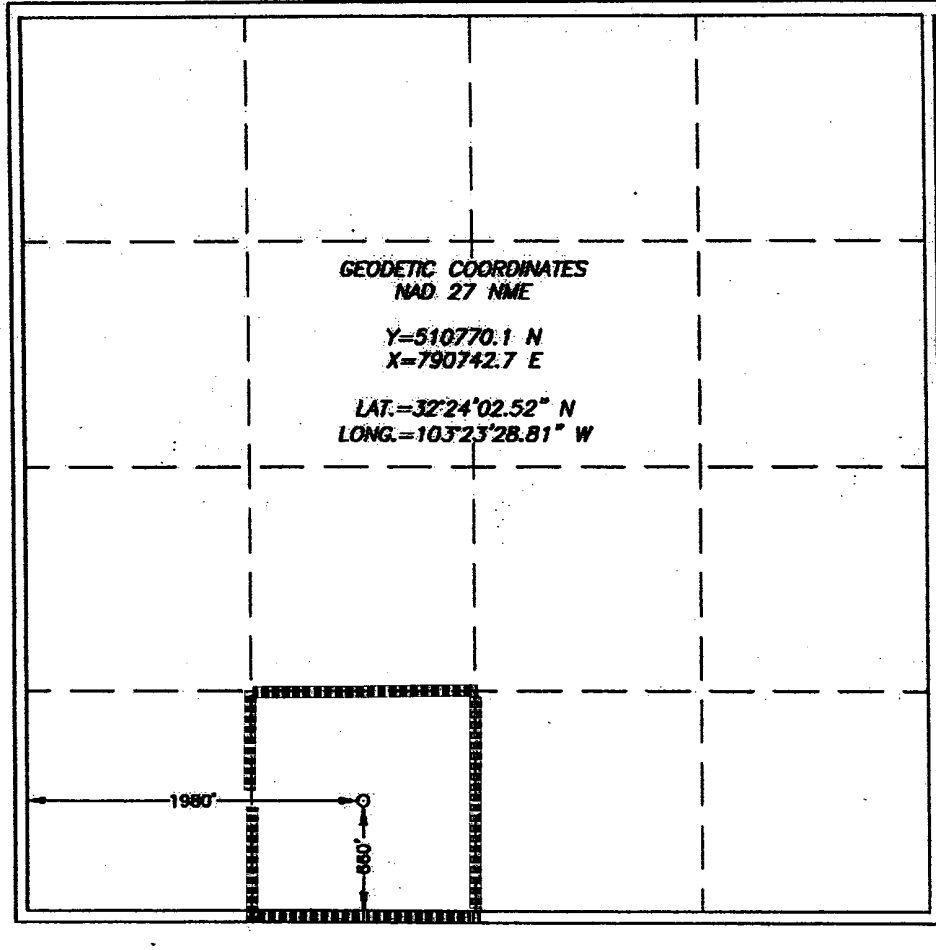

OPERATOR CERTIFICATION

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Alan W. Bohling
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Printed Name

Regulatory Agent
Title

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Date

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OCTOBER 10, 2004
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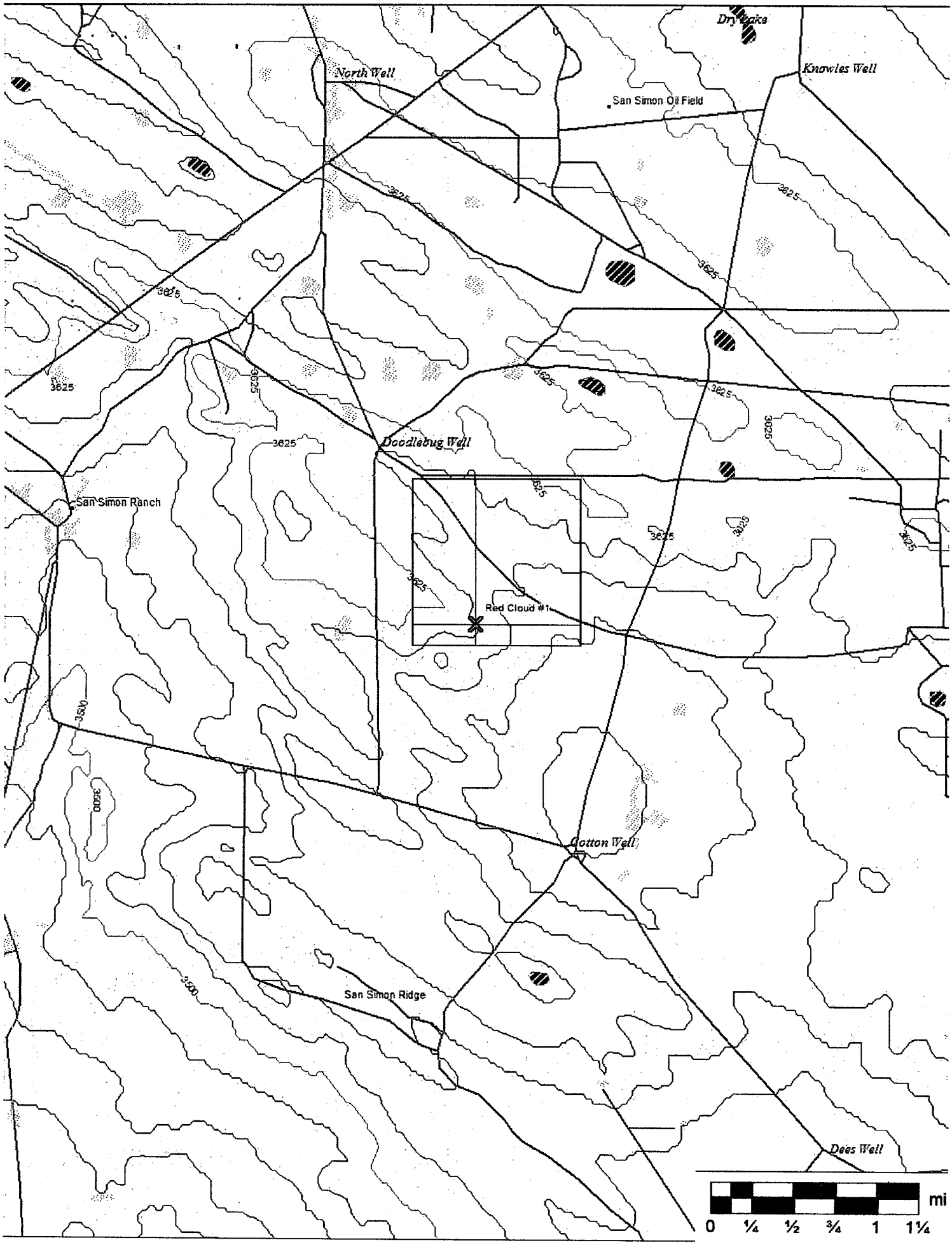
Signature & Seal of Professional Surveyor

04.11.1273

Certificate No. GARY EIDSON 12641


Dry Lake
North Well
Knowles Well
San Simon Oil Field
3625
Doodlebug Well
San Simon Ranch
Red Cloud #1
3500
Cotton Well
San Simon Ridge
Dees Well
mi
0 ¼ ½ ¾ 1 1¼

PURE RESOURCES
A Unocal Company

CONTINGENCY PLAN
DRILLING OPERATIONS

RED CLOUD "8" STATE #1
SECTION 8, TOWNSHIP 22S, RANGE 35E
GRAMMA RIDGE MORROW FIELD
LEA COUNTY, NEW MEXICO
10/26/04

CONTINGENCY PLAN

INDEX

SCOPE & OBJECTIVE

SCOPE

This contingency plan establishes guidelines for the public, all company employees, and contract employees whose work activities may involve exposure to Hydrogen Sulfide gas (H2S).

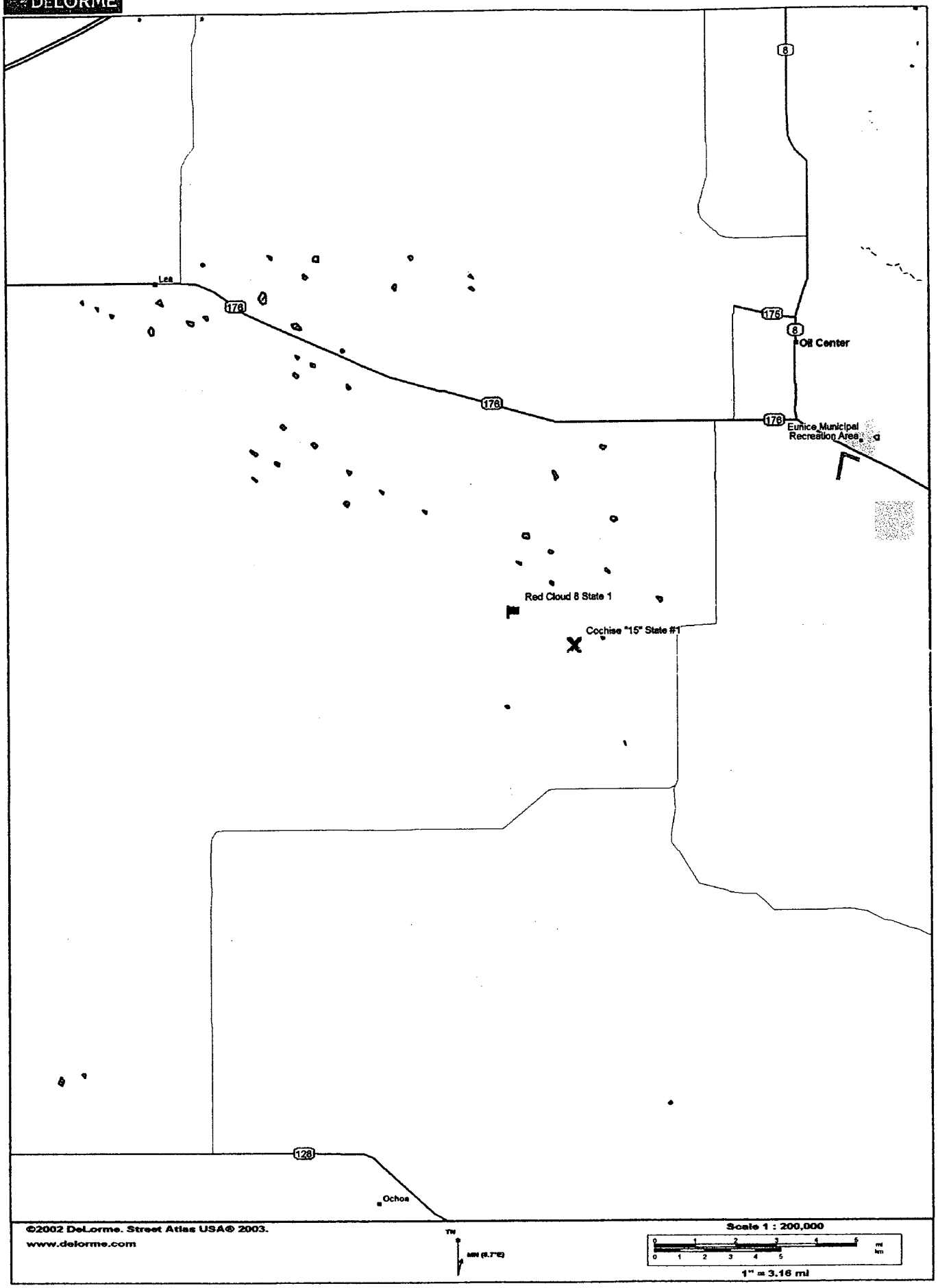
OBJECTIVE

1. Prevent any and all accidents, and prevent the uncontrolled release of Hydrogen Sulfide into the atmosphere.
2. Provide proper evacuation procedures.
3. Provide immediate and adequate medical attention should an injury occur.

DIRECTIONS TO LOCATION

From the intersection of Weaver and Delaware Basin roads go West along Delaware Basin Road 0.85 miles. Turn North onto caliche road and go 0.2 miles NW to an East West road. Go West 1.0 miles to a tee intersection and go approximately 0.15 mile. Turn west and go 0.53 miles. Turn South (which is on the East side of Rock Lake) and go 700' to a tee intersection. Go 0.28 miles West to a Y in the road, take caliche rock to the right (NW) and go 700' to the Y. Continue to follow the Nabors 715 sign to the location.

MAP



TN
MN (9.7°E)

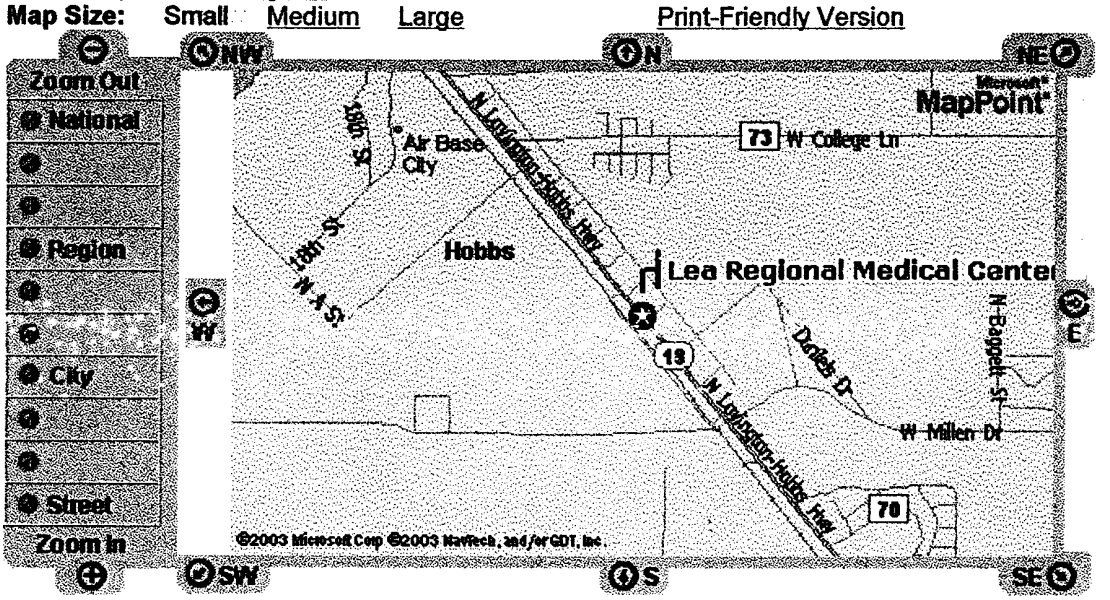
Scale 1 : 100,000
0 ½ 1 1½ 2 mi
0 1 2 3 4 km
1" = 1.58 mi

Maps

Lea Regional Medical Center
5419 North Lovington Highway, Hobbs, NM 88240
(505) 392-7993
business profile | map | driving directions

Appears in the Category:
Physicians & Surgeons

Map Size: Small Medium Large Print-Friendly Version



Click map to recenter.
Click compass directions to move map.

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EMERGENCY PROCEDURES AND RESPONSIBILITIES

It is the PURE RESOURCES policy in all operations to do everything possible to insure the safety of its employees and the contractor's employees on the job site; additionally, to provide for the safety and comfort of persons near the operations by protecting the environment to the fullest degree possible.

The primary purpose of the procedures outlined herein is to guide the personnel on location in the event that Hydrogen Sulfide (H2S) reaches the surface.

TO PROTECT THEIR OWN SAFETY AND THE SAFETY OF OTHERS, ALL PERSONNEL ON THE JOB SITE WILL RIGIDLY ADHERE TO THIS PLAN.

Initial Suspected Problem Zone: Wolfcamp, Bone Springs, Atoca, and Strawn

Expected Concentration: ±5 ppm

ROE @ 100 ppm = 2 feet
ROE @ 500 ppm = 1 foot

The plan should be implemented before drilling into any of the above listed zones.

The cementing, casing and mud program are contained in the PURE RESOURCES Drilling Program.

EMERGENCY NOTIFICATION / EVACUATION PLAN

EVACUATION PLAN

The following general plan has been developed in the event that any public evacuation becomes necessary.

1. PURE RESOURCES has requested and has been assured the support of the various public safety entities in the area.
2. Any evacuation will be conducted by the Lea County Sheriff's Department and supported by the State Police Department, Highway Patrol Division.
3. Assistance from other public safety entities may be requested if required.
4. The included maps detail the area of the well site including the inventory or the public within the radius of exposure of the well.
5. In the event that there is any suspected problem on the well, the well site supervisor will notify the Lea County Sheriff's office 505-395-2121 (Hobbs) or 505-394-2020 (Eunice) for ALERT STATUS.
6. ALERT STATUS will require that available public support personnel will proceed to the Lea County Sheriff's office in Hobbs or Eunice, NM and standby for instructions.
7. If isolation and evacuation are necessary, then units will be dispatched to points marked on the map with instructions to maintain road blocks.
8. Evacuation teams will then proceed to sectors to be evacuated. Evacuation procedure will follow appropriate consideration for wind conditions.
9. Personnel from on site will establish safe perimeters using H2S detectors.
10. The New Mexico Oil Conservation Division and other authorities will be notified as soon as possible.
11. Other supplemental contractors will be contacted and called in as needed.

EMERGENCY NOTIFICATION / EVACUATION PLAN

PURE RESOURCES EMERGENCY COMMUNICATION LIST

In the event of communication failure, personnel contacted for well control incidents may be called in order as listed below until satisfactory communication is accomplished. Please give a reasonable amount of time for response before the next contact is called.

	Name	Title	Office Number	Home Number	Cell Phone	Pager
1.	Ray Matthew	Engineer	432-498-8672	432-697-0201	432-557-0623	
2.	Jerry Orndorff	Superintendent	432-498-8664	432-550-5407	432-631-4295	432-620-2898
3.	Jim Harrison	Manager	432-620-5661	432-699-4476	432-556-7414	
4.	Les Sinclair	Engineer	432-620-5603	432-685-3254	432-664-7650	
5.	Jay Waldrop	HES	432-498-2654	432-523-9778	432-556-3547	
6.						
7.						

EMERGENCY NOTIFICATION / EVACUATION PLAN

MIDLAND WORKOVER/CONCENTRIC DEPARTMENT

Home/Cellular/Pager Numbers

NAME	HOME	CELL	PAGER
Russ Gianni	432-684-4712	432-425-5744 or 664-4603	
Donny Leek	432-399-4489	432-634-4862 or 634-4823	
	CONTRACT DRILLING FOREMEN		
Simon Barrera	325-728-9024	325-242-1369	
Harvey Brooks	432-524-6040	432-556-6300	
Billy Gaches	505-564-2679	505-320-1856 or 330-6530	
Mike Jolley	405-360-0273 or 843-5666	405-834-1207	
Danny Kiser	806-788-0960	806-632-0759	
Keith McKelvy	432-550-6307	432-528-9611	
Jerry Morgan	432-943-2860	432-661-5061	
Mike Pellessier		580-513-4858	
Kenneth Poole		432-634-9431	432-499-4947
Otis Swindle	432-550-2894	432-634-4013	
Mike Tarpley	432-263-6731	432-556-2227	432-498-3757
Tony Vickery	432-367-6130	432-634-6077	
James Wilson	903-962-4315	903-539-3970	

EMERGENCY NOTIFICATION / EVACUATION PLAN

EMERGENCY CALL LIST

Medical Support

Agency	Location	Telephone Number
AXIOM Medical	Houston	281-419-7063
Nor-Lea General Hospital	Hobbs	505-392-6314

EMERGENCY NOTIFICATION / EVACUATION PLAN

EMERGENCY CALL LIST

Public Support

Agency	Location	Telephone Number
Nor-Lea General Hospital	Hobbs	505-392-6314
Ambulance	Eunice	505-394-2020
Fire Department	Eunice	505-394-2020

EMERGENCY NOTIFICATION / EVACUATION PLAN

EMERGENCY CALL LIST

Supplemental Equipment

MUD COMPANY		
Buckeye	432-682-7422	Midland
Halliburton/Baroid	432-682-4305	Midland
SAFETY COMPANY		
Safety International	432-580-3770	Odessa
Callaway Safety	505-392-2973	Hobbs
CEMENTING COMPANY		
BJ Services	432-683-2781	Midland
BJ Services	505-392-6711	Hobbs
Halliburton	505-392-7062	Hobbs
PUMP TRUCKS / WATER HAULERS		
Basic Energy	505-392-6498	Hobbs
Pool	505-392-2577	Hobbs
Key	505-393-9171	Hobbs

EMERGENCY NOTIFICATION / EVACUATION PLAN

EMERGENCY CONDITIONS

Operating Conditions

A. Emergency Procedures and Definition of Warning Flags.

1. Condition: YELLOW ---- NORMAL OPERATION
2. Condition: ORANAGE -- POTENTIAL DANGER--- CAUTION

a. Cause for condition:

- Circulating up drilling breaks
- Trip gas after trip
- Circulating out gas on choke
- Poisonous gas present, but below threshold concentrations

b. Safety actions:

- Check safety equipment and keep it with you
- Be alert for a change in conditions
- Follow instructions

3. Conditions RED ---------- EXTREME DANGER

a. Cause for conditions

- Uncontrolled flow from the well with lethal concentrations of H2S

b. Safety Actions

- Masks On. All personnel will have protective breathing equipment with the
  All personnel will stay in safe briefing area unless instructed to do otherwise
- The decision to ignite the well is the responsibility of the company represent
  and should be made only as a last resort, when it is clear that:
  i Human life is endangered
  ii There is no hope of controlling the well under prevailing conditions.
- Order evacuation of local people within the danger zone.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

DRILLING CREW ACTIONS

1. All personnel will don their protective breathing apparatus. The drilling crew will take necessary precaution as indicated in OPERATING PROCEDURES.
2. The Buddy System will be implemented. All personnel will act upon direction from th Operator's Representative.
3. If there are nonessential personnel on location, they will move off location.
4. Entrance to the location will be patrolled, and the proper condition flag will be displaye the entrance to the location.

IN THE EVENT OF AN ACCIDENTAL RELEASE OF PTENTIALLY HAZARDOU VOLUME OF H2S, THE FOLLOWING PROCEDURES WILL BE TAKEN.

1. All personnel on location will be accounted for and emergency search should begin for missing.
2. All search missions will be conducted under fresh air masks in teams of two. Should th search team need to approach the well, safety harness and rope should be used.
3. All individual companies and agencies should be contacted according to the EMERGEI CALL LIST.
4. An assigned crew member will blockade the entrance to the location. No unauthorized personnel will be allowed entry to the location.
5. The Operator's Representative will remain on location and attempt to regain control of well.
6. The Company's designated representatives will begin evacuation of those persons in immediate danger.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

NOTE

When Hydrogen Sulfide might be encountered, NO personnel on location will be permitted sleep in vehicles.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

RESPONSIBILITY

In the event of a release of potentially hazardous amounts of H2S, all personnel will immec proceed upwind to the nearest designated safe area and don their protective breathing equip The PURE RESOURCES representative will immediately, upon assessing the situation, set plan into action by taking the proper procedures to contain the gas and notify the appropriat people and agencies.

If the PURE RESOURCES representative is incapacitated or not on location, this responsit will fall to the drilling toolpusher.

PURE RESOURCES

1. In an emergency situation, the Drill Site Supervisor on duty will have complete respons and will take whatever action is deemed necessary in an emergency situation to insure t personnel's safety, to protect the well and to prevent property damage.
2. Advise the Superintendent when procedures as specified herein have been met, will inf emergencies and deviation from the plan, and see that procedures are observed at all tin
3. Advise each contractor, service company, and all others entering the site that Hydrogen Sulfide may be encountered and the potential hazards that may exist.
4. Authorize the evacuation of local residents if Hydrogen Sulfide threatens their safety.
5. Keep the number of persons on location to minimum during hazardous operations.
6. Assess the situation when alarm sounds, and issue work orders. When conditions warr order all personnel to "Safe Briefing Areas".
7. Direct corrective actions to control flow of gas.
8. Has full responsibility for the decision to ignite the well. The decision will be made on last resort.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

DRILLING COMPANY

1. The Toolpusher will assume all responsibilities of the Drill Site Supervisor in an emerg situation in the event that the Drill Site Supervisor becomes incapacitated.
2. The Toolpusher will order the Driller to secure the rig if time permits.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

EQUIPMENT TO BE PROVIDED BY SAFETY COMPANY

1. One safety trailer containing an 8 bottle air cascade system
2. 750 feet of air line hose
3. Four breathing air manifolds
4. Four 30 minute rescue units
5. Five work/escape units
6. One filler hose for the work/escape and rescue units
7. One location sign with flags
8. Two briefing area signs
9. Two windsocks
10. One electronic monitor with three sensor heads, warning light and siren.

EMERGENCY PROCEDURES AND RESPONSIBILITIES

TEMPORARY SERVICE PERSONNEL

All service personnel, such as cementing crews, logging crews, specialists, mechanics and welders will furnish their own safety equipment as required to comply with OSHA and PUI RESOURCES.

VISITORS

Visitors and nonessential personnel will be prohibited from remaining in, or entering a contaminated area where Hydrogen Sulfide concentration in the atmosphere exceeds 15 ppı

IGNITING WELL INSTRUCTIONS

THE DECISION TO IGNITE THE WELL IS THE RESPONSIBILITY OF THE PURE RESOURCES REPRESENTATIVE. In the event he is incapacitated or unavailable, it bec the responsibility of the drilling rig superintendent.

The decision to ignite the well should be made only as a last resort and in the situation whe clear that:

1. Human life is in danger
2. There is no hope of controlling the well under current conditions.

The PURE RESOURCES Drilling Manager should be notified as soon as possible. The fir phase of evacuation should be initiated immediately.

Once the decision has been made the following procedures should be followed:

1. Four people, wearing self-contained breathing apparatus will be needed for the actual lighting of the well. They must first establish the flammable parameter by using an exp meter. This should be established at 30% to 40% of the lower flammable limits.
2. After the flammable perimeter has been established and everyone removed from the are ignition team should select a site upwind of the well, from which to ignite. The site sh offer the maximum protection and have a clear path for retreat from the area.
3. The ignition team should have safety belts and lanyards attached and manned before attempting ignition. If the leak is not ignited on the first attempt, move in 20 to 30 feet fire again. Continue to monitor with the explosion meter and never fire from an area w over 75% of the lower explosive limit (LEL). If having trouble igniting the well, try fi 40 degrees to 90 degrees on either side of the well.
4. After ignition or attempted ignition, the toxic perimeter must be established and evacua continued until the well is contained.
5. All personnel will act only as directed by the person in charge of the operations.

TRAINING PROCEDURES AND MATERIALS

SAFETY TRAINING

1. Hydrogen Sulfide Safety Training will be provided to all personnel at 1,000 feet above expected H2S formation. The training sessions will cover, but will not be limited to the following.
   a. General information on H2S and SO2 gas
   b. Hazards of H2S and SO2 gas
   c. Safety equipment on location
   d. Proper use and care of personal protective equipment
   e. Operational procedures in dealing with H2S gas
   f. Evacuation procedures
   g. Chemicals to be used in mud to control H2S
   h. First aid, reviving and H2S victim, toxicity, etc.
   i. Designated Safe Briefing Areas (S.B.A.)
   j. Metallurgical considerations

   NOTE: Once H2S Safety Procedures are established on location, no beards or facial which will interfere with face seal or mask will be allowed on location
2. When H2S alarm is activated:
   a. Mask up
   b. Raise tool joints above the rotary table and shut down pump
   c. Close in hydrill
   d. Go to Safe Briefing Area

TRAINING PROCEDURES AND MATERIALS

PHYSICAL EFFECTS OF HYDROGEN SULFIDE POISONING

The Principal Hazard Is Death by Inhalation

When the amount of gas absorbed into the bloodstream exceeds that which is readily oxidiz systemic poisoning results, with a general action on the nervous system. Labored respiratic occurs shortly and respiratory paralysis may follow immediately at concentrations of 700 p and above. This condition may be reached almost without warning as the originally detecte odor of H2S may have disappeared due to olfactory paralysis. Death then occurs from asphyxiation unless the exposed person is removed immediately to fresh air and breathing i stimulated by artificial respiration. Other levels of exposure may cause the following symp individually or in combination:

1. Headache
2. Dizziness
3. Excitement
4. Nausea or gastro-intestinal disturbances
5. Dryness and sensation of pain in nose, throat, and chest
6. Coughing
7. Drowsiness

All personnel should be alerted to the fact that detection of H2S solely by sense of smell is highly dangerous, as the sense of smell is rapidly paralyzed by the gas. 10 ppm of H2S det should be treated as if it were 700 ppm.

TRAINING PROCEDURES AND MATERIALS

REMEMBER:

After the well is ignited, burning Hydrogen Sulfide (H2S) will convert to Sulfur Dioxide (S which is also a highly toxic gas.

DO NOT ASSUME THE AREA IS SAFE AFTER THE WILL IS IGNITED.

TRAINING PROCEDURES AND MATERIALS

THE USE OF SELF CONTAINED BREATHING EQUIPMENT

1. Respirators shall be inspected frequently at random, to insure that they are properly use cleaned and maintained.
2. Anyone who may use the respirators shall be trained in how to insure proper face piece face seal. They shall wear respirators in normal air and then wear it in a test atmosphere (Note: such items as facial hair – beard or sideburns – and eyeglass temple pieces will allow a proper seal.) Anyone who may be reasonably expected to wear respirators shou have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eye glasses. Contact lenses should not be allowed.
3. Maintenance and care of respirators:
   a. A program for maintenance and care of respirators shall include the following:
      - Inspection for defects, including leaks checks
      - Cleaning and disinfecting
      - Repair
      - Storage
   b. Inspection: Self contained breathing apparatus for emergency use shall be inspecte monthly for the following and a permanent record kept of these inspections.
      - Fully charged cylinders
      - Regulator and warning devise operations
      - Condition of face piece and connections
      - Elastic or rubber parts shall be stretched or massaged to keep them pliable a prevent deterioration.
   c. Routinely used respirators shall be collected, cleaned and disinfected as frequently a necessary to insure proper protection is provided.
4. A person assigned a task that requires use of self contained breathing equipment should certified, physically fit for breathing equipment usage by the local physician at least annually.
5. Respirators should be worn:
   a. When breaking out any line where H2S can reasonably be expected.
   b. When sampling air in areas to determine if toxic concentrations of H2S exist.
   c. When working in areas where over 15 ppm H2S has been detected.
   d. At any time there is a doubt as to the H2S concentration in the zone to be entered.

TRAINING PROCEDURES AND MATERIALS

TRAINING

Every person working in any capacity on the lease will be required to review the emergenc procedures and will participate in the training program.

PURE RESOURCES will provide personnel to direct the training program and indoctrinate authorized persons on the lease in the proper use of the safety equipment.

The training personnel will work individually with each member until they are satisfied tha crew member is familiar with the emergency procedures and the training program. This sh be accomplished prior to an individual's work operation.

Training will include hands on use of all equipment in order to familiarize the trainees with safety equipment.

TREATMENT OF HYDROGEN SULFIDE POISONING

Inhalation

As Hydrogen Sulfide in the blood oxidizes rapidly, symptoms of acute poisoning pass off v inhalation of the gas ceases. It is important, therefore, to get the victim of poisoning to fres as quickly as possible. He should be kept at rest and chilling should be prevented. If respii is slow, labored or impaired, artificial respiration may be necessary.

Most persons overcome by Hydrogen Sulfide may be revived if artificial respiration is appl before heart action ceases. Victims of poisoning should be under the care of a physician as as possible. Irritation due to sub acute poisoning may lead to serious complications such as pneumonia. Under those conditions, treatment by the physician necessarily would be symptomatic. The patient should be kept in fresh air.

Contact with Eyes

Eye contact with liquid and / or gas containing Hydrogen Sulfide will cause painful irritatic (conjunctivitis). Keep patient in a darkened room, apply ice compresses to eyes, put ice on forehead, and send for a physician. The irritation caused by exposure to Hydrogen Sulfide requires treatment by a physician, preferably an eye specialist. The prognosis for recovery these cases is usually good.

Contact with Skin

Skin absorption is very low. Skin discoloration is possible after contact with liquids contai Hydrogen Sulfide. If such skin contact is suspected, the area should be thoroughly washed

TRAINING PROCEDURES AND MATERIALS

EFFECTS OF HYDROGEN SULFIDE ON METAL

Hydrogen Sulfide dissolves in water to form a weak acid that can cause some pitting, partic in the presence of oxygen and/or carbon dioxide. However, the most significant action of H its contribution to a form of Hydrogen embrittlement known as Sulfide Stress Cracking. Su Stress Cracking is a result of metals being subjected to high stress levels in a corrosive environment where H2S is present. The metal will often fail in a brittle manner. Sulfide St Cracking of steel is dependent upon and determined by:

1. Strength (hardness) of the steel – the higher the strength, the greater the susceptibility to sulfide stress cracking. Steels having yield strengths up to 95,000 psi and hardness up t Rc22 are generally resistant to sulfide stress cracking. These limitations can be extende slightly higher for properly quenched and tempered materials.
2. Total member stress (load) – higher the stress level (load) the greater the susceptibility t sulfide stress cracking.
3. Corrosive environment – corrosive reactions, acids, bacterial action, thermal degradatio low Ph fluid environment.

TRAINING PROCEDURES AND MATERIALS

DRILLSITE LOCATION

1. The drilling rig should be situated on location such that the prevailing winds blow acros rig toward the reserve pit or at right angles to a line from the rig to the reserve pit.
2. The entrance to the location should be designed so that it can be barricaded if Hydroger Sulfide emergency conditions arise. An auxiliary exit (or entrance) should be available case of a catastrophe, a shift in the wind direction would not preclude escape from the location. Appropriate warning signs and flags should be placed at all location entrance
3. Once H2S safety procedures are established on location, no beards or facial hair which interfere with face seal or mask will be allowed on location.
4. A minimum of two Briefing Areas will be established, not less than 250 feet from the wellhead and in such location that at least one area will be up-wind from the well at all Upon recognition of an emergency situation, all personnel should assemble at the desig briefing areas for instructions.
5. A safety equipment trailer will be stationed at one of the briefing areas.
6. Windsocks will be installed and wind streamers (6 to 8 feet above ground level) placed location entrance. Windsocks shall be illuminated for night time operations. Personnel should develop wind direction consciousness.
7. The mud logging trailer will be located so as to minimize the danger from gas that breal of the drilling fluid.
8. Shale shaker mud tanks will be located so as to minimize the danger from gas that breal of the drilling fluid.
9. Electric power plants will be located as far from the well bore as practical so that it may used under condition where it otherwise would have to be shut down.
10. When approaching depth where Hydrogen Sulfide may be encountered, appropriate wa signs will be posted on all access roads to the location and at the floor of all stairways t derrick floor.
11. Appropriate smoking areas will be designated and smoking will be prohibited elsewher

WELL LOCATION LAYOUT AND EQUIPMENT

SPECIAL EQUIPMENT

1. Flare lines should be as long as practical, securely staked.
2. An electronic Hydrogen Sulfide monitor will be installed with a combination visual and audible alarm system located where it can be seen and/or heard throughout the drilling a
3. The electronic Hydrogen Sulfide monitoring system will be calibrated to activate the lo alarm (visual alarm) at a concentration of 10 ppm Hydrogen Sulfide in the atmosphere a the high alarm at a concentration of 15 ppm Hydrogen Sulfide in the atmosphere.
4. Extra equipment will be available if required to provide adequate respiratory protection all personnel on location.

WELL LOCATION LAYOUT AND EQUIPMENT

BLOWOUT PREVENTION EQUIPMENT

1. A kill line of ample strength and length will be laid to safe point to allow pumping into well in an emergency situation.
2. The closing unit should be located a safe distance from the well bore and positioned for maximum utilization based on the prevailing wind direction.
3. BOP equipment will be tested in accordance with standard company practice.

WELL LOCATION LAYOUT AND EQUIPMENT

DRILL STEM TEST

1. A drill stem tests of Hydrogen Sulfide zones will be approved by the New Mexico Oil Conservation Division.
2. Drill stem testing of Hydrogen Sulfide zones will be permitted only during daylight hou
3. All nonessential personnel will be moved to "Safe Briefing Areas".
4. Put on air masks before formation fluids are expected at the surface and continue "Masl On" until flare are ignited and work areas test no more than 10 ppm Hydrogen Sulfide a the area has been declared safe.

RED CLOUD STATE "8" STATE #1