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 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-

APPLICATION FOR PERMIT TO DRILL

Operator Name and Address TOM BROWN INC		OGRID Number 23230
508 W. Wall, Suite Midland, TX 7970		API Number 30-015-33228
Property Code 32897	Property Name CRAWFORD 26	Well No. 002

Surface Location

UL or	Lot Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County	::
В	26	24S	26E	В	990	N	1980	Е	Eddy	

Proposed Pools

WHITE CITY; PENN (GAS) 87280

1	Work Type New Well	Well Type GAS	Cable/Rotary	Lease Type Private	Ground Level Elevation 3271
hannon	Multiple	Proposed Depth	Formation	Contractor	Spud Date
******	N	11600	Morrow		03/01/2004

Proposed Casing and Cement Program

Туре	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	400	400	0
Int1	12.25	9.625	36	3800	1000	0
Prod	8.75	5.5	17	9800	1200	3600
Prod	8.75	5.5	17	11600	1200	3600

Casing/Cement Program: Additional Comments

The surface casing will be run to 400 to protect the fresh water zones. Cement will be circulated to surface. The intermediate casing will be run to 3800 to case off the porosity in the Delaware sands. Cement will be tied back into the surface casing. The production casing will be run to TD and cement will be tied back into the intermediate casing. A DV tool will be run at approximately 7000, depending on depth of loss circulation.

Proposed Blowout Prevention Program

 Туре	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	Shaffer
Double Ram	5000	5000	Shaffer

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

Electronically Signed By: Brian Franks

Title:

Date: 02/05/2004 Phone: 432-688-9598

OIL CONSERVATION DIVISION

Electronically Approved By: Bryan Arrant

Title: Geologist

Approval Date: 02/09/2004 Expiration Date: 02/09/2005

Conditions of Approval:
No Conditions

District I

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.

Santa Fe, NM 87505

Form C-

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WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33228	Pool Name WHITE CITY;PENN (GAS)	Pool Code 87280
Property Code 32897	Property Name CRAWFORD 26	Well No. 002
OGRID No. 23230	Operator Name TOM BROWN INC	Elevation 3271

Surface And Bottom Hole Location

							***************************************		***************************************	y
	UL or Lot B	Section 26	Township 24S	Range 26E	Lot Idn B	Feet From 990	N/S Line N	Feet From 1980	E/W Line E	County Eddy
:	Dedicat	ed Acres	Joint or	Infill	Consoli	dation Code	1	Order N	No.	
:	64	40	Allenna and the second of the							

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OPERATOR CERTIFICATION

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

Electronically Signed By: Brian Franks

Title:

Date: 02/05/2004

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 belief.

Surveyed By: Gary Eidson Date of Survey: 01/19/2004 Certificate Number: 12641

Permit Comments

Operator: TOM BROWN INC, 23230

Well: **CRAWFORD 26 #002**

User Name	Comment	
BARRANT	The horizontal boundaries of the White City; Pennsylvanian Gas Pool include Sections 26 and 27 by R-Order 7315. Please refer to R-Order 2429 A-D for special pool rules.	2/4/2004
BARRANT	Upon resubmittal of APD On-Line, please include a descriptive dialog of casing and cementing program.	2/4/2004

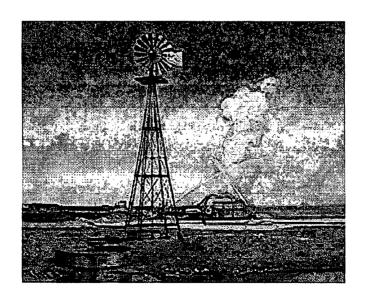
TOM BROWN, INC.

Legals:

CRAWFORD 26 WELL#2

12,000' MORROW WELL SECTION 26, T-24-S, R-26-E 990' FNL 1980' FEL EDDY COUNTY, NEW MEXICO

"CONTINGENCY PLAN"



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1. H2S CONTINGENCY PLAN SECTION

Scope

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

Objective

- Prevent any and all accidents and prevent the uncontrolled release of H2S into the atmosphere.
- 2. Provide proper evacuation procedures to cope with emergencies.
- 3. Provide immediate and adequate medical attention should an injury occur.

Discussion of Plan

Implementation: This plan, with all details, is to be fully implemented @ 440' Or after drilling surface.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to @ 440' or after drilling surface.

Emergency Call Lists: Included are the telephone numbers of all persons that would need to be contacted should an emergency occur.

Briefing: This section deals with the briefing of all people involved in the drilling operation.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

Check Lists: Status Check Lists and Procedural Check Lists have been included to insure adherence to the plan.

General Information: A general information section has been included to supply support information.

2. EMERGENCY PROCEDURES SECTION

Emergency Procedures

- I. In the event of any evidence of H2S level above 10 ppm, take the following steps immediately:
 - A. Secure breathing apparatus.
 - B. Order non-essential personnel out of the danger zone.
 - C. Take steps to determine if the H2S level can be corrected or suppressed and if so, proceed with normal operations.
- II. If uncontrollable conditions occur, proceed with the following:
 - A. Take steps to protect and / or remove any public downwind of the rig including partial evacuation or isolation. Notify necessary Public Safety personnel and BP Company Man, Jerry Evans, (915) 557-1642 of the situation.
 - B. Remove all personnel to the Safe Briefing Area.
 - C. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.
 - D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety procedures.

III. Responsibility

- A. The Company Approved Supervisor shall be responsible for the total implementation of the plan.
- B. The Company Approved Supervisor shall be in complete command during any emergency.
- C. The Company Approved Supervisor shall designate a back up Supervisor in the event that he / she is not available.

3. Emergency Procedure Implementation

I. Drilling or Tripping

A. All Personnel

- When alarm sounds, don escape unit and report to upwind Safe Briefing Area
- 2. Check status of other personnel (Buddy System).
- 3. Secure breathing apparatus.
- 4. Await order from Supervisor

B. Drilling Foreman

- 1. Report to the upwind Safe Briefing Area.
- Don breathing apparatus and return to the point of release with the Tool Pusher or Driller (Buddy System).
- 3. Determine the concentration of H2S.
- 4. Assess the situation and take appropriate control measures.

C. Tool Pusher

- 1. Report to the upwind Safe Briefing Area.
- Don breathing apparatus and return to the point of release with the Drilling Foreman or Driller (Buddy System).
- 3. Determine the concentration of H2S.
- 4. Assess the situation and take appropriate control measures.

D. Driller

- 1. Don escape unit.
- 2. Check monitor for point of release.
- 3. Report to the Safe Briefing Area.
- 4. Check the status of other personnel (in a rescue attempt, always use the buddy system).
- 5. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
- 6. Assume the responsibility of the Drilling Foreman and Tool Pusher until they arrive, in the event of their absence.

- E. Derrick Man
 - Remain in the Safe Briefing Area until otherwise instructed by Supervisor.
- F. Mud Engineer
 - 1. Report to Safe Briefing Area.
 - When instructed, begin check of mud for pH level and H2S level.
- G. Safety Personnel
 - 1. Don appropriate breathing apparatus.
 - 2. Check status of all personnel.
 - 3. Await instructions from Drilling Foreman
- II. Taking a Kick
 - A. All personnel report to Safe Briefing Area.
 - B. Follow standard BOP procedures.
- III. Open Hole Logging
 - A. All unnecessary personnel should leave the rig floor.
 - B. Drilling Foreman and Safety personnel should monitor the conditions and make necessary safety equipment recommendations.
- IV. Running Casing or Plugging
 - A. Follow "Drilling or Tripping" procedures.
 - B. Assure that all personnel have access to protective equipment.

4. Simulated Blowout Control Drills

All drills will be initiated by activating alarm devices (air horn). One long blast, on air horn, for Actual and Simulated Blowout Control Drills. The Drilling Foreman or Tool Pusher will perform this operation at least one time per week for each of the following conditions, with each crew:

Drill 1 Bottom Drilling

Drill 2 Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.: _					
Reaction time	to shut-in:	minutes	<i>,</i>	seconds	•
Total time to	complete assid	gnment:	minutes	,	seconds.

I. Drill Overviews

- A. Drill No. 1--Bottom Drilling
 - 1. Sound the alarm immediately
 - Stop the rotary and hoist the kelly joint above the rotary table.
 - 3. Stop the circulatory pump.
 - 4. Close drill pipe rams.
 - Record casing and drill pipe shut-in pressures and pit volume increases.
- B. Drill No. 2--Tripping Drill Pipe
 - 1. Sound the alarm immediately
 - 2. Position the upper tool joint just above the rotary table and set slips.
 - Install a full opening valve or inside blowout preventer tool in order to close the drill pipe.
 - 4. Close the drill pipe rams.
 - 5. Record the shut-in annular pressure.

II. Crew Assignments

- A. Drill No. 1-Bottom Drilling
 - 1. Driller
 - a. Stop the rotary and hoist Kelly joint above the rotary table.
 - b. Stop the circulatory pump.
 - c. Check flow.
 - d. If flowing, sound the alarm immediately.
 - e. Record the shut-in drill pipe pressure.

- f. Record all data reported by the crew.
- g. Determine the mud weight increase needed or other courses of action.

2. Derrickman

- a. Open choke line valve at BOP.
- b. Signal Floor Man #1 at accumulator, that choke line is open.
- c. Close choke and upstream valve after pipe tams have been closed.
- d. Read the shut-in annular pressure and report readings to Driller.

3. Floor Man #1

- a. Close the pipe tams after receiving the signal from the Derrickman.
- b. Report to Driller for further instructions.

4. Floor Man #2

- a. Notify the Tool Pusher and Operator Representative of the H2S alarms.
- b. Check for open fires and if safe to do so, extinguish them.
- c. Stop all welding operations.
- d. Turn off all non-explosion proof lights and instruments.
- e. Report to Driller for further instructions.

5. Tool Pusher

- a. Report to the rig floor.
- b. Have a meeting with all crews.
- c. Compile and summarize all information.
- d. Calculate the proper kill weight.
- e. Ensure that proper well procedures are put into action.

6. Operator Representative

a. Notify the Drilling Superintendent.

b. Determine if an emergency exists and if so, activate the contingency plan.

B. Drill No. 2-Tripping Pipe

1. Driller

- Sound the alarm immediately when mud volume increase has been detected.
- b. Position the upper tool joint just above the rotary table and set slips.
- c. Install a full opening valve or inside blowout preventor tool to close the drill pipe.
- d. Check flow.
- e. Record all data reported by the crew.
- f. Determine the course of action.

2. Derrickman

- a. Come down out of derrick.
- b. Notify Tool Pusher and Operator Representative.
- c. Check for open fires and, if safe to do so, extinguish them.
- d. Stop all welding operations.
- e. Report to Driller for further instructions.

3. Floor Man #1

- a. Pick up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #2).
- b. Tighten valve with back-up tongs.
- c. Close pipe rams after signal from Floor Man #2.
- d. Read accumulator pressure and check for possible highpressure fluid leaks in valves or piping.
- e. Report to Driller for further instructions.

4. Floor Man #2

- a. Pick-up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #1).
- b. Position back-up tongs on drill pipe.
- c. Open choke line valve at BOP.
- d. Signal Floor Man #1, at accumulator, that choke line is open.
- e. Close choke and upstream valve after pipe rams have been closed.
- f. Check for leaks on BOP stack and choke manifold.
- g. Read annular pressure.
- h. Report readings to the Driller.

5. Tool Pusher

- a. Report to rig floor.
- b. Have a meeting with all crews.
- c. Compile and summarize all information.
- d. Calculate proper kill weight.
- e. See that proper well kill procedures are put into action.

6. Operator Representative

- a. Notify Drilling Superintendent.
- b. Determine if an emergency exists, and if so, activate the contingency plans.

III. IGNITION PROCEDURES SECTION

Responsibility

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

- 1. Human life and property are endangered.
- There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well

- 1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and attach a safety rope. One man must monitor the atmosphere for explosive gases with the Explosimeter, while the Drilling Foreman is responsible for igniting the well.
- 2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.
- 3. Ignite from upwind and do not approach any closer than is warranted.
- 4. Select the ignition site best suited for protection and which offers an easy escape route.
- 5. Before igniting, check for the presence of combustible gases.
- 6. After igniting, continue emergency actions and procedures as before.
- 7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

IV. TRAINING PROGRAM SECTION

Training Requirements

When working in an area where Hydrogen Sulfide gas (H2S) might be encountered, definite training requirements must be carried out. The Company Supervisor will insure that all personnel, at the wellsite, have had adequate training in the following:

- 1. Hazards and characteristics of H2S.
- 2. Physical effects of Hydrogen Sulfide on the human body.
- 3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
- 4. H2S detection.
- 5. Emergency rescue.
- 6. Resuscitators.
- 7. First aid and artificial resuscitation.
- 8. The effects of H2S on metals.
- 9. Location Safety.

Service company personnel and visiting personnel must be notified in the zone contains H2S. Each service company must provide adequate training and equipment for their employees before they arrive at the well site.

EMERGENCY EQUIPMENT SECTION

Emergency Equipment Requirements

- I. Signs
 - A. Located at the location entrance with the following information:

CAUTION - POTENTIAL POISON GAS HYDROGEN SULFIDE NO ADMITTANCE WITHOUT AUTHORIZATION

- II.* Fresh air breathing equipment
 - A. Air line units for all rig personnel on location.
 - B. Cascade system with hose lines to rig floor and one to the derrickman and other operation areas. Spare cascade (trailer) on location.
- III. Wind Socks or Wind Streamers
 - A. Two 10" windsocks located at strategic locations at a height visible from the rig floor.
 - B. Wind streamers (if preferred) to be placed at various locations on the wellsite to insure wind consciousness at all times. (Corners of location).
- IV. Hydrogen Sulfide detector and alarms.
 - A. 1 four channel H2S monitor with alarms.
 - B. 4 Sensors, located at floor, bell nipple, shale shaker and pits.0
 - * C. Hand operated detectors with tubes.
 - D. H2S monitor tester.
- V. Condition sign and flags
 - A. One each of green, yellow and red condition flags to be displayed to denote conditions:

GREEN Normal Conditions
YELLOW Potential Danger
RED Danger, H2S Present

- B. The condition flag shall be posted at the location entrance.
- VI.* Auxiliary rescue equipment
 - A. Stretcher
 - B. Two 100' lengths of 5/8" nylon rope.
- VII.* Mud Inspection devices
 - A. Garrett Gas Train or Hach Tester for inspection of Hydrogen Sulfide concentration in the mud system.
- VIII. Fire Extinguishers
 - A. Adequate fire extinguishers shall be located at strategic locations.
- IX. Blowout prevention equipment
 - A. The well shall have hydraulic BOP equipment for the anticipated BHP.
 - B. Equipment must be tested upon installation.
- X.* Combustible gas detectors
 - A. There shall be one combustible gas detector on location at all times.
- XI. BOP Testing
 - A. BOP, Choke Line and Kill Line will be tested as specified by operator

- XII. Audio System
 - A. Radio/cellular communications shall be available at the rig.
 - B. Radio/cellular communications shall be available at the rig floor or trailer.
 - C. Radio/cellular communications shall be available on vehicles.
- XIII. Special control equipment
 - A. Hydraulic BOP equipment with remote control on ground.
 - B. Rotating head at surface casing point.
- XIV. Evacuation Plan
 - A. Evacuation routes should be established prior to spudding each well.
 - B. Should be discussed with all rig personnel.
- XV. Designated Areas
 - A. Parking and visitor area.
 - All vehicles are to be parked at a pre-determined safe distance from the wellhead.
 - Designated smoking area.
 - B. Safe Briefing Area
 - Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
 - Personal protective equipment should be stored in both protection centers or if a moveable trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both protection centers should be accessible.
 - *Additional equipment will be available at Callaway Safety Equipment Co.,
 Inc., (505) 392-2973, 3229 Industrial, Hobbs, New Mexico, 88240.
 - Additional personal Hydrogen Sulfide monitors on location for all hands.
 - Automatic Flare igniter installed on rig.

VI. CHECK LIST SECTION

Status Check List

NOTE: Date each item as they are implemented. 1. Sign at location entrance 2. Two (2) windsocks (in required locations) 3. Wind streamers (if required) 30 minute pressure demand air packs on location 4. for all rig personnel and mud loggers. 5. Air packs, inspected and ready for use. 6. Spare bottles for each air pack (if required) 7. Cascade system and hose line hook up 8. Cascade system for refilling air bottles 9. Choke manifold hooked up and tested (Before drilling out surface casing) 10. Remote Hydraulic BOP control (hooked up and tested before drilling out surface casing) 11. BOP Preventor tested (before drilling out surface casing) 12. Mud engineer on location with equipment to test mud for Hydrogen Sulfide 13. Safe Briefing Areas set up 14. Condition sign and flags on location and ready 15. Hydrogen Sulfide detection system hooked up 16. Hydrogen Sulfide alarm system hooked up 17. Stretcher on location at Safe Briefing Area 18. 1 - 100' length of 5/8'' nylon rope on location 19. 1 - 20 # or 30 # ABC fire extinguisher in safety trailer in addition to those on rig 20. Combustible gas detector on location and tested 21. All rig crews and supervisors trained (as required)

22.	Access restricted for unauthorized personnel	
23.	Drills on H2S and well control procedures	
24.	All outside service contractors advised of potential Hydrogen Sulfide on well	
25.	NO SMOKING sign posted	
26.	Hand operated H2S detector with tubes on location	
27.	25 mm flare gun with flares	
28.	Automatic Flare igniter installed on rig	

Procedural Check List

Perform the following on each tour:

- Check fire extinguishers to see that they have the proper charge.
- 2. Check breathing equipment to insure that it has not been tampered with.
- 3. Check pressure on supply air bottles to see that they are capable of recharging.
- 4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

- 1. Check each piece of breathing equipment to make sure that the demand regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you get air.
- 2. Blowout preventor skills.
- 3. Check supply pressure on BOP accumulator stand-by source.
- 4. Check all work/escape units for operation: demand regulator, escape bottle air volumes, supply bottle air volume.
- 5. Check breathing equipment mask assembly to see that straps are loosened and turned back.
- 6. Check pressure on breathing equipment air bottles to make sure they are charged to full volume.
- 7. Check breathing equipment air bottles to make sure all demand regulators are working. This requires that the bottles be opened and the mask assembly be put on tight enough so that when you inhale, you get air.
- 8. Confirm pressure on all supply air bottles.
- 9. Perform breathing equipment drills with on-site personnel.

Check the following supplies for availability:

- a. Stretcher
- b. Safety belts and ropes
- c. Emergency telephone lists
- d. Spare air bottle
- e. Spare oxygen bottles (if resuscitator required)
- f. Hand operated H2S detectors and tubes
- 10. Test the Explosimeter to verify batteries are good.

VII. BRIEFING PROCEDURE SECTION

Briefing Procedures

The following scheduled briefings will be held to insure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well

Attendance: Drilling Supervisor

Drilling Engineer Drilling Foreman Rig Pushers Rig Driller Mud Engineer

All Safety Personnel Service Companies

Purpose: Review and discuss the well program, step by step, to insure

complete understanding of assignments and responsibilities.

VIII. EVACUATION PLAN SECTION

General Plan

The direct lines of action prepared by CALLAWAY SAFETY EQUIPMENT CO., INC. to protect the public from hazardous gas situations are as follows:

- When the company approved supervisor (Drilling Foreman, Tool Pusher, Driller) determine Hydrogen Sulfide gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area map.
- 2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.
- 3. Company approved safety personnel that have been trained in the use of Hydrogen Sulfide detection equipment and self-contained breathing equipment will be utilized.
- 4. Law Enforcement personnel (State Police, Sheriff's Department, local Police Department and local Fire Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

See Emergency Reaction Plan

EMERGENCY ASSISTANCE TELEPHONE LIST

PUBLIC SAFETY		
Eddy County Sheriff's Department New Mexico State Police Fire Department (Artesia) New Mexico, D.O.T. Bureau of Land Management U.S. Dept. of Labor		(505) 746-9888 (505) 622-7200 (505) 746-5050 (505) 827-5100 (505) 393-3612 (505) 248-5302
BP		
Drilling		,
Billy Goodwin	Office Home	(918) 591-1822 (918) 299-7700
Matt Hairford	Cellular Office Home Cellular	(918) 760-5672 (918) 591-1522 (918) 227-4238 (918) 640-1280
John Dolezal	Office Home Cellular	(918) 591-1516 (918) 396-0663 (918) 638-0222
Todd Wiley	Office Home Cellular	(918) 591-1531 (918) 584-4717 (918) 633-1469
Mark Williamson	Office Home Cellular	(918) 591-1520 (918) 250-6845 (918) 605-6557
John Rogers	Office Home Cellular	(918) 591-1518 (918) 494-4630 (918) 625-5305
Safety and Environmental		
Mark Denny	Office Home Cellular	(918) 591-1368 (918) 663-4815 (918) 671-5846
Jason Tackett	Office Home Cellular	(918) 591-1367 (918) 582-7261 (918) 645-4335
Mark Dalton	Office Home Cellular	(918) 591-1369 (918) 298-9014 (918) 671-5845
SAFETY CONTRACTOR		
Callaway Safety Equipment	Hobbs Odessa	(505) 393-2973 (915) 561-5049

Affected Public Notification List

(within a 65' radius of exposure @ 100 ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description: Residents

Notification Process: A continuous siren audible to all residents will

be activated, signaling evacuation of previously

notified and informed residents.

Evacuation Plan: All evacuees will migrate lateral to the wind

direction.

The Oil Company will identify all homebound or highly susceptible individuals and make special evacuation preparations, interfacing with the local fire and emergency medical services as necessary.

IX. MAPS AND PLATS SECTION

X. GENERAL INFORMATION SECTION

Toxic Effects of Hydrogen Sulfide Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 20 ppm, which is .002% by volume. Hydrogen Sulfide is heavier than air (specific gravity - 1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is between five and six times more toxic than Carbon Monoxide. Toxicity data for Hydrogen Sulfide and various other gases are compared below in Table I. Physical effects at various Hydrogen Sulfide levels are shown in Table II.

Table IToxicity of Various Gases

Common Name	Chemical Formula	Specific Gravity	Threshold Limit (A)	Hazardous Limit (B)	Lethal Concentration (C)
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	н2S	1.18	10 ppm (D) 20 ppm (E)	250 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21	5 ppm		1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	СО	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	, CO2	1.52	5000 ppm	(5 %)	(10 %)
Methane	CH4	0.55	90,000 ppm	(9 %)	Combustible Above 5% in air

A. Threshold Limit - Concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.

B. Hazardous Limit - Concentration that may cause death.

C. Lethal Concentration - Concentration that will cause death with short-term exposure.

D. Threshold Limit (10 ppm) - 1972 ACGIH (American Conference of Governmental Industrial Hygienists).

E. Threshold Limit (20 ppm) - 1966 ANSI acceptable ceiling concentration for eight-hour exposure (based on 40 hour week) is 20 ppm. OSHA Rules and Regulations (Federal Register, Volume 37, No. 202, Part II, dated 10/18/72)

Table II
Physical Effects of Hydrogen Sulfide

Percent (%)	ppm	Physical Effects	
0.001	10	Obvious and unpleasant odor	
0.002	20	Safe for 8 hrs. exposure	
0.01	100	Kills smell in 3-5 minutes; may sting eyes & throat	
0.02	200	Kills smell shortly; stings eyes and throat	
0.03	300	IDLH (Immediate Danger to Life and Health) Level	
0.05	500	Dizziness; breathing ceases in a few minutes	
0.07	700	Unconscious quickly; death will result if not rescued	
0.10	1000	Unconscious at once; followed by death within minutes	

^{*} CAUTION: Hydrogen Sulfide is a colorless and transparent gas and is highly flammable. It is heavier than air and may accumulate in low places.

Use of Self-Contained Breathing Apparatus

(SCBA)

- I. Written procedures shall be prepared covering safe use of respirators in dangerous atmospheric situations, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.
- II. Respirators shall be inspected frequently, at random, to insure that they are properly used, cleaned and maintained.
- III. Anyone who may use respirators shall be trained in how to properly seal the face piece. They shall wear respirators in normal air and then in a test atmosphere. (NOTE: Such items as facial hair (beard or sideburns) and eyeglass temple pieces will not allow a proper seal). Anyone that may be expected to wear respirators should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses. Contact lenses should not be allowed.
- IV. Maintenance and care of Respirators
 - A. A program of maintenance and care of respirators shall include the following:
 - 1. Inspection for defects, including leak checks.
 - 2. Cleaning and disinfecting.
 - 3. Repair
 - 4. Storage
 - B. Inspection: Self Contained Breathing Apparatus (SCBA) for emergency use shall be inspected monthly and records maintained for the following:
 - Fully charged cylinders.
 - 2. Regulator and warning device operation.
 - Condition of face piece and connection.
 - 4. Elastomer or rubber parts shall be stretched or massaged to keep them pliable and prevent deterioration.
 - C. Routinely used respirators shall be collected, cleaned and disinfected as frequently as necessary to insure proper protection is provided.
- V. Persons assigned tasks that require the use of Self Contained Breathing Equipment shall be certified physically fit for breathing equipment usage by the local company physician at least annually.
- VI. Respirators should be worn during the following conditions:
 - A. Any employee who works near the top or on the top of any tank unless tests reveal less than 20 ppm of H2S.
 - B. When breaking out any line where H2S can reasonably be expected.
 - C. When sampling air in areas to determine if toxic concentrations of H2S exist.
 - D. When working in areas where over 20 ppm H2S has been detected.
 - E. At any time there is a doubt as to the H2S level in the area to be entered.

Rescue-First Aid for Hydrogen Sulfide Poisoning

DO NOT PANIC !!!!

Remain Calm -- THINK

- 1. Hold your breath (Do not inhale; stop breathing) and go to Briefing Area.
- 2. Put on Breathing apparatus.
- 3. Remove victim(s) to fresh air as quickly as possible. (Go upwind from the source or at right angles to the wind; **NOT** downwind).
- 4. Briefly apply chest pressure—arm lift method of artificial respiration to clear the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs.
- 5. Provide for prompt transportation to the hospital and continue giving artificial respiration if needed.
- 6. Hospital(s) or medical facilities need to be informed, beforehand, of the possibility of H2S gas poisoning, no matter how remote the possibility.
- 7. Notify emergency room personnel that the victim(s) have been exposed to H2S gas.

Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration, as well as first aid for eyes and skin contact with liquid H2S. Everyone needs to master these necessary skills.

DISTRICT I P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994 Submit to Appropriate District Office

DISTRICT II P.O. Drawer DD. Artesia, NM 88211-0719

OIL CONSERVATION DIVISION P.O. Box 2088

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III

Santa Fe. New Mexico 87504-2088

1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT ☐ AMENDED REPORT P.O. BOX 2088, SANTA PE, N.M. 87504-2088 API Number Pool Code Pool Name Property Code Property Name Well Number CRAWFORD 26 2 OGRID No. Operator Name Elevation TOM BROWN, INC. 3271 Surface Location North/South line East/West line UL or lot No. Feet from the Section Township Range Lot Idn Feet from the County В 26 24-S 26-E 990 **NORTH** 1980 **EAST** EDDY Bottom Hole Location If Different From Surface UL or lot No. Section Lot Idn Feet from the North/South line East/West line County Township Range Feet from the Joint or Infill Consolidation Code Dedicated Acres Order 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 OPERATOR CERTIFICATION I hereby certify the the information ontained herein is true and complete to the best of my knowledge and belief. 1980 Signature Printed Name GEODETIC COORDINATES NAD 1927 NME Y = 433861.3 NTitle X = 522313.3 ELAT. - 32'11'34.01"N LONG. - 104'15'40.33"W SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of ol surveys made by me or under my supervison and that the same is true and correct to the best of my belief. **JANUARY 19, 2004** Date Surveyed Signature & Seel of Prolesmonal Surveyor LIREATE No. GARY ERISON

SECTION 26, TOWNSHIP 24 SOUTH, RANGE 26 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

600° 150° NORTH **OFFSET** 3269.9 150' WEST 150' EAST CRAWFORD 26 #2 OFFSET **OFFSET** ELEV. - 3271' 3272.6 3270.1 LAT. - 32°11'34.01"N LONG. - 104"15"40.33"W 150' SOUTH OFFSET 3272.5

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF U.S. HWY. #62–180 & STATE HWY. #396 GO 3.7 MILES EAST ON STATE HWY. #396 TO A ROAD ON THE RIGHT. TURN RIGHT (WEST) AND GO 0.15 MILES. ROAD BENDS LEFT. GO SOUTH FOR 0.5 MILES TO A "Y" IN THE RD. GO RIGHT (EAST) 0.1 MILES. PROPOSED LOCATION IS APPROX. 700' SOUTH.

JOHN WEST SURVEYING COMPANY
412 N DAI PASO - HORRS. NEW MEXICO - 505-393-3117.

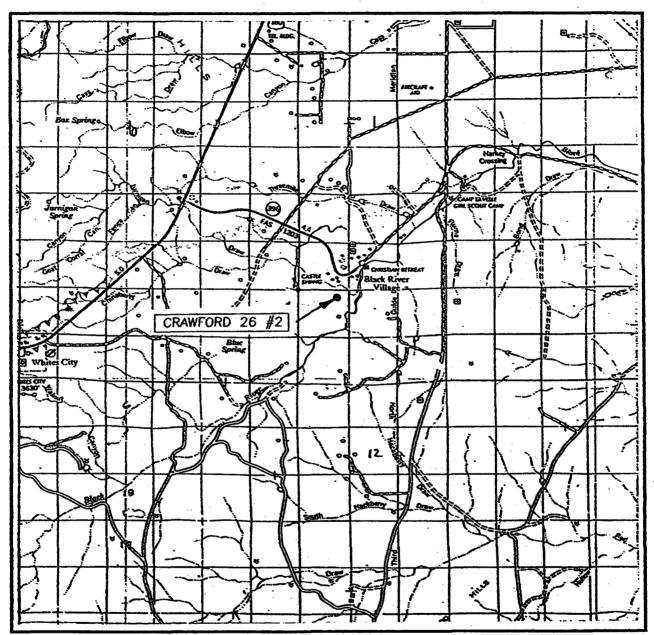
100 0 100 200 SCALE: 1"=100"

TOM BROWN, INC.

THE CRAWFORD 26 #2 LOCATED 990 FROM
THE NORTH LINE AND 1980 FROM THE EAST LINE
SECTION 26, TOWNSHIP 24 SOUTH, RANGE 26 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 1/19/04	Sheet	1	of	1	Sheei
W.O. Number: 04.11.0068	Drawn	Ву:	L.A.		
Dote: 1/20/04 DISK:CD	3 04	1100	68		

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 26 TWP. 24-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FNL & 1980' FEL

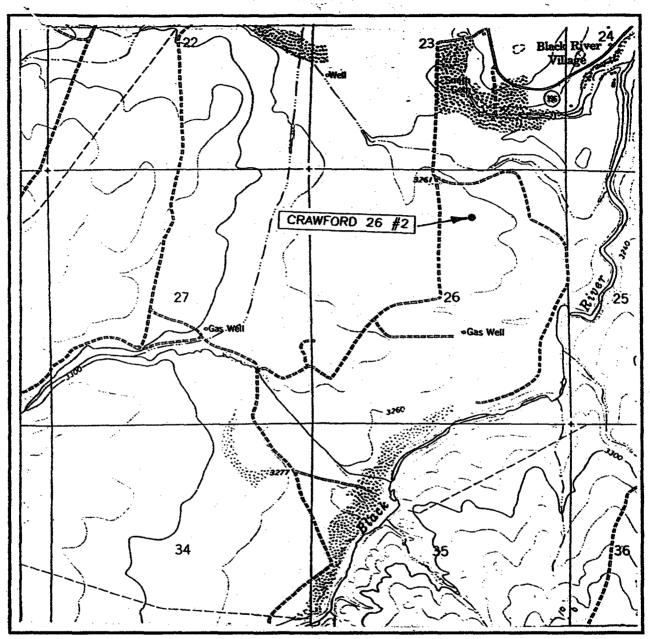
ELEVATION 3271'

OPERATOR TOM BROWN, INC.

LEASE CRAWFORD 26

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10' BLACK RIVER VILLAGE, N.M.

SEC. 26 T	NP. <u>24-S</u> RGE. <u>26-E</u>	
SURVEY	N.M.P.M.	
COUNTY	EDDY	
DESCRIPTION 990' FNL & 1980' FEL		
ELEVATION	3271'	
OPERATOR	TOM BROWN, INC.	
LEASE	CRAWFORD 26	
U.S.G.S. TOPOGRAPHIC MAP		
BLACK RIVER	VILLAGE, N.M.	

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117