

**HEC Petroleum, Inc.**

Midland, TX. 79701  
Ph (915) 498-8600  
Fax (915) 687-3863

July 6, 2004

New Mexico Oil Conservation Division  
OCD District 2  
1301 W. Grand Avenue  
Artesia, NM 88210  
Attn: Mr. Tim Gum-District Supervisor



Re: Requested Supplemental Information  
Pertaining to APD for Douglas Com No. 2

Dear Mr. Gum,

Pursuant to your instructions, we respectfully submit the attached documents providing the additional information necessary to enhance this APD application and facilitate its timely approval.

These attachments include:

*Supplemental Information* that describes well design, well monitoring and control equipment, and operational procedures that will be in place to assure that well control is maintained at all times. Also included within this document are 1) initiatives we are taking for noise abatement, and 2) schematics that depict the wellbore and BOPE design.

*Contingency Plans* that demonstrate HEC Petroleum's emergency preparedness and ability to (1) immediately respond to any incident and (2) protect workers, the public and the environment should a significant incident occur.

Also, please note that, on June 11, 2004, our Mr. Jay Ottoson, New Mexico Asset Manager, talked to Mr. John Tulley, Carlsbad City Manager, regarding this prospective new drill and offered to provide whatever information he needed. Mr. Tulley responded that all that he needed was a copy of the drilling permit with the GIS information and a list of our telephone/fax numbers. We will provide this information upon receiving an approved APD.

In addition, our Mr. Jay Waldrop, HES Drilling Coordinator, has been working with Mr. Mike Reynolds-Carlsbad City Fire Chief regarding some of the site-specific plans regarding security and emergency preparedness. Mr. Reynolds was very appreciative of this communication initiative. Mr. Waldrop and Mr. Reynolds have also obtained information involving distances from drilling location to nearest residents, which is included in attachments. It is our understanding that you will be receiving, directly from Mr. Reynolds, the requested contact and special medical and other needs information concerning residents within a ¼ mile radius of the location.

We concur with your concerns, expressed in our recent telephone conversation, with keeping the number of citizen complaints to a minimum and avoiding conflicts that could develop through lack of communication with nearby residents. Therefore, we are currently having internal discussions about providing advanced, pertinent information to these residents regarding activities that will take place during the drilling of this well. We will endeavor to keep you updated on decisions resulting from these discussions.

Thank you for your time and efforts in this matter. Your timely review of this information and approval of the APD will be greatly appreciated, as it will enhance our ability, based on the current location and availability of the rig proposed for this well, to plan this operation in the most economical manner. If you have any questions or need additional information, please contact me at (432) 498-8662 or via e-mail at [abohling@pureresources.com](mailto:abohling@pureresources.com).

Sincerely,

  
Alan W. Bohling  
Regulatory Agent

<b>Supplemental Information</b> <b>Operational Procedures</b> <b>Location Specific</b>
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**Well:** Douglas Com #2

Section 7 - T22S - R27E

2460' FNL & 300' FEL (Surface Location)

990' FSL & 990' FEL (BHL)

Eddy County, New Mexico

**1. Drilling Contractor:** Nabors Drilling USA, Rig #715

**2. Wellbore Construction:** (Attachment "A" - Wellbore Schematic)

- 2.1. This well will be directionally drilled with the surface and bottom hole locations as listed above. The BHL will be approximately 1830' south and 690' west of the surface location, which will be built adjacent to a producing gas well and will utilize a portion of the existing well pad. The *Eddy County Special Services Department* has issued Floodplain Pre-Determination Certificate No. 04108 and a Floodplain Use Permit for this site.
- 2.2. 13<sup>3/8</sup>" Surface and 9<sup>5/8</sup>" Intermediate casing strings will be set at 400' and 1800', respectively, to protect freshwater sources in the area. Both casing strings will be cemented to surface and all pipe will be new.
- 2.3. A 7" protective/production casing string (all new pipe) will be set at approximately 9000' – the casing point will be at the top of the Wolfcamp zone – and cement will be circulated into the annulus between the casing and hole from the shoe to a depth of 1700'. No abnormally pressured formations are known to be present above the Wolfcamp and, in fact, lost circulation is a more likely occurrence. Setting the 7" at this depth cases-off the lost circulation zones and the casing shoe will be in a formation with sufficient integrity to withstand the expected mud weights to 11,700' TVD. Also, should a well control problem arise, this casing string provides the ability to shut-in the well with full containment.
- 2.4. If evaluation of the open hole logs determines that a completion attempt is justified, a 4<sup>1/2</sup>" production liner will be set at TD and overlap approximately 200' into the 7" casing. The liner hanger equipment will include a packer and the full length of the liner will be cemented. The liner top will undergo positive and negative differential testing to assure wellbore integrity before operations are suspended awaiting completion.

**3. Well Control Equipment:** (Attachment "B" – BOPE Schematic)

- 3.1. The equipment represented by the attached schematic, a 13<sup>5/8</sup>" – 10,000 psi WP stack, will be installed prior to drilling out the 13<sup>3/8</sup>" surface casing shoe and will be the BOPE utilized throughout the remainder of the drilling operations.

## **Supplemental Information**

### **Operational Procedures**

**Douglas Com #2**

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- 3.2. The accumulator system controlling BOPE functions will be capable of closing each ram type preventer and the annular preventer within 30 seconds.
- 3.3. Upon installation of the BOPE to the 13<sup>3</sup>/<sub>8</sub>" casing set at 400', the casing and BOP will be pressure tested to 500 psi, using rig pumps, before drilling the casing shoe. Upper and lower kelly cocks and safety valves with subs to fit all drill string connections in use will be available on the rig floor and will also undergo pressure testing. A Rotating Head will be in-place but the rubber will not be installed until well conditions dictate its use.
- 3.4. Upon installation of the BOPE to the 9<sup>5</sup>/<sub>8</sub>" intermediate casing set @ 1800', the BOP, HCR valve, choke manifold, upper and lower kelly cocks, and safety valves will be pressure tested by a third party contractor to 3000 psi (high) and 250 psi (low). The annular preventer will be tested to 1500 psi. The third party contractor will also test the accumulator system performance to assure that it is functioning within specifications. The 9<sup>5</sup>/<sub>8</sub>" casing will be tested, using rig pumps, to 1500 psi prior to drilling the shoe.
- 3.5. The open-ended vent line from the choke manifold will be constructed of 4<sup>1</sup>/<sub>2</sub>" drill pipe and connections will be strap-welded to prevent separation. The mud-gas separator will be installed after setting the surface casing and will be fully operable prior to drilling below the 9<sup>5</sup>/<sub>8</sub>" intermediate casing. The flare line from the separator will be constructed of 8" flanged pipe and the vent and flare lines will be secured in place with drilled anchors and steel cabling.
- 3.6. Upon installation of the BOPE to the 7" intermediate/production casing set at approximately 9000' (top of Wolfcamp), the BOP, HCR valve, choke manifold, upper and lower kelly cocks and safety valves will be pressure tested by a third party contractor to 5000 psi (high) and 250 psi (low). The annular preventer will be tested to 1500 psi. Prior to drilling the 7" shoe, the casing will be tested to 3500 psi. The third party contractor will also test the accumulator system performance to assure that it is functioning within specifications.  
♦
- 3.7. Subsequent pressure testing of the BOPE after setting the 7" casing will be done at two week intervals; test procedures will be the same as those listed in Paragraph 3.6 above.
- 3.8. In addition to the aforementioned testing, functional tests of all equipment will be performed as follows:
  - 3.8.1. Operator's supervisor will conduct daily BOP drills with rig crews; during these drills, the accumulator system, pipe rams, HCR valve and the remote adjustable and manual chokes will be operated to assure proper mechanical functioning. Any problems will be immediately resolved and drilling operations will not proceed until equipment is in proper working order.
  - 3.8.2. The annular preventer will be functionally tested on a weekly basis and the blind rams will be functionally tested after each trip out of the hole during drilling operations.
- 3.9. A wireline lubricator of sufficient length to pull all tools from the hole and allow the well to be safely shut-in will be utilized during open hole logging operations.

## Supplemental Information

### Operational Procedures

Douglas Com #2

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#### 4. Well Monitoring:

- 4.1. The PVT, Flow Indicator, Pump Stroke Counter and H<sub>2</sub>S sensor equipment will be installed and operational prior to spudding the well. The PVT will be utilized when circulation is maintained in the steel pits, which will be the case when prospective hydrocarbon bearing zones are penetrated below the 7" casing depth. Any malfunctioning equipment will be repaired or replaced ASAP.
- 4.2. A Mud Logging Unit will be operational prior to drilling the 95/8" casing shoe at 1800'. The Mud Logger will provide the Operator and Rig supervisors with data regarding formation tops and porosity / permeability of penetrated zones and cuttings analysis, which may forewarn of potential problems. The Mud Logger will record and report relative gas influx ("background gas") into the mud stream while drilling ahead and also "connection gas" and "trip gas". This data will aid supervisors in making decisions regarding mud weight increases.
- 4.3. Trip tanks shall be used each time that trips are made after setting surface casing. Displacement volumes shall be accurately recorded on a *Trip Sheet* and compared to theoretical volumes to timely warn of potential problems due to influx of formation fluids or gas into the wellbore.
- 4.4. When the drill string is out of the hole for open hole logging, a rig crew member will be assigned to visually monitor the mud pits and flow line for indications of influx of formations fluids / gas into the wellbore; the PVT will remain in service and this visual monitoring is an added precaution.

#### 5. Contingency Planning / Safety

- 5.1. An Emergency Response Plan (Attachment "C") and a H<sub>2</sub>S Contingency Plan (Attachment "D") will be in place upon commencement of operations. All Operator and Rig personnel will be trained in the plans' objectives and their specific responsibilities should the plans be implemented.
- 5.2. A contracted safety professional will be on location at all times during the drilling operation to help monitor conditions, facilitate training, maintain H<sub>2</sub>S monitoring equipment and aid in site security.
- 5.3. Safety meetings will be held on a regular basis and prior to any non-routine activities or prior to a significant operation, such as running casing, nipping-up BOPE, open hole logging, etc.
- 5.4. Local law enforcement and emergency response personnel will be apprised of upcoming operations and will be involved in coordinating any emergency response involving the public.

**6. Name of Nearest Resident:**

Jose Navarro  
1400 Hill Street  
Carlsbad, New Mexico

(505) 887-8600

Distance from the wellbore stake to this residence is approximately 342'.

**7. Names of Residents within a ¼ mile radius of location:**

Per our discussion with Mike Reynolds, Carlsbad City Fire Chief, he will provide this information to the NMOCD.

**8. Number of Residents within a 1 mile radius of location:**

Per our discussion with Mike Reynolds, Carlsbad City Fire Chief, he will provide this information to the NMOCD.

**9. Noise Abatement Initiatives**

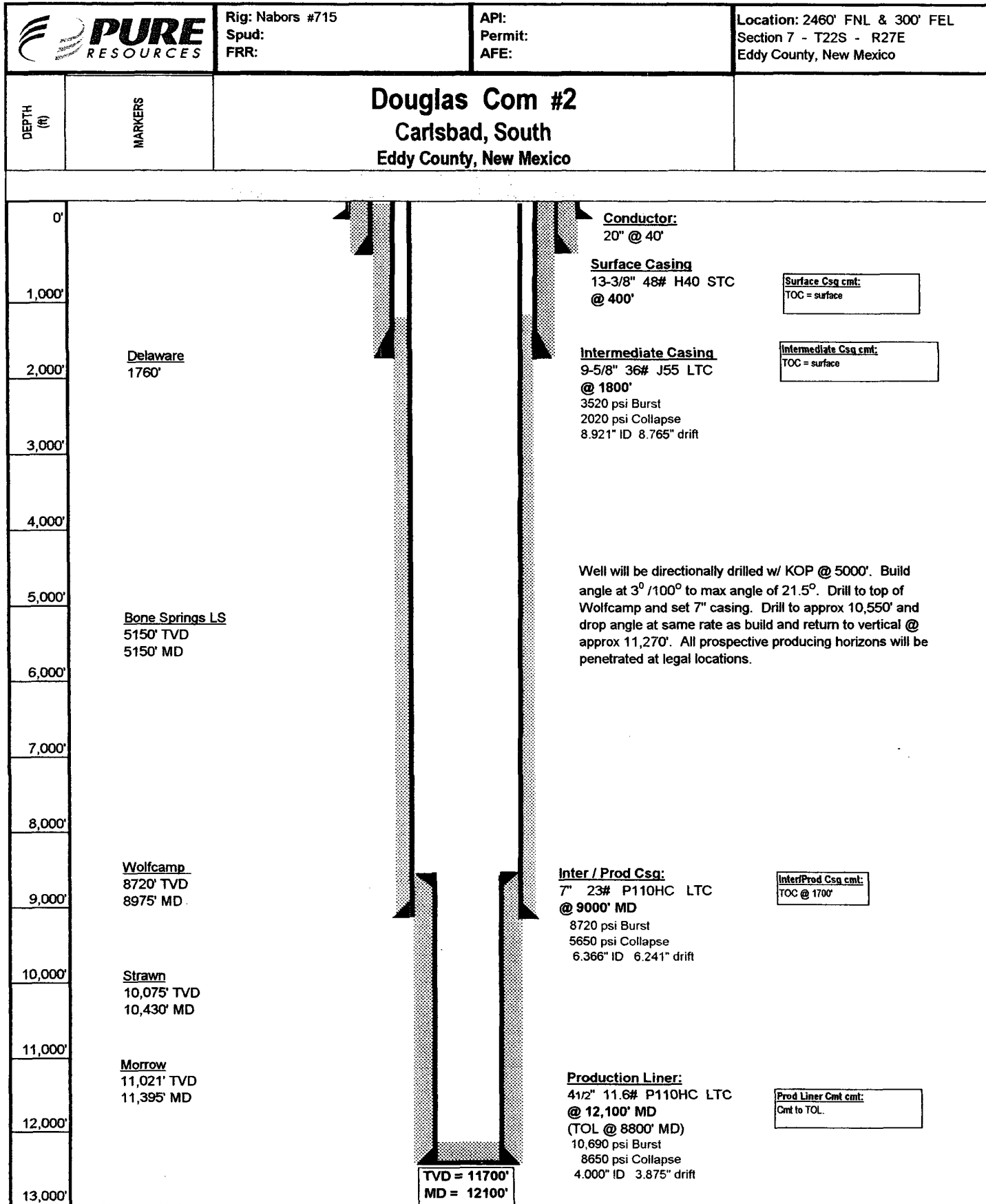
To reduce the noises produced by normal drilling operations and related activities, the following actions will be taken:

- 9.1. A SCR rig will be utilized, which has a minimal amount of engines and is one of the quietest rig types reasonably available.
- 9.2. An attempt will be made to minimize the deliveries of supplies and equipment to the location during nighttime hours.
- 9.3. The location boundary fence will be slatted on the side nearest the homes, which should deflect some of the noise away from the residences.
- 9.4. The primary source of drilling water will be from nearby water wells with delivery to the location through poly pipe. This will significantly reduce the amount of trucking required to service this operation.

In addition to the items listed above, the following action continues to be pursued, which will further reduce sources of noise if successful:

- 9.5. The local electrical utility has been contacted to determine if it has the capacity to provide power to drive the rig equipment. If power is available from the utility and the necessary electrical devices are available to connect the rig to this source, the operation of the internal combustion engines and their associated noise will be reduced.

# ATTACHMENT "A"



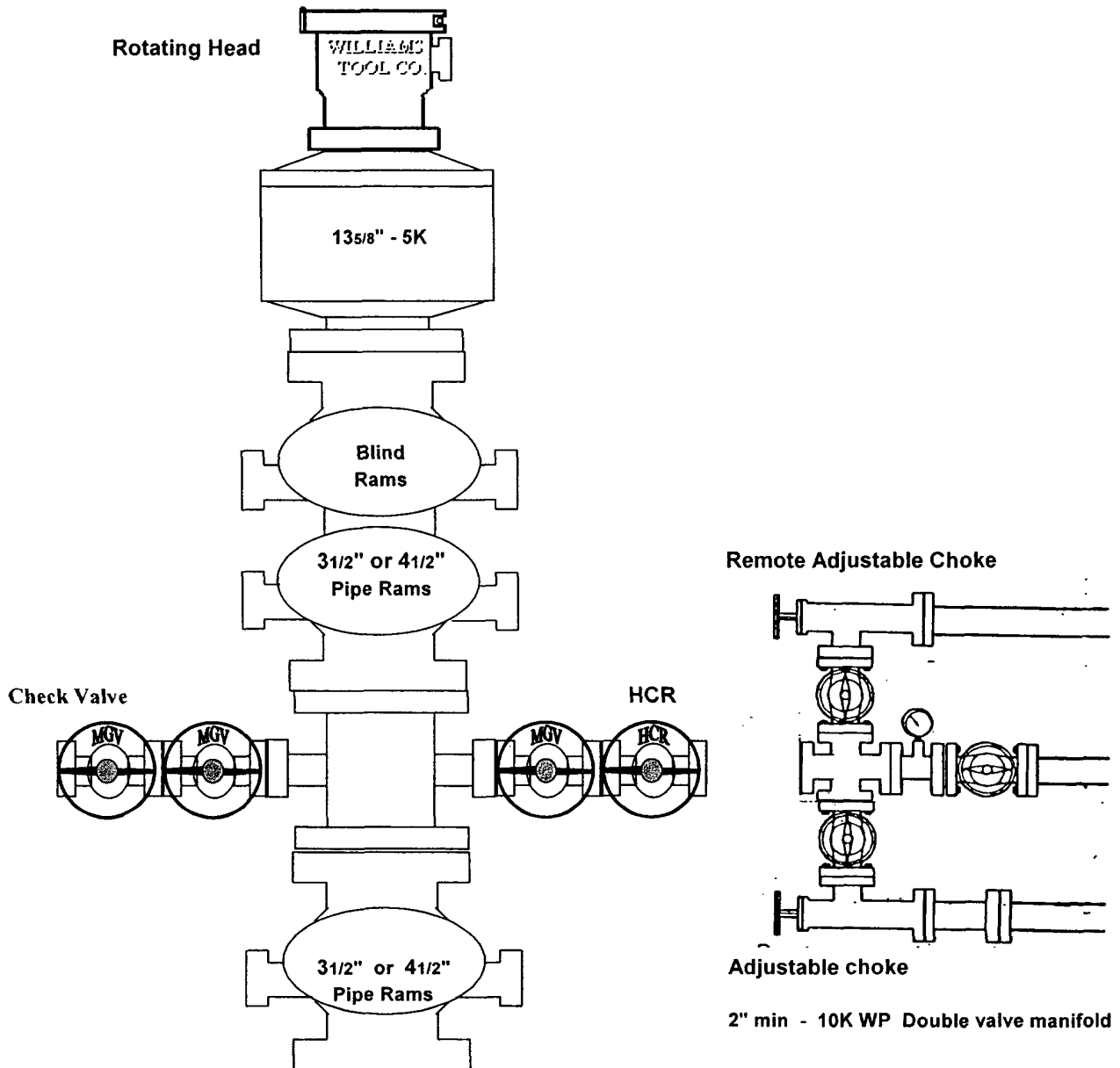
## ATTACHMENT "B"

### BOPE Schematic

### Douglas Com # 2

13 5/8" - 10K PSI

2460' FNL and 300' FEL  
Section 7 - T22S - R27E  
Eddy County, New Mexico





**ATTACHMENT "C"**  
To Douglas Com #2  
Supplemental Information

# **CONTINGENCY PLAN**

## **INDEX**

- 1. LOCATION INFORMATION**
- 2. EMERGENCY NOTIFICATION**
- 3. EMERGENCY PROCEDURES AND RESPONSIBILITIES**
- 4. IGNITING THE WELL**
- 5. LOCATION LAYOUT AND EQUIPMENT**
- 6. TRAINING PROCEDURES AND MATERIALS**
- 7. CHECK LIST**
- 8. WELL CONTROL WORKSHEET**

**CONTINGENCY PLAN**

**FOR**

**DRILLING OPERATIONS**

**HEC PETROLEUM, INC.**

**DOUGLAS COM #2**

**EDDY COUNTY, NM**

**JUNE 28, 2004**

## **SAFETY**

It is the HEC PETROLEUM, INC. 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 operation 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 ( $H_2S$ ) 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:      SPUD

Potential Open Flow Capacity:      UNKNOWN

Expected Concentration:      UNKNOWN

The plan should be implemented upon initiating drilling operation.

The cementing, casing and mud program is contained in the HEC PETROLEUM, INC.  
Drilling program.

## **DIRECTIONS TO LOCATION**

From Carlsbad, NM at the intersection of Green Street and Canal Street go east on Hwy 285, 1/2 mile to Fiesta Street and turn left (North) and go to Hill Street (the first street to the West). Proceed past Hill Street to the alley to the North and turn left (West) to the location.

## **EMERGENCY NOTIFICATION**

### **EVACUATION PLAN**

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

1. HEC PETROLEUM, INC. 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 EDDY COUNTY NEW MEXICO County Sheriff's Department.
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 of 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 EDDY COUNTY NEW MEXICO County Sheriff's Office (505 887-7551) for ALERT STATUS.
6. ALERT STATUS will require that available public support personnel will proceed to the EDDY COUNTY NEW MEXICO County Sheriff's Office in Carlsbad New Mexico 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 roadblocks.
8. Evacuation teams will then proceed to sectors to be evacuated. Evacuation procedure will follow appropriate consideration for wind conditions.
9. On Site- Personnel will establish safe perimeters using H2S and LEL Detectors.
10. 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 CALL LIST**

### **PUBLIC SAFETY**

<u>AGENCY</u>	<u>LOCATION</u>	<u>TELEPHONE #</u>
Sheriff's Department	Eddy County New Mexico	505 887-7551
Fire Department	Eddy County New Mexico	505 885-3125
New Mexico State Troopers	Eddy County New Mexico	505 885-3137
Highway Department	Eddy County New Mexico	505 746-5004
Oil Conservation Division	Santa Fe New Mexico	505 748-1283

## 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	432-553-7414	
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.						



Name	Position	Office	Home	Mobile	Pager
Harrison, Jim	Manager	620-5661	699-4476	553-7414	
Matthews, Ray	Engineer	498-8672	697-0201	557-0623	
Sinclair, Les	Engineer	620-5603	685-3254	664-7650	
Garbrecht, Fred	Engineer - Smith	620-5657		528-6671	
Orndorff, Jerry	Superintendent	498-8664	520-5407	631-4295	620-2898
Arnold, Tommy	Drilling Tech	498-2649	522-2742		
Horton, Linda	Administration	498-2632			
Drennon, Pat	Engineer - Sierra	620-5671	686-0136	559-2975	
sierraengineering@att.net					
Shields, Johnny	Supt - Sierra	683-8000	381-0233	559-1082	
ishields@sierra-engineering.net					
Heard, Bill	Engineer - Sierra	498-8631	550-2447	528-0958	
Waldrop, Jay	Drilling HES	498-2654	523-9778	556-3547	
Vehicle #7214	Drilling Pool			634-0827	
Vehicle #5053	Drilling Pool			238-7721	
<b>Morning Report Fax</b>					
	<b>620-5630</b>	<<Fax complete report everyday			
Mom. Rpt. Back-up	498-8656	<<Use if unable to get in on main fax number			
Log Fax	498-8658	<<Continuous fax for logs			
Orndorff's Home Fax	<b>689-3403</b>	<<Fax reports every weekend (front page only)			
Gillespie, Frank	Drig Supv	505-330-6530	307-235-9047	307-258-6440	
fgillespie@Orion.unocal.com	frankgls@MSN.com				
Ginanni, Russ	Drig Supv		684-4712	425-5744	
patterson656@yahoo.com				664-4063	
Leek, Donny	Drig Supv		399-4489	634-4862	
drip@apex2000.net				634-4823	
Whetstone, Gary	Drig Supv		972-231-3645	281-352-4604	
Gary.Whetstone@Orion.Unocal.com					
Nabors 715 Bag Phone - Tarpley	664-7651				
Rowan 14 Bag Phone - Pellessier	661-3613				
Bag Phone	664-7630				
H&P Bag Phone - Elvick	664-7654				
Nabors 141	664-7483				
Nabors 641	664-7656				
Rowan 15 - Poole	664-7462				
Nabors 715	664-7651				
Patterson UTI 630	664-7657				
Patterson UTI 656	634-4823				
Unit 236	505-330-6530				
Barrera, Simon	Storbeck		325-728-9024	325-242-1369	
Brooks, Harvey	HBC		524-6040	556-6300	
Cassidy, Jim		361-888-9100	361-387-4134	361-816-8311	361-889-9993
				361-649-4630	
Cates, Doyle	Sierra			638-7350	
				638-7552	
Elvick, Larry	Elvick		336-2337	631-9971	580-515-0530
Gaches, Billy	Sierra		505-564-2679	505-320-1856	
bill@cptnet.com				505-330-6530	
Kiser, Danny	Sierra		806-788-0960	806-778-5808	
Law, David	Drig & Comp Supv	337-261-0332		832-752-7259	
Morgan, Jerry	Drilmark	Fax>943-4278	943-2860	661-5061	661-0264
Pellessier, Mike	Sierra			580-513-4858	
Poole, Kenneth	KRP Inc.	530-1131		634-9431	499-4947
pressurepoole@aol.com					
Swindle, Otis	Swindle	Fax>366-8373	550-2894	634-4013	
Tarpley, Mike	Tarpley	432-267-7597	432-263-6731	556-2227	498-3757
tmbr27@yahoo.com					
Troxel, Charles	Ford & Associates			638-2261	
Vickery, Tony	Sierra		432-367-6130	432-634-6077	
Downing, John	Materials	620-5617	694-6982	634-2262	
Dupriest, Gary	VP Operations	498-2627	694-1318	664-7600	
		Brownwood>>	325-784-7728		
Fitzgerald, Greg	Res. Engineer	498-2671	684-0860	664-7643	
Fox, Jim	Prod. Foreman	498-2684	697-2491	664-7602	620-3459
Mason, Jim	Prod. Super.	498-8617	524-2201	661-4936	
Metza, Mike	Res. Engineer	498-8616	697-9859	631-4576	
Nonhoff, Scott	Res. Engineer	713-951-7815		713-705-8490	
Phillips, Mike	Production	505-632-1812		505-330-4694	
				505-330-0679	
Ready, Robert	Landman	498-8619	686-0940	553-7583	
Wilkinson, Pete	Prod. Super.	498-8642	682-0600	556-3881	

## **EMERGENCY CALL LIST**

### **MEDICAL SUPPORT**

<b><u>AGENCY</u></b>	<b><u>LOCATION</u></b>	<b><u>TELEPHONE #</u></b>
Axiom Medical	Houston	281- 419-7063
Surgical Center Of Carlsbad	Carlsbad	505-234-1343

**EMERGENCY CALL LIST**

**SUPPLEMENTAL EQUIPMENT**

**SAFETY COMPANY**

SAFETY, INTERNATIONAL, INC.	ODESSA, TEXAS	432-580-3770
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**EMERGENCY CALL LIST  
NABORS DRILLING U.S.A.**

<u>NAME</u>	<u>TITLE</u>	<u>PHONE NUMBERS</u>
Troy Blair	District Superintend	Home 432 520-0104 Cell 432 638-6818
Don Nelson	Superintend	Home 432 524-3559 Cell 432 664-9990
Hoss Crutcher	Toolpusher	Rig Cell# 432 664-9432
Martin Juarez	Toolpusher	Rig Cell # 432 664-9432
Jesse Silvas	Safety	Cell # 432 664-9980

## **EMERGENCY CALL LIST**

### **RESIDENTS WITHIN 3000 FOOT RADIUS OF EXPOSURE**

Carlsbad- Fire chief going to get information and provide to New Mexico Oil Conservation Division.

# **EMERGENCY PROCEDURES**

## **RESPONSIBILITY**

In the event of a release of potentially hazardous amounts of H<sub>2</sub>S, all personnel will immediately proceed upwind to the nearest designated safe area and don their protective breathing equipment. The HEC PETROLEUM, INC. representative will immediately, upon assessing the situation, set this plan into action by taking the proper procedures to contain the gas and notify the appropriate people and agencies.

If the HEC PETROLEUM, INC. Representative is incapacitated or not on Location, this responsibility will fall to the NABORS DRILLING U.S.A. Tool pusher.

### **HEC PETROLEUM, INC.**

1. In an emergency situation, the Operations Supervisor on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.
2. The Operation Supervisor Shall advice the Operation Superintend when procedures as specified herein have been met, will inform of emergencies and deviation from the plan, and see that procedures are observed at all times.
3. The Operation Supervisor shall advise each contractor, Service Company, and all others entering the site that Hydrogen Sulfide may be encountered and the potential hazards that may exist. This may be delegated to another competent person.
4. The rig site management team will keep the numbers of person on location to a minimum during operations.
5. The Operations Supervisor Assess the situation when alarm sounds, and issue work orders. When conditions warrant, order all personnel to "Safe Briefing Areas".
6. The Operations Supervisor will direct corrective actions to control flow of gas.
7. Has full responsibility for the decision to ignite the well. The decision will be made only as a last resort.

**NABORS DRILLING U.S.A. COMPANY**

1. The Toolpusher will assume all responsibilities of the Drilling Foreman in an emergency situation in the event that the Drilling Foreman becomes incapacitated.
2. The Toolpusher will order the Driller to secure the rig, if time permits.