30.045-33160

AN ANADARKO COMPANY

LANCE OIL & GAS COMPANY, INC
PO Box 70 Kirtland, New Mexico 87417

November 3, 2006

Mr. Charlie Perrin State of New Mexico Oil Conservation Division 1000 Rio Brazos Aztec, New Mexico 87410

Re:

Lance Oil & Gas Company FRPC 22 #2 Well Location

NW/4 Section 22, T29N-R13W, NMPM

San Juan County, New Mexico

Dear Mr. Perrin:

In an effort to resolve the perceived problem at the above Well location attached please find information requested by the OCD in Aztec. Lance is working closely with the surface owners, the City of Farmington, Parks and Recreation Department. To that effort Lance has agreed to increase the height of the well pad by three (3) feet to conform to their finished elevation of a proposed park in this area. A copy of an elevation map is enclosed for your reference. You will note from a copy of a letter that the City has plans to fill the area and use as a park for the residents of the area. A timeline for this endeavor is being discussed between the State of New Mexico water department and the City of Farmington; as soon as a timetable is reached a copy will be furnished to the OCD.

Lance is prepared to line and berm both the tank area and the pumpjack, well head area of the well pad. The OCD is welcome to observe the construction of these items. This well will be drilled with a closed loop drilling system so no liquids will be impacting the surface or subsurface.

A copy of the Corp of Engineers findings is enclosed for your reference. A copy of the water analysis of the freestanding water in the area is also enclosed.

Should you have any questions or need further clarification please advise, Tom Erwin our local Production Superintendent or Oscar Peters the Business Unit Manager in Denver will be happy to furnish any technical information.

Yours truly,

Anne Jones Sr. Landman Response to OCD approval conditions for: Lance Oil & Gas Company, Inc. F-RPC 22 #2 Well NW/4 Section 22, T29N-R13W

- 1. Construction Plan Required Construction plan attached. Pursuant to the City of Farmington's plan to fill the gravel pit and make a park, Lance is prepared to add an additional three (3) feet to the current level of the location. A detailed map of the area with elevations is provided for your information. This map also indicates the road and culverts in place for temporary usage which will change when the park is completed and a new road will be imitated. The new access will come from Sycamore and enter the location from the North. Lance and the Parks and Recreation Department of the City of Farmington discussed moving the location of the well to the plugged and abandoned area and the consensus of the Parks Dept was to keep the current location. Please note that the abandoned well location the OCD offered to us as an alternative location is actually one foot lower in elevation than our current well location without the addition of the three feet of fill. The berms will be 3 foot around the location, the berms for the produced water tanks will be adequate to hold 1 and ½ times the amount of the tanks and lined with appropriate material to prevent water leakage in case of spill. No piping at this Well will be underwater.
- 2. <u>As Built Drawing Required</u>: As built is attached, upon completion a survey will be made and submitted to the OCD with actual footages and details.
- 3. <u>Remote shut down required</u>. The above drawing will indicate where all equipment will be located. The compressor and pump jack will be electric. The shut down can be completed at the power source.
- 4. <u>Submit berm and liner information</u>. See above. Liner will be according to standard industry standards. Berms will be constructed of adequate fill material.
- 5. Submit a plan describing how run-on and run-off will be controlled. Since the location will be above the current water level and above the flood plain there should be only rain water as run-on. Any run-off should be contained with the lined berm at the water tanks / separator area. If a water situation should occur in the location a vacuum truck will be called to dispose of the water properly.
- 6. <u>Maintenance and inspection plan</u> The Well will be checked visually on a daily basis, any irregularities will be reported immediately to the supervisor and appropriate action taken. Any well workovers, will be done in accordance to industry standards.
- 7. Emergency response plan required Attached and approved by the City of Farmington Fire Department.
- 8. <u>Signs Required</u> Signs will be provided at the location, the City of Farmington prefers that we do not confuse the public with signage on their fencing.

- 9. Fence with locking gate required: a 6 foot chain link fence with concertina wire will be place around the entire location with locking gates.
- 10. Monitoring Plan Required Attached is a water analysis of the standing water at the present time, if any discharge from the location reaches any standing water in the area another sample will be taken to determine if any change in the chemical balance of the area has been affected and appropriate measures will be taken. If the surface water needs be addressed any ground water wells will be tested to see if a chemical change has affected them and appropriate measures will be taken.
- 11. No Hydrogen Sulfide has been detected in any wells drilled in or around this area. Not required.

PLEASE NOTE THAT THIS PROPOSED WELL HAS ALWAYS HAD A CLOSED LOOP SYSTEM OF DRILLING IN PLACE. NO OPEN PIT WILL BE REQUIRED, NO LIQUIDS WILL BE ON THE GROUND.

LANCE OIL & GAS COMPANY, INC.

F-RPC 22 #2 NW/4 Sec 22, T29N - R13W San Juan County, New Mexico

Drilling Operations

- 1. Build roads and locations to specifications outlined in the Surface Use Agreement.
- 2. If necessary, set anchors and test pull anchors to 25,000 lbs.
- 3. A closed loop mud system will be utilized which will not require digging of a reserve pit pursuant to the approved APD.
- 4. An impermeable plastic sheeting will be placed under the rig footprint to prevent oil/grease and other contaminants from migrating into the soil.
- 5. Oil absorbent pads will be kept on site to be utilized in the event that oil, diesel or other hydrocarbon materials are threatening to stain the soil pursuant to normal drilling and completion operations.
- 6. The drilling of the 12-1/4" surface hole will utilize fresh water native mud with only bentonite and bentonite extenders such as lime and biodegradable polymer as additives. This is a nondamaging mud system and any solids in the mud will be filtered out by the surface gravel before reaching the nearby water in the gravel pit.
- 7. A conductor pipe will be necessary to stabilize boulders while drilling and setting the surface casing. The conductor pipe will be set at ~30' KB and will cemented with standard oilfield cement with flocele for lost circulation, bentonite as a thickener and extender and calcium chloride as an accelerator. The cement and additives are non-damaging fluids and any solids will be filtered out by the gravel prior to reaching any surface water.
- 8. Notify Dave Gomendi and the NMOCD of impending plans to spud well. If unable to notify personally, then leave a message.
- 9. The approved APD and a drilling prognosis should be provided to the rig contractor prior to spud. A copy of the APD and drilling prognosis should remain on location during drilling operations.
- 10. Spud and drill 12-1/4" hole with spud mud down to at least 180' KB. Spud mud is a gel-lime slurry of 60 - 100 viscosity. Drill hole to fit casing strap. Drop survey. Notify casing crew and cementers 6 hours prior to reaching casing point.
 - a. If boulders are encountered, drill 7-7/8" pilot hole through boulders and open up to 12-
 - b. Make sure the casing point is drilled through unconsolidated formation plus 20 feet into the underlying formation.
- 11. Notify NMOCD of intent to set surface casing, casing point and anticipated time of cementing operations.
- 12. Circulate and condition 12-1/4" hole for 30 minutes after reaching casing point.

- 13. Rig up casing crew. Run 8-5/8", 24.0 #/ft, J-55, LT&C casing with cement guide shoe and insert float.
- 14. Cement 8-5/8" surface casing to surface (100% excess) as follows:
 - Pump predetermined amount of Halliburton cement. Cement volume is based on the theoretical annular volume plus 100% excess. Collect three slurry samples throughout
 - b. Drop top rubber plug as soon as cement returns are at the surface. Displace cement with fresh water. DO NOT OVER DISPIACE.
 - c. Bump plug to 500 psig over pump pressure. Accurately record volume displaced after the top rubber plug is released. Record time plug is bumped and the volume of cement circulated to surface, and
 - d. Prepare to cement with 1 inch trim pipe if cement falls back or fails to circulate to surface.
- 15. Release surface pressure and check operation of float equipment. IF flow back is observed, Wait-On-Cement (WOC) a minimum of 4 hours before releasing tension on casing. Long & to five-
- 16.
- 17. Lay down 8-5/8" landing joint. Install casing head at ground level.
- 18. Call for BOP testers. Notify the NMOCD of impending BOP test.
- NU wellhead and choke manifold. Pressure test BOP blind rams, pipe rams, choke and kill 19. line valves, surface equipment, 8-5/8" casing and cement plug to 250 psig (low) and 2,000 psig (high). Record test results on chart recorder.
- 20. TIH with 7-7/8" bit. Drill out cement, plug and insert valve, shoe joint, guide shoe and 10 ft of new formation with fresh city water. Shut down and prepare to run formation breakdown test.
- 21. Pressure test the surface casing shoe to a 12.5 ppg equipment mud weight (~ xx psig surface The formation breakdown pressure determines the maximum mud weight permissible such that the well can still be shut-in without exceeding the frac gradient at the shoe.
- 22. Drill 7-7/8" production hole to total depth with fresh water. Do not mud up unless absolutely necessary. Call Dave Gomendi prior to mudding up.
- 23. Run deviation surveys at 500 ft intervals to total depth. Limit deviation to 1 degree/100 ft and maximum of 5 degrees at total depth.
- 24. At total depth, circulate and condition hole with fresh water for 30 minutes. Make short trip of 10 stands, TIH and check for fill. Clean out to total depth is necessary.
- 25. TOOH with drill pipe, collars and bit.
- 26. Notify casing crew, cementers, NMOCD and Dave Gomendi 24 hours prior to running casing.
- Run open hole loggers with one pass (triple combo). 27.

- 28. TIH with bit. Circulate and condition 7-7/8" hole for 30 minutes. TOOH laying down DP's and DC's.
- 29. Rig up casing crew. Run 5-1/2", 15.5 #/ft, J-55, ST&C casing with cement float shoe and float collar. Run free floating centralizers and turbolizers every 5th joint to surface casing. Thread lock (clean threads with bentonite No diesel) and weld the float shoe and float collar. Utilize a torque indicator to make-up torque.
- 30. Rig up cementers. Tag bottom, pick up weight of casing. Circulate hole with 2 annular volumes minimum through cement head at maximum rate. Reciprocate casing +/- 20' during circulation. Land casing at proper depth at +/- 5 bbls before plug lands.
- 31. Cement 5-1/2" surface to surface (100% excess) as follows:
 - a. Pump predetermined amount of Halliburton cement. Cement volume is based on the theoretical annular volume plus 50% excess. These volumes should be confirmed from the open hole logs and adjusted accordingly. Collect three slurry samples throughout job.
 - b. Drop closing plug. Displace cement with fresh water. Record time plug bumped and volume of cement circulated to surface. WOC for hours minimum before releasing tension on casing and laying down landing joint.

c. Prepare to coment with 1 inch trim pipe if coment falls back or fails to circulate to surface, run Chlor Temp Sorvell to Leturnice TOCI, CallOCD

- 32. Release surface pressure and check operation of float equipment. IF flow back is observed, shut-in for 4 hours and recheck.
- 33. Wait-On-Cement (WOC) a minimum of hours before releasing tension on casing.
- 34. Set casing slips and land in tension with string weight.
- 35. Nipple down BOP's. Lay down 5-1/2" landing joint and install wellhead.



DEPARTMENT OF THE ARMY ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS DURANGO REGULATORY OFFICE 278 SAWYER DRIVE SUITE 1 DURANGO CO 81303-7995

March 3, 2006

Operations Division Regulatory Branch

Ms. Anne Jones Lance Oil & Gas Company Western Gas Resources, Inc. P.O. Box 70, 99 CR 6500 Kirtland, NM 87417

Dear Ms. Jones:

This replies to your February 23, 2006, letter regarding the proposed gas well installation in Dinsmore Lake, a former sand and gravel mining pit in Farmington, San Juan County, New Mexico. We have assigned Action No. 2006 00115 to this activity.

We have evaluated the information you provided and reviewed the project description, other records, and documents available to us. Deanna L. Cummings visited the site on February 28, 2006. The sand and gravel mining pit does not exhibit a surface water connection to an ordinary high water mark (OHWM) that is a water of the United States. Based on available information, we have determined that this waterway is an isolated water that is not a jurisdictional water of the United States. The discharge of dredged or fill material within this channel will not require authorization under Section 404 of the Clean Water Act.

Our disclaimer of jurisdiction is only for Section 404 of the Federal Clean Water Act. Other Federal, state and local laws may apply to the activities. Therefore, you should also contact other Federal, state and local regulatory authorities to determine whether the activities may require other authorizations or permits.

This letter contains an approved jurisdictional determination for your proposed project. If you object to this determination, you may request an administrative appeal under Corps' regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the South Pacific Division Office at the following address:

Mr. Douglas R. Pomeroy Division Review Office (ph (415)977-8035, fax (415)977-8047) South Pacific Division 333 Market Street San Francisco, CA 94105

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by May 3, 2006.

It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

This jurisdictional determination will be valid for 5 years from the date of this letter unless new information warrants revision of the determination within that time.

If you have any questions regarding this determination, please feel free to contact me at (970) 375-9509 or by e-mail at deannal.cummings@spa02.usace.army.mil. For more information about the regulatory program, please see our web site at www.spa.usace.army.mil/reg.

Sincerely,

Beanna/L./Cummings

Chief, Durango Regulatory Office

Enclosures

cc: (w/o enclosures)

Steve Nelson, Nelson Consulting Inc. Larry Giglio, U.S. Environmental Protection Agency Wayne Price, New Mexico Oil Conservation Division Jeffrey Smakas, City of Farmington

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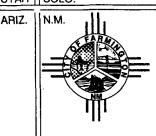
Applicant:	File Number:	Date:
Attached is:		See Section below
INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
PROFFERED PERMIT (Standard Permit or Letter of permission)		В
PERMIT DENIAL		С
APPROVED JURISDICTIONAL I	DETERMINATION	D
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SECTION is The indiving identities come rights and options regarding an administrative appeal of the disoredecisions. Additional information may be found in hitse fasher army indivinguismentions of services of Corps oppulations in AFCPR Part 331. W

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT engineer for
 final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the DISTRICT engineer. Your objections must be received by the DISTRICT engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the DISTRICT engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the DISTRICT engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT engineer for
 final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse). This form must be received by the DIVISION engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse). This form must be received by the DIVISION (not district) engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) engineer (address on reverse). This form must be received by the DIVISION engineer within 60 days of the date of this notice.
- EXCEPTION: Appeals of Approved Jurisdictional Determinations based on new information must be submitted to the DISTRICT engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

Recreational Services

901 Fairgrounds Road Farmington, NM 87401-7391 (505) 599-1184 Fax: (505) 325-7079



June 19, 2006

Anne Jones Sr.Landman Lance Oil and Gas Company, Inc. P.O. Box 70 99 CR 6500 Kirtland, NM 87417

RE: Well Site at Bluff Shadow Lake Park

Dear Anne,

You have informed the city that OCD is placing several conditions on your well site, based on the assumption there will be surface water at Bluff Shadow Lake Park. The City of Farmington intends to convert the current body of water to useable park land. A public meeting will be conducted to gather neighborhood input. Upon approval by the public, the Parks Commission and City Council, the city will proceed with filling in the bodies of water. This will be done over the next several years with excavated soil from various utility projects throughout the city. We hope this simplifies your well site construction process.

The City would like to coordinate the details of the well site with Lance Oil and Gas, i.e. the access route within the park site, the finish grade of the well site and the landscaping around the well site. We look forward to working with you on this project.

Please contact me at 599-1405 if you have any questions or comments

Cordially,

Roger Drayer

Landscape Architect-Parks

XC Jeff Bowman Mike Sullivan Nica Westerling

- 1. All liners should have a minimum thickness of 20 mils. All seams shall be fused or $<\omega$ Pwelded, not stitched. An anchor trench shall be installed to hold liner in place.
- Should have a safety company on standby to assist in monitoring in case of a release. Monitors shall be available to monitor organic vapors (PID meter) 10ppm organics, H2S 10ppm standard and Explosive mixtures any LEL. The contingency plan shall have action limits spelled out in the plan.
- 2. All water flows or gas releases shall be reported immediately.
- 3. In their drilling operations, "Halliburton Cement" What is the Design and Performance parameters of this Halliburton Cement?
- 4. We need to review this cement before Lance uses it for drilling this well.

- 4. We need to review this centerit points

 5. Any news on a time line from the city? Plans Jan of Levention To 3

 6. Build up location and install 3' berms? Befole dailing to be detelmined,) where from the city?

 42.8.2 site built plans? 7. #2 & 3 site built plans? ~ Rome to the down,

Drilling

#8 48 hour notice required \checkmark

#10 b Casing point is drilled through unconsolidated formation plus 50' minimum into the underlying formation.

14 Notify OCD in time to witness cement job

16 In all cases, the WOC must be a minimum of 8 hours or 500psi compressive strength whichever is longer.

31 Differences in cement volume?

31c IF cement does not circulate to surface run temp survey or CBL and discuss actions with this office before cementing.,

33 In all cases, the WOC must be a minimum of 8 hours or 500psi compressive strength whichever is longer

next tuss if Possible

OSCAL

CONTINGENCY

AND

EMERGENCY PLAN

LANCE OIL & GAS COMPANY, INC.

F-RPC 22 #2

1635' FNL & 955' FWL Section 22, T29N, R 13W, NMPM San Juan County, New Mexico

Located southwest of the intersection of Sycamore and Butler just outside the City limits of Farmington, NM

SAFETY PLAN

Lance Oil & Gas Company, Inc. F-RPC 22 #2 1635 FNL & 955 FWL Section 22, Township 29 North, Range 13 West, NMPM San Juan County, New Mexico

A. GENERAL

Lance will conduct drilling and completion operations on a daylight only basis. No open flames will be permitted on the drilling location. Smoking will only be permitted in a safety zone away from the wellhead and the drilling rig.

No formation testing, such as Drill Stem Tests (DST's) or coring will be conducted.

A BOP (Blowout Preventer) will secure the well bore at all times after surface casing has been set.

Rig safety lines will be utilized.

Hard hats will be worn on location at all times during drilling and completion operations.

B. BLOWOUT PREVENTION EQUIPMENT AND TEST PROCEDURES

Blowout prevention equipment will be installed prior to drilling out the surface casing. It will consist of a 2000 PSI system consisting of a double ram hydraulically actuated preventer, with one set of pipe rams and one set of blind rams. Sufficient valving will be installed to permit fluid circulation at the surface. A schematic of the BOP stack is included in this safety plan. Blowout prevention equipment shall be in accordance with API RP 53: Recommend Practices for Blowout Prevention Equipment Systems.

While in service, BOP equipment will be inspected daily and a preventer operating test performed on each round trip of the pipe, but not more than once in any given 24 hour period. A notation of the operating tests will be made on the daily report for the well.

All pipe fittings, valves and unions placed on or connected with BOP equipment, well casing, drill pipe, or tubing will have a minimum working pressure of 2000 PSI.

The BOP will enable closure on the pipe used for drilling the well. The choke lines will be anchored, tied, or otherwise secured to prevent whipping resulting from pressure surges.

Pressure testing of the component of the BOP equipment will be conducted prior to drilling out any string of casing. Drilling or completion operations will not proceed until BOP equipment is found, upon testing, to be serviceable.

If the blind rams are closed for any reason or purpose, the valves on the choke lines or relief lines below the blind rams will be opened prior to opening the rams to bleed off any pressure.

Rig employees will have adequate understanding and knowledge of, and be able to operate the BOP equipment.

The following page contains Lance's proposed Well control equipment Schematic for the proposed well.

C. EMERGENCY PLAN

1. Definition:

The emergency plan will go into effect if any uncontrolled flow occurs from the well or a production facility.

2. Person in Charge:

In order to assure the proper implementing of this plan, one person will be responsible for coordinating emergency activities with local fire officials or other agencies that become involved in the event of an emergency. That person is in complete charge of implementing these procedures. The order of responsibility in the event of an emergency is as follows:

- a. Representative of Lance Oil & Gas at the well site.
- b. The Rig Supervisor/Toolpusher at the well site.
- c. Other appointed person by Lance Oil & Gas.

In the event of an emergency, if the top person on the list is not available, the responsibility will fall upon the next person designated on the list. This procedure will continue until the next available person is designated.

The responsible person will remain in charge until relieved on-site by Doug Barone, San Juan Operations Field Superintendent.

3. Duties of Person in Charge:

- 1. Notify the Farmington Fire Department of any fire or other emergency at 911.
- 2. Organize and coordinate with municipal emergency service personnel for anyone missing from the location. Should a search team need to approach the well, a gas detector shall be

used to determine the explosive gas perimeter and a safety harness and rope shall be used along with a SCBA (self contained breathing apparatus) if the team should need to move into an explosive zone.

- 3. Ensure that injured persons, visitors and nonessential workers are moved off site and located to a hospital or other safe area as needed by coordinating with emergency services personnel.
- 4. If necessary, assist in blocking the entrance to the location, prohibiting unauthorized personnel from entering.
- 5. Implement the buddy system for company personnel remaining at the site.
- 6. Ensure that all matches, cigarette lighters and all smoking materials are colleted and removed from the site.
- 7. Coordinate with senior fire department officials to determine if nearby resident should be evacuated and if so, the Lance location supervisor will begin assisting with the orderly evacuation of nearby residents if requested to do so by the fire department or police department.
- 8. Define and isolate the hazard.
- 9. Determine whether to ignite the flow. Ignition procedures are outlined in Section E attached hereto.

Note: The decision to ignite the well should be made only as last resort and only when it is clear that:

- Human life is endangered, or
- There is no hope of controlling the well under the prevailing conditions.

The decision to ignite a pipeline leak is also only the last resort, however, the resulting fire can be controlled easier.

10. Remain on location and lead attempts to regain control of the well.

4. Duties of Rig Personnel:

- 1. Company Supervisor: Take charge of emergency operations as outlined in Duties of Person in Charge.
- 2. Rig Supervisor/Tool Pusher: In absence of Lance representative, take charge of emergency operations until received.
- 3. Driller:

Make sure there are no tool joints in the BOP.

Stay on location and assist company supervisor; help coordinate activities to contain the well in the safest way possible.

Rig Hands:

Go to remote BOP controls and shut the well in when the tool joints have been cleared.

Go to choke manifold and choke the well using standard safe practices.

4. All other persons: Leave location and go to designated waiting area for further instructions from person in charge.

D. LEAK IGNITION

The following procedure will be used to ignite a flow in the event it becomes necessary to protect the public:

Two (2) men wearing self-contained breathing apparatuses must determine the perimeter of the flammable area. This should be done with one man using a flammable gas detector. The flammable perimeter should be established at 30% to 40% of the lower flammable limits. The ignition team will be wearing harnesses connected to 350 feet of safety lines. These safety lines will be administered by two (2) men wearing self-contained breathing apparatuses. If either man on the ignition team goes down or has problems, it shall be the responsibility of the back-up team to drag him out by use of the safety line and harness. Protective hose lines manned by the fire department personnel shall be ready at all times during such activities.

After the flammable perimeter has been established, and all employees, contractors, and citizens have been removed from the area, the ignition team should be move to the upwind area of the flammable perimeter and fire a flare in the area. If the flow is not ignited on the first attempt, move in 20 feet and fire another flare. Continue moving in and firing flares until the flow is ignited or the flammable gas detector indicates the ignition team in moving into a hazardous area (75% to 80% of the lower flammable limits). If ignition is still not accomplished, ignite a copper line burner and push

it into the flow area. If ignition is not possible due to the make up of the flow, the toxic perimeter must be established and maintained to insure evacuation is completed and continued until the emergency is secured.

Note: The decision to ignite the well will me made only as a last resort after consultations with Lance management and senior fire department officials. This decision should be made at the corporate level if time permits. The decision to ignite should be make only when:

- 1. Human life is endangered, or
- 2. There is no hope of controlling the well under the prevailing conditions.

Evacuation Procedure

The decision to evacuate and the area to evacuate will be made after consultations with the fire department and law enforcement officials.

E. WELL CONTROL

A. Responsibilities

The driller is responsible for detecting a kick or other abnormal flow. He will immediately take the well control steps outlined, then assure that the fire department, Lance's representative and the Rig Supervisor/Toolpusher have all been notified.

B. Well Control Procedures

If the pit volume gain or well flow occurs, driller should immediately:

- 1. Pull Kelly above rotary table and make sure tool joint is clear of the pipe rams.
- 2. Shut down the pumps.
- 3. Have the crew open the gate valve to the choke manifold. Note: Chokes will only be open during drilling.
- 4. Have the crew close the pipe rams. Note: a pressure limit may be set by either the company drilling representative or the Rig Supervisor/Toolpusher and once the rams have been closed Lance will be so notified of the well status.
- 5. Close choke valves. Note: a pressure limit may be set by either the company drilling representative or the Rig/Supervisor/Toolpusher and once the rams have been closed Lance will be so notified of the well status.
- 6. Record drill pipe and casing pressures and pit volume gain. This information will be given to either the company drilling representative or the Rig Supervisor/Toolpusher.
- 7. If so instructed by the Lance representative or the Rig Supervisor/Toolpusher; start circulation at a reduced rate with the casing pressure equal to or slightly higher than the casing pressure. Note: Exact pressure will be set by either the company drilling representative or the Rig/Supervisor/Toolpusher. When pump reaches desired rate and pump pressure is established, the casing pressure should be adjusted to maintain the established drill pipe pressure.
- 8. Record drill pipe pressure and continue to adjust the choke to maintain this pressure until the kick has been circulated from the well. Note: Pump rate must be held constant while circulating the kick from the well.

Caution: Well conditions down hole very greatly. This procedure is intended as a guide only. The Lance representative or Rig Supervisor/Tool Pusher will determine the correct well control procedure to be used in any given situation. Contact with them should be make immediately once the pipe rams have been shut in and the well is under choke control.

F. EMERGENCY CALL LIST

A. Company Personnel

NAME/ TITLE	OFFICE	CELL
Emergency After Hours Number	505-598-5601	
Tom Erwin, Field Superintendent	505-598-5601	505-947-2414
_	ex 5563	
Rick Wells, Production Foreman	505-598-5601	505-947-2420
	ex 5543	
Doug Zentz, Field Foreman	505-598-5601	505-947-2401
	ex 5560	
Oscar Peters, San Juan Basin Unit Manager	303-252-6182	303-396-4588

B. Fire Department

•	City of Farmington Fire Dept.	334-6622 or 911
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C. Ambulance Service

•	San Juan Regional Medical Center	334-6622 or 911
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D. Law Enforcement Agencies

•	City of Farmington Police	334-6622 or 911
	(primary jurisdiction)	
•	San Juan County Sheriff	334-6622 or 911
•	New Mexico State Police	325-7547 or 911

E. Well Fire Fighting Companies

Boots and Coots

1-800- BLOWOUT

(1-800-256-9688)

• Red Adair

1-713-462-6479

F. Fire Equipment

• Farmington Fire Equipment

327-1933

• Nearest Residences, Buildings or Businesses

There are no Residences, Buildings or Businesses within 300' of the proposed site. The closest residence is approximately 320' to the North.