EIGHT POINT DRILLING PLAN

Attached to Application For Permit To Drill: Form 3160-3:
Operator: Bonneville Fuels Corporation

Lake Shore Fed. S.C. 10-#4
1310' FNL & 1160' FWL
Section 10, T.21S., R.26E. N.M.P.M.
Eddy County, New Mexico

1. ESTIMATED TOPS: IMPORTANT GEOLOGIC MARKERS

ALL DEPTHS REF. Est. KB @ 17' above GL:

Permian:		
	Yates Fm.:	Surface
	Capitan Reef Fm.:	324'
	Goat Seep Fm.:	2009'
	Cherry Canyon Fm.:	2154'
	M. Cherry Canyon:	2829'
	L. Cherry Canyon:	3304'
	Brushy Canyon Fm.:	3359'
	Bone Springs Ls. Fm.:	4279'
	3rd Bone Springs Fm.:	7939'
	Wolfcamp Group:	8299'
	Wolfcamp Detrital:	8625'
Pennsylvanian:		
	Cisco Fm.:	9249'
	Canyon Fm.:	9432'
	Strawn Fm.: Sand #1:	9639'
	Strawn Fm.: Sand #2:	9693'
	Atoka Fm.:	9908'
	Morrow Fm.:	10532'
	Morrow 'B' Fm.:	10614'
	Morrow 'C' Fm.:	10824'
	Barnett Shale Fm.:	10942'

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Fresh Water:	Yates Fm.:	50' to 324'.
	Capitan Reef:	324' to 500'.
Oil and Gas Targets:	Cisco Fm.:	9249'
	Canyon Fm.:	9432'
	Strawn Fm.:	9639'
	Morrow 'B' Fm.:	10614'
	Morrow 'C' Fm.:	10824'
Possible Gas and Oil:	Cherry Canyon Fm.:	2154'
	Brushy Canyon Fm.:	3359'
	Bone Springs Ls. Fm.:	4279'
	3rd Bone Springs Fm.:	7939'
	Wolfcamp Fm.:	8299'

PROJECTED MAXIMUM TOTAL DEPTH: 11,150'

3. MINIMUM SPECS FOR PRESSURE CONTROL:

a. Exhibit #1 presents a diagram of the Blowout Preventer Stack and Wellhead Equipment. After the 8-5/8" casing is set and cemented @ 2150' the 13-5/8" 3000 psi WP x 13-5/8" 5000 psi WP cross-over spool is removed. The 13-5/8" 3000 psi WP x 13-5/8" 5000 psi WP casing spool is then installed prior to drilling of the 7-7/8" production hole. A diagram of the Choke Manifold is presented in Exhibit #2. All BOP and Choke Manifold equipment will be rated to 5000 psi WP(min).

b. Surface Casing Wellhead Equipment will consist of:

i. A 13-5/8" slip-on weld-on 3000 psi WP(min) braiden head w/ 2: 2" SE outlets with 2: 2" SE XXHVY Nipples and 2: 2" SE FO 3000 psi WP(min) ball valves. This braiden head will be welded on & nippled up after the 600'+ 13-3/8" Surface Casing is set and cemented.

ii. A 13-5/8" 3000 psi WP(min) x 13-5/8" 5000 psi WP(min) cross-over spool will be installed upon the braiden head. This spool will be removed when the 8-5/8" Protective Casing has been set and cemented.

iii. All wellhead and BOP equipment and the 13-3/8" surface casing will be pressure tested to 1000 psi f/ 10 min. & 300 psi f/5 min. with the rig pumps prior to drilling out.

c. Protective Casing Wellhead Equipment will consist of:

i. A 13-5/8" slip-on weld-on 3000 psi WP(min) braiden head w/ 2: 2" SE outlets with 2: 2" SE XXHVY Nipples and 2: 2" SE FO 3000 psi WP(min) ball valves.

ii. A 13-5/8" 3000 psi WP x 11" 5000 psi WP casing spool w/ 2: 2" FO FE outlets w/ 2: 2" FO FE 5000 psi WP gate valves. This casing spool 'B'-section will be nippled up after the 2150' of 8-5/8" protective casing is set and cemented. The secondary seal will be tested to 1500 psi. An 11" 5000 psi x 13-5/8" 5000# Double Studded Adapter Flange will then be installed on the spool to get back to the 13-5/8" 5000 psi BOP.

iii. All wellhead and BOP equipment and the 8-5/8" protective casing will be pressure tested to 2500 psi (min) f/ 15 min & 300 psi f/ 5 min prior to drilling out into the 7-7/8" hole.

iv. A wear ring will be installed in the 'B'-section casing spool for the drilling of the 7-7/8" production hole. The wear ring will be removed PRIOR TO running the production casing.

3. MINIMUM SPECS FOR PRESSURE CONTROL (CONTINUED):

d. The BOP Equipment that is nippled-up on the 13-5/8" 3000 psi x 11" 5000 psi cross-over spool for the 12-1/4" intermediate hole, and the 13-5/8" 3000 psi x 11" 5000 psi 'B'-section casing spool for the 7-7/8" production hole, will be as follows:

i. An 11" Nom. 5000 psi WP(min) mud cross with a 2" 5000 psi WP(min) FO FE kill-side inlet and a 4" 5000 psi WP(min) FO FE choke-side outlet.

ii. An 11" Nom. 5000 psi WP(min) double gate (or dual equivalent single gate) hydraulic ram-type preventer with 4-1/2" Pipe Rams over Blind Rams.

iii. An 11" Nom. 5000 psi WP(min) hydraulic annular preventer.

iv. An 11" Nom. rotating head with fill-up and flow-line connections. The flow-line will tie-in to a gas buster.

v. A choke manifold consisting of an inside 4" 5000 psi WP(min) Manual Gate Valve run in the CLOSED position with an outside Hydraulic Opening Master Valve run in the OPEN position at the wellhead, followed with a 4"(min nom) x 5,000 psi WP(min) FE welded choke line between the master valves and the choke manifold (consisting of a 2 x 4" and 2 x 2" 5000 psi WP[min] FE cross with a 4" 5000 psi WP(min) FO FE gate valve immediately upstream, and a 4" 5000 psi WP(min) ball/gate valve immediately downstream, of the manifold cross. Between the downstream 4" 5000 psi WP(min) FO FE ball/gate valve and the manifold cross will be a 4" x 4" x 2" 5000 psi WP(min) FO FE tee with a 2" 5000 psi WP(min) FO FE ball/gate valve with a 2" 5000 psi WP(min) Gauge Assembly for monitoring pressure at the choke manifold. The choke manifold will have 2: 2" 5000 psi FO FE ball/gate valves between the manifold cross and the 2: 2" FO FE 5000 psi(min) adjustable chokes (a total of 4: 2" 5000 psi ball/gate valves - 2 on each wing). Provision will be made to tie in DST surface lines to the choke manifold thru an optional 2" 5000 psi WP(min) FO FE tee above the 2" 5000 psi WP(min) ball/gate valve downstream of the choke manifold cross. The 4" blooey line downstream of the choke manifold will be staked down and targeted in the flare pit. The 2: 2" lines downstream of the chokes will be appropriately staked down to return mud to the mud tanks via a gas buster, fluids to a test tank, and gas to a flare pit.

vi. After the 8-5/8" intermediate casing is set a 2" hydraulic remote operated choke will be installed in the choke manifold. A gas buster will then be rigged-up to de-gas fluid returns.

3. MINIMUM SPECS FOR PRESSURE CONTROL (CONTINUED):

d. The BOP Equipment (Continued):

v. A 5000 psi WP(min) FO safety valve and a 5000 psi WP(min) dart valve, with drill pipe threads and subs to meet other drill string threads, will be kept on the drill floor after the 13-3/8" surface casing is set. A 5000 psi(min) WP Upper kelly valve and a 5000 psi WP(min) Lower kelly valve will be kept on the kelly throughout drilling operations. All valves, and the wrenches to operate these valves, will be maintained on the floor in good order throughout drilling operations.

vi. An accumulator with sufficient capacity to operate the BOPE against a 3000 psi well pressure(min) will be used to operate the BOP system. It shall contain a MINIMUM usable fluid capacity calculated to meet the MINIMUM requirements of MMS On-Shore Order No. 2. The accumulator working pressure shall be 1,500 psi(minimum) with a pre-charge pressure between 900 - 1,200 psi(minimum). A Nitrogen bottle system shall provide independent (reserve) power to operate the system in the event rig motors must be shut down.

vii. The kill-side manifold will consist of 2:2" 5000 psi WP(min)FO FE master valves with an outside 2" 5000 psi(min) FO FE check valve. The inside valve will be kept in the closed position. The outside 2" master valve will be kept in the open position. The kill line will be connected to the stand-pipe by a 2" 5000 psi WP(min) welded or co-flexip type kill line. THE KILL LINE WILL IN NO CASE BE USED FOR THE FILL-UP LINE.

3. MINIMUM SPECS FOR PRESSURE CONTROL (CONTINUED):

e. BOPE Stack Testing Procedures and Operational Test Frequency:
NOTE: ALL pressure tests and operational/function tests and drills will be recorded/described on the IADC tour sheets.

i. Stack Test for the 12-1/4" Intermediate Hole:
ALL of the pressure side BOP Equipment specified in Part d. above for this interval will be nippled-up on the surface casing and each component will be hydraulically tested for ten (10) minutes(min) to 1000 psi and five(5) minutes(min) to 300 psi prior to drilling out cement. The 13-3/8" casing will then be tested against the Pipe Rams or Blind Rams to 1,000 psi for thirty(30) minutes(min). After the float collar is drilled out of the intermediate casing, and prior to drilling out the shoe, the intermediate casing will again be pressure tested to 1,000 psi for ten(10) minutes(min) against the Pipe Rams.

ii. Operational checks: Drilling the 12-1/4" Intermediate hole:
Pipe rams will be operationally checked each 24 hour period, and the Blind rams operationally checked each time pipe is pulled from the hole. BOP drills will be run and recorded for each tour at least once every seven(7) days.

iii. Stack Test for the 7-7/8" Intermediate Hole:
A test plug will be set and the Pipe rams, Blind rams and all choke manifold lines and valves to the chokes and panic line, all kill side valves and the kill line will be nippled-up on the casing spool and each component will be hydraulically tested for ten(10) minutes(min) to 5000 psi and five(5) minutes(min) to 300 psi. The Upper Kelly Valve, Lower Kelly Valve, TIW Valve & Dart (Inside BOP) Valve will be hydraulically tested on the kelly for ten(10) minutes(min) each to 5000 psi and for five(5) minutes(min) to 300 psi. The Annular Preventer will then be tested to 2500 psi (50% of the 5000 psi(min) rated WP). The test plug will then be removed. The 8-5/8" casing will then be tested against the Pipe Rams or Blind Rams to 2,500 psi for thirty(30) minutes(min). After the float collar is drilled-out of the intermediate casing, and prior to drilling out the shoe, the intermediate casing will again be pressure tested to 2,500 psi for ten(10) minutes(min) against the Pipe Rams.

iv. Operational checks: Drilling the 7-7/8" Production Hole:
The Pipe rams will be operationally checked each 24 hour period. The Blind rams will be operationally checked each time pipe is pulled from the hole. BOP drills will be run and recorded for each tour at least once every seven(7) days. Pipe will be pulled from the well & the stack will be re-tested with a test plug or packer if interval operations exceed thirty (30) days.

3. MINIMUM SPECS FOR PRESSURE CONTROL (CONTINUED):

f. Tripping procedures for well control:

i. For the 12-1/4" intermediate hole:
A mud weight of 8.4 PPG to 9.5 PPG is anticipated at a depth of 2150' (unless there is a complete loss of circulation). The well will be drilled by a triple-derrick rig (92' avg. length per stand). The well will be monitored each 5 stands on trips to insure that the BHA is not swabbing the well in. The well will be filled after each 20 stands of drill pipe, 3 stands of 6-1/2" drill collars, and as each stand of large outside diameter drill collars (7" O.D. or larger) are pulled from the hole. Pits will be monitored in order to insure that the well is taking fluid on trips if the well will stand full of fluid. **In the event that the bit is plugged on a trip the well will be filled after each 7 stands of drill pipe are pulled from the well and as each stand of drill collars are pulled from the well. Swabbing will be checked each 3 stands.** NOTE: If returns are lost completely while drilling this interval (AS IS LIKELY) then 25 Bbl. of mud containing at least 10 PPB of Lost Circulation Material will be pumped in the well each 30 minutes(min) on trips out of the hole.

ii. For the 7-7/8" production hole:
The anticipated maximum bottom-hole formation pressures are 4000 psig at 8,299' (Wolfcamp), 4300 psig at 9249' (Cisco), 4900 psig at 9,639' (Strawn), and 5,200 psig at 9908' (Atoka). The anticipated mud weight in this Production Hole Interval is 8.4 to 10.2 PPG. A mud weight sufficient to provide a 200 psig overbalance against the Wolfcamp, Canyon and Strawn Formations will be maintained in the well. The well will be drilled by a triple-derrick rig (92' avg. length per stand). The well will be monitored each 5 stands to insure that the BHA is not swabbing the well in. The well will be filled after each 14 stands of drill pipe and as each stand of drill collars are pulled from the hole. Pits will be monitored in order to insure that the well is taking fluid on the trip. **In the event that the bit is plugged on a trip the well will be filled after each 5 stands of drill pipe and as each stand of drill collars are pulled from the well. Swabbing of the well will be checked each 3 stands.**

g. Procedures for running production casing:
Prior to running production casing the hole will be filled. The blind rams will be closed and the well will be monitored for flow while a set casing rams will be installed if 5-1/2" production casing is to be set. Casing will then be run and cemented. The BOPE will remain nippled up UNTIL the well is cemented.

4. CASING AND CEMENTING PROGRAM:

a. The Proposed Casing Program:

i. OPTIONAL Conductor Casing: Pre-Set: 40':
20" O.D. 94# H-40 PE Casing: Surface to 40'.

ii. Surface Casing:
13-3/8" O.D. 54.5#/ft. J-55 8rd. ST&C: Surface to 600'.

iii. Intermediate Casing:
8-5/8" O.D. 32#/ft. K-55 8rd. LT&C: Surface to 2,150'.

iv. Production Casing:
4-1/2" O.D. 11.6#/ft. L-80 8rd. LT&C: Surface to 9,200'
4-1/2" O.D. 11.6#/ft. P-110 8rd. LT&C: 9,200' to 11,150'
OR IF LARGER DIAMETER IS DESIRED
5-1/2" O.D. 17#/ft. L-80 8rd. LT&C: Surface to 9,200'
5-1/2" O.D. 17#/ft. P-110 8rd. LT&C: 9,200' to 11,150'

b. The Proposed Cementing Program:

i. OPTIONAL Conductor Casing: Grouted:
Est. 70 F.
Grout w/ Redi-Mix to Surface: Est. 4 Yds. of Redi-Mix.

ii. Surface Casing: Single Stage:
Est. 75 F. @ 9.5 PPG mud @ 600'.
Circ. Cement to Surface:
Top Jobs if needed to bring cement to Surface.
Lead Slurry: Est. Surface to **392'**.
100 % excess over calculated volume: Est. @
250 sx. Lite (65% Class 'C' + 35% Pozzalan + 6% Gel)
w/ 8% Gypsum + 5 #/sx. NaCl + ¼ #/sx. cell-flakes:
2.17 cu.ft./sx. @ 12.5 PPG.
Tail Slurry: Est. **392'** to **617'**.
100 % excess over calculated volume: Est. @
250 sx. Class 'C' w/ 2% CaCl2 + ¼ #/sx. cell-flakes:
1.33 cu.ft./sx. @ 14.8 PPG.

4. CASING AND CEMENTING PROGRAM (CONTINUED):

b. The Proposed Cementing Program (Continued):

iii. Intermediate Casing: Single Stage:
Est. 95 F. @ 8.6 to 10.2 PPG mud @ 2150'.
Circ. Cement to Surface:
Temp. Survey & Possible Top Job If Cement Does NOT Reach Surface Casing @ 600'.
Lead Slurry: Est. Surface to 1781'.
100 % excess over calculated volume: Est. @
500 sx. Pozmix (50% Class 'C' + 50% Pozzalan)
w/ 3% Gypsum + 10% Gel + ¼ #/sx. cell-flakes
+ 10 #/sx. Gilsonite
2.52 cu.ft./sx. @ 11.6 PPG.
Tail Slurry: Est. 1781' to 2150'.
100 % excess over calculated volume: Est. @
250 sx. Class 'C' w/ 2% CaCl2 + ¼ #/sx. cell-flakes.
1.34 cu.ft./sx. @ 14.8 PPG.

iv. Production Casing: Two Stage: Stage Tool @ 8000':
ALL FINAL VOLUMES TO BE BASED ON CALIPER LOG VOLUMES.

First Stage: Est. 185 F. @ 10.2 PPG mud @ 11150.
Plan Circ. Cement to 8000':
Lead Slurry: Est. 8600' to 8000'.
35% excess over calculated volume: Est. @
75 sx. Super 'H' (70% Class 'H'/17% Pozzalan/13% Silica)
w/ 2 #/sx. KCl + ½ #/sx. Cello-Flakes + Additives.
2.45 cu.ft./sx. @ 11.9 PPG.
Tail Slurry: Est. 11150' to 8600':
35% excess over calculated volume: Est. @
530 sx. Super 'H' (70% Class 'H'/17% Pozzalan/13% Silica)
w/ 4 #/sx. KCl + Additives.
1.50 cu.ft./sx. @ 13.5 PPG.

Second Stage: Est. 150 F. @ 9.2 PPG mud @ 8500':
Lead Slurry: Est. 7176' to 1850':
60 % excess over calculated volume: Est. @
780 sx. 50% Class 'H' + 50% Pozzalan + 10% Gel
w/ Additives.
2.45 cu.ft./sx. @ 11.9 PPG.
Tail Slurry: Est. 8000' to 7176':
60 % excess over calculated volume: Est. @
200 sx. Super 'H' (70% Class 'H'/17% Pozzalan/13% Silica)
w/ Additives.
1.50 cu.ft./sx. @ 13.5 PPG.

5. PROPOSED DRILLING FLUIDS:

The reserve pit will be constructed in two segments & will be fully lined with a minimum 12 mil thickness plastic liner to protect the surface environment and fresh water resources.

a. 26" Conductor Hole: Surface to 40': Auger dry.

b. 17-1/2" Surface Hole: Surface to 600': Fresh Water Spud Mud:
Additives: Gel, Lime & LCM as needed to maintain circulation.
ANTICIPATE COMPLETE LOSS OF RETURNS FROM 130' TO TOTAL DEPTH OF SURFACE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN.
Est. 8.6 to 9.0 PPG @ VIS 40 to 120 sec./qt.

c. 12-1/4" Intermediate Hole: 600' to 2150': Fresh Water: Circulate the reserve pit:
Additives: Gel sweeps & LCM as needed to maintain circulation and clean the hole, with field crude oil to reduce shale sloughing/swelling. ANTICIPATE COMPLETE LOSS OF RETURNS FROM 700' TO TOTAL DEPTH OF INTERMEDIATE HOLE WITH DRY DRILLING AND LCM SWEEPS TO KEEP HOLE OPEN.
Est. 8.4 to 9.5 PPG @ VIS 30 to 34 sec./qt.

d. 7-7/8" Production Hole:

i. 2150' to 8000': Native Mud: Fresh Water & Native Solids:
Circulate the Reserve Pit Fresh Water Mud Section.
Additives: Gel sweeps & LCM to clean the hole & as needed to maintain circulation.
Est. 8.34 to 8.5 PPG @ VIS 28 - 30 sec./qt.

ii. 8000' to 11150': Low Solids Slightly Dispersed:
Circulate in Mud Tanks.
Additives: Pre-Hydrated Bentonite Gel, Drispac, Soda Ash, Caustic Soda, 4% KCl & 3% Diesel w/ LCM as necessary to maintain circulation. Use driller's salt and/or barite to maintain weight for well control. Maintain adequate viscosity to add barite if required for well control.
Est. 8.8 to 9.8 PPG @ PV 5-22 cp., YP 5-21 pphsf., and VIS @ 34 - 45 sec./qt.
MAX. WGT. f/ WELL CONTROL ESTIMATED @ 10.2 PPG.

6. LOGGING, TESTING, AND CORING PROGRAM:

a. The logging program will consist of:

i. DLL/SFL - GR/SP (Induction Logs):
T.D. to Intermediate Casing.
GR to Surface.

ii. LDT/CNL - ML/PE/GR/CAL (Density/Neutron Porosity Logs):
T.D. to Intermediate Casing.

b. No cores are planned.

c. Drill stem tests are planned for the following formations IF SAMPLE/GAS/OIL shows are sufficient to merit testing:

Cherry Canyon Fm.:	2154'.
Brushy Canyon Fm.:	3359'.
Bone Springs Ls. Fm.:	4279'.
3rd Bone Springs Fm.:	7939'.
Wolfcamp Fm.:	8299'.
Cisco Fm.:	9249'.
Canyon Fm.:	9432'.
Strawn Fm.:	9639'.
Morrow 'B' Fm.:	10614'.
Morrow 'C' Fm.:	10824'.

d. Samples will be analyzed on-site by a geologist in order to determine total depth (T.D.) of the well. 10' samples (wet) from the base of the intermediate casing (2150') to T.D.

7. ABNORMAL CONDITIONS - PRESSURE - TEMPERATURE - POTENTIAL HAZARDS:

a. 17-1/2" Surface Hole to 600':
Normal pressures (fresh water gradient or less) and temperatures (70 F. to 75 F.) are anticipated for this hole segment.
A COMPLETE LOSS OF RETURNS IS ANTICIPATED FROM 130' TO T.D.

b. 12-1/4" Intermediate Hole from 600' to 2150':
Normal pressures (fresh water gradient or less) and temperatures (75 F. to 95 F.) are anticipated for this hole segment.
No H2S is anticipated in this hole interval.
A COMPLETE LOSS OF RETURNS IS ANTICIPATED FROM 700' TO T.D.

c. 7-7/8" Production Hole from 2150' to 11150':

FORMATION TARGET:	DEPTH: Feet:	BHP PSIG	GRADIENT: PSI/FT	RATING:
Cherry Canyon Fm.:	2154'	1550	0.720	Abnormal
Brushy Canyon Fm.:	3359'	1550	0.461	Normal
Bone Springs Ls. Fm.:	4279'	1750	0.409	Subnormal
3rd Bone Springs Fm.:	7939'	2500	0.315	Subnormal
Wolfcamp Fm.:	8299'	4000	0.482	Normal
Cisco Fm.:	9249'	3900	0.422	Normal
Canyon Fm.:	9432'	4300	0.456	Normal
Strawn Fm.: Sand #1:	9639'	4500	0.467	Normal
Strawn Fm.: Sand #2:	9693'	1500	0.155	Depleted
Atoka Fm.:	9908'	5200	0.525	Abnormal
Morrow 'B' Fm.:	10614'	4700	0.443	Normal

KICKS AND WELL CONTROL HAZARDS ARE COMMON IN THIS AREA:
AN ADEQUATE SUPPLY OF DRILLER'S SALT, BRINE WATER, GEL AND BARITE WILL BE MAINTAINED ON LOCATION AT ALL TIMES, THROUGHOUT DRILLING OPERATIONS BELOW THE INTERMEDIATE CASING SHOE @ 2150', TO RAISE THE MUD WEIGHT OF THE ENTIRE CIRCULATING SYSTEM TO A MINIMUM OF 10.2 PPG. A PVT System with a gas buster and rotating head will be installed immediately after the intermediate casing is set & prior to drilling out the intermediate casing shoe @ 2150'. This equipment will permit the safe handling of minor gas volumes at the surface and the monitoring of well flow and trip volumes while the well is being drilled. Normal temperatures (95 F. to 170 F.) are anticipated for this hole segment.
H2S is anticipated in the Cherry Canyon Fm., Brushy Canyon Fm., and Bone Springs Fm. intervals from 2154' to 8299' if these intervals are productive. An H2S Safety Plan is prepared as Exhibit #3 and will be posted at the well-site. An H2S monitoring system will be rigged-up and functional after the Surface Casing is set at 600', and PRIOR TO DRILLING OUT OF THE SURFACE CASING SHOE. ALL RIG-SITE AND SUPERVISORY PERSONNEL WILL BE TRAINED AND CERTIFIED TO WORK IN AN H2S ENVIRONMENT PRIOR TO ENTRY ONTO THIS JOB SITE.

8. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Location construction may be commenced in November after APD approval is received. Upon granting of this APD request, and as soon as a rig is available to drill this well economically, this well will be spud and drilled to a projected T.D. @ 11,150' or +100' into the Barnett Shale Fm. Anticipated spud date is December 1, 2000. Est. 40 drilling days. Est. 15 completion days. Est. 1st production on or after February 1, 2001.

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bonneville Fuels Corporation and its contractors and subcontractors in conformity with this plan and the terms & conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 10/24/2000 Signature: _____

Robert A. Schwering, P.E.
Operations Manager
Bonneville Fuels Corporation

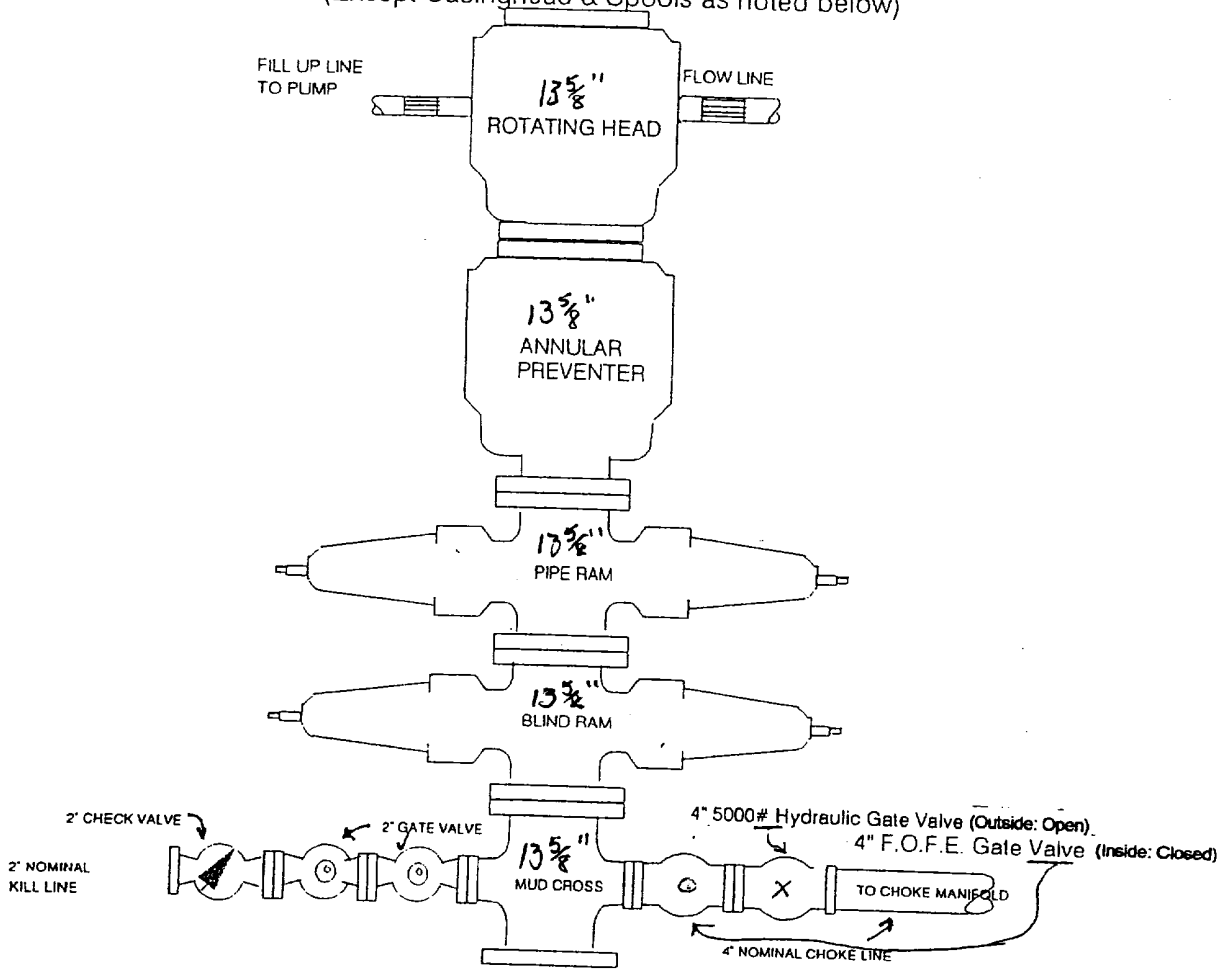
Exhibit #1

LAKE SHORE FED. S.C. 10 # 4

MINIMUM BLOW-OUT PREVENTER REQUIREMENTS

ALL 5000 PSI WP EQUIPMENT

(Except Casinghead & Spools as noted below)



WELLHEAD EQUIPMENT:
Surface Profile:
480' – 2150'

11" 5000 psig
XO Spool
13 5/8" 3000 psig
13 5/8" 3000 psig
SOW Casinghead
2" Ball Valve
3000 psig
2" Ball Valve
3000 psig
13 3/8" 54.5# K-55
ST&C Casing
@ 600'

WELLHEAD EQUIPMENT:
Intermediate Profile
2150' – TD
13 5/8" x 11" 5000# DSA
2" 5000#
GATE VALVE
Intermediate
Casing Spool
11" 5000 psig
2" 5000#
GATE VALVE
13 5/8" 3000 psig
13 5/8" 3000 psig
SOW Casing Head
2" Ball Valve
3000 psig
2" Ball Valve
3000 psig
8 5/8" 32# J-55
LTC Casing
To 2150'.

LAKE SHORE FED. S.C. 10 #4

EXHIBIT #2

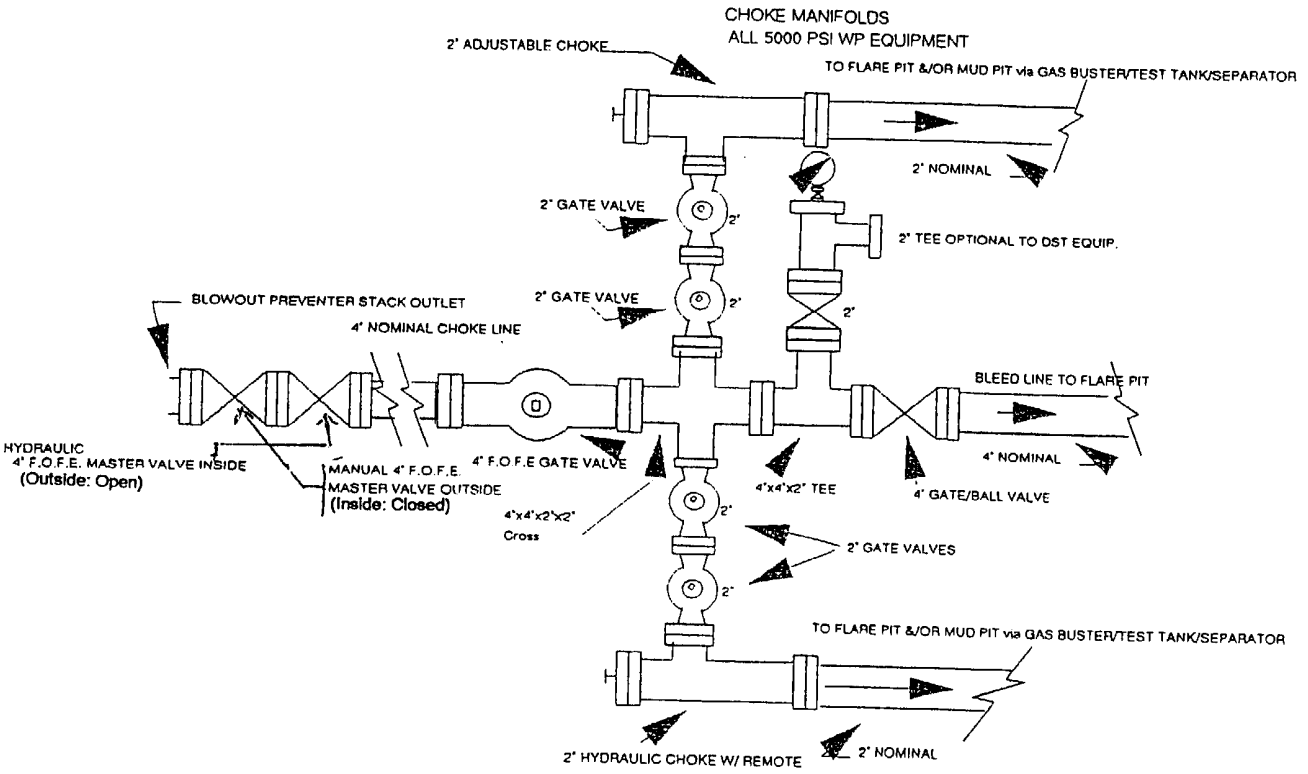


Exhibit #3
H2S SAFETY PLAN
8-Point Drilling Plan

Lake Shore Fed. S.C. 10-#4 Well

WELL-SITE SCHEMATIC:

A well-site schematic (Exhibit #3a) is attached. This schematic indicates:

1. The prevailing winds at this site are out of the NW and SW.

2. Briefing Area #1 (the principle briefing area), is located generally upwind, at the western edge of the location.

3. Briefing Area #2 (the secondary briefing area) will be at the SE corner of the reserve pit at the entrance to location. Briefing Area #2 will have a sign indicating the condition of the site (**Green- OK:** no H2S; **Yellow- Caution:** H2S encountered previously at levels greater than 10 PPM and/or currently at levels less than 10 PPM; **Red- Hazard:** H2S encountered or present on site at levels greater than 10 PPM - Cascade system required for work).

4. Three (3) windsocks will be placed on location:
   One at Briefing Area #1.
   One on the NE corner of the location.
   One on the SE corner of the reserve pit at the location entrance.
This should allow anyone at any position on the location to determine wind direction and move up-wind and uphill in the event of an H2S release.

5. A 4-channel alarm system will be installed to detect H2S concentrations greater than 10 PPM with individual monitors at the shaker pit, in the substructure of the rig, on the drilling floor and on the suction tank.

TRAINING AND EQUIPMENT FAMILIARITY REQUIRED:
All of the rig crew, mud loggers, geologists, company supervisors, and the mud engineer and all other regular on-site personnel will be required to undergo H2S training and pass a certification test. All of these personnel will be aware of H2S release procedures and MUST BE familiar and comfortable with donning 5-minute escape masks/packs and donning 30-minute self-contained rescue units.

All personnel MUST understand the fundamentals of rescue in an H2S environment - **you cannot help anyone UNLESS you have a rescue unit ON.**

The importance of visual contact between on-site personnel (the "buddy" system) will be emphasized. **ALL REGULAR ON-SITE PERSONNEL WILL HAVE AT LEAST ONE "BUDDY".**

LOCATION OF RESCUE AND ESCAPE AIR MASKS/UNITS and Other H2S Equipment:

1. Rescue units will be located as follows on the location:
   - 2: 30-minute rescue units will be kept at Briefing Area #1.
   - 1: 30-minute rescue unit will be kept at Briefing Area #2.
2. 5-minute escape units will be kept at the following locations:
   - 5 at the drill floor or in the dog house.
   - 1 in each trailer on location.
   - 2 at the shale pit.
   - 1 at the base of the gas buster.
   - 1 at the choke manifold.
   - 2 at the suction pit.
   - 1 at the pump skid.
   - 1 at the generator house.
   - 1 at the accumulator.
3. A Draeger or other hand-held portable H2S detector kit will be kept in the BFC Drilling Supervisor's Trailer.
4. A flare gun will be kept at Briefing Area #1 or in the Site

PERIOD OF OPERATION UNDER H2S PLAN AT THIS WELL SITE:
All of the H2S equipment identified above will be installed and operational, and all of the site personnel H2S Training and Certification will be completed, PRIOR TO the drilling out of the Surface Casing at 600'. All new site personnel, after this time, will be H2S Trained and Certified PRIOR TO entering location. This H2S plan will be adhered to until this well is either successfully drilled to Total Depth, Cased and Cemented or Plugged and Abandoned.

H2S SAFETY DRILLS REQUIRED:
Each crew will be required to conduct an H2S Release safety drill at least once a week. Each of these drills and the time/quality of each drill will be recorded on the appropriate IADC Tour Sheet. Each of these drills will require all location personnel to don their nearest upwind 5-minute escape pack and assemble at either Briefing Area #1 or Briefing Area #2, whichever is upwind. Personnel will then be tallied and a rescue party assembled (with 30-minute rescue packs) to recover any "missing" personnel.

H2S RELEASE DURING WELL CONTROL OPERATIONS:
Personnel will be briefed on the complications that can occur as a result of an H2S Release DURING a well control operation. Some H2S and Well Control Drills will be conducted simultaneously in order to emphasize the proper procedure to follow should an H2S Release occur during a Well Control Operation.

Should an H2S Release occur simultaneous with a kick being detected:

1. Immediately don Up-Wind and Dog House 5-minute escape packs. Keep your buddy in sight.
2. Pick-up the kelly to the slip-set position and set the slips and continue to circulate the well with strokes reduced to the preferred kill rate.
3. Open the Hydraulic Master Valve and the Hydraulic Master Choke. Put choke discharge through the gas buster with fluid returns to the mud pits.
4. Close the Annular Preventer.
5. Move Up-Wind ASAP to the Up-Wind Briefing Area.
6. Tally personnel and assemble a rescue party with 30-minute rescue packs to search for any missing personnel.
7. CALL IMMEDIATELY FOR A CASCADE SAFETY SYSTEM TO WORK UNDER.

Should an H2S release occur during a well control operation after the well control operation is underway:

1. Immediately don Up-Wind and Dog House 5-minute escape packs. Keep your buddy in sight.
2. Put choke discharge through the gas buster with fluid returns to the mud pits. DO NOT CHANGE CHOKE SETTINGS OR CIRCULATION RATE.
3. Move Up-Wind ASAP to the Up-Wind Briefing Area.
4. Tally personnel and assemble a rescue party with 30-minute rescue packs to search for any missing personnel.
5. CALL IMMEDIATELY FOR A CASCADE SAFETY SYSTEM TO WORK UNDER.

IGNITION OF THE WELL:
IN THE CASE OF AN UNCONTROLLED RELEASE OF H2S AT THE DRILL-SITE:
A FLARE PISTOL WILL BE MAINTAINED AT BRIEFING AREA #1 AND/OR IN THE BONNEVILLE FUELS CORPORATION SUPERVISORS TRAILER (ON THE DESK) AT ALL TIMES FOR THE IGNITION OF THE WELL IN THE CASE OF AN UNCONTROLLED RELEASE OF H2S AT THE SITE.

CRITICAL PERSONNEL DEFINED - LOCATION ENTRY PROSCRIBED:

Bonneville Fuels Drilling Supervisors and Rig Contractor Supervisors, Rig Crewmen, the Mud Engineer, and Safety Company Personnel are hereby defined as CRITICAL PERSONNEL. NO personnel other than CRITICAL PERSONNEL will be permitted to enter location should a Red Hazard Sign (ambient greater than 10 PPM H2S) concentration be encountered - until such release is controlled and ended, except for critical material delivery personnel as outlined below.

H2S SCAVENGER:

Zinc Carbonate (ZnCO3 - an H2S scavenger for water based drilling fluids) or an alternative product will be kept at a warehouse location in sufficient quantity to provide a base concentration in the drilling fluid of 1/2 Pound Per Barrel of drilling fluid in the active mud system. Additional adequate supply will be within 24 hours of location.

PERSONNEL ADMISSION AND SITE REGISTRATION REQUIREMENTS:

If H2S is encountered at the site and the site is functioning under a Yellow Caution Sign (H2S encountered):

1. SITE VISITATION BY NON-CRITICAL PERSONNEL WILL BE DISCOURAGED.

2. ALL ON-SITE PERSONNEL WILL BE REQUIRED TO SIGN-IN AND SIGN-OUT AT BRIEFING AREA ACCESS CONTROL STATION.

3. During Yellow Caution periods Geological and Service Company personnel will be allowed on location ONLY if properly trained and certified for H2S and ONLY to perform work. All such personnel must sign-in and sign-out as above.

If an H2S release with an ambient concentration greater than 10 PPM then the well-site will be operating under the Red Hazard Sign (H2S present):

1. SITE VISITATION BY NON-CRITICAL PERSONNEL IS PROHIBITED. No Geological or Non-Delivery Service Company Personnel will be allowed on location until a Yellow (Caution) condition has been restored to the location.

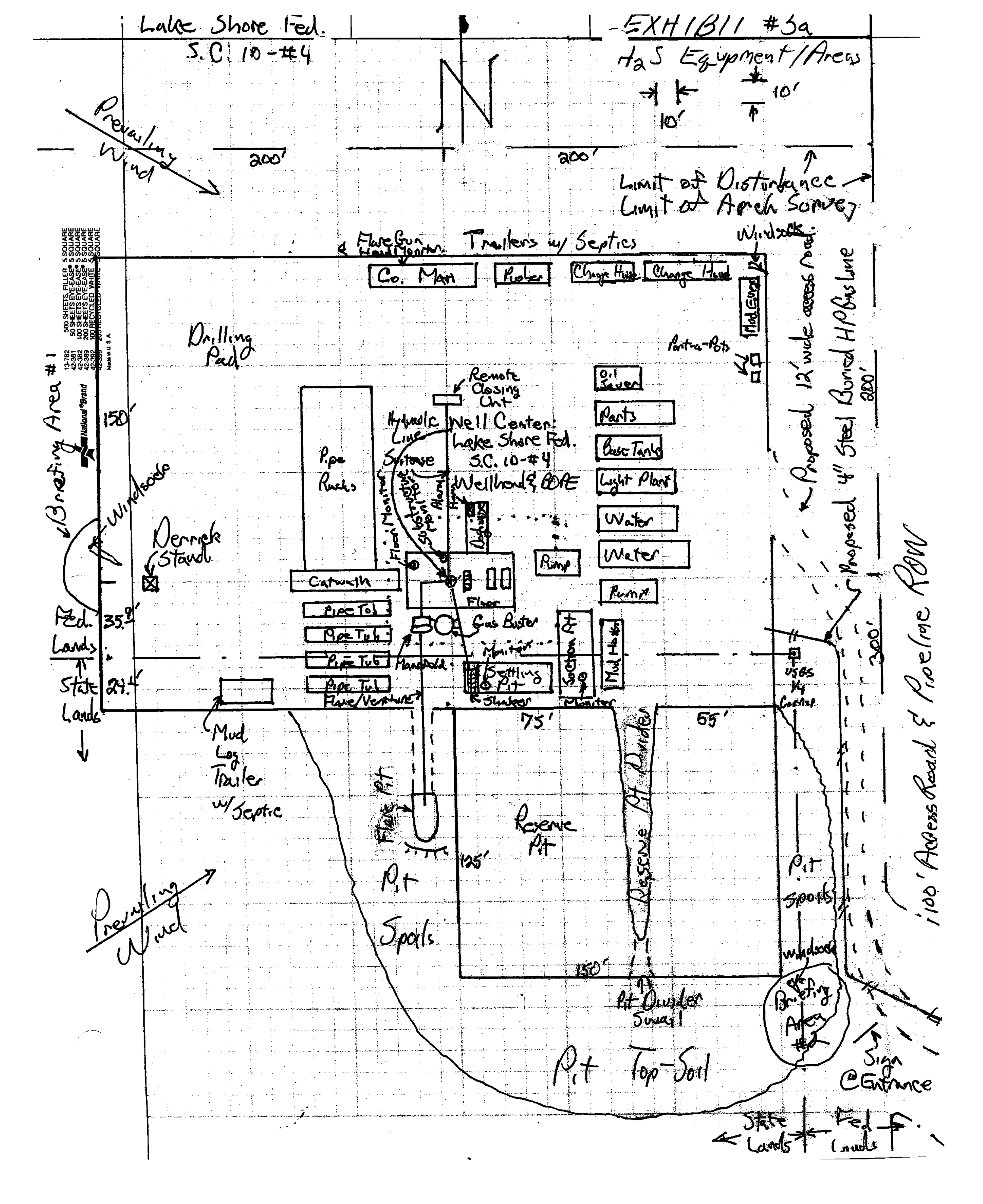
2. WORK MAY OCCUR ONLY WHEN A CASCADE AIR SYSTEM IS OPERATIONAL, IN PLACE, and IN USE. Work to control the H2S release will continue at the site until a Yellow (Caution) Condition is established/achieved.

3. ALL ON-SITE PERSONNEL WILL BE REQUIRED TO SIGN-IN AND SIGN-OUT AT BRIEFING AREA ACCESS CONTROL STATION.

4. REQUIRED MATERIAL DELIVERIES MAY ONLY BE MADE BY H2S TRAINED AND CERTIFIED SERVICE COMPANY PERSONNEL WORKING UNDER A CASCADE SYSTEM WITH THE DIRECT SUPERVISION AND ASSISTANCE OF SAFETY COMPANY PERSONNEL.

H2S PLAN MAY NOT BE REDUCED IN SCOPE:
The aforementioned is an H2S plan which takes into consideration MOST but not ALL of the training, equipment and operational planning issues associated with Potential H2S occurrence at this well-site. No well control or H2S plan can be comprehensive enough to address all possible operational outcomes. This plan may be subsequently modified or improved to fit site, wellbore or drilling equipment constraints with MORE stringent, numerous and comprehensive provision of Safety Equipment, Safety Training, and Safety Personnel requirements. This plan may not be weakened or in any way reduced in the provision of Safety Equipment, Safety Training, or Safety Personnel, however. This plan provides for the MINIMUM required provision of Safety Equipment, Safety Training and Safety Personnel for the drilling of the Lake Shore Fed. S.C. 10-#4 well.

R.A. Schwering, P.E.
Operations Manager
Bonneville Fuels Corporation



Lake Shore Fed.
S.C. 10-#4
EXHIBIT #3a
H2S Equipment/Areas
N
10'
10'
Prevailing Wind
200'
200'
Limit of Disturbance
Limit of Arch Survey
Flare Gun & Hand Monitor
Trailers w/ Septics
Co. Man
Pusher
Change House
Change House
Windsock
Mud Cleaner
Drilling Pad
Porta-Pots
Oil Server
Parts
Base Tank
Light Plant
Water
Water
Pump
Pump
Remote Closing Unit
Hydraulic Line
Well Center: Lake Shore Fed. S.C. 10-#4
Wellhead & BOPE
Pipe Racks
Floor Monitor
Substructure
Floor
Catwalk
Pipe Tub
Pipe Tub
Pipe Tub
Pipe Tub
Gas Buster
Manifold
Monitor
Settling Pit
Shaker
Suction Pit
Mud Hopper
Monitor
Flare/Venture
Briefing Area #1
Windsock
Derrick Stand
150'
35.8'
24.4'
Fed. Lands
State Lands
Mud Log Trailer w/Septic
75'
55'
Flare Pit
Reserve Pit
Reserve Pit Divider
125'
Pit Spoils
Pit Spoils
150'
Pit Divider Swail
Pit Top-Soil
Windsock
Briefing Area #2
Sign @Entrance
State Lands
Fed. Lands
USGS 1/4 Corner
Proposed 12' wide access road
Proposed 4" Steel Buried HP Gas Line
Proposed
280'
300'
100' Access Road & Pipeline ROW

1[illegible] OINT SURFACE USE PLAN

Attached to Form 3160-3
Bonneville Fuels Corporation
Lake Shore Fed. S.C. 10 - #4
1310' FNL & 1160' FWL,
Sec 10, T.21S., R.26E. NMPM
Eddy County, New Mexico

The proposed location, access road and pipeline right-of-way were surveyed and staked by John West Engineering, and surveyed for archaeological impacts by Southern New Mexico Archaeological Services, Inc. on 10/4/2000. An On-Site Surface Inspection was conducted by Mr. Barry Hunt (a Surface Management Specialist with the Carlsbad Area office of the Bureau of Land Management - also representing the Bureau of Reclamation) on 10/4/2000. **No significant topographical, archaeological, faunal or botanical limitations and/or obstacles to the development of this well site were identified or indicated by John West Engineering, Southern New Mexico Archaeological Services, or Mr. Barry Hunt.**

A USGS quarter corner marker is located immediately east of the planned location (159.8' east and 35.9' south of the well center) and will be fenced and flagged to prevent damage during construction, drilling, production and reclamation operations.

1. EXISTING ROADS:

Exhibit 'A' attached is a Topographic and Vicinity Map created from a splice of two USGS Quadrangle Maps (the Lake MacMillan South Quad and the West Carlsbad Quad). The map indicates the existing wells (6 existing & 1 additional proposed gas wells, 2 existing and 4 proposed oil wells, 1 existing and 1 proposed water wells, and an existing salt water disposal well) and existing/proposed roads within a 1-Mile Radius around the proposed Lake Shore Fed. S.C. 10-#4 gas well. Also indicated on this map is the proximity of the northern limit of incorporation of the City of Carlsbad (approx. 1.64 miles SSE of the proposed drill-site).

Exhibit 'B' attached is a Vicinity Map prepared by John West Engineering showing the location of the well relative to the entire City of Carlsbad. Both of these maps indicate the proximity of Avalon Lake. The Avalon Dam Site is approx. 1.87 miles east of the proposed drill site.

1. EXISTING ROADS: Continued:

DIRECTIONS:

a. From the intersection of US 285 and US 62/180 in the City of Carlsbad (downtown) proceed approx. 6.5 miles NNW on US 285 to mile marker 40 (the BROWN road on Exhibits 'A' and 'B').

b. Turn north (right) and proceed approx. 0.75 miles north on field road to first intersection. Turn east (right) and proceed east approx. 0.33 miles to 2nd fork in road. Turn northeast (left fork) to the Devon Energy Fed. State COM 10-#1 salt water disposal well in NW SW of Section 10. Turn south (right) across location approx. 0.1 miles. Then proceed SE approx. 0.3 miles (these are the GREEN roads on Exhibits 'A' and 'B'.

c. Turn north (left) and proceed north across the Lake Shore Fed. S.C. 10 - #3 well pad. Proceed north 1,694 feet along the eastern edges of the proposed Avalon "10" Fed. #23 and then the proposed Avalon "10" Fed. # 22 oil wells. Then turn NW approx. 900' to the eastern edge of the proposed Lake Shore Fed. S.C. 10-#4 wellsite. This road segment will be newly constructed on Lease NM-3606 and is colored BLUE on Exhibits 'A' and 'B'.

2. PLANNED ACCESS ROAD:

The planned access road is indicated on Exhibit 'A' and Exhibit 'B' with a BLUE coloration. This road segment is also colored BLUE and is better seen on Exhibit 'C-1' (attached) a Location Verification Map prepared by John West Engineering.

a. The proposed new access road will be approximately 2,594 feet long from the existing field road.

b. The new road will have a 12' traveling surface crowned with 6" of compacted caliche with a 60 foot entrance width along the eastern edge of the drill pad. The road will be flat-bladed (to remove creosote black-brush) and crowned with caliche

c. Low-water crossings will be constructed wherever shallow surface drainages cross the road. Water-bars and turn-outs will be constructed along the roadway in conformance with BLM standards. The road will be ditched along the west side to carry sheet-wash run-off along the west (uphill) edge of the access road to the low-water crossings.

3. EXISTING AND PROPOSED WELLS WITHIN A 1-MILE RADIUS:

Exhibit 'A' shows wells BFC has been able to identify in the area covered by this map south and west of the Pecos River and Avalon Lake. The 1-mile radius of required investigation is indicated in ORANGE outline. Known gas wells, oil wells, a salt water disposal well, and various abandoned oil/gas wells are shown inside and outside the 1-mile radius, and are labeled GW,OW, SWD and AW respectively. Proposed gas wells, oil wells, and water wells that BFC is aware of in the 1-mile radius are labeled PGW, POW and PWW respectively.

Exhibit 'C-2' is a Well Location and Acreage Dedication Survey Plat (New Mexico Form C-102) prepared by John West Engineering. State of New Mexico Minerals will be Communitized if this well is productive in the gas bearing intervals (320 Acre spacing required).

a. There are six (6) existing producing gas wells and one (1) additional proposed gas well within a 1-mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. These wells are colored RED on Exhibit 'A' and are labeled GW and PGW, respectively.

b. There is one (1) salt water disposal well within a 1-mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. This well is labeled SWD with an injection well symbol on Exhibit 'A'.

b. There are two (2) existing producing and five (5) proposed oil wells within a 1-mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. These wells are colored GREEN on Exhibit 'A' and are labeled OW and POW, respectively.

c. There is one (1) existing and one (1) proposed water wells within a 1-mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. These wells are colored BLUE on Exhibit 'A' and are labeled WW and PWW, respectively.

d. There is one (1) existing salt-water disposal well within a 1 mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. This well is indicated in black with an arrow thru the well symbol and is labeled 'SWD' on Exhibit 'A'.

e. There is one (1) existing abandoned well within a 1-mile radius of the proposed Lake Shore Fed. S.C. 10-#4 well. This well is indicated by the dry-hole symbol, colored RED, and labeled AW on Exhibit 'A'.

4. PROPOSED PRODUCTION FACILITIES:

Bonneville Fuels Corporation has NO existing production facilities on this site at this time. Exhibit 'D' shows the location of a proposed tank battery and production facilities for the proposed Lake Shore Fed. S.C. 10-#4 well.

The Special Lease Stipulations for NM 3606 (4 Pages with appropriate portions highlighted) are attached as Exhibit 'E', pages 1 thru 4. The surface use regulation of the lands on which this proposed wellsite lies has been 'withdrawn' from the BLM to the administration of the Bureau of Reclamation because of the proximity of the Avalon Lake and Dam Sites.

The proposed storage tanks and production facility will be at a planned finished grade elevation 3212.5' (which exceeds the 3200' MSL Avalon Lake Special Stipulation requirement).

a. Should the well prove productive then necessary gas handling facilities (a three phase separator, optional dehydrator and/or compressor, and a meter facility) will be placed on the production pad as shown on Exhibit 'D'. The production pad finished grade will be at 3212.5' MSL. This production pad is planned to be 30' wide by 50' long and will be underlined with a 30-mil liner and bermed with a 2' tall caliche berm to contain any potential spills and to prevent soil and/or groundwater contamination.

b. Should the well be productive of oil and/or water then the storage facilities will be placed on the tank battery pad as shown on Exhibit 'D'. The tank battery pad finished grade will be at 3212.5' MSL. This production pad is planned to be 40' wide by 80' long and will be underlined with a 30-mil liner and bermed with a 4' tall caliche berm to contain any potential spills and to prevent soil and/or groundwater contamination. Actual well productivity, safety, and environmental considerations will determine the constructed configuration/size of tanks in the proposed tank battery facility. Tank battery fire walls will be a minimum height of 4' above the Tank Battery Pad grade and will encompass sufficient volume to provide storage for ALL tank contents with 1' of free board. This meets or exceeds current BuRec Guidelines (+3200' MSL) and Special Lease Stipulations.

c. An HP gas pipeline will be constructed from this wellsite along the east side of the proposed 2,694' access road to convey gas from this well to a common tie-in on the pad of the Lake Shore Fed. S.C. 10-#3 well. An ROW from the Bureau of Reclamation for this proposed pipeline route and access road is being applied for with this APD and is attached for your information. Exhibit 'F' is a survey plat of the route of the proposed pipeline and access road.

5. LOCATION AND TYPE OF WATER SUPPLY:

a. FRESH WATER: BFC plans to obtain fresh water for drilling from an existing water well on the well pad of the Lake Shore Fed. S.C. 10-#3 well. A poly-pipe will be laid in the access road bar ditch to carry water to the Lake Shore Fed. S.C. 10-#4 wellsite (this route is colored BLUE in Exhibit 'A'). A local water hauling service (purchased from a municipal or agricultural seller) will be used to provide any supplemental water needs.

b. BRINE WATER: BFC plans to obtain brine water for drilling, if needed through a local water hauling source by direct purchase.

6. SOURCE OF CONSTRUCTION MATERIALS:

Exhibit 'G' presents the Construction (Cut and Fill) Plan for the site. Required cuts and fills are identified. Top-Soil and Pit Spoils stockpiles from reserve pit construction are also shown.

a. CALICHE ROCK FOR TOPPING: This material will be obtained during cut-and-fill operations at the drill pad and reserve pit excavation. Additional caliche/sand/gravel will be hauled from commercial pits.

b. WATER FOR COMPACTION: Hauled in per 5.a. above.

7. METHODS OF HANDLING WASTE DISPOSAL:

a. The reserve pit will be lined with a 12 mil plastic liner to prevent ground water contamination. Drill cuttings and fluids will be disposed of in the reserve pit. The drilling fluids will dry by evaporation until the resulting fill is dry enough to walk on. The liner above the dry mud level will then be removed to a sanitary land fill. The remaining pit volume will be closed with clean dry fill (Pit Spoils and Top Soil - see Exhibit 'G'). The reserve pit will be fenced thruout operations.

b. Human waste will be stored in septic facilities and pumped and hauled to sewage facilities.

c. Trash will be stored on-site in a container to prevent wind litter. Trash will then be hauled to a sanitary land fill. Containers subject to MSDS restrictions will be cleaned out and returned to vendors. Rig junk (wire rope, etc.) and metal waste will be removed with the drilling rig.

d. Produced water will be collected in pits/test tanks and hauled to a licensed and regulated produced water disposal facility.

e. Produced oil will be stored on site in test tanks until production facilities are installed and it can be legally sold. Waste oil will be collected and hauled to a waste oil recycler.

8. ANCILLARY FACILITIES:

Exhibit 'H' indicates the location of rig equipment during drilling operations. Also shown on Exhibit 'H' are the trailers required to provide 24-hour supervision during the drilling of this well.

a. Exhibit 'H' indicates camp/trailer facilities required on-site to provide 24-hour site supervision. All trailers will have septic tanks.

b. Exhibit 'I' indicates the location of H2S briefing and warning facilities required by the presence of H2S gas in some of the producing strata to be encountered in the drilling of this well. The H2S Safety Plan is presented as Exhibit 3 to the 8-Point Drilling Plan.

9. WELLSITE LAYOUT:

a. Exhibit 'H' presents the proposed layout of drilling equipment at the wellsite. Well control equipment is highlighted on Exhibit 'H'.

b. Exhibit 'I' indicates the location of H2S briefing and warning facilities required by the presence of H2S gas in some of the producing strata to be encountered in the drilling of this well. The H2S Safety Plan is presented as Exhibit 3 to the 8-Point Drilling Plan.

c. Exhibit 'G' indicates the proposed cut-and-fill limits of the planned facility. **A larger 500'N-S x 400'E-W area was surveyed and cleared (archaeology/flora/fauna) in the event that additional pad space is required by larger than anticipated rig dimensions or site safety requirements.** The reserve pit will be lined with a minimum 12-mil plastic liner.

10. PLANS FOR THE RESTORATION OF THE SURFACE:

a. The reserve pit will be fenced with 4 strand barbed wire thruout drilling and completion operations. Fencing will only be removed for reclamation operations. The flare pit will be back-filled as soon as completion and testing operations are ended.

b. The drill site will be kept clean and free of trash/pollution thruout drilling, completion, and production operations thruout the life of the well.

c. When the reserve pit is dry the barbed wire fence and posts will be removed and the liner will be cut above the mud-line and hauled to disposal. The pit spoils will then be used to fill the reserve pit and recontour it as nearly as possible to the original topography. The pit surface will then be harrowed parallel to elevation contour and re-seeded with the specified BLM mix parallel to the land contour.

10. PLANS FOR THE RESTORATION OF THE SURFACE: Continued:

d. When the well has been judged to be non-productive, or no longer productive, but AFTER the reserve pit has dried out and is ready to fill or has already been filled, all surface production, drilling and completion equipment will be removed to a depth sufficient to facilitate effective reclamation. Then the entire site will be recontoured as nearly as possible to the original topography. The entire location surface will then be cross-ripped with the last pass parallel to elevation contour. The new portion of the access road (constructed for this well) will be back-ripped 2 times. Then the access road and the well-site will be re-seeded with the specified BLM mix parallel to the elevation contour of the site.

11. OTHER INFORMATION: ARCHAEOLOGICAL RESOURCES:

a. TOPOGRAPHY: The land surface at this site is a gently rolling hillside sloping gradually to the north, east and south (see Exhibit 'A'). The location is a slightly undulating alluvial plane and is a part of the Old Pecos River Terrace.

b. SOILS: Limestone cobbles and gravels (occasional cherts) on an arid thin desert soil underlain by caliche/limestone bedrock. Aridisol and Desert Pavement on Caliche Base w/ occasional loams in deeper fills derived from older alluvium.

c. FLORA AND FAUNA: Creosote and Javelina shrubs, Snakeweed, with variety of Upper Chihuahuan Cacti. Sparse assorted grasses and acacia. Mule and White-Tail Deer, Mountain Lion, Rabbits, Skunks, Voles and Snakes are found in this area. NO ENDANGERED or THREATENED species are present.

d. SITE ARCHAEOLOGY: An archaeological survey of this site and its proposed access road and pipeline was conducted by Southern New Mexico Archaeological Services, Inc. (Bent, NM) on 10/4/2000 and 10/5/2000. The site report is attached as Exhibit 'J' (Report NM-401).

NO SIGNIFICANT ARCHAEOLOGICAL RESOURCES WERE FOUND IN THE SURVEYED WELL-SITE AREA. A Federal USGS ¼ Corner marker was found 159.8′ east and 35.9′ south of the proposed well-center stake. This marker is outside of planned wellsite disturbance and will be fenced and protected during construction, drilling, production and reclamation (life of the well). Two other isolates were encountered in the survey area. Clearance is recommended by SNMAS for the wellsite.

11. OTHER INFORMATION: ARCHAEOLOGICAL RESOURCES: Continued:

e. ACCESS ROAD AND PIPELINE ARCHAEOLOGY: The access road route is cleared in three (3) reports: Exhibit 'J' (Report NM-401), Exhibit 'L' (Report NM-404), and Exhibit 'M' (Report NM-403. Exhibit 'K' (Report NM-407) is the proposed pipeline ROW which encompasses all of the access road for the Lakeshore Fed. S.C. 10-#4. Exhibit 'L' is the Archaeology Report for a portion of that access road across the eastern edge of the Avalon 10 Fed. #23 and north 1000'. Exhibit 'M' is the Archaeology Report for a portion of that access road across the eastern edge of the Avalon 10 Fed. #22 and south 800'. These reports describe the entire traverse from the existing Lake Shore Fed. S.C. 10-#3 well north and then northwest to the Lake Shore Fed. S.C. 10-#4 well.

NO SIGNIFICANT ARCHAEOLOGICAL RESOURCES WERE FOUND IN THE PLANNED ACCESS ROAD AND THE PROPOSED PIPELINE RIGHT-OF-WAY described in Exhibits 'K', 'L', and 'M'. A 60' by 2964' area incorporating the planned pipeline route and adjacent access road were surveyed and for artifacts and none were found. A single isolate was found on the proposed drill pad of the Avalon 10 Fed. #22 (Exhibit 'M'). Clearance is recommended by SNMAS for the proposed pipeline route and adjacent access road. The access road (proposed) lies entirely within the requested and cleared 60' pipeline ROW.

e. DRILLING PLAN: An 8-Point Drilling Plan with three (3) exhibits (including an H2S Safety Plan) is attached with this 13-Point Surface Use Plan to Form 3160-3.

f. INHABITED DWELLINGS: There are NO known inhabited dwellings within a 1-mile radius of this proposed wellsite. The nearest permanent residences are +2 miles south and +1.5 miles west of this proposed drillsite. Occasional campers inhabit the Lake Avalon shoreline less than ¼ mile to the NE of the proposed drillsite.

12. SURFACE AND MINERAL OWNERSHIP:

a. A portion of the surface location of the proposed wellsite of the proposed Lake Shore Fed. S.C. 10-#4 wellsite is owned by the Federal Government of the United States of America, including the site of the wellbore. A portion of the proposed drillsite and ALL of the proposed reserve pit is on surface lands of the State of New Mexico. ALL of the proposed access road and pipeline ROW's is owned by the United States Federal Government and its use is administered by the Bureau of Reclamation with the assistance of the Bureau of Land Management. A Right-of-Way application for the proposed pipeline for the Lake Shore Fed. S.C. 10-#4 is being forwarded to the Bureau of Reclamation under separate cover AFTER this APD is filed.

12. SURFACE AND MINERAL OWNERSHIP: Continued:

b. The minerals underlying the NW NW and the E ½ W ½ of Section 10, T.21S., R.26E., NMPM, Eddy County, New Mexico are owned by the Federal Government of the United States of America. The minerals underlying SW NW and W ½ SW of Section 10, T.21S., R.26E., NMPM, Eddy County, New Mexico are owned by the State of New Mexico.

All of these Permian and Pennsylvanian oil and natural gas minerals (Wolfcamp/Cisco/Canyon/Strawn/Atoka/Morrow Fms.)were Communitized on 2/22/1999 by Order Number NMNM101369 by the Commissioner of Public Lands of the State of New Mexico. A single page copy of this Communitization Order is attached as Exhibit 'C'-#3. Two (2) complete and executed communitization agreement copies are attached to the cover letter should you need it.

As a result of the minerals which are the target of the subject well having been previously communitized NO ROW or site clearance from the State of New Mexico is required for the use of said New Mexico Public Lands in developing this resource. The planned well pad and reserve pit only require Federal approval.

13. OPERATOR'S REPRESENTATIVE:

The Operator's Representative responsible for the administration, construction, drilling, completion, testing, production and reclamation of this site is:

Mr. Robert A. Schwering, P.E., C.E.S.
Operations Manager
BONNEVILLE FUELS CORPORATION
1660 Lincoln: Suite 2200
Denver, Colorado 80264
Office: (303) 863-1555 ext. 213; Fax: (303) 863-1558
Cell: (303) 905-0292; Home: (303) 278-8020
ON CALL 24 Hours or ON-SITE.

CERTIFICATION:

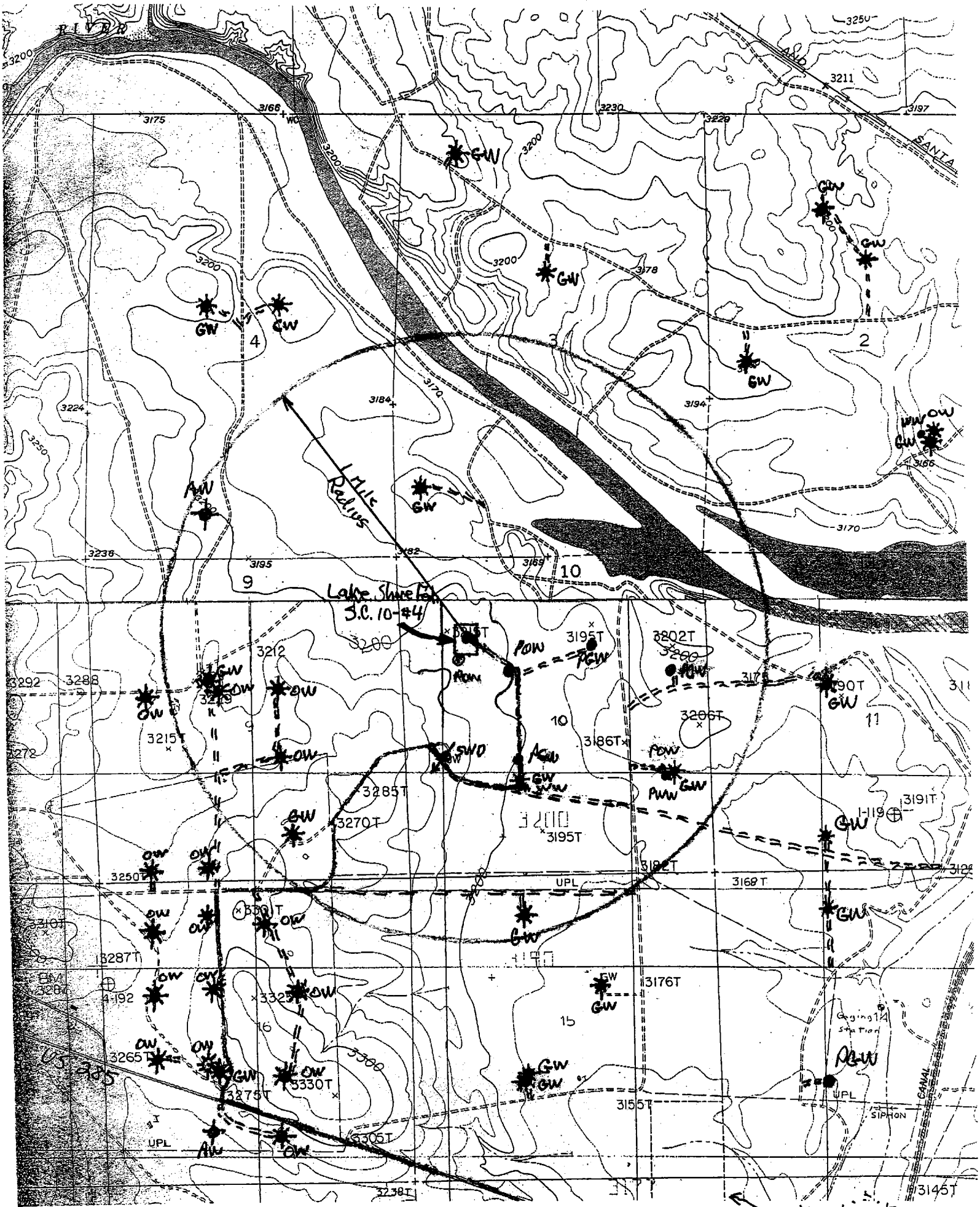
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bonneville Fuels Corporation and its contractors and subcontractors in conformity with this plan and the terms & conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 10/24/2000 Signature: R. A. Schwering

R.A. Schwering, PE
Operations Manager; SE NM

EXHIBIT 'A' : Topographic & Vicinity Map

Lake Shore Fed. S.C. 10-#4 ——— 1 Mile

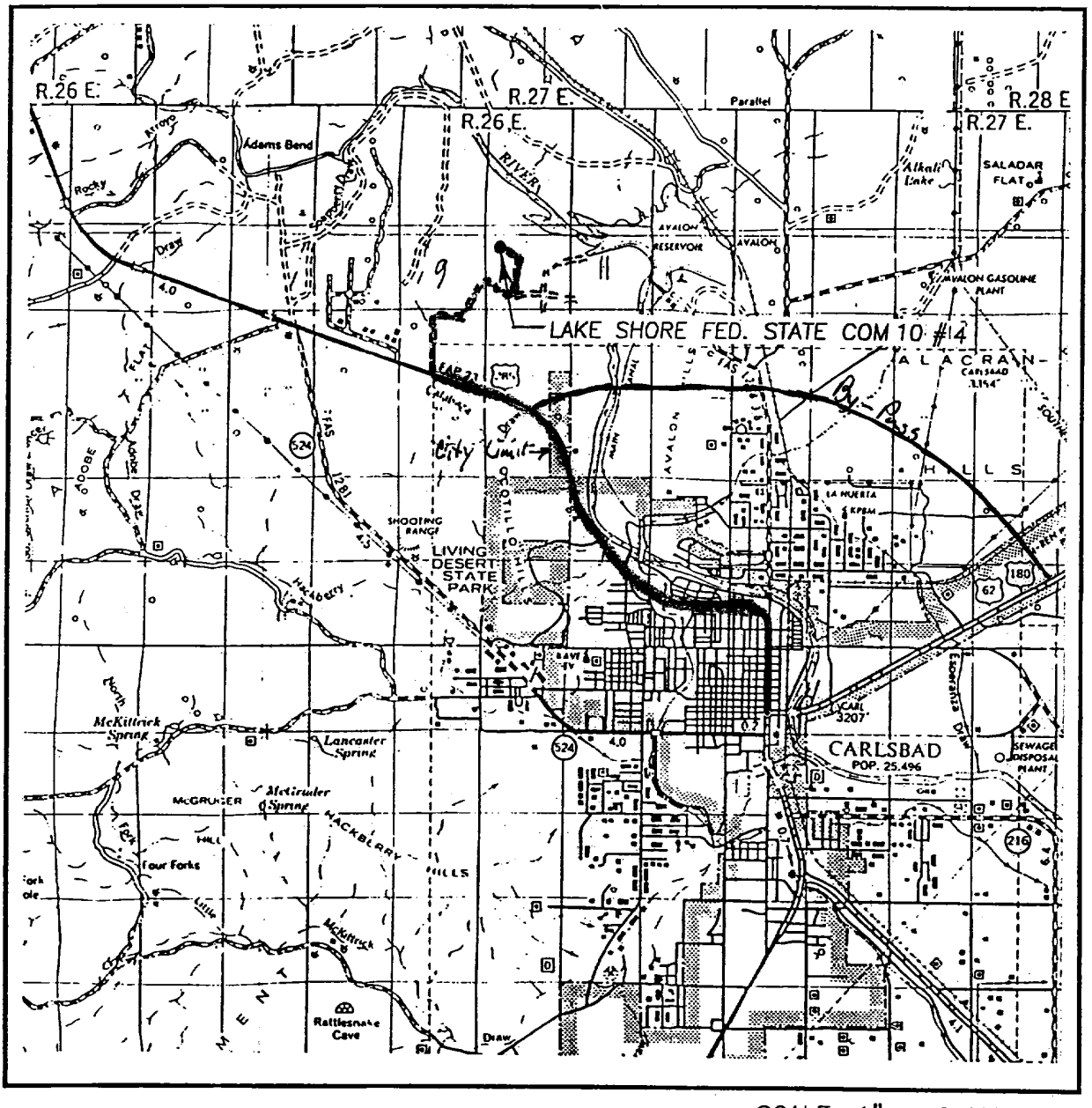


- GW: Gas Well
- OW: Oil Well
- WW: Water Well
- SWD: Salt-Water Disposal Injection Well
- AW: Abandoned Well
- PGW: Proposed Gas Well
- POW: Proposed Oil Well
- PWW: Proposed Water Well

Lake Shore Fed. S.C. 10 - #4

VICINITY MAP

EXHIBIT 'B'



SCALE: 1" = 2 MILES

SEC. 10 TWP. 21-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1310' FNL & 1160' FWL

ELEVATION 3214

OPERATOR BONNEVILLE FUELS

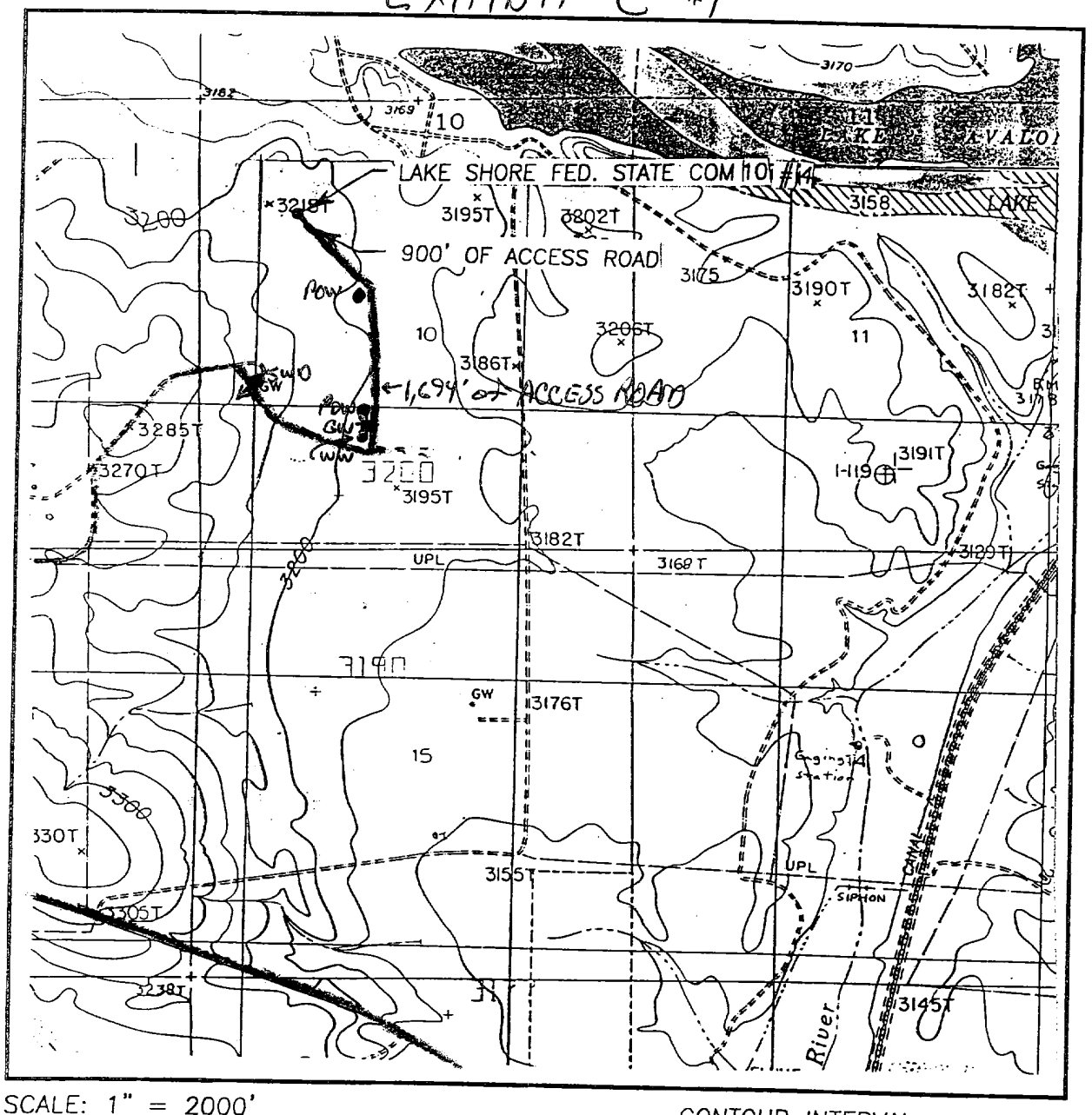
LEASE LAKE SHORE FED. STATE COM

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

LOCATION VERFICATION MAP

Lake Shore Fed. S.C. 10-#4

EXHIBIT 'C'-#1



SCALE: 1" = 2000'

CONTOUR INTERVAL:
CARLSBAD WEST, N.M. – 10'

SEC. 10 TWP. 21-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1310' FNL & 1160' FWL

ELEVATION 3214

OPERATOR BONNEVILLE FUELS

LEASE LAKE SHORE FED. STATE COM

U.S.G.S. TOPOGRAPHIC MAP
CARLSBAD WEST, N.M.

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

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

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

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Departme

EXHIBIT 'C' - #2

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	70920	Avalon Morrow

Property Code	Property Name	Well Number
21883	LAKE SHORE FED. STATE COM 10	4

OGRID No.	Operator Name	Elevation
002678	BONNEVILLE FUELS	3214

Surface Location

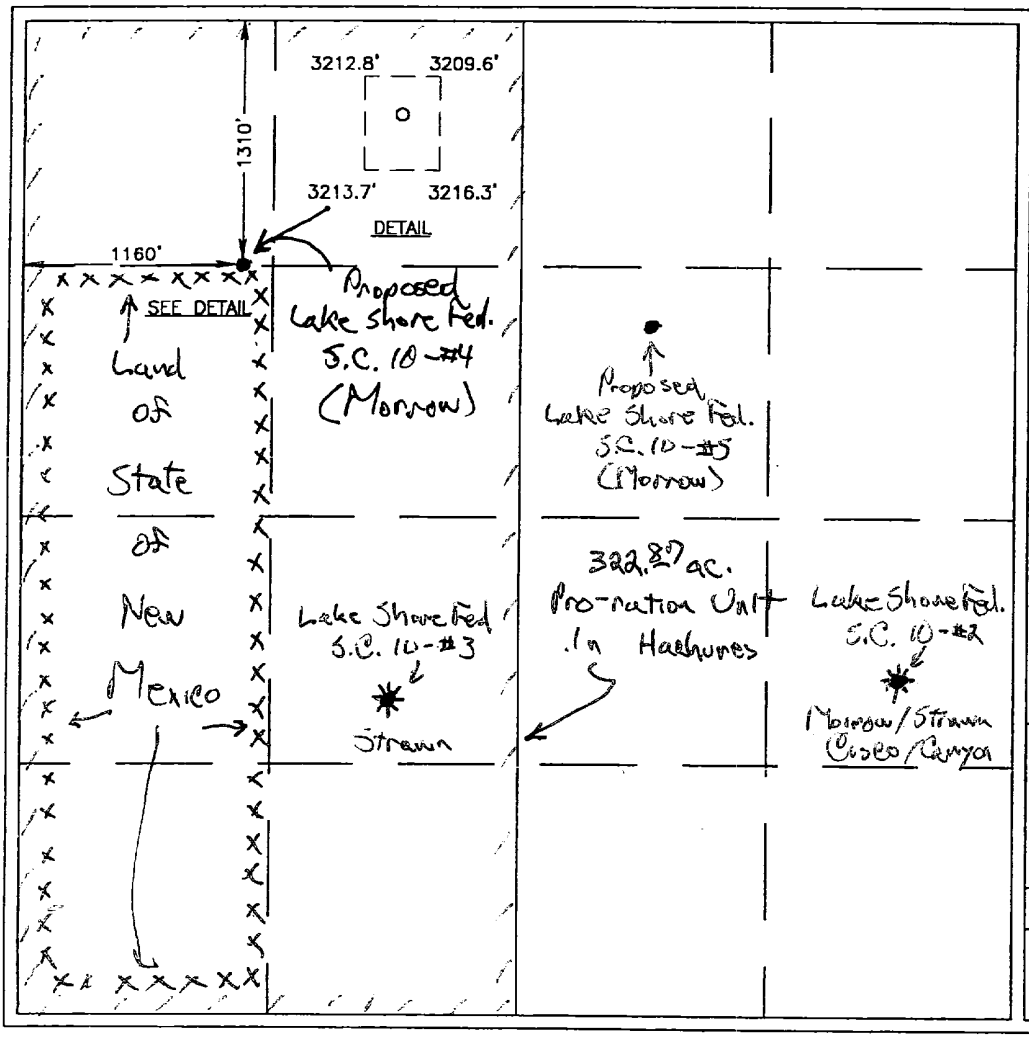
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	21 S	26E		1310	NORTH	1160	WEST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
322.87	Infill		Communitization: State & Federal Lands NM NM 101369

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Signature

R.H. Schweers
Printed Name

Operations Manager
Title

10/22/2000
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

OCTOBER 4, 2000
Date Surveyed LMP

Signature & Seal of Professional Surveyor

Ronald J. Eidson 10/09/00
00-11-1213

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

EXHIBIT 'C' - #5
Lake Shore Fed. S.C. 10 - #4

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Bonneville Fuels Corporation
Lake Shore 10 Federal Com Well No. 3
Eddy County, New Mexico
W/2 Section 10, Township 21 South, Range 26 East
Wolfcamp, Cisco, Canyon, Strawn, Atoka and Morrow

There having been presented to the undersigned Commissioner of Public Lands of the State on New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement, dated **January 1, 1999**, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

(a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.

(b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.

(c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.

(d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this **22nd day of February, 1999**.

Ray Powell / ATW

COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

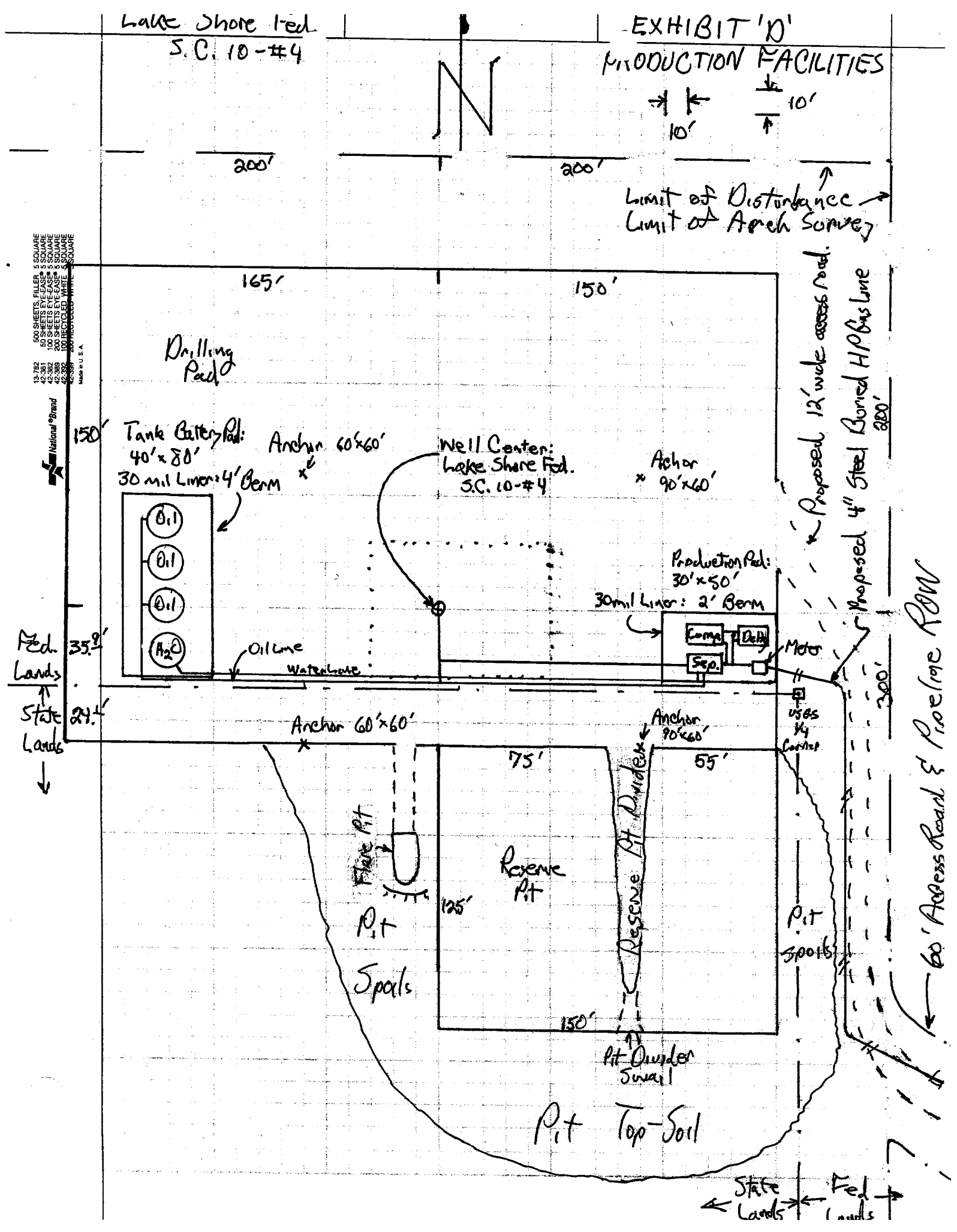

Lake Shore Fed.
S.C. 10-#4
EXHIBIT 'D'
PRODUCTION FACILITIES
N
10'
10'
200'
200'
Limit of Disturbance
Limit of Arch Survey
165'
150'
Drilling Pad
150'
Tank Battery Pad:
40'x80'
30 mil Liner: 4' Berm
Anchor 60'x60'
Well Center:
Lake Shore Fed.
S.C. 10-#4
Anchor 90'x60'
Proposed 12' wide access road
Proposed 4" Steel Buried HP Gas Line
280'
Production Pad:
30'x50'
30mil Liner: 2' Berm
Comp.
Dehy
Sep.
Motor
Oil Line
Water Line
Fed. Lands
35.9'
State Lands
24.1'
Anchor 60'x60'
Anchor 90'x60'
75'
55'
125'
150'
Flare Pit
Reserve Pit
Reserve Pit Divider
Pit Spoils
Pit Spoils
Pit Divider Swell
Pit Top-Soil
300'
60' Access Road & Pipeline ROW
State Lands
Fed Lands

EXHIBIT 'E' P. 1/4
Special Lease Stipulations
NM 3606

United States Department of the Interior
BUREAU OF RECLAMATION
SOUTHWEST REGION
HERRING PLAZA BOX H-4377
AMARILLO, TEXAS 79101

IN REPLY REFER TO: 420
773

FEB 12 1975

Memorandum

To: Chief, Branch of Oil and Gas, Bureau of Land Management, Santa Fe, New Mexico

From: Regional Director

Subject: Oil and Gas Lease NM 3606--Carlsbad Project, New Mexico

When subject oil and gas lease was issued December 1, 1967, we inadvertently inserted an old special stipulation which reads:

> "Drilling to be prohibited within one half mile of any dam, dike or other major structure, and within 150 ft. of the center line of any canal, lateral or drain connected with the project. Drilling to be prohibited within an area established by a line 300 ft. beyond the high water line of Avalon Reservoir, said high water line being defined as Contour 3180, which Contour is 2.0 ft. above the crest of Spillway No. 1 (See page 322 USGS Water Supply Paper 898)."

This stipulation is more stringent than the standard stipulation form which has been used since 1963. Accordingly, we suggest you issue an amendment to subject lease and insert the enclosed form R5-43 in lieu of the above-quoted special stipulation.

[signature]

Enclosure

cc: Mr. James A. Knauf
District Engineer
U.S. Geological Survey
Post Office Drawer U
Artesia, New Mexico 88210
(w/c enclosure)

JOHNNY HORIZON '76

EXHIBIT 'E' Pg. 2/4
Special Lease Stipulations
NM 3606

R5-43
(2-11-64)

Special Stipulations

1. All rights under this lease are subordinate to the right of the United States to flood and submerge the lands, permanently or intermittently, in connection with the operation and maintenance of the Carlsbad (Avalon Reservoir) dam and reservoir project.

2. All surface work performed by the lessee on the lands shall be under the general supervision of the Regional Director, Bureau of Reclamation, in direct charge of the project, and subject to such conditions and regulations as he may prescribe. The plans and location for all structures, appurtenances thereto, and surface work on the leased lands shall be submitted to the said Regional Director for approval in advance of commencement of any surface work on the said lessed lands. All oil or gas drilling and producing operations shall be under the supervision of the Regional Oil and Gas Supervisor, U. S. Geological Survey, in accordance with 30 CFR, Part 221. The authorized representatives of the Bureau of Reclamation and of the Geological Survey shall have the right to enter on the leased premises at any time to inspect both the installation and operational activities of the lessee.

3. No wells shall be drilled for oil or gas below the conservation pool elevation of 3177.4 * feet, except upon written permission of the Regional Director, provided, however, that there will be no objection to such drilling by directional methods from adjacent areas above the 3177.4 * foot elevation; on the condition that such drilling operations are subject to appropriate restrictions to prevent pollution of the reservoir, with operation and maintenance of the reservoir and to prevent interference.

4. All storage tanks shall be constructed above elevation 3194.0 ** feet, mean sea level, and shall be protected by firewalls or dikes of sufficient capacity to protect the reservoir from pollution.

5. Drilling a well for oil or gas is prohibited within 2,640 feet of any dam, dike, or other major structure, unless otherwise approved by the Regional Director.

6. All drilling operations shall be conducted in accordance with the applicable State laws relative to municipal water supplies.

* Conservation pool elevation for the appropriate reservoir
** Maximum water surface of the appropriate reservoir

Address: Regional Director
Bureau of Reclamation
P. O. Box 1609
Amarillo, Texas

Address: Regional Oil and Gas Supervisor

EXHIBIT 'E' Pag 3/4
Special Lease Stipulations
NM 3606

BUREAU OF LAND MANAGEMENT

LEASE FOR OIL AND GAS

(Sec. 17 Noncompetitive Public Domain Lease)

Act of February 25, 1920 (41 Stat. 437), as amended (30 U.S.C. Sec. 181)

RECEIVED
BUREAU OF LAND MANAGEMENT
LAND OFFICE SANTA FE, N.M.
NOV 13 1967
HOUR 10:00 A.M.

Gilbert E. Behlen
130 No. Parkway
Columbus, Nebraska 68601

NM 3606
(Serial Number)

This oil and gas lease is issued for a period of ten (10) years to the above-named lessee pursuant and subject to the provisions of the Mineral Leasing Act and subject to all rules and regulations of the Secretary of the Interior now or hereafter in force, when not inconsistent with any express and specific provisions herein, which are made a part hereof.

Lands included in the lease:

T. 21 S., R. 26 E., NMPM, New Mexico
Sec. 2: Lot 12
3: NW¼SW¼, S½SW¼
4: Lots 15, 16, SE¼
9: NE¼NE¼
10: SE¼NE¼, NE¼SE¼, W½E½, E½W½, NW¼NW¼
11: S½N½, N½SE¼, SW¼SE¼
12: E½SW¼, W½SE¼, SE¼SE¼
15: SE¼NW¼, NE¼SW¼

Is subject to the determination by the Survey as to whether the lands herein were on a known geologic structure of a oil or gas field as of the date of signing by the authorized officer. Lands not within a known Geologic Structure on date of lease issuance.

For the Director
U. S. Geological Survey

Containing a total of 1440 acres | Annual Rental $ 720.00

This lease is issued to the successful drawee pursuant to his "Simultaneous Oil and Gas Entry Card" application filed under 43 CFR 3123.9, and is subject to the provisions of that application and those specified on the reverse side hereof.

Effective date of lease: December 1, 1967

THE UNITED STATES OF AMERICA

By [signature]
(Signature of Signing Officer)
Fred E. Padilla, Chief
Branch of Oil and Gas
(Title)

NOV 1 1967
(Date)

11/11/67

11/13/67

NOTED
Acreage Control
Date 10/23/67
By

EXHIBIT 'E' pg 4/4
Special Lease Stipulations
NM 3606

Form 3103-1
(June 1964)
(formerly 4-467)

RECEIVED
BUREAU OF LAND MANAGEMENT
LAND OFFICE-SANTA FE, N. M.
1967

NM 3606
Oil and Gas
4:10h

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOUR: 10:00 A.M.

LEASE STIPULATIONS
BUREAU OF RECLAMATION

The lessee agrees to maintain, if required by the lessor during the period of this lease, including any extension thereof, an additional bond with qualified sureties in such sum as the lessor, if it considers that the bond required under Section 2(a) is insufficient, may at any time require:

(a) to pay for damages sustained by any reclamation homestead entryman to his crops or improvements caused by drilling or other operations of the lessee, such damages to include the reimbursement of the entryman by the lessee, when he uses or occupies the land of any homestead entryman, for all construction and operation and maintenance charges becoming due during such use or occupation upon any portion of the land so used and occupied;

(b) to pay any damage caused to any reclamation project or water supply thereof by the lessee's failure to comply fully with the requirements of this lease; and

(c) to recompense any nonmineral applicant, entryman, purchaser under the Act of May 16, 1930 (46 Stat. 367), or patentee for all damages to crops or to tangible improvements caused by drilling or other prospecting operations, where any of the lands covered by this lease are embraced in any nonmineral application, entry, or patent under rights initiated prior to the date of this lease, with a reservation of the oil deposits, to the United States pursuant to the Act of July 17, 1914 (38 Stat. 509).

As to any lands covered by this lease within the area of any Government reclamation project, or in proximity thereto, the lessee shall take such precautions as required by the Secretary to prevent any injury to the lands susceptible to irrigation under such project or to the water supply thereof; *provided* that drilling is prohibited on any constructed works or right-of-way of the Bureau of Reclamation, and *provided, further*, that there is reserved to the lessor, its successors and assigns, the superior and prior right at all times to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals; ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, and reclamation works, in which construction, operation, and maintenance, the lessor, its successors and assigns, shall have the right to use any or all of the lands herein described without making compensation therefor, and shall not be responsible for any damage from the presence of water thereon or on account of ordinary, extraordinary, unexpected, or unprecedented floods. That nothing shall be done under this lease to increase the cost of, or interfere in any manner with, the construction, operation, and maintenance of such works. It is agreed by the lessee that, if the construction of any or all of said dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone or telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures or reclamation works across, over, or upon said lands should be made more expensive by reason of the existence of the improvements and workings of the lessee thereon, said additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States, or its successors, constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, and reclamation works, across, over, or upon said lands; *provided, however*, that subject to advance written approval by the United States, the location and course of any improvements or works and appurtenances may be changed by the lessee; *provided, further*, that the reservations, agreements, and conditions contained in the within lease shall be and remain applicable notwithstanding any change in the location or course of said improvements or works of lessee. The lessee further agrees that the United States, its officers, agents, and employees, and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works hereinabove enumerated. Nothing in this paragraph shall be construed as in any manner limiting other reservations in favor of the United States contained in this lease.

THE LESSEE FURTHER AGREES That there is reserved to the lessor, its successors and assigns, the prior right to use any of the lands herein leased, to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures, and also the right to remove construction materials therefrom, without any payment made by the lessor or its successors for such right, with the agreement on the part of the lessee that if the construction of any or all of such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or the removal of construction materials therefrom, should be made expensive by reason of the existence of improvements or workings of the lessee thereon, such additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States or its successors constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or removing construction materials therefrom. The lessee further agrees that the lessor, its officers, agents, and employees and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works herein above enumerated. Nothing contained in this paragraph shall be construed as in any manner limiting other reservations in favor of the lessor contained in this lease.

Drilling to be prohibited within one half mile of any dam, dike or other major structure, and within 150 ft. of the center line of any canal, lateral or drain connected with the project. Drilling to be prohibited within an area established by a line 300 ft. beyond the high water line of Avalon Reservoir, said high water line being defined as Contour 3180, which Contour is 2.0 ft. above the crest of Spillway No. 1 (See page 322 USGS Water Supply Paper 898).

(over)

(Signature of lessee)

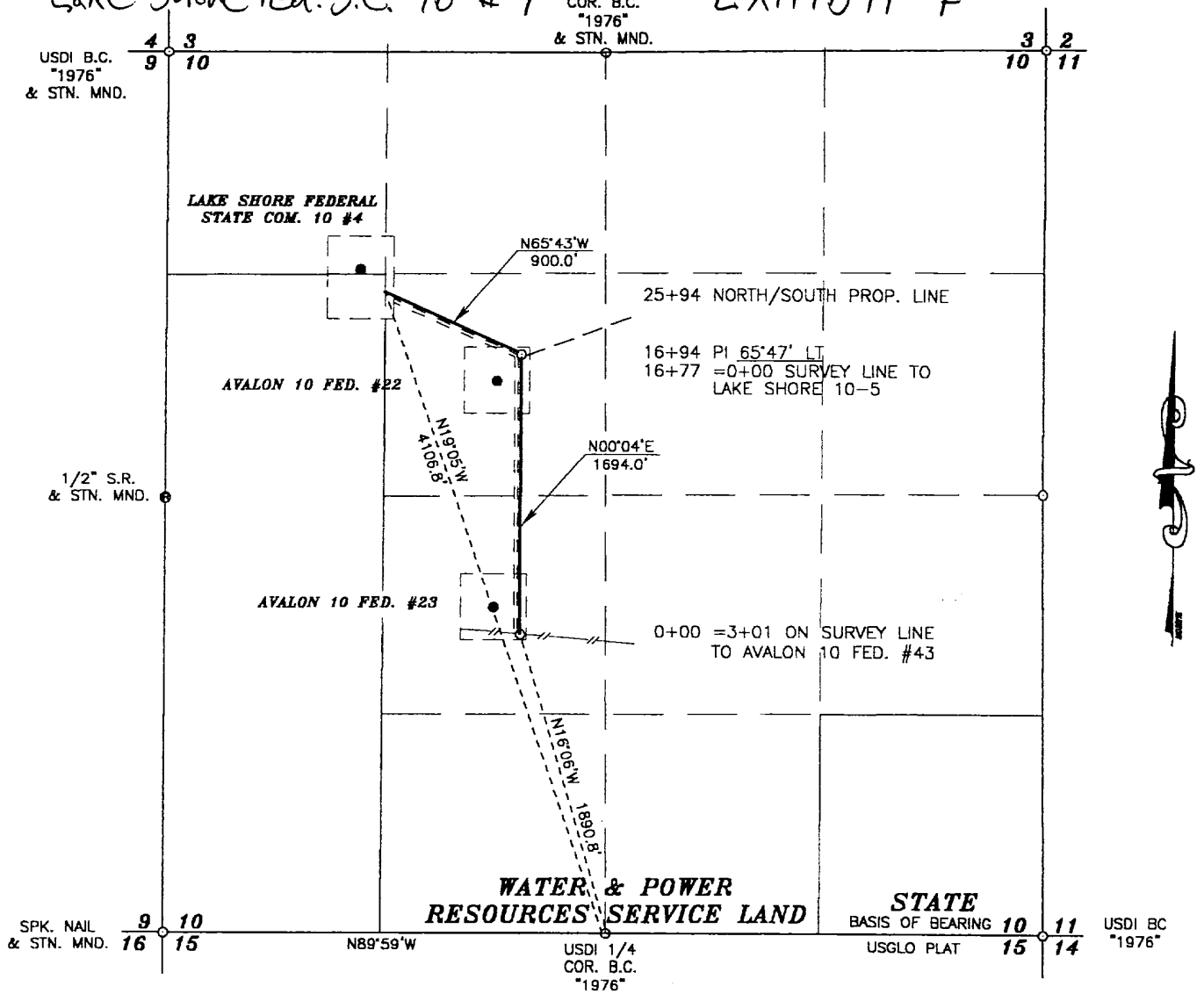
(See Amended Stips) 3

SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.

Lake Shore Fed. S.C. 10-#4

EXHIBIT 'F'



DESCRIPTION

A STRIP OF LAND BEING 50 FEET WIDE AND 2594.0 FEET OR 0.491 MILES IN LENGTH AND BEING 25.0 FEET LEFT OF AND 25.0 FEET RIGHT OF THE ABOVE CENTERLINE SURVEY.

1000 0 1000 2000

SCALE: 1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

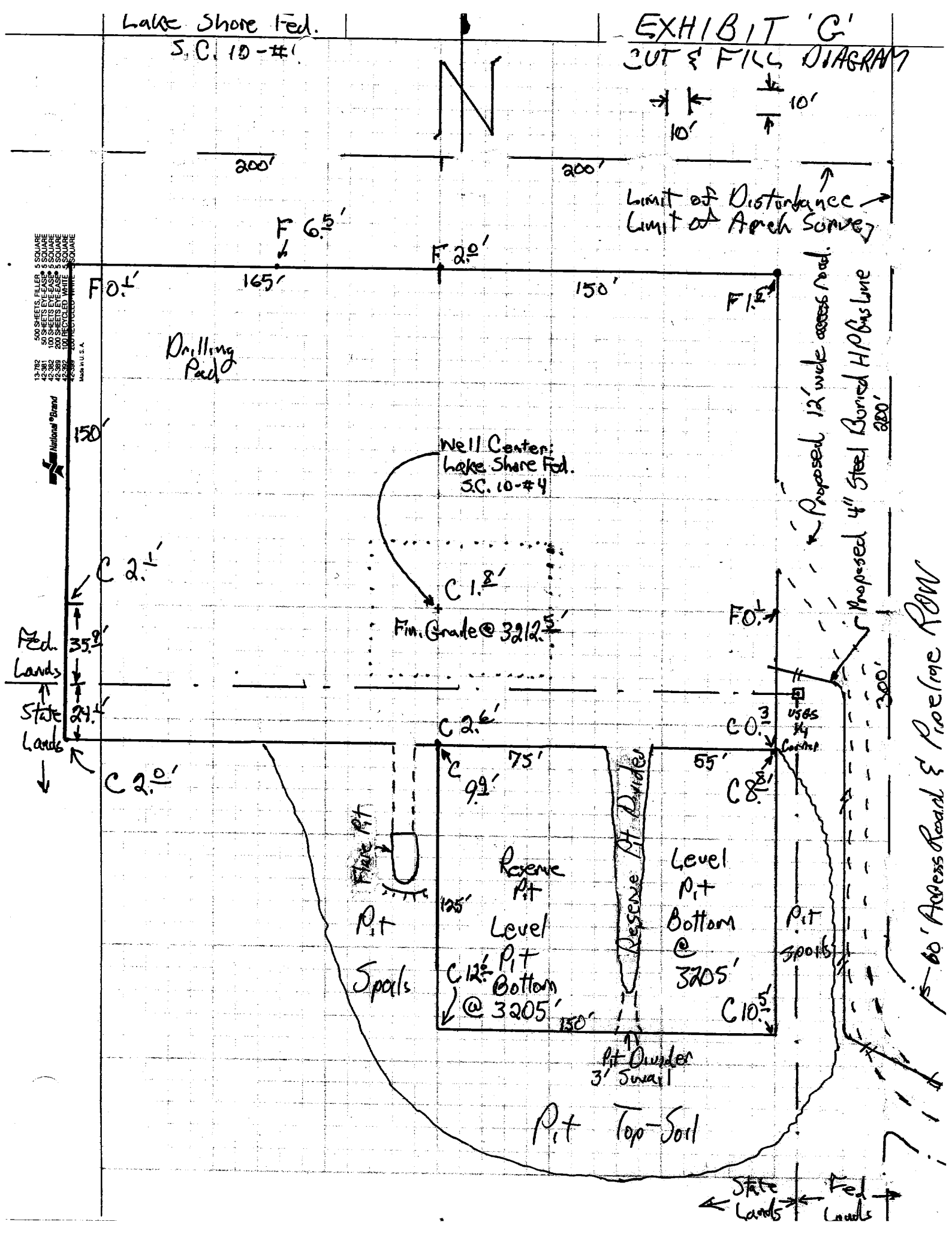
Ronald J. Eidson 10/12/00

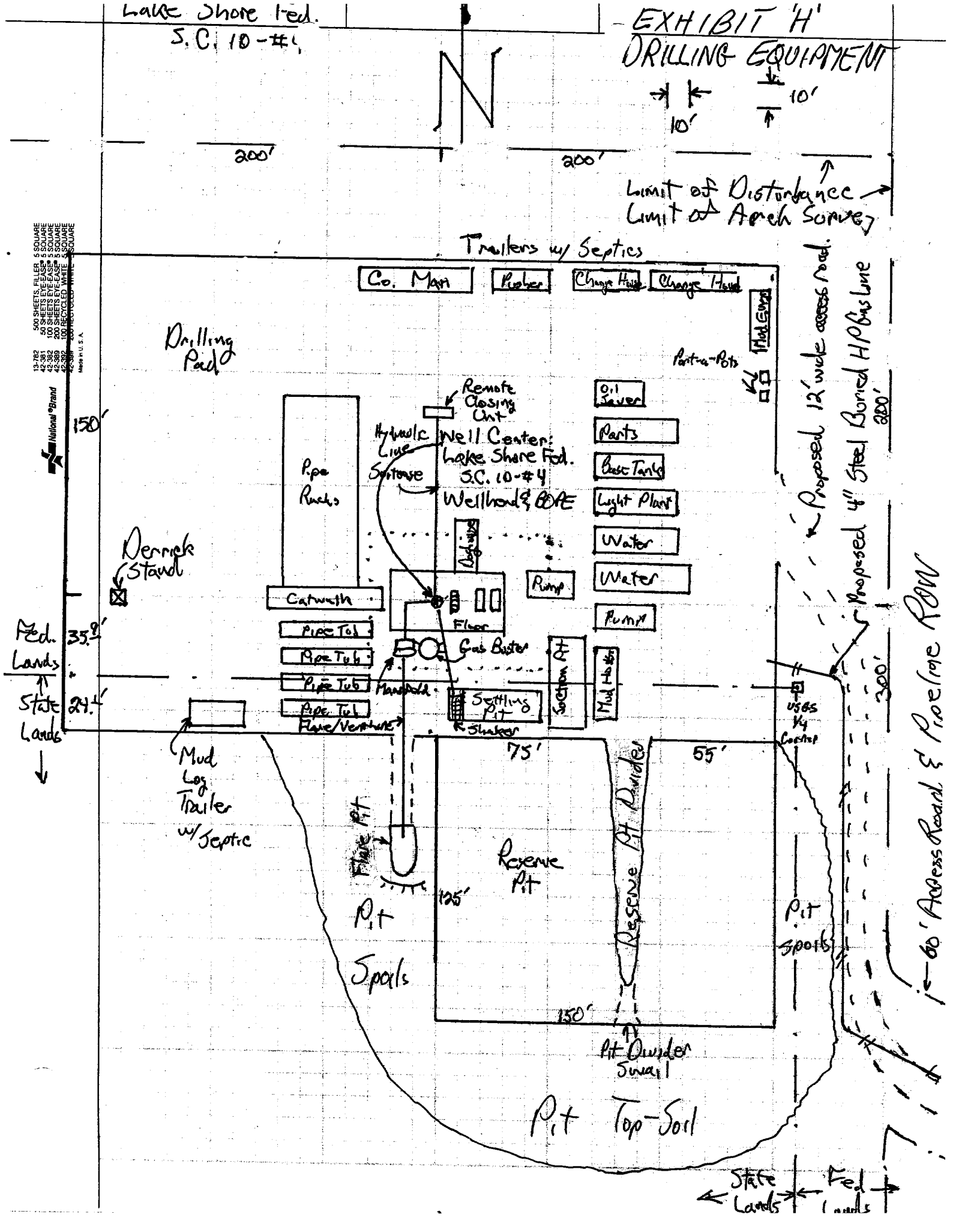
RONALD J. EIDSON, N.M.: P.S. No. 3239
GARY G. EIDSON N.M. P.S. No. 12641
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO – HOBBS, NEW MEXICO – 505-393-3117

BONNEVILLE FUELS CORPORATION

SURVEY OF A PIPELINE CROSSING U.S.A.
WATER & POWER RESOURCES SERVICE LAND
SECTION 10, TOWNSHIP 21 SOUTH, RANGE 26 EAST,
EDDY COUNTY, NEW MEXICO

Survey Date: 10/5/00		Sheet 1 of 1 Sheets	
W.O. Number: 00-11-1213		Drawn By: LMP	
Date:05/10/00	DISK: CD#3	BONN1213	Scale:1"=1000'


Lake Shore Fed.
S.C. 10-#1
EXHIBIT 'G'
CUT & FILL DIAGRAM
10'
10'
200'
200'
Limit of Disturbance
Limit of Arch Survey
F 6.5'
F 2.0'
F 0.1'
165'
150'
F 1.2'
Drilling Pad
Proposed 12' wide access road.
Proposed 4" Steel Buried HP Gas Line
200'
150'
Well Center:
Lake Shore Fed.
S.C. 10-#4
C 2.1'
C 1.8'
Fin. Grade @ 3212.5'
F 0.1'
Fed. Lands
35.8'
State Lands
24.4'
C 2.6'
C 0.3'
USGS Mk Corner
C 2.0'
75'
55'
C 9.9'
C 8.8'
Flare Pit
Reserve Pit Divider
Reserve Pit
Level Pit Bottom @ 3205'
125'
Pit Spoils
C 12.4'
C 10.5'
150'
Pit Dwider
3' Swale
Pit Top-Soil
60' Access Road & Pipeline ROW
State Lands
Fed Lands


Lake Shore Fed.
S.C. 10-#4
EXHIBIT 'H'
DRILLING EQUIPMENT
10'
10'
200'
200'
Limit of Disturbance
Limit of Arch Survey
Trailers w/ Septics
Co. Man
Rusher
Change House
Change House
Mud Pumps
Drilling Pad
Porta-Pots
Proposed 12' wide access road
Proposed 4" Steel Buried HP Gas Line
200'
Remote Closing Unit
Hydraulic Line
Well Center:
Lake Shore Fed.
S.C. 10-#4
Wellhead & BOPE
Soltrave
Pipe Racks
Derrick Stand
Doghouse
Ramp
Floor
Gas Buster
Manifold
Catwalk
Pipe Tub
Pipe Tub
Pipe Tub
Pipe Tub
Flare/Vent Line
Settling Pit
Shaker
Suction
Mud Tanks
Oil Saver
Parts
Boost Tanks
Light Plant
Water
Water
Pump
Pump
USGS Mag Contact
150'
Fed. Lands
35.9'
State Lands
24.1'
Mud Log Trailer w/ Septic
75'
55'
Flare Pit
125'
Reserve Pit
Reserve Pit Divider
Pit Spoils
Pit Spoils
150'
Pit Divider Swell
Pit Top-Soil
60' Access Road & Pipeline ROW
State Lands
Fed. Lands

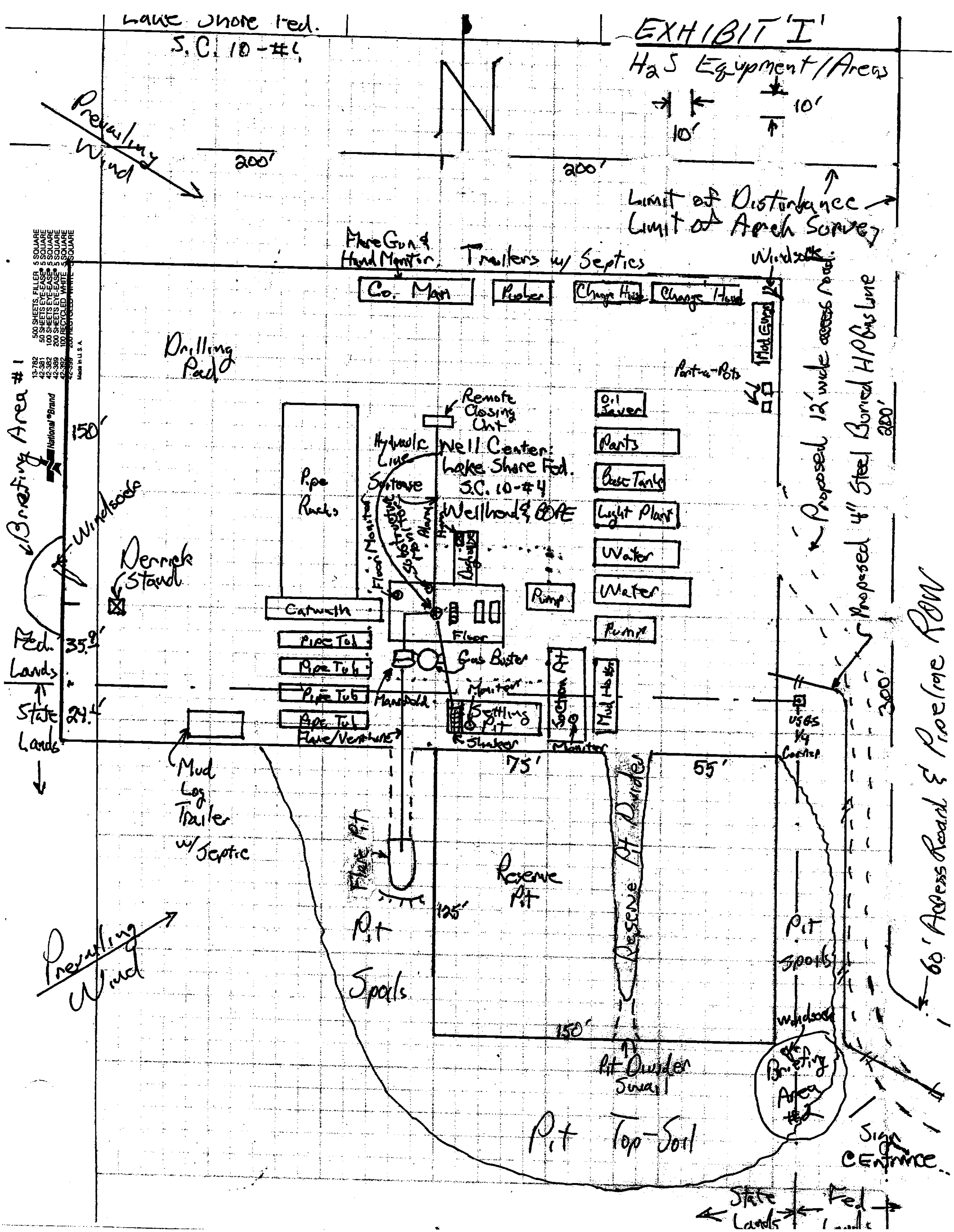

Lake Shore Fed.
S.C. 10-#4
EXHIBIT 'I'
H2S Equipment/Areas
10'
10'
Prevailing Wind
200'
200'
Limit of Disturbance
Limit of Arch Survey
Flare Gun & Hand Monitor
Trailers w/ Septics
Co. Main
Pusher
Change House
Change House
Windsock
Mud Engr
Proposed 12' wide access road
Proposed 4" Steel Buried H/P Gas Line
300'
Porta-Pots
Drilling Pad
Briefing Area #1
150'
Remote Closing Unit
Oil Saver
Parts
Pipe Racks
Hydraulic Line
Well Center: Lake Shore Fed. S.C. 10-#4
Suitcase
Wellhead & BOPE
Boost Tanks
Light Plant
Windsock
Derrick Stand
Water
Water
Pump
Pump
Catwalk
Floor
Fed. Lands
35.9'
State Lands
24.4'
Pipe Tub
Pipe Tub
Pipe Tub
Pipe Tub
Gas Buster
Manifold
Monitor
Settling Pit
Shaker
Flare/Vent Line
Suction
Mud Hopper
Monitor
USGS 1/4 Corner
Proposed ROW
300'
Mud Log Trailer w/ Septic
75'
55'
Flare Pit
Reserve Pit
Reserve Pit Divider
125'
Pit Spoils
Pit Spoils
Prevailing Wind
60' Access Road & Pipeline ROW
150'
Pit Divider Swail
Windsock
Briefing Area #2
Pit Top-Soil
Sign
Entrance
State Lands
Fed Lands

EXHIBIT 'J' 1/4

Lake Shore Fed. S.C. 10-#4

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 72116

4. Title of Report (Project Title):
A Cultural Resource Inventory
The Lake Shore Federal State COM 10 Number 4
Proposed Well Location and Access Road
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 2000

6. Report Date
October 17, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-401

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation.
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No.(303) 863-1555 Ext. 213

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 6.66
Per Surface Ownership:
(Bureau of Reclamation) Federal 5.74
State .92
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b**. County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec10 Well Pad Footage's **1310' FNL and 1160' FWL**
¼'s: **Pad:** SE1/4NW1/4NW1/4,
¼'s: **Road:** NW1/4SW1/4SE1/4 of the NW1/4
f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West NM (1985) 32104-D3

g. Area: Block:
Impact: 200' X 250'
Surveyed: 400' X 500'
Linear: 60' X 900'
Surveyed: 120' X 900'

---

14. a. **Records Search**:

Location: ARMS HPD. Date: October 3, 2000
BLM Carlsbad Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
None

b. **Description of Undertaking:**
The proposed Lake Shore Federal State COM 10 Number 4 well location is staked 1310 ft FNL and 1160 ft FWL in Section 10, T.21S., R.26E. The impact area for the proposed well location is an area 200 ft by 250 ft. An area of 400 ft by 500 ft was surveyed for the proposed well location. The proposed access road is 900 ft long with an impact area of 60 ft by 900 ft. The proposed access road begins on the southeast corner of the well location and trends 900 ft southeast to a previously inventoried right of way (SNMAS-00-NM-403).

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3214 ft.

d. Field Methods: **Transect Intervals**: 10 zig zag transects across well pad, 50-ft zig zag intervals across the staked corridor.
Crew Size: 1
Time in Field: 2 hours
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

Isolate 1 164'E x 30'S of Drill Hole NE1/4SW1/4NW1/4
Brass section marker
US DEPARTMENT OF AGRICULTURE
T21S R26E
NW 1/16 S10
BIOLOGICAL SURVEY

Isolate 2 141'E x 23'S of Drill Hole NE1/4SW1/4NW1/4
Chopper, complete, purple quartzite, 90% cortex, 76 x 51 x 15mm

Isolate 3 30'E x 30'N of SW corner SE1/4NW1/4NW1/4
a. core, purple quartzite, 60% cortex, multidirectional, 58 50 30mm
b. round can, crushed, locked seam, knife-opened, 4 ½" tall

16. Management Summary (Recommendations):

During the survey, three isolated occurrences were encountered, recorded and all research potential exhausted in the field. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed Lake Shore Federal State COM 10 Number 4 well location and access road, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature Joe Ben Sanders

Joe Ben Sanders Date: October 17, 2000
Principal Investigator

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report

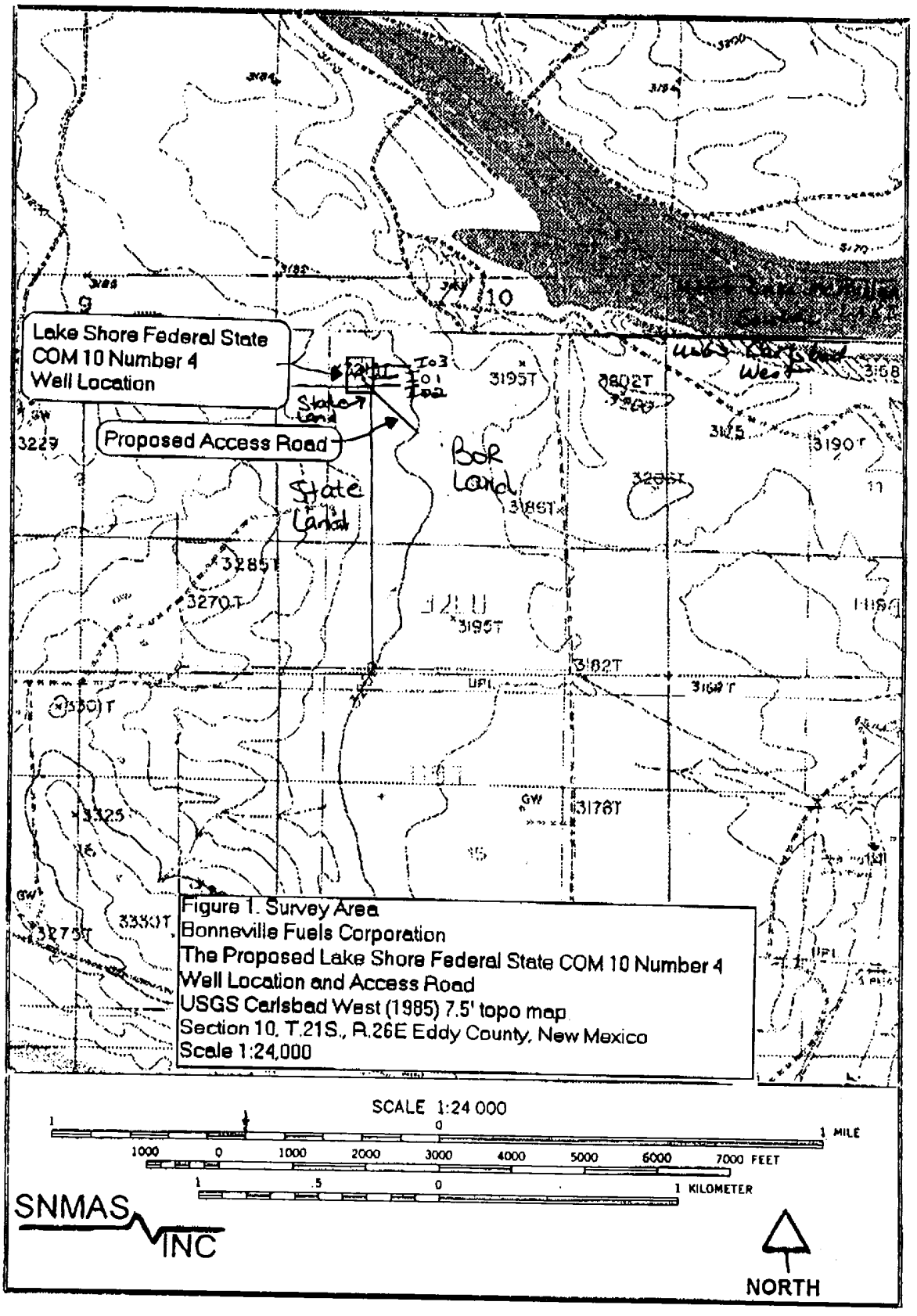


Figure 1. Survey Area
Bonneville Fuels Corporation
The Proposed Lake Shore Federal State COM 10 Number 4
Well Location and Access Road
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E Eddy County, New Mexico
Scale 1:24,000

EXHIBIT 'K'
Lake Shore Fed. S.C. 10-#4

1/5

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 72121

4. Title of Report (Project Title):
A Cultural Resource Inventory
The Avalon and Lakeshore Pipeline
A Pipeline servicing the Avalon and Lakeshore
Bonneville Fuels Corporation Well Locations
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 5, 2000

6. Report Date
October 20, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Joe Ben Sanders and Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-407

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No. (303) 863-1555 Ext 213

(Bureau of Reclamation)

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 17.22
Per Surface Ownership:
Federal 17.19
State .03
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b.** County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec 10 Well Pad Footage's **1980' FNL and 1980' FWL**

¼'s: **Pipeline:** SE1/4N1/2SE1/4; NE1/4NE1/4SW1/4NW1/4; NW1/4SW1/4NE1/4; W1/2SE1/4NW1/4; W1/2NE1/4NE1/4SW1/4; SW1/4NE1/4SW1/4; SE1/4NE1/4SW1/4; S1/2NW1/4SE1/4; SW1/4NE1/4SE1/4;NW1/4SE1/4NE1/4SE1/4;NE1/4NE1/4SE1/4SE1/4; SE1/4NE1/4

f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West (1985) 32104-D3

g. Area: Block:

Impact: 000' X 000'
Surveyed: 000' X 000'
Linear: 60' X 7500'
Surveyed: 120' X 7500'

---

14. a. **Records Search**:

Location: ARMS HPD. Date: October 3, 2000
BLM Carlsbad Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
LA 131362

b. **Description of Undertaking:**

The proposed pipeline begins on the southeast corner of the Lakeshore Federal State COM 10 Number 4, (previously inventoried SNMAS-401) well location and trends 900 ft southeast to the Avalon 10 Federal Number 22, (previously inventoried SNMAS-403), on the northeast, then trends 700 ft northeast, 400 ft southeast to the Lakeshore Federal State COM 10, (previously inventoried SNMAS 402). The pipeline then trends off of the Avalon 10 Federal Number 22 from the northeast corner 1200 ft south along side of previously inventoried access roads (SNMAS-403 and 404) to the Avalon 10 Federal Number 23 well location (previously inventoried SNMAS 404). The pipeline then trends from the southwest corner of the Avalon 10 Federal Number 23 southeast 2800 feet to the southwest corner of Avalon 10 Federal Number 43, (previously inventoried SNMAS-406) and the northwest corner of the existing Lakeshore Federal State COM Number 2 well location. The pipeline then trends from the northeast corner of the existing Lakeshore Federal State COM Number 2 well location due north 1200 ft, then 300 ft north to a previously inventoried (SNMAS-405) access road located on the southeast corner of the Avalon 10 Federal Number 42.

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:

The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3197 ft.

d. Field Methods: **Transect Intervals**: 50-ft zig zag intervals across the staked corridor.
Crew Size: 2
Time in Field: 6 hours
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

During the current surveys, no cultural resources were encountered.

---

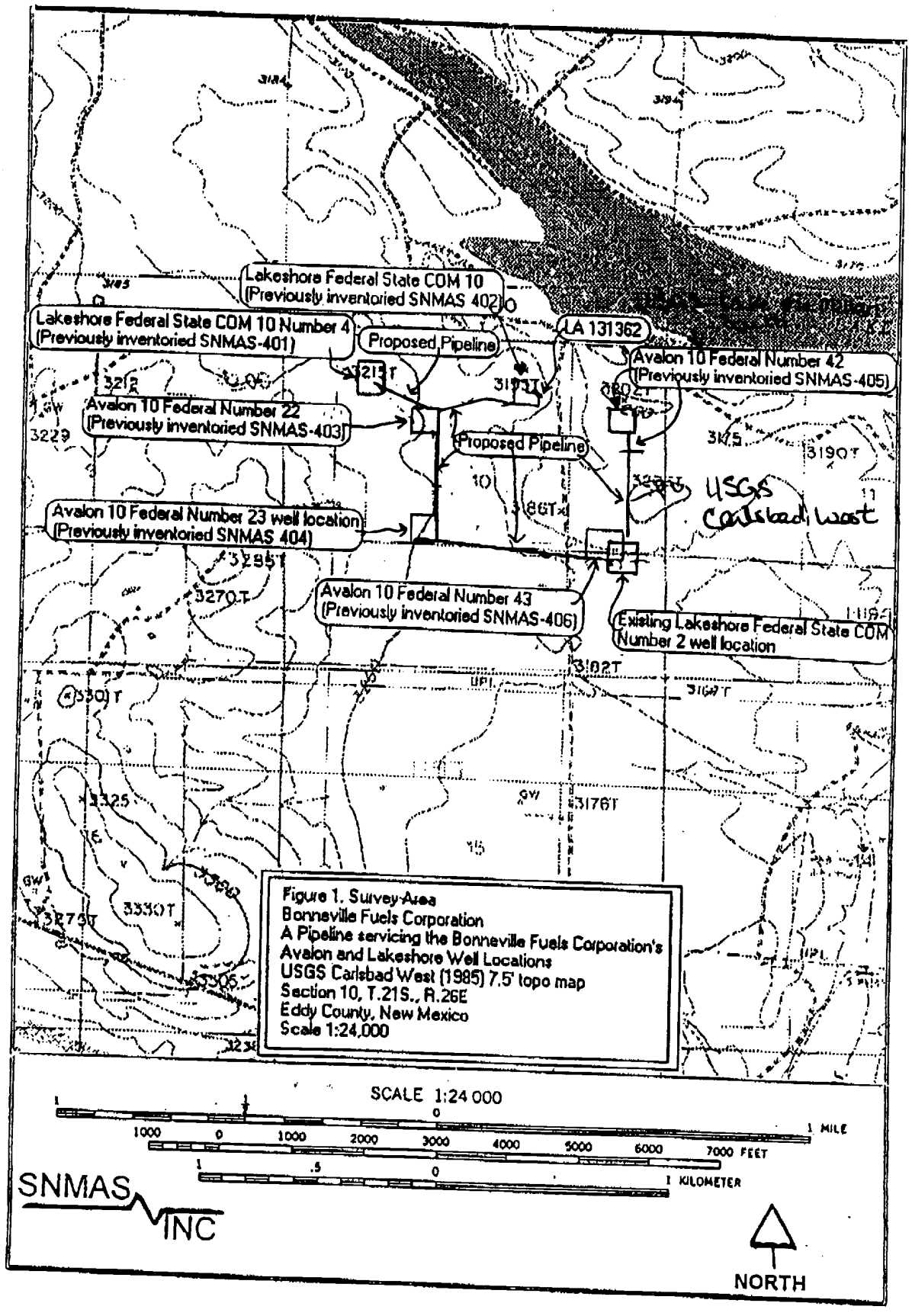
16. Management Summary (Recommendations):

During the survey, no cultural resources were encountered. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed pipeline servicing the Avalon and Lakeshore Bonneville Fuels Corporation well locations, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature _____
Joe Ben Sanders
Principal Investigator
Date: October 20, 2000

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report


Lakeshore Federal State COM 10
(Previously inventoried SNMAS 402)
Lakeshore Federal State COM 10 Number 4
(Previously inventoried SNMAS-401)
Proposed Pipeline
LA 131362
Avalon 10 Federal Number 42
(Previously inventoried SNMAS-405)
Avalon 10 Federal Number 22
(Previously inventoried SNMAS-403)
Proposed Pipeline
Avalon 10 Federal Number 23 well location
(Previously inventoried SNMAS 404)
USGS Carlsbad West
Avalon 10 Federal Number 43
(Previously inventoried SNMAS-406)
Existing Lakeshore Federal State COM
Number 2 well location
Figure 1. Survey Area
Bonneville Fuels Corporation
A Pipeline servicing the Bonneville Fuels Corporation's
Avalon and Lakeshore Well Locations
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000
SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER
SNMAS INC
NORTH

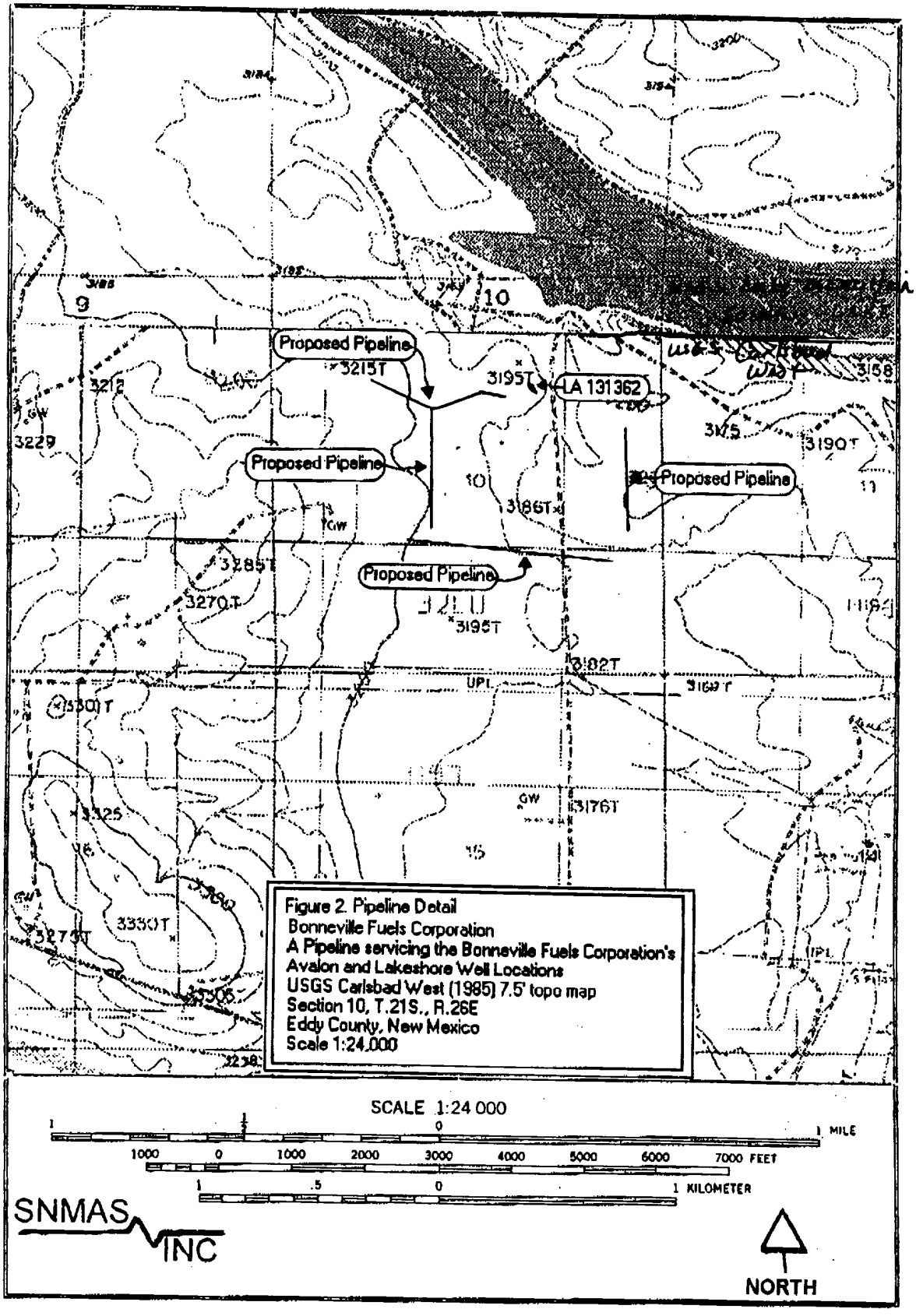


Figure 2. Pipeline Detail
Bonneville Fuels Corporation
A Pipeline servicing the Bonneville Fuels Corporation's
Avalon and Lakeshore Well Locations
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000

EXHIBIT 'L'
Lake Shore Fed. S.C. 10 #4

1/4

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. | **2.** (Accepted) (Rejected) | **3. NMCRIS No.** 72118

4. Title of Report (Project Title):
A Cultural Resource Inventory
The Avalon "10" Federal Number 23
Proposed Well Location and Access Road
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 2000

6. Report Date
October 17, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-404

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No. (303) 863-1555 Ext. 213

(Bureau of Reclamation)

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 6.00
Per Surface Ownership:
Federal 6.00
State
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b.** County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec 10 Well Pad Footage's **1980' FSL and 1980' FWL**
¼'s: **Pad:** NW1/4NE1/4SW1/4,
¼'s: **Road:** SE1/4SE1/4NW1/4; NE1/4NE1/4SW1/4
f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West NM (1985) 32104-D3

2/4

g. Area: Block:
Impact: 200' X 200'
Surveyed: 400' X 400'
Linear: 60' X 1000'
Surveyed: 120' X 1000'

---

14. a. **Records Search**:

Location: ARMS HPD. Date: October 3, 2000
BLM Carlsbad Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
None

b. **Description of Undertaking:**
The proposed Avalon "10" Federal Number 23 well location is staked 1980 ft FSL and 1980 ft FWL in Section 10, T.21S., R.26E. The impact area for the proposed well location is an area 200 ft by 200 ft. The proposed access road is 1000 ft long with an impact area of 60 ft by 1000 ft. The proposed access road begins on the northeast corner of the well location and trends 1000 ft north to a previously inventoried right of way (SNMAS-00-NM-403).

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3201 ft.

d. Field Methods: **Transect Intervals**: 8 zig zag transects across well pad, 50-ft zig zag intervals across the staked corridor.
Crew Size: 1
Time in Field: 2 hours
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

During the current survey, no cultural resources were encountered.

3/4

16. Management Summary (Recommendations):

During the survey, no cultural resources were encountered. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed Avalon "10" Federal Number 23 well location and access road, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature _____

Joe Ben Sanders
Principal Investigator

Date: October17, 2000

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report

44

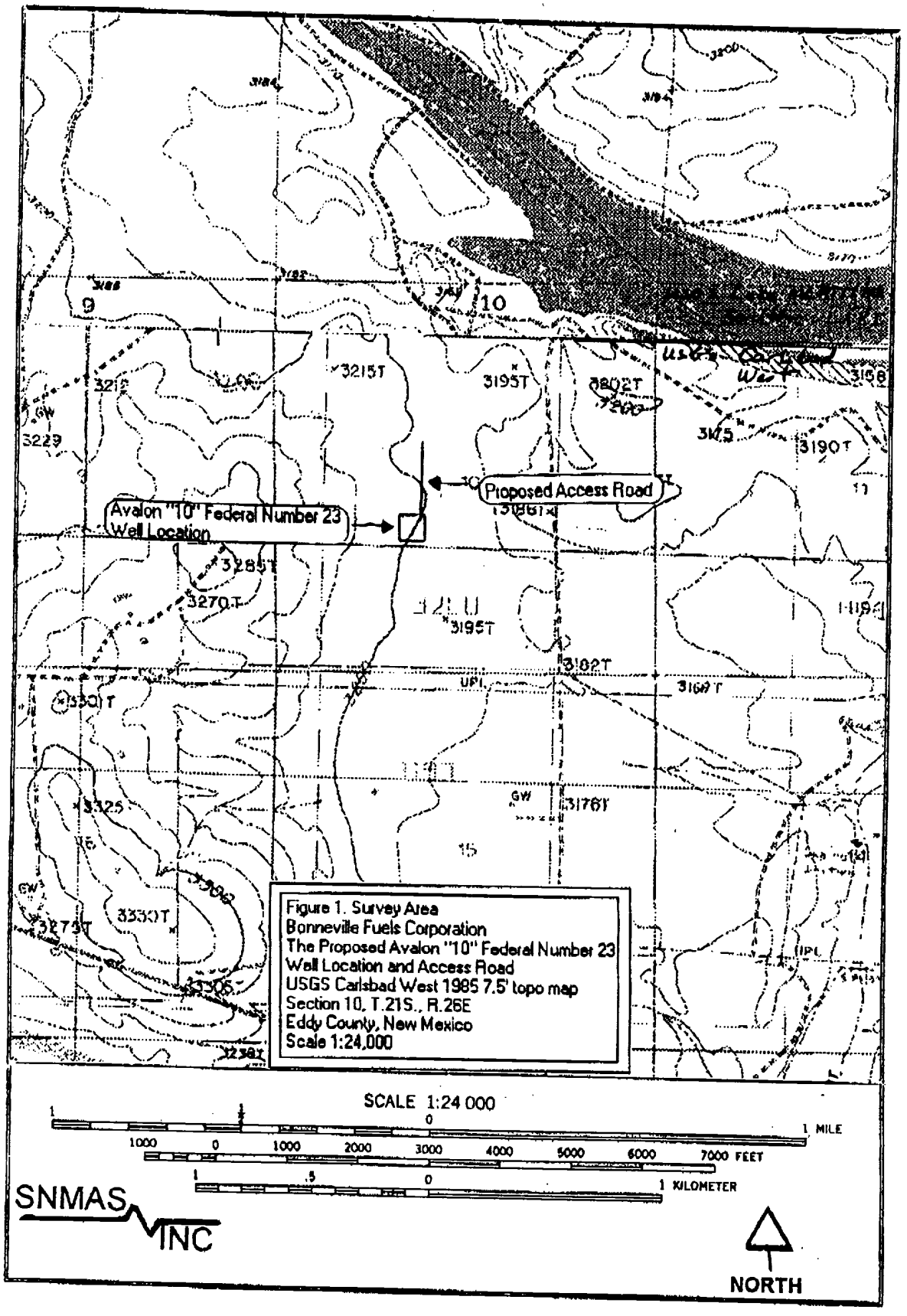


Figure 1. Survey Area
Bonneville Fuels Corporation
The Proposed Avalon "10" Federal Number 23
Well Location and Access Road
USGS Carlsbad West 1985 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000

EXHIBIT 'M'
Lake Shore Fed. S.C. 10-#4

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 72117

4. Title of Report (Project Title):
A Cultural Resource Inventory
The Avalon "10" Federal Number 22
Proposed Well Location and Access Road
Section 10, T.21S., R. 26E
Eddy County, New Mexico

5. Project Date(s)
October 4, 2000

6. Report Date
October 17, 2000

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders
Field Personnel Names: Ray Medlock
Phone No. (505) 671-4797

8. Permit No.
145-2920-00-G

Consultant Report #
SNMAS-00NM-403

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Robert Schwering

Name: Bonneville Fuels Corporation
Address: 1700 Broadway, Suite 1150
Denver, CO 80290
Phone No. (303) 863-1555 Ext 213

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 5.54
Per Surface Ownership:
(Bureau of Reclamation) Federal 5.54
State
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico **b.** County: Eddy **c.** BLM District: Roswell, Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 21S R 26E Sec 10 Well Pad Footage's **1980' FNL and 1980' FWL**
¼'s: **Pad:** NW1/4SE1/4NW1/4,
¼'s: **Road:** NE1/4NE1/4SW1/4; SE1/4SE1/4NW1/4
f. 7.5' Map Name(s) and Code Number(s): USGS Carlsbad West (1985) 32104-D3

2/4

g. Area: Block:
Impact: 200' X 200'
Surveyed: 400' X 400'
Linear: 60' X 800'
Surveyed: 120' X 800'

---

14. a. **Records Search**:

Location: ARMS HPD, Date: October 3, 2000
BLM Carlsbad Date: October 3, 2000

List by LA # All sites within .25 miles of the project:
None

b. **Description of Undertaking:**
The proposed Avalon "10" Federal Number 22 well location is staked 1980 ft FNL and 1980 ft FWL in Section 10, T.21S., R.26E. The impact area for the proposed well location is an area 200 ft by 200 ft. The proposed access road is 800 ft long with an impact area of 60 ft by 800 ft. The proposed access road begins on the southeast corner of the well location and trends 800 ft south to a previously inventoried right of way (SNMAS-00-NM-404).

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project area is located on the westside of Pecos River with gently rolling low hills in shallow soils over limestone bedrock. Vegetation in the area consists of acacia, grass, javelina bush, prickly pear, snakeweed and creosote. Elevation is 3197 ft.

d. Field Methods: **Transect Intervals**: 8 zig zag transects across well pad, 50-ft zig zag intervals across the staked corridor.
Crew Size: 1
Time in Field: 2 hours
Collections: NONE

15. Cultural Resource Findings:
a. Identification and description: (Location shown on project map)

Isolate 1 Consists of one complete flake of gray chert, no cortex, with a cortical plat form measuring 24 x 40 x 9 mm in size. Found in the NE1/4SE1/4NW1/4.

3/4

16. Management Summary (Recommendations):

During the survey, one isolated occurrence was encountered, recorded and its research potential exhausted in the field. **Therefore, archaeological clearance is recommended for the Bonneville Fuels Corporation proposed Avalon "10" Federal Number 22 well location and access road, with no stipulations.**

I certify the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist: Signature _____

Joe Ben Sanders
Principal Investigator

Date: October17, 2000

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report

4/4

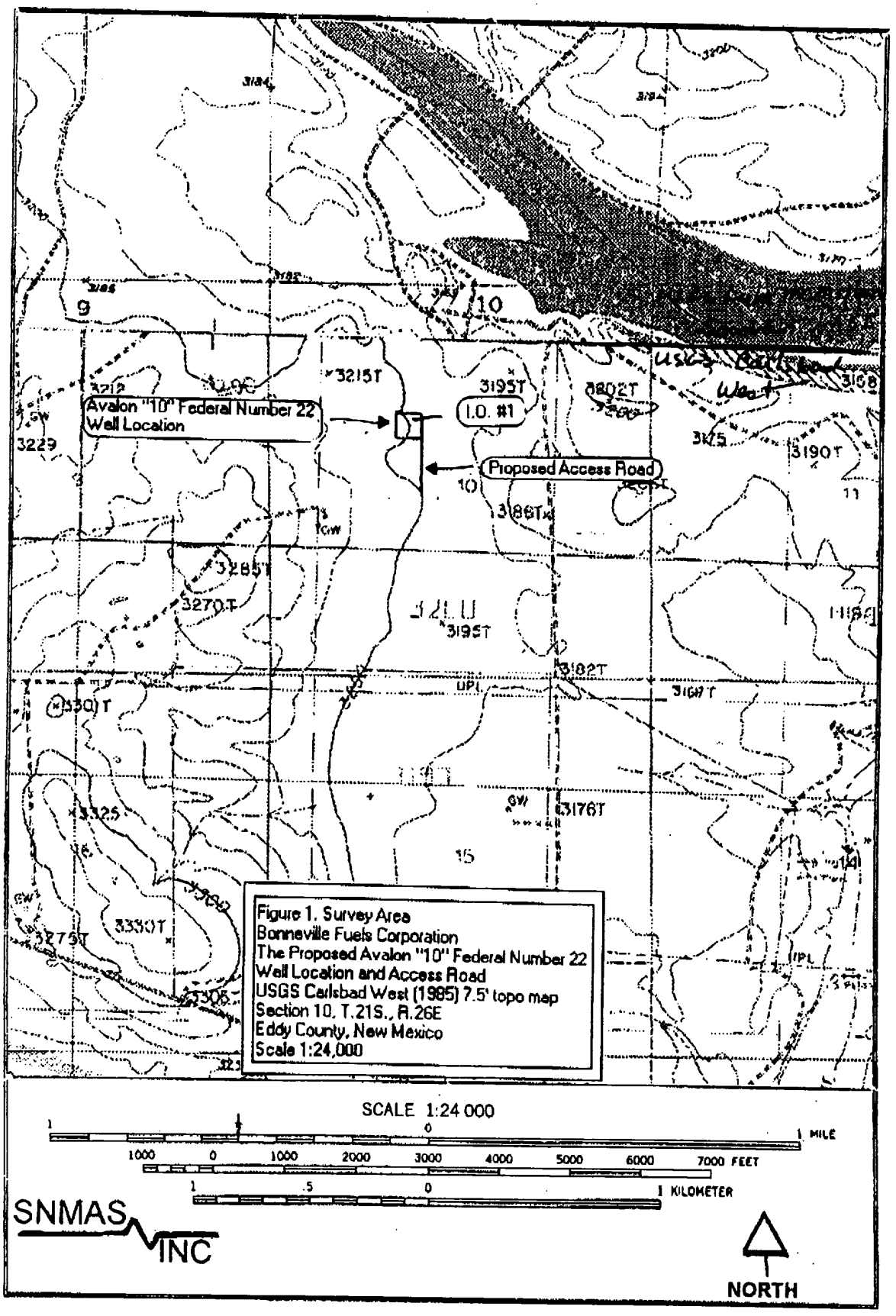


Figure 1. Survey Area
Bonneville Fuels Corporation
The Proposed Avalon "10" Federal Number 22
Well Location and Access Road
USGS Carlsbad West (1985) 7.5' topo map
Section 10, T.21S., R.26E
Eddy County, New Mexico
Scale 1:24,000