

# 1' POINT SURFACE USE PLAN

Attached to Form 3160-3  
Bonneville Fuels Corporation  
Avalon "10" Federal #23  
1980' FSL & 1980' FWL,  
Sec 10, T.21S., R.26E. NMPM  
Eddy County, New Mexico

The proposed location was 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. This location pad overlaps onto the existing pad of the Lake Shore Fed. S.C. 10-#3 well @ 1650' FSL & 1997' FWL.**

## 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 (5 existing & 2 additional proposed gas wells, 5 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 Avalon "10" Federal #23 oil well. Also indicated on this map is the proximity of the northern limit of incorporation of the City of Carlsbad (approx. 1.21 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. 1.67 miles east of the proposed drill site.

## 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 2<sup>nd</sup> 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'). Cross the Lake Shore Fed. S.C. 10-#3 gas well-site pad approx. 350' north & enter the Avalon "10" Fed. #23 well-site pad.

2. PLANNED NEW ACCESS ROAD:

No new access road is needed for the Avalon "10" Federal #23 well-site pad. Access will be obtained from the south by crossing the existing Lake Shore Fed. S.C. 10-#3 well-site pad and entering directly onto the Avalon "10" Federal #23 well-site, as shown on Exhibit 'C'-#1.

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.

a. There are six (6) existing producing gas wells and one (2) additional proposed gas wells within a 1-mile radius of the proposed Avalon "10" Federal #23 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 Avalon "10" Federal #23 well. This well is labeled SWD with an injection well symbol on Exhibit 'A'.

b. There are five (5) existing producing and four (4) proposed oil wells within a 1-mile radius of the proposed Avalon "10" Federal #23 oil 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 Avalon "10" Federal #23 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 Avalon "10" Federal #23 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 Avalon "10" Federal #23 well. This well is indicated by the dry-hole symbol, colored GREEN, 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 Avalon "10" Federal #23 well and the existing Lake Shore Fed. S.C. 10-#3 wells.

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 3200' which exceeds the 3194' lease stipulation.

a. Should the well prove productive then necessary gas handling facilities (a three phase separator and a meter facility) will be placed on the production pad as shown on Exhibit 'D'. The production pad finished grade will be at 3200' MSL. This production pad is planned to be 20' wide by 40' 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 3200' MSL. This production pad is planned to be 30' wide by 90' 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 above the Tank Battery Pad grade in order to contain sufficient volume to provide storage for ALL tank contents with 1' of free board.

c. An LP gas pipeline will be constructed from this wellsite along the east side of the 1,794' access road running north to the proposed Avalon "10" Federal #22 well. This line will convey gas from the Avalon "10" Federal #22 well to a common tie-in on the pad of the Avalon "10" Federal #23 well. A central LP Gas compressor pad (meter and compressor) and compressor drip pad may be set on the south end of location as shown in order to compress the LP wellhead gas to HP sales pressure.

d. An HP sales line from the Lake Shore Fed. S.C. 10-#4 and Lake Shore Fed. S.C. 10-#5 wells will be constructed from these wells in the pipeline ROW to carry sales to the GPM HP trunk line.

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 adjacent Lake Shore Fed. S.C. 10-#3 well (see Exhibit 'A' and Exhibit 'D'). A poly-pipe will be laid to carry water to the Avalon "10" Federal #23 wellsite from the water well at the south end of the Lake Shore Fed. S.C. 10-#3. A local water hauling service (purchased from a municipal/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 'F' 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 'F'). 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 'G' indicates the location of rig equipment during drilling operations. Also shown on Exhibit 'G' are the trailers required to provide 24-hour supervision during the drilling of this well.

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

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

b. Exhibit 'H' 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 'F' indicates the proposed cut-and-fill limits of the planned facility. **A 400'N-S x 400'E-W area was surveyed and cleared (archaeology/flora/fauna) which is larger than anticipated construction disturbance and 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 southeast (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 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 'I' (Report NM-404). NO ARCHAEOLOGICAL RESOURCES WERE FOUND IN THE SURVEYED WELL-SITE AREA.

12. SURFACE AND MINERAL OWNERSHIP:

a. All of the surface location of the proposed wellsite of the proposed Avalon "10" Federal #23 wellsite is owned by the Federal Government of the United States of America. The Bureau of Reclamation is the surface use administrator.

b. The minerals underlying the NE SW (40 ac.) 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 Bureau of Land Management is the minerals administrator.

The planned well pad and reserve pit only require Federal approval.

13. OPERATOR'S REPRESENTATIVE:

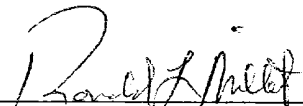
The Operator's Representative responsible for the administration, construction, drilling, completion, testing, production and reclamation of this site is:

Mr. Ronald L. Millet  
Drilling Manager  
BONNEVILLE FUELS CORPORATION  
1700 Broadway, Suite 1150  
Denver, Colorado 80290  
Office: (303) 863-1555 ext. 204; Fax: (303) 863-1558  
Cell: (303) 916-4062; Home: (303) 841-7604  
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: 11/9/00

Signature: 

Ronald L. Millet  
Drilling Manager  
Bonneville Fuels Corporation

**Exhibit #3  
H2S SAFETY PLAN  
8-Point Drilling Plan**

**Avalon 10 Federal #23 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 & uphill at the western edge of location.
3. Briefing Area #2 (the secondary briefing area) will be located at the SE corner of the location where the access road enters the 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 with one at Briefing Area #1, one at Briefing Area #2, and one on the NE corner of the location. This should allow anyone at any position on the location to determine wind direction and move upwind 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 mud tanks.

**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 pill pit.
  - 1 at the pump shed.
  - 1 at the generator house.
  - 1 at the accumulator.
3. A hand-held portable H2S detector kit and a flare gun will be kept at Briefing Area #1 or in the Site Supervisor's Trailer for emergency



**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 pick up 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 REQUIRED ON LOCATION:**

An H2S scavenger for water based drilling fluids will be kept on location in sufficient quantity to provide a base concentration in the drilling fluid of 1/2 Pound Per Barrel of drilling fluid in the hole & steel tank mud system. Additional adequate supply will be maintained at the mud vendors nearest storage facility.

**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 - Except for necessary well control work IF well control operations are already underway. 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 Avalon 10 Federal #23 well.

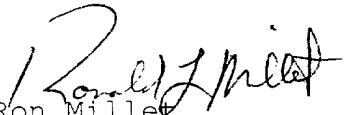
  
Ron Millet  
Drilling Manager  
Bonneville Fuels Corporation

EXHIBIT 'E' Pa - 1/4  
Special Lease Stipulations  
NM 3606

Avalon "10" Federal #23



United States Department of the Interior  
BUREAU OF RECLAMATION

SOUTHWEST REGION  
HERRING PLAZA BOX 11-4377  
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 893)."

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.

*Alan B. Kaut*

Enclosure

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



EXHIBIT 'E' Pa. 2/4  
Special Lease Stipulations  
NM 3606  
Avalon "10" Federal #23

15-43  
(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 leased 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  
Geological Survey

EXHIBIT 'E' Page 3/4  
Special Lease Stipulations  
NM 3606  
Avallon "K" Federal #23

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. Secs. 181-185)

RECEIVED

BUREAU OF LAND MANAGEMENT

LAND OFFICE SANTA FE, N.M.

NOV 13 1967

HOUR 10:00 A.M.

Name: Gilbert E. Behlen

Street: 138 No. Parkway

City: Columbus, Nebraska 68601

State: Nebraska

Zip: 68601

Phone: (402) 342-1111

County: Boone

Section: 21

Township: 26 N.

Range: 26 E.

County: Boone

State: Nebraska

Zip: 68601

Phone: (402) 342-1111

County: Boone

Section: 21

Township: 26 N.

Range: 26 E.

County: Boone

State: Nebraska

Zip: 68601

Phone: (402) 342-1111

County: Boone

Section: 21

Township: 26 N.

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Section: 21

Township: 26 N.

Range: 26 E.

County: Boone

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Zip: 68601

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County: Boone

Section: 21

Township: 26 N.

Range: 26 E.

County: Boone

State: Nebraska

Zip: 68601

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Section: 21

Township: 26 N.

Range: 26 E.

EXHIBIT 'E' 1' x 4/4  
Special Lease Stipulations

NM 3606  
Avalon "16" Federal #23

Form 3103-1  
(June 1964)  
(formerly 4-487)

RECEIVED  
BUREAU OF LAND MANAGEMENT  
UNITED STATES OFFICE SANTA FE, N. M.  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
JUN 19 1967

NM 3606  
Oil and Gas

4:10h

LEASE STIPULATION 10:00 A.M.  
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 non-mineral 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 non-mineral 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, or 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.

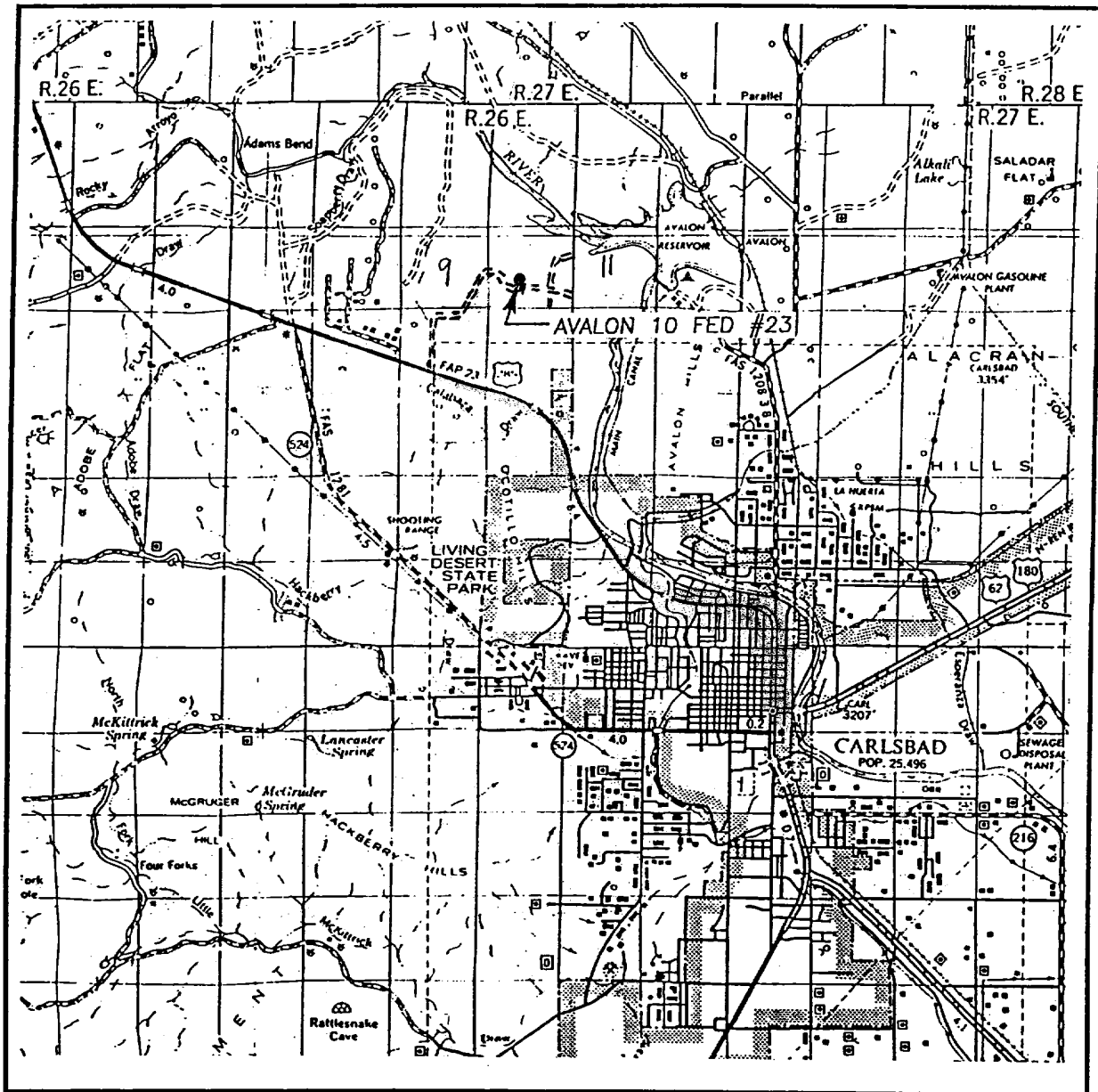
THE LESSOR FURTHER AGREES That there is reserved to the lessor, its successors and assigns, the prior right to use any of the lands herein leased, to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, 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)

(See Appendix, Maps) 3

Avalon "10" Fed. #23  
VICINITY MA  
EXHIBIT 'B'



SCALE: 1" = 2 MILES

SEC. 10 TWP. 21-S RGE. 26-E  
SURVEY N.M.P.M.  
COUNTY EDDY  
DESCRIPTION 1980' FSL & 1980' FWL  
ELEVATION 3201  
OPERATOR BONNEVILLE FUELS  
LEASE AVALON 10 FED

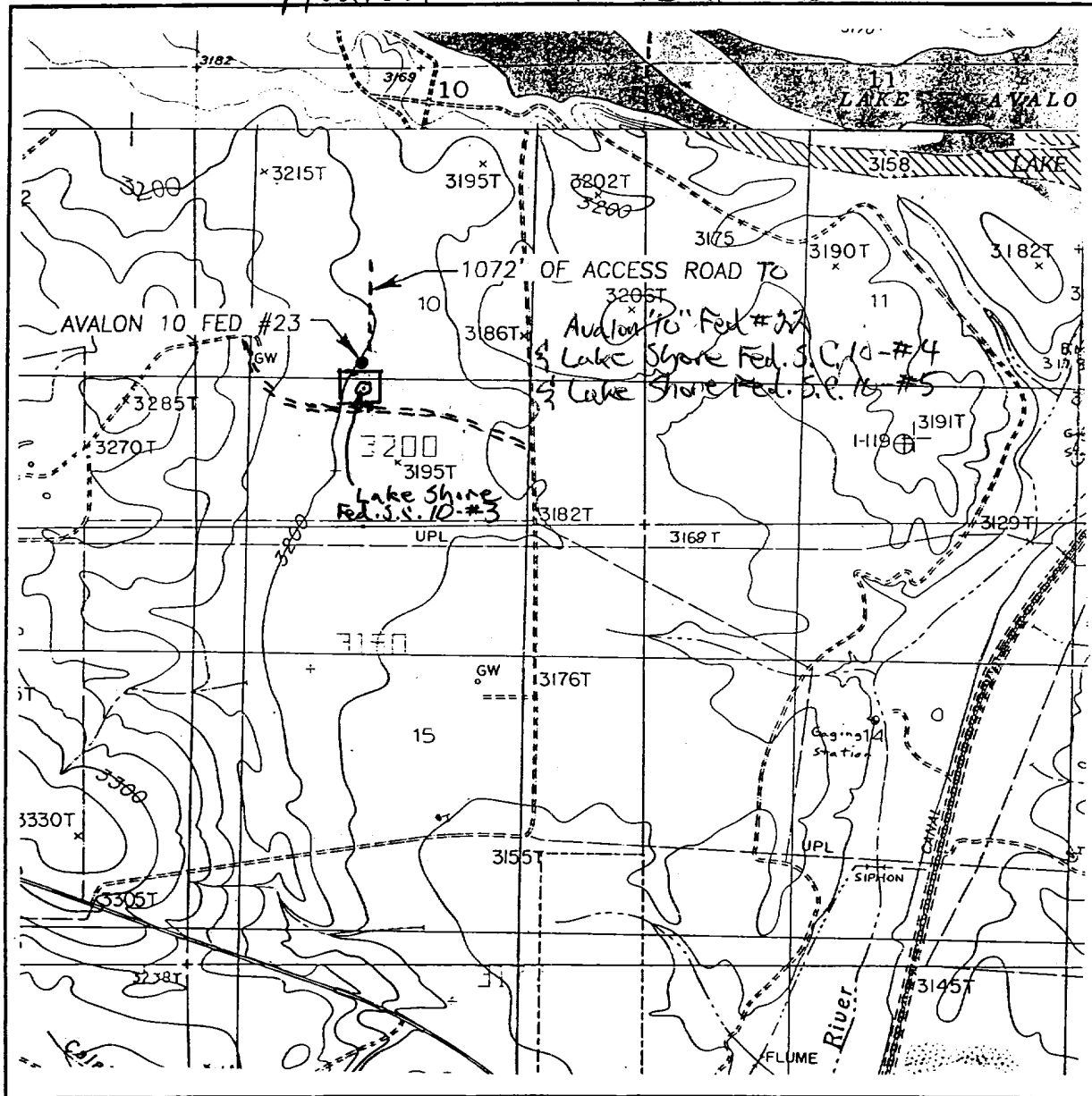
JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117



# LOCATION VERIFICATION MAP

EXHIBIT "C" - #1

Avalon 10 Federal #23



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 1980' FSL & 1980' FWL

ELEVATION 3201

OPERATOR BONNEVILLE FUELS

LEASE AVALON 10 FED

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 Department

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

**EXHIBIT "C" - #2**  
**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name <i>Avalon: Delaware C/L</i>
Property Code	Property Name <b>AVALON 10 FED</b>	Well Number <b>23</b>
OGRID No. <b>002678</b>	Operator Name <b>BONNEVILLE FUELS</b>	Elevation <b>3201</b>

**Surface Location**

UL or lot No. <b>K</b>	Section <b>10</b>	Township <b>21 S</b>	Range <b>26E</b>	Lot Idn	Feet from the <b>1980</b>	North/South line <b>SOUTH</b>	Feet from the <b>1980</b>	East/West line <b>WEST</b>	County <b>EDDY</b>
---------------------------	----------------------	-------------------------	---------------------	---------	------------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------

**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 <b>40.13</b>	Joint or Infill	Consolidation Code	Order No.						

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

<p>Proposed: Avalon 10 Fed. #12 1671' FNL'S 442' FWL</p>		<p>Proposed: Avalon 10 Fed. #22 1420' FNL'S 1420' FWL</p>		<p>Proposed: Avalon 10 Fed. #42 1460' FNL'S 460' FWL</p>		<p>Proposed: Avalon 10 Fed. #43 1317' FNL'S 2337' FWL</p>	
<p>1980'</p>		<p>SEE DETAIL</p>		<p>3208.7' 3196.4' 3202.5' 3193.2' DETAIL</p>		<p>1980'</p>	
<p>Avalon 10 Federal #23</p>		<p>Average Dedication in Hachures</p>					

**OPERATOR CERTIFICATION**

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

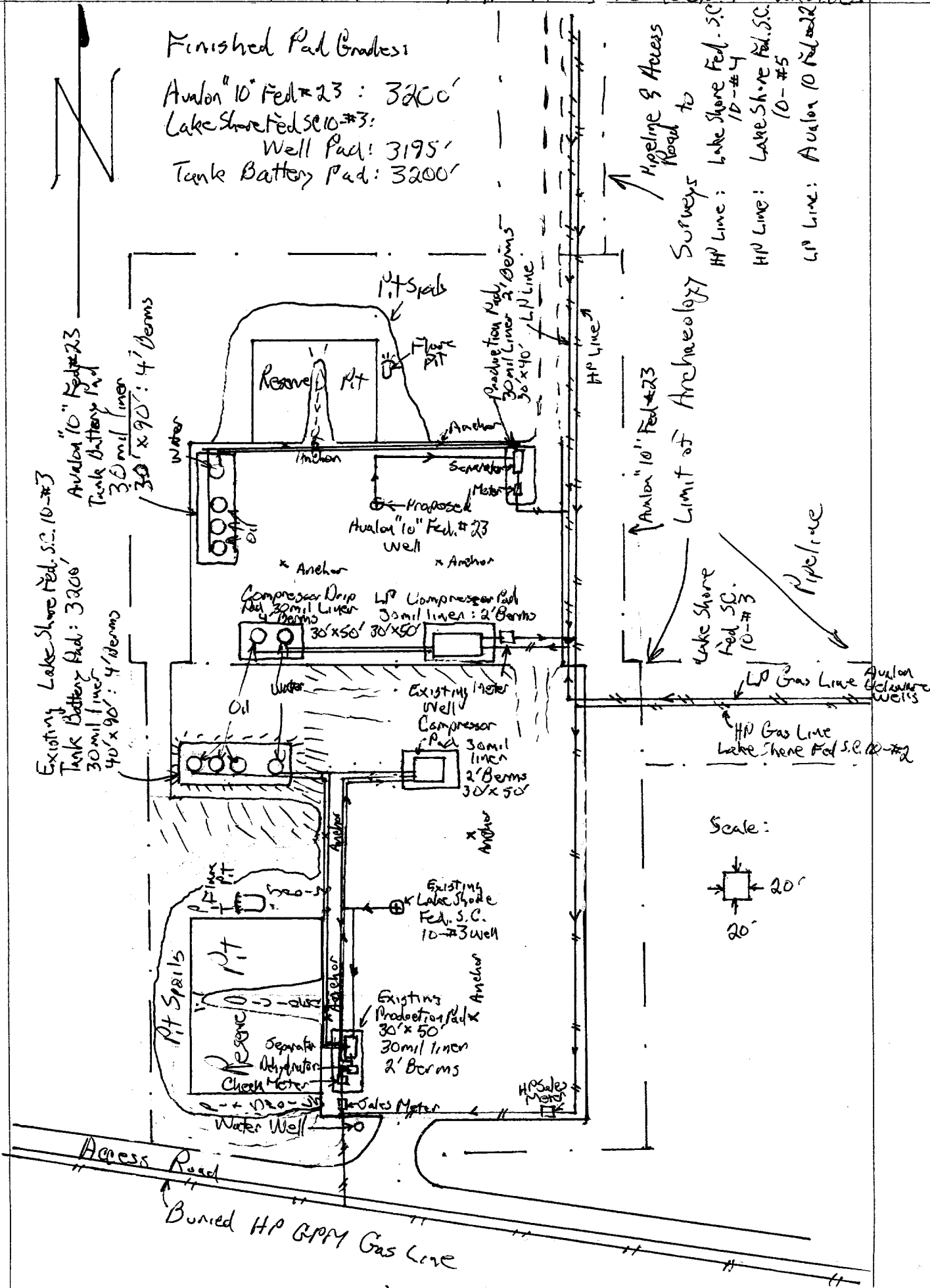
*R.A. Schwerens*  
Signature  
**R.A. Schwerens**  
Printed Name  
**Operations Manager**  
Title  
**11/3/2000**  
Date

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

**OCTOBER 3, 2000**  
Date Surveyed  
**LMP**  
Signature & Seal of Professional Surveyor  
*Ronald J. Edson*  
00-11-1233  
Certificate No. **RONALD J. EDSON 3239**  
**GARY KIDSON 12641**  
**MACON McDONALD 12185**

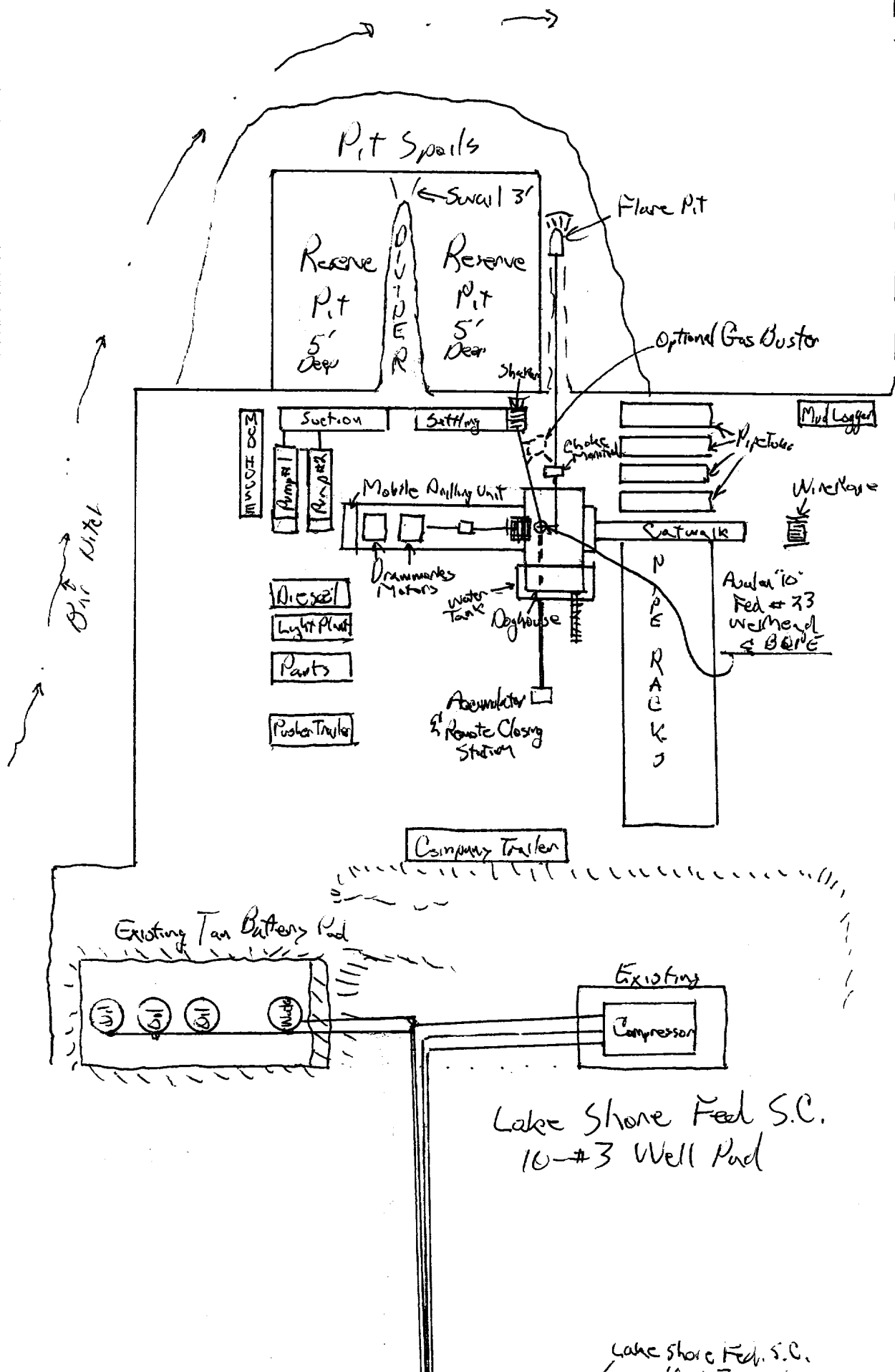
13-782 500 SHEETS, FILLER 5 SQUARE  
12-381 50 SHEETS EYE-EASE® 5 SQUARE  
12-382 100 SHEETS EYE-EASE® 5 SQUARE  
12-383 200 SHEETS EYE-EASE® 5 SQUARE  
12-392 100 RECYCLED WHITE 5 SQUARE  
12-399 200 RECYCLED WHITE 5 SQUARE





13-782	500 SHEETS, FILER	5 SQUARE
42-341	50 SHEETS EYE-EASE®	5 SQUARE
42-382	100 SHEETS EYE-EASE®	5 SQUARE
42-389	200 SHEETS EYE-EASE®	5 SQUARE
42-392	100 RECYCLED WHITE	5 SQUARE
42-399	200 RECYCLED WHITE	5 SQUARE

Made in U.S.A.



13-782	500 SHEETS, FILLER	5 SQUARE
12-381	50 SHEETS EYE-EASE®	5 SQUARE
12-382	100 SHEETS EYE-EASE®	5 SQUARE
12-389	200 SHEETS EYE-EASE®	5 SQUARE
12-392	100 RECYCLED WHITE	5 SQUARE
12-399	200 RECYCLED WHITE	5 SQUARE

Model 100, U.S.A.

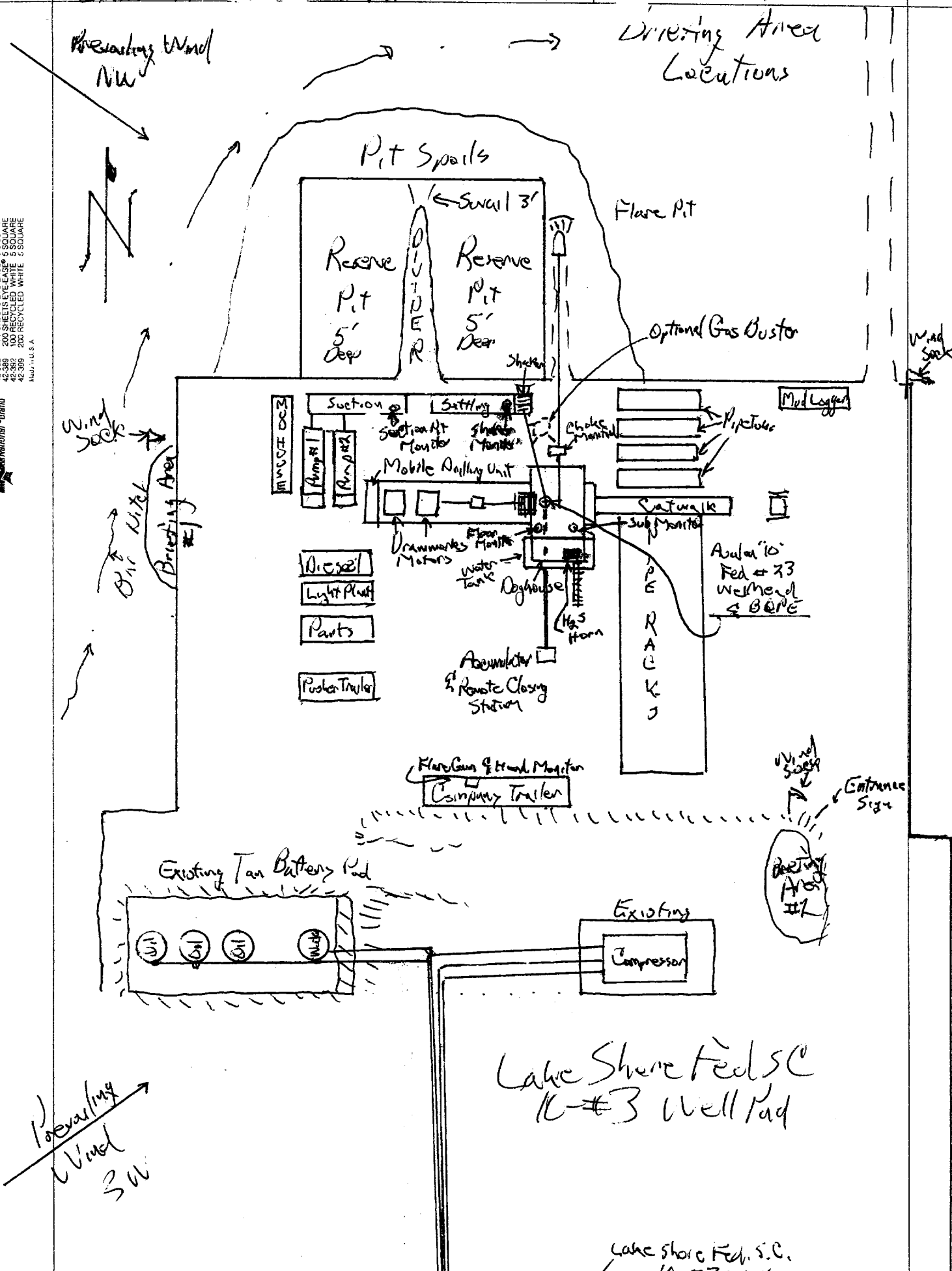


EXHIBIT I

1/5

# CULTURAL RESOURCE MANAGEMENT REPORT

**Bonneville Fuels Corporation  
The Proposed Avalon "10" Federal Number 23  
Well Location and Access Road  
Section 10, T.21S., R.26E  
Eddy County, New Mexico**

Written By:

Doralene Sanders  
and  
Joe Ben Sanders  
Project Archaeologist  
Principal Investigator

Prepared For:  
Bonneville Fuels Corporation  
1700 Broadway, Suite 1150  
Denver, CO 80290

Prepared By:

**SOUTHERN NEW MEXICO  
ARCHAEOLOGICAL SERVICES, Inc.**

Post Office Box 1  
Bent, New Mexico 88314-0001

Date:  
October 17, 2000

**Project # SNMAS-00NM-404  
NMCRIS # 72118**

EXHIBIT 'I'

2/5

**TITLE PAGE/ABSTRACT  
NEGATIVE SITE REPORT  
ROSWELL DISTRICT**

BLM/ RDO 1/95

Page 1

**1. BLM Report No.****2. (Accepted)  
(Rejected)****3. NMCRIS No. 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****1/4's: Pad:** NW1/4NE1/4SW1/4,**1/4'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



## Page 2

## 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.  
BLM Carlsbad

Date: October 3, 2000

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.

**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 10/17/00

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

# EXHIBIT 'I'

5/5

