

STATE

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]
b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER [ ] SINGLE ZONE [ ] MULTIPLE ZONE [ ]
2. NAME OF OPERATOR: MEGADON ENERGY CORPORATION
3. ADDRESS OF OPERATOR: STE. 440, 57 West So. Temple, Salt Lake City, Utah
4. LOCATION OF WELL: SE. NW. SECTION 26, T 27S, R 21E, SLM
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*: APPROXIMATELY 12 MILES SW. OF MOAB (60 MILES BY ROAD)
15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.: 700 ft.
16. NO. OF ACRES IN LEASE: 360
17. NO. OF ACRES ASSIGNED TO THIS WELL: 80
18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 7800
19. PROPOSED DEPTH: 7800
20. ROTARY OR CABLE TOOLS: ROTARY
21. ELEVATIONS: 5464' GRD; 5480' K.B.
22. APPROX. DATE WORK WILL START\*: JAN. 5, 1981

5. LEASE DESIGNATION AND SERIAL NO.: U-27505
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME: LION MESA UNIT
8. FARM OR LEASE NAME: FEDERAL
9. WELL NO.: #4-26
10. FIELD AND POOL, OR WILDCAT: WILDCAT
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SE. NW. SEC. 26-27S-21E SLM
12. COUNTY OR PARISH: SAN JUAN
13. STATE: UTAH

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Rows show 12 1/2" and 8 3/4" hole sizes with corresponding casing and cement data.

It is planned to drill a well at the above location to test the hydrocarbon production possibilities of all formations down to and including the Mississippian formation at a depth of about 8000'. There will be about 1000' of surface casing (9 5/8") set thru the Shinarump formation to protect possible uranium mines in the area. Hydraulically operated blowout preventer and hydril will be mounted on top of the surface casing for control equipment. The well will be drilled with rotary tools using mud for circulation. All hydrocarbon shows will be drill-stem-tested. In case of production, 5 1/2" casing will be set and APPROVED BY THE DIVISION OF OIL AND GAS MINING. The well will be completed conventionally. See attached prognosis.

APPROVED BY THE DIVISION OF OIL AND GAS MINING
DATE 12/2/80
BY: [Signature]

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED: [Signature] TITLE: PRESIDENT DATE: NOV. 18, 1980

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

SURVEY PLAT OF  
MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
SE. NW. SECTION 26-27S-21E.  
SAN JUAN COUNTY, UTAH  
(1900' FROM W-LINE AND 1940' FROM N-LINE)  
ELEVATION: 5464' GRD.

22 23  
27 26

$\frac{1}{2}$  cor.

NW $\frac{1}{4}$  SECTION 26

⊕ LOCATION

700'  
NORTH

*Sta. 1*

1900' (CHAINED)  
EAST

lc

$\frac{1}{4}$  cor

Reference Pts: 150' N-S-E-W.

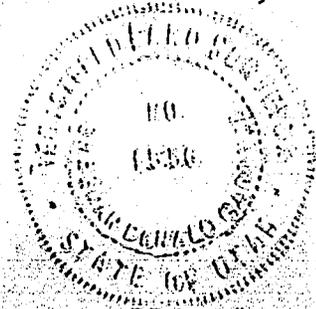
Scale: 1" = 400'

Date: Nov. 18, 1980

I, Sherman D. Gardner, do hereby certify that  
this plot was plotted from notes of a field  
survey made under my direct responsibility,  
supervision, and checking on September 30, 1980.

*Sherman D. Gardner*

Registered Land Surveyor  
State of Utah #1556



WELL CONTROL EQUIPMENT  
FOR  
MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
SE. NW. SEC. 26-27S-21E.  
SAN JUAN COUNTY, UTAH

1. Surface Casing:
  - A. Hole size for surface casing is 12½".
  - B. Setting depth for surface casing is approx. 850 ft.
  - C. Casing specs. are: 9 5/8" O.D., K-55, 36.00#, LTC, R-3.
  - D. Anticipated pressure at setting depth is approx. 400#.
  - E. Casing will be run using six centralizers and a guide shoe, and will be cemented with 275sks of cement with returns to the surface.
  - F. Top of casing will be about 18" below ground level.
2. Casing Head:

Flange size: 10; API Pressure Rating: 5000# W.P.; Series 00; Cameron, OCT, or equivalent; new or used; equipped with two 2" ports with high pressure nipples and 5000# W.P. ball valves.
3. Intermediate Casing: Probably none.
4. Blowout Preventer:
  - A. Double rams, hydraulic, one set of blind rams and one set of pipe rams for 4" drill pipe; 10" flange, 5000# W.P.; Series 900; equipped with mechanical wheels and rod for back-up; set on top of casing head flange and securely bolted down. Initially rams will be pressure tested for not less than 2000# for leaks and will be checked and closed once a day while drilling operations are underway.
  - B. Fill and kill lines (2" tubing or heavy duty line pipe) with manifold are to be connected to the 2" valves on the casing head.
5. Auxilliary Equipment:

A float valve is to be used in the bottom drill collar at all times. The standpipe valve will be kept in good working condition, and a safety valve that can be stabbed into the top of the drill pipe or drill collars will be kept on the derrick floor in a handy position at all times.
6. Anticipated Pressures:

The shut-in pressures of the potential pay zones found in

the Hermosa, Paradox, and Mississippian formations at the corresponding depths are as follows:

Hermosa	----- 3900'	----- 2000#
Paradox	-----6200'	----- 4500#
Mississippian	----- 7400'	----- 3000#

\*These pressures are based on DST's taken on other wells in the Lisbon area.

7. Drilling Fluids:

Air and air mist will be used to a depth of about 5000', and then the mud system will be changed to salt base mud. The mud weight will be kept at about 10.1 lbs/gal; and the viscosity will be kept around 35, and the water loss kept below 20 cc., if possible. This weight and associated hydrostatic pressure should usually keep the well under control. Abnormal pressures are known in the Paradox in the area, and care must be taken in this section to keep the well under control. There has been no indication of sour gas in the nearby wells.

8. Production Casing:

- A. Hole size for the production casing will be 8 3/4".
- B. Approx. setting depth will be about 7800'.
- C. Casing specs. are: 7800' of 5½" O.D., 20.00#, N-80, R-3 casing, with guide shoe and float collar and about 12 centralizers, D.V. tools, and cement baskets at the proper places, cemented with 1000 sks of RFC, and Pozmix light cement.
- D. The anticipated pressure at setting depth should not be greater than 3600#.

*W. Don Quigley*

W. Don Quigley  
President

MEGADON ENERGY CORPORATION

PROGNOSIS FOR  
 MEGADON ENERGY CORPORATION  
 LION MESA #4-26 WELL  
 SE. NW. SECTION 26-27S-21E.  
 SAN JUAN COUNTY, UTAH

LOCATION: SE. NW. Section 26, T 27S, R 21E, SLM, San Juan County, Utah (1900' from W-line and 1940' from N-line)

ELEVATION: 5464' Grd; 5480' K.B.

SURFACE CASING: One joint of conductor pipe (13 5/8" or equivalent) will be set and cemented manually at the surface; then a 12 1/4" hole will be drilled to a depth of 850' for the surface casing. 850 ft. of 9 5/8", 36.00#, K-55 casing will be set and cemented with 275 sks. of reg. cement w/3% CaCl, with returns to the surface. Casing will be set with a Texas shoe and six (6) centralizers. A casing head, Series 900 with #10 flange, will be installed on top of the casing. The cement will be allowed 12 hrs. to set before nipping up.

EXPECTED FORMATION TOPS:

<u>Formation</u>	<u>Depth to Top</u>	<u>Thickness</u>	<u>Datum</u>
Navajo	Surface	150'	5480' K.B.
Kayenta	150'	20'	5330'
Wingate	170'	220'	5310'
Chinle	390'	365'	5090'
Shinarump	755'	30'	4725'
Moenkopi	785'	1110'	4695'
Cutler	1895'	565'	3585'
Rico	2460'	265'	3020'
Hermosa (Upper)*	2725'	1475'	2755'
Paradox Salt*	4200'	3075'	1280'
Pinkerton Trail*	7275'	120'	-1795'
Molas	7395'	80'	-1915'
Mississippian*	7475'	—	-1995'
TOTAL DEPTH	7800'		

\*Formations with possible hydrocarbons present

1. It is planned to set and cement one jt of 13 5/8" casing for a conductor and then to drill a 12 1/2" surface hole for the surface casing to a depth of about 825'. (This depth will be sufficient to set the casing thru the Shinarump formation for the protection of possible uranium mines in the area.) Casing, 9 5/8", 36.00#, K-55, R-3, will be run and cemented with 275 sks of cement with returns to the surface. The surface hole will be drilled with air and air mist and a deviation of no more than 2° will be maintained. A casing head, Series 900, will be mounted on top of the casing and a blowout preventer with hydraulically operated blind and pipe rams, and a hydril, will be mounted on the casing head. Fill and kill lines will be connected thru a manifold to the casing head below the blind rams. As soon as the cement plug is drilled out of the surface casing, the B.O.P. and hydril and surface casing will be tested to 2000#.for leaks.
2. A 8 3/4" hole will then be drilled below the surface casing to a depth of about 5000', using air and/or air mist for circulation. At this point, the air system is to be changed over to a salt base mud to permit drilling the salt section below. All subsequent shows of hydrocarbons will be drill-stem-tested. Particular attention will be given to the Cane Creek zone near the base of the salt section. This zone can be productive and is very susceptible to formation damage by the drilling fluids and cement. No barite (barium sulfate) is to be used at any time, if it can possibly be avoided.
3. The hole will be kept straight by stabilization or thru drilling methods. Deviation surveys will be taken at 600' intervals. Maximum deviation will be kept below 6°, if possible, and the maximum drift between surveys will be 2°.
4. Samples of the cuttings will be taken at 30-ft. intervals, beginning at 600', and continuing to a depth of about 5000' or when conversion to mud drilling is begun, then 10' samples will be taken.
5. The well will be drilled to a depth which is at least 300 ft. below the top of the Mississippian formation or to good commercial production. In the event of good production before the Mississippian is reached, the drilling may be discontinued at this point and 5 1/2" casing run to permit drilling deeper at a

later date. The mud program will be supervised by the company representative.

6. At total depth, the well will be logged electrically; and a Gamma-Induction log and a Gamma-Density-CNL log will be run.
7. If production is obtained in the Mississippian, casing, 5½", 20.00#, N-80, R-3 will be run from about 8000' to about 4000' and 5½", 17.00# casing will be run from 4000' to surface, and cemented with about 200 sks of RFC cement and 1000 sks of Pozmix (50-50) light cement w/5% salt, 5% gilsonite, and 6% salt. Sufficient cement to cover the salt section will be used.
8. A gamma-cement bond log will be run and the production zone perforated, 2 3/8" tubing run, and completed conventionally. It may be necessary to break down the formation with a weak acid treatment which would be swabbed out immediately after treatment.
9. The drilling of this well should take about one month and completion work should take about ten days.

*W. Don Quigley*

W. Don Quigley  
MEGADON ENERGY CORPORATION  
Suite 440, 57 W. So. Temple  
Salt Lake City, Utah 84101

## N T L - 6 P L A N R E P O R T

For

Well Name: LION MESA #4-26Location: SE. NW. SEC. 26-27S-21E, SLM, San Juan County, Utah1. Existing Roads: (See attached Maps)

## A. Well Location: (See Plat #1)

Reference Stakes: 150' N-S-E-WPerimeter Stakes: Reference stakes mark perimeter of well pad.B. Route and Distance to Well Site From Reference Point: (See att. maps)  
Take Hwy 163 South from Moab for 31 miles to Canyon Rim Rd, then NW.  
on Canyon Rim Rd. for 30 miles, then 1 mile NE. on old rd. to locationC. Access Roads (Identify secondary roads to be used): (See att. maps)  
The Canyon Rim Rd. is an improved all weather road and is less than  
1 mile from the well site. All other roads in the area are unim-  
proved trails and have a natural base of sand, gravel and rock.D. Roads Within 3 mile Radius: (See att. maps) See above. The last 1  
mile of access road will be improved and will be a 20' wide dozed  
path across natural surface. All other roads in the 3-mile radius  
(except the Canyon Rim Rd) are trails and unimproved.

Surface type and conditions: The surface of the new road will be  
sand, silt, and some gravel. The main road (Canyon Rim Rd) is gra-  
velled, ditched and is an all-weather road.

E. Roads Within 1 mile Radius: (See att. maps) See 1-D Above.  
See AboveF. Plans for Road Improvement & Maintenance: The last 1 mile of road  
to the site is a dozed uranium trail and will be improved, graded,  
widened, crowned, and ditched. The travel surface will be 20 feet

F. and maximum disturbed width will be 30 feet. Some places over rock ledges and in sandy areas may be slightly wider to provide for a decent and useable road for big equipment.

2. Planned Access Roads: (See att. maps) Approximately 1 mile of new road built across fairly flat ground.

(1) Width: Maximum disturbed width of 30 ft.

(2) Maximum Grades: 6% or less

(3) Turnouts: None required

(4) Drainage Design: None required initially

(5) Location and Size of Culverts, Cuts, and Fills: No deep cuts or fills will be required. The road will be cut to the bottom of shallow washes (Maximum cut is 4 ft.), if present.

(6) Surfacing Material: Natural surface of sand, silt, and gravel

(7) Gates, Cattleguards, or Fence Cuts: None required

(8) All new roads have been flagged as required.

3. Location of Existing Wells: (See Map No. 2)

(1) Water Wells: None

(2) Abandoned Wells: Several within a six-mile radius

(3) Temporarily Abandoned Wells: None

(4) Disposal Wells: None

(5) Drilling Wells: None

(6) Producing Wells: #27-1a well, located one mile west.

(7) Shut-in Wells: None

(8) Injection Wells: None

(9) Monitoring or Observation Wells: None

4. Location of Existing and/or Proposed Facilities:

A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:

(1): Tank Batteries: (Size) One tank battery (2 - 310 bbl) located on pad for the #27-1a well, 1 mile west.

(2) Production Facilities: One well head and Xmas tree at #271A

(3) Oil gathering lines: 3" lines (buried) on well pad

(4) Gas gathering lines: None

(5) Injection lines: None

(6) Disposal lines: None

(7) Are lines buried? Yes

B. If new facilities are contemplated, in the event of production, show: (These facilities depend on the outcome of the proposed well and are really unknown at this time.) Show a general proposed plan. (See Plat No. 2)

(1) Are any facilities planned off well pad? None at this time. In the event of gas production, a pipeline leading to the main gas line at Lisbon will have to be constructed, but this will be applied for at a later date.

(2) Give dimensions of facilities: See Plat #2

(3) Construction methods and materials: Tank batteries will be placed on gravel pads and surrounded by a 3' high dike which is 15' from the sides of the tanks. Heater-treaters and pump jacks, if required, will be placed on concrete blocks or raised dirt and gravel pads. All pipe lines on the pad will be buried. Unused portions of the pad will be graded and reseeded. Any fluid pit will be diked, and neatly contoured, and fenced.

(4) Protective measures for livestock and wildlife: All open pits will be fenced with barbed wire, 4 strands, and covered with steamers to protect animals and birds. Pump jacks or rotating machinery will have guards to prevent danger of moving parts.

C. Plan for rehabilitation of disturbed areas no longer needed after drilling operations are completed: Well site will be cleaned, levelled and graded for production equipment; pits folded-in or fenced with

C. barbed wire if full of fluid before rig is removed. While production ensues, previous areas of well pad not needed for production operations will be restored as in Item 10 below. Cleaning the site and pit work will be done within 30 days after well completion, if possible.

5. Location & Type of Water Supply: (See att. maps)

A. Type of Water Supply: Water hole in Hatch Wash at old ranch near Hatch Rock. See Map #1. This is a private water hole owned by a lady in Moab. Permission to use the water has been obtained by Liquid Transport.

B. Method of Transporting Water: The water will be hauled by truck from the water well. This is a distance of about 20 miles.

C. Is Water Well Planned? No new water well.  
If so, describe location, depth and formation: \_\_\_\_\_

6. Source of Construction Materials:

A. See attached map and describe: None needed

B. Identify if Federal, Indian, or Fee Land: \_\_\_\_\_

C. Describe Material: (Where from and how used) \_\_\_\_\_

D. See item 1-C and 2 above.

7. Waste Disposal:

- (1) Cuttings: Cuttings will be deposited into the reserve pit.
- (2) Drilling Fluids: In mud tanks; excess put into reserve pit.
- (3) Producing Fluids (oil or water) Oil in tanks; water in reserve pit.
- (4) Human Waste: Toilet with pit (4' deep) with lime for odor and sanitation control. Will be covered with soil (3' deep) at end of operation.

prior to commencement  
of drilling

(5) Garbage & Other Waste: (Burn pit will be adequately fenced with chicken wire to prevent scattering of debris by wind) Into burn pit (14'X12'X6' deep) and burned periodically. The burn pit will be approx. placed 125' from well head.

(6) Clean-up: (See item 10 below) All garbage and unburned debris will be buried by at least 3' of cover after the drilling and completion operations are finished. The unused material and all equipment will be removed from the site and taken to supply yards or to the next drill site, as soon as the well is completed.

8. Airstrips and/or Camp Sites (Describe): None needed.

9. Well Site Layout: (See Plat No. 3)

(1) Describe cuts or fills: The location is on a gentle slope which slopes to the east. The east and south sides are the low sides and these sides will be built up by about 3'. The north and west sides will be cut by about 3-8' & pushed to the S. and E. sides. The location is underlain by a (pg 7)

(2) Describe pits, living facilities, soil stockpiles: The surface soil (12") will be piled at the north and south sides of the location. The reserve pit will be on the east side and excavated material will be piled around the sides. A high bank will be placed on ~~the~~ sides of the pit to prevent fluids getting into the canyon. Two or three house trailers will be provided for supervisory personnel.

(3) Rig Orientation, Pipe rack, Access Road Entrance, etc.: (See Plat #3)

(4) Are Pits Lined? Unlined with 6' banks.

10. Plans For Restoration:

A. If Well is completed: Site will be cleaned, debris removed, pits folded-in or fenced with woven wire if full of fluid, and site levelled for production equipment. All unused portions will be contoured, graded, scarred, and seeded with wheat and rice grass or acceptable seed mix authorized by BLM. This seed will be drilled & sown at a depth of

B. If Well is abandoned: \_\_\_\_\_ 1/2"

(1) Clean-up, levelling, folding pits-in, contouring: These items will be done as soon as possible. Clean-up will be accomplished at

B. (1) the time the rig is removed. The reserve pit, if full of fluid, will be fenced immediately and allowed to evaporate before folding-in. The rest of the work will be done within 10-60 days after wells completed.

(2) Seeding location and access road: Site will be scarred with a dozer or spike tooth drag and the grass seed or seed mix authorized by BLM will be drilled to a depth of 1/2". The access road, if no longer needed, will be erased, scarred, and seeded as above. Water bars will be placed where needed.

(3) Will pits be fenced or covered? If there is any amount of fluid in the reserve pit, it will be fenced with barbed wire before rig is released and remain fenced until the fluid evaporates.

(4) Is there any oil in reserve pit? Should be none.

If so, describe disposal: If there is any amount of oil in the pit, it will be pumped out and removed before covering the pit.

(5) When will restoration work be done? As soon as possible. Within 60 days after equipment is removed, if weather and availability of clean-up equipment permit, and will be completed within 10 days thereafter.

#### 11. Description of Land Surface:

(1) Topography & Surface Vegetation: Location is on a gentle slope with a deep canyon about 1/2 mile to the east. The surface is sand, gravel, and rock. The vegetation is shad scale, sage brush, and sparse greass, with a few juniper and cedar trees in the general area.

(2) Other Surface Activities & Ownership: There are no continuous activities in the area. Occasional site-seers and tourists visit the camp grounds and Anticline Lookout at the end of Hatch Pt. This is federal land and oil and gas leases have been granted to various oil companies. Husky Oil Co. has the lease under the drill site.

(3) Describe other dwellings, archaeological, historical, or cultural sites: Tourist attractions are in the nearby area. These are the Hatch Pt. Camp sites and Anticline Lookout. There are no known archaeological sites or exhibits on or near the drill site. Some cattle grazing by local ranches have been allowed in the past. Other wells have been drilled in the general area in the past. One other well is currently operating. An archaeological report is being prepared and will be submitted separately. A few antelope, deer, coyotes, jack rabbits, and bull snakes constitute most (pg7)

#### 12. Operators Representative: (Address & Phone number)

W. Don Quigley, Ste. 440, 57 West South Temple, SLC., Utah 84101  
801-359-3575

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access route; that I am familiar with the conditions which presently exist; that statements made in this plan are, to the best of my knowledge, true and correct; and that work associated with the operations proposed herein will be performed by MEGADON ENERGY CORPORATION and its contractors in conformity with this plan and terms and conditions under which it is approved.

Date: Nov. 18, 1980

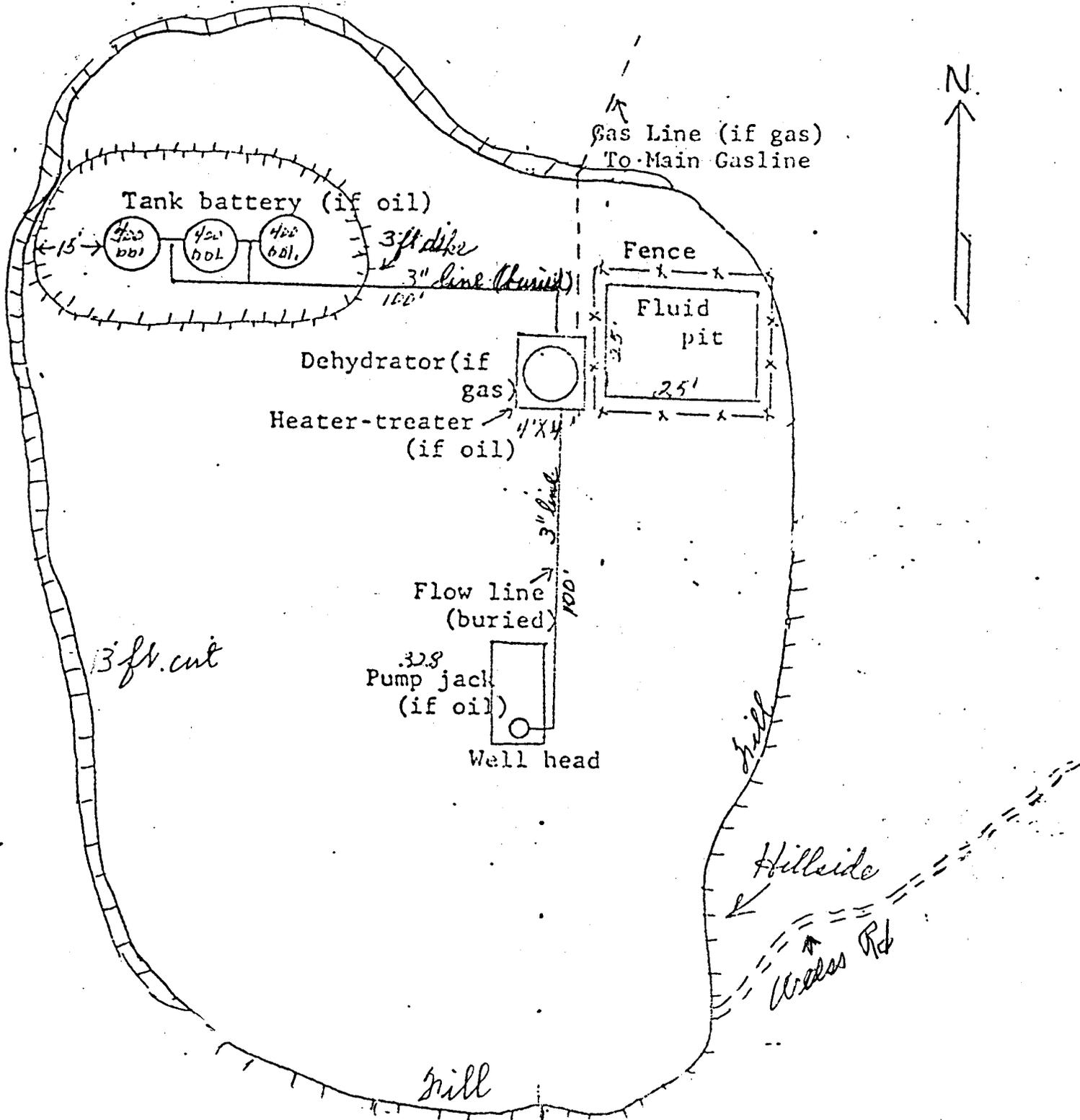
Name: H. Don Guigley

Title: PRESIDENT

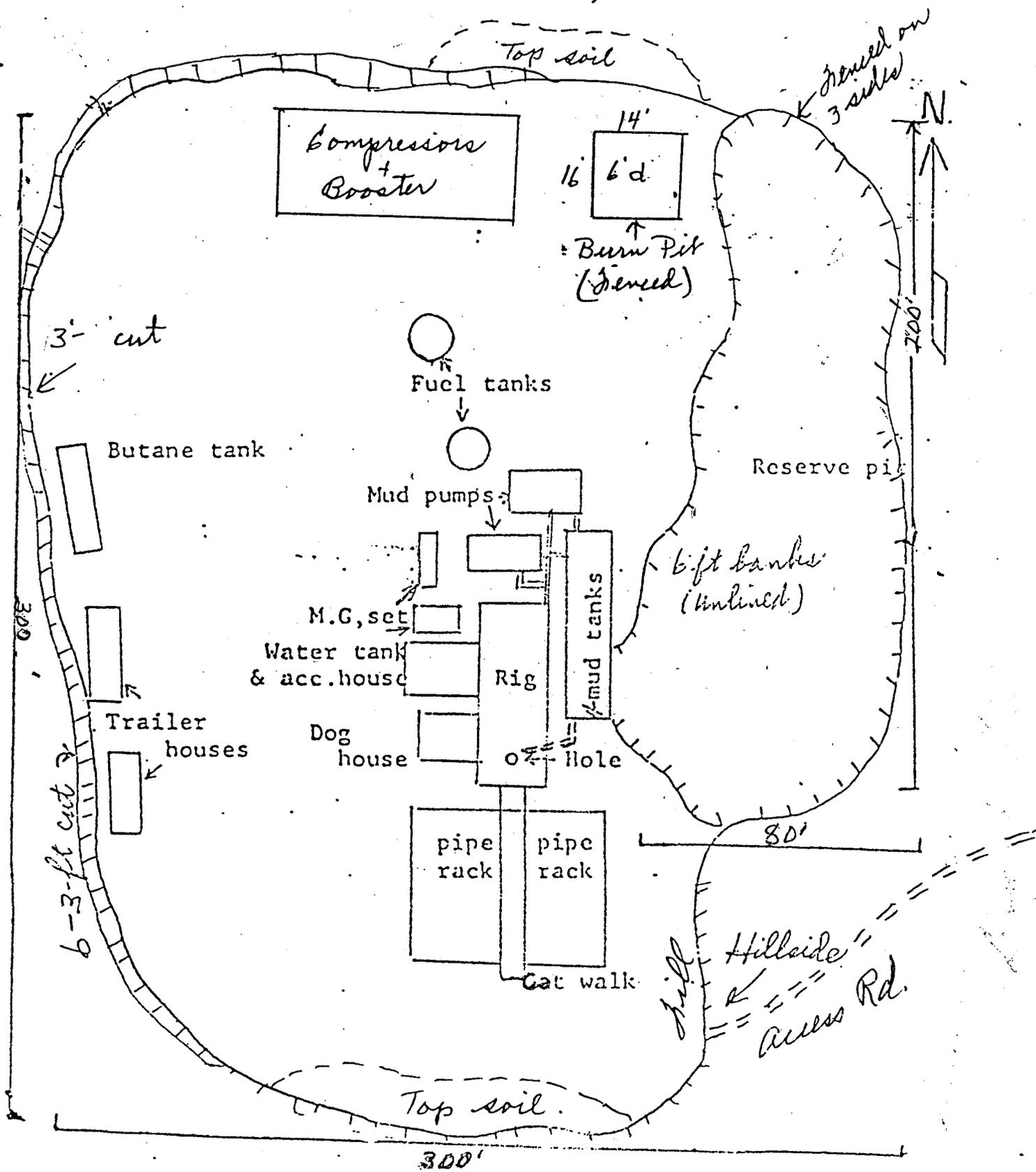
#9. (1): sandstone ledge and thus has a minimum of moveable cover.

#11. (3): of the wild life in the area.

PLAN FOR PRODUCTION EQUIPMENT  
MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
SE. NW. SEC. 26-27S-21E.  
SAN JUAN COUNTY, UTAH

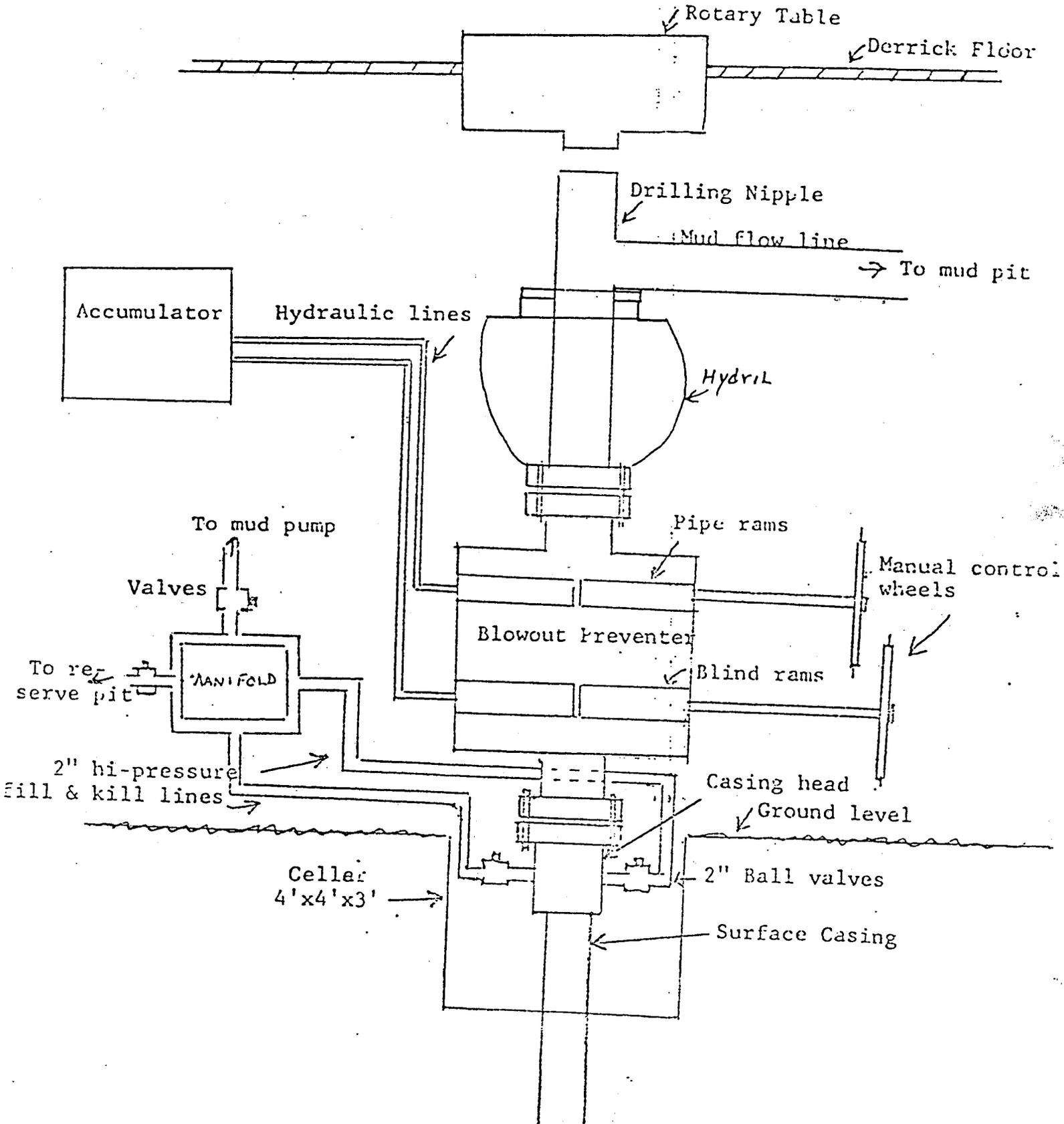


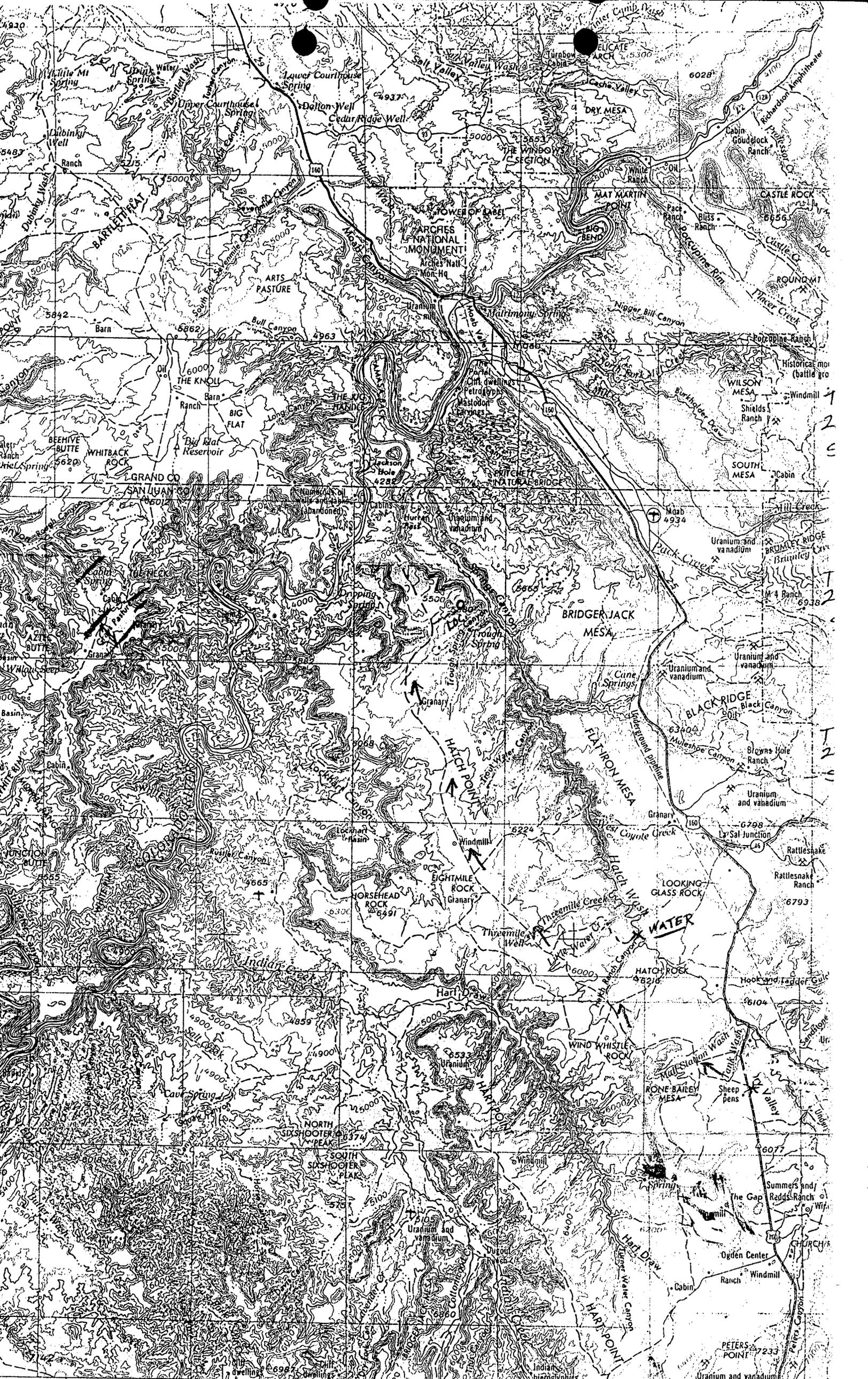
LOCATION PLAN FOR  
 MEGADON ENERGY CORPORATION  
 LION MESA #4-26 WELL  
 SE. NW. SEC. 26-27S-21E.  
 SAN JUAN COUNTY, UTAH



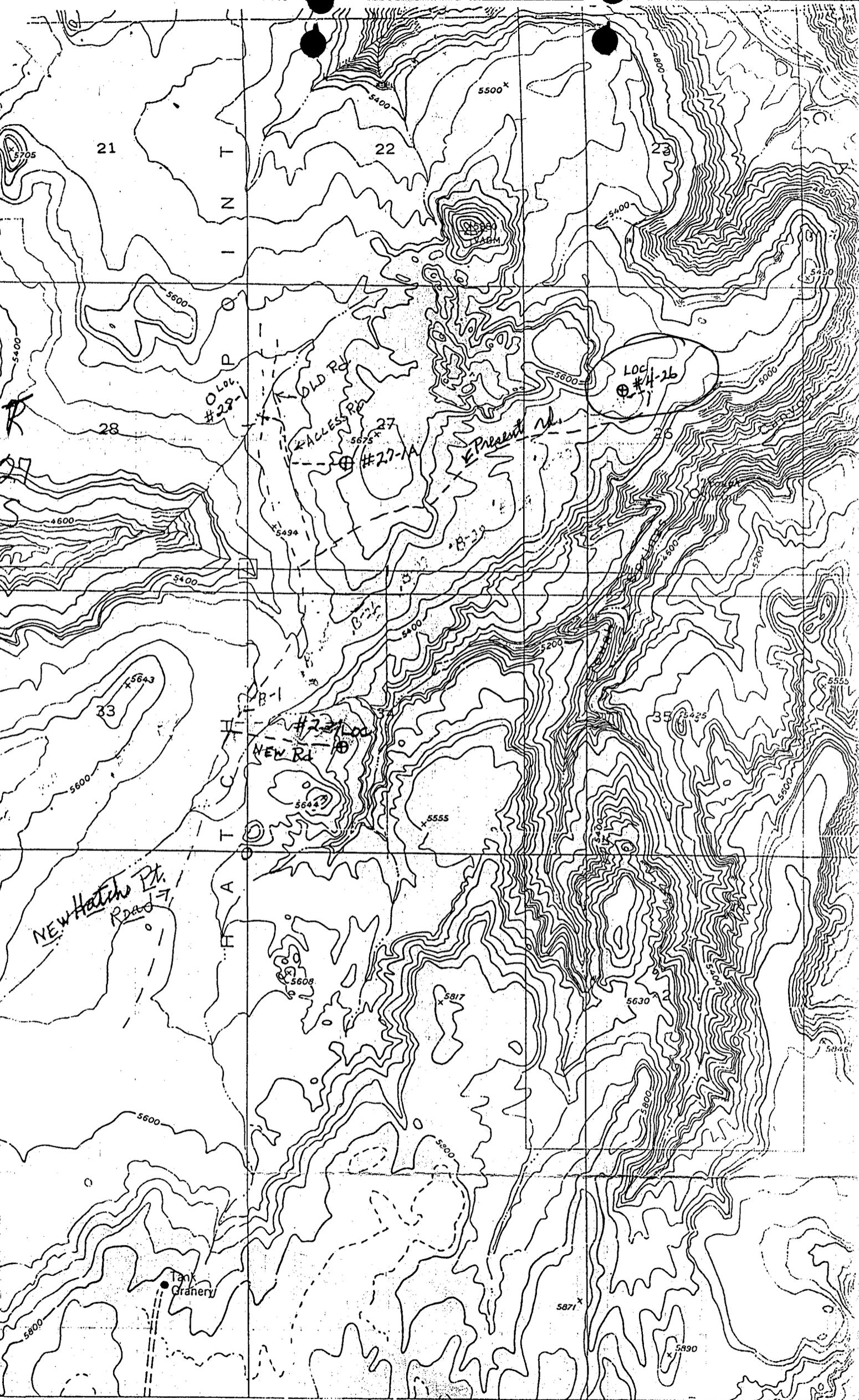
Scale: 1 in. = approx. 3 ft.

SCHEMATIC DIAGRAM OF  
CONTROL EQUIPMENT FOR THE  
MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
SE. NW. SEC. 26.-27S-21E.  
SAN JUAN COUNTY, UTAH



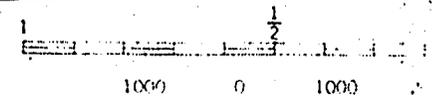
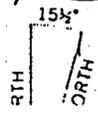


19E 20E 21E 30' 2 600 000 FEET (UTAH CENTRAL) Map # 1 MONTICELLO 9 MI.



Map prepared by the Geological Survey 1954  
 Photoreduced by multiplex methods from  
 photographs taken 1953

R21E 35' MAP #2



\*\* FILE NOTATIONS \*\*

DATE: Dec 1, 1980  
OPERATOR: Megaclear Energy Corp  
WELL NO: Feel 4-26  
Location: Sec. 26 T. 27S R. 21E County: San Juan

File Prepared:  Entered on N.I.D:   
Card Indexed:  Completion Sheet:

API Number 43-037-30617

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_

Director: OK under rule C-3 check if Lion Mesa Unit has been approved & copy on file.

Administrative Aide: approved on Lion Mesa Unit

APPROVAL LETTER:

Bond Required:  Survey Plat Required:

Order No. \_\_\_\_\_ O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

Lease Designation Feel Plotted on Map

Approval Letter Written

Hot Line  P.I.

December 10, 1980

Megadon Energy Corporation  
Suite 440, 57 West South Temple  
Salt Lake City, Utah 84101

Re: Well No. Federal 4-26  
Sec. 26, T. 27S, R. 21E  
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30617.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Cleon B. Feight  
Director

/ka  
cc: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

State 725

5. LEASE DESIGNATION AND SERIAL NO.

U-27505

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

7. UNIT AGREEMENT NAME

LION MESA UNIT

2. NAME OF OPERATOR  
MEGADON ENERGY CORPORATION

8. FARM OR LEASE NAME

FEDERAL

3. ADDRESS OF OPERATOR  
STE. 440, 57 WEST SO. TEMPLE, SLC., UTAH 84101

9. WELL NO.

#4-26

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

10. FIELD AND POOL, OR WILDCAT

WILDCAT

SE. NW. SECTION 26-27S-21E, SLM.  
1900' FR. W-LINE AND 1940' FR. N-LINE

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

SE. NW. SEC. 26-27S-21E.  
SLM

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5464' GRD; 5480' K.B.

12. COUNTY OR PARISH

SAN JUAN

13. STATE

UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

IT HAS BEEN DETERMINED SINCE THE ORIGINAL APPLICATION FOR PERMISSION TO DRILL WAS MADE ON THE SUBJECT WELL THAT THE DRILLING RIG AVAILABLE FOR THE DRILLING OF THIS WELL WILL BE A MUCH LARGER RIG THAN THE ONE PREVIOUSLY ENGAGED. IT WILL THEREFORE BE NECESSARY TO ENLARGE THE WELL PAD TO 400' X 400' RATHER THAN THE 300' X 300' PLAN SUBMITTED. IT IS REQUESTED THAT THIS ALTERATION BE GRANTED WITHOUT DELAY. THANK YOU!

APPROVED BY THE DIVISION  
OF OIL GAS AND MINING

DATE: 2-27-81  
BY: M. J. Minder

RECEIVED

FEB 13 1981

DIVISION OF  
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED

M. J. Minder

TITLE

PRESIDENT

DATE

FEB. 9, 1981

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIP CASE  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-27505

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
MEGADON ENERGY CORPORATION

3. ADDRESS OF OPERATOR  
STE. 440, 57 WEST SO. TEMPLE, SALT LAKE CITY, UTAH

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface

SE. NW. SECTION 26-27S-21E, SLM.  
1900' FR. W-LINE AND 1940' FR. N-LINE

7. UNIT AGREEMENT NAME  
LION MESA UNIT

8. FARM OR LEASE NAME  
FEDERAL

9. WELL NO.  
#4-26

10. FIELD AND POOL, OR WILDCAT  
WILDCAT

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
SE. NW. SEC. 26-27S-21E.

12. COUNTY OR PARISH | 13. STATE  
SLM | SAN JUAN | UTAH

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)

PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)

REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

INFORMATION

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

THE SUBJECT WELL WAS SPUDDED IN ON MARCH 9, 1981 BY CANYON-LANDS CONTRACTING CO.'S RIG #1, AND DRILLED TO A DEPTH OF 42'; ONE JOINT (42') OF 13 3/8" CSG HAS BEEN SET AND CEMENTED TO SURFACE AS A CONDUCTOR PIPE. IT IS ANTICIPATED THAT THE KENAI #5 RIG WILL BE AVAILABLE BY THE END OF THE WEEK.

18. I hereby certify that the foregoing is true and correct

SIGNED W. Don Gungler

TITLE PRESIDENT

DATE MARCH 10, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

CHARLES R. HENDERSON  
*Chairman*

CLEON B. FEIGHT  
*Director*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

June 3, 1981

Megadon Energy Corporation  
Suite# 440, 57 West So. Temple  
Salt Lake City, Utah 84101

Re: Well No. Federal #1-26  
Sec. 26, T.24S. R.17E.  
Grand County, Utah  
(January 1981- May 1981)

Re: Well No. Lion Mesa #3-36  
Sec. 36, T.27S. R.20E.  
San Juan County, Utah  
(January 1981-May 1981)

Re: Well No. Federal #4-26  
Sec. 26, T.27S. R.21E.  
San Juan County, Utah  
(March 1981-May 1981)

Gentlemen:

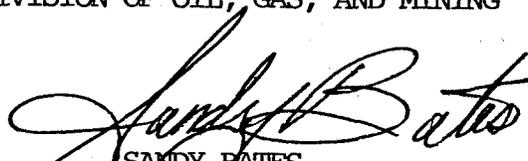
Our records indicate that you have not filed the Monthly drilling reports for the months indicated above on the subject wells.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1B, (U.S. Geological Survey Form 9-331,) "Sundry Notices and Reports on Wells", or on company forms containing substantially the same information. We are enclosing forms for you convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

  
SANDY BATES  
CLERK-TYPIST

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-27505

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
MEGADON ENERGY CORPORATION

3. ADDRESS OF OPERATOR  
57 WEST SOUTH TEMPLE, SALT LAKE CITY, UTAH 84101

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
SE. NW. SECTION 26-27S-21E.  
1900' FR. W-LINE AND 1940' FR. N-LINE

7. UNIT AGREEMENT NAME  
Lion Mesa

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
L.M. #4-26

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SE. NW. Sec. 26-27S-21E.  
SLM.

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5464' Grd; 5480' K.B.

12. COUNTY OR PARISH 13. STATE  
San Juan Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)

PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)  INFORMATION

REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The subject well commenced drilling on March 19, 1981 by Kenai Rig #3. The well was drilled to a total depth of 7800' at which time 209 jts. of 5½", 17# and 23# K-55 and N-80 casing (5000' of 23# on bottom and 2800' of 17# on top. Landed at 7799' K.B. Cemented casing in 2 stages with 1200 sks. of RFC cement: First stage: 650 sks. 2nd Stage: 550 sks. Placed a casing packer at 5530' and a DV Tool at 5320' with 2 cement baskets below DV Tool. A completion rig will be moved in as soon as possible.

CRC Colorado Completion Rig #35 moved in and rigged up on location on May 18, 1981. Completion operations commenced, and are still in progress. We are presently testing and perforating various potential zones.

A Sundry or Well Completion Report will be submitted as soon as completion work has been accomplished.

18. I hereby certify that the foregoing is true and correct

SIGNED Herbert L. Steiman TITLE Secretary/Treasurer

DATE Jun 21, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

RECEIVED  
JUN 20  
DIVISION OF OIL, GAS & MINING

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved, Budget Bureau No. 42-R355.53

5. LEASE DESIGNATION AND SERIAL NO.

U-27505

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

LION MESA

8. FARM OR LEASE NAME

FEDERAL

9. WELL NO.

LM #+26

10. FIELD AND POOL, OR WILDCAT

WILDCAT

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SE. NEW. SEC. 26-27S-21E SLM.

12. COUNTY OR PARISH

SAN JUAN

13. STATE

UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other [ ]

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other [ ]

2. NAME OF OPERATOR

MEGADON ENERGY CORPORATION

3. ADDRESS OF OPERATOR

57 WEST SOUTH TEMPLE, SALT LAKE CITY, UTAH 84101

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface SE. NW. SECTION 26-27S-21E, SLM.
At top prod. interval reported below 1900' FR. W-LINE AND 1940' FR. N-LINE
At total depth

14. PERMIT NO. DATE ISSUED

43-037-30617 12-2-80

15. DATE SPUDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 19. ELEV. CASINGHEAD

3-9-81 5-4-81 7-13-81 5464' GRD; 5480' KB 5465'

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS

7800' 10-7800

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 25. WAS DIRECTIONAL SURVEY MADE

5638-58'; 5206-24'

26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED

DUAL-LATEROLOG, DENSITY-CNL LOG, SONIC LOG, TEMPERATURE LOG NO

28. CASING RECORD (Report all strings set in well)

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Includes data for 9 5/8" and 5 1/2" casing.

29. LINER RECORD 30. TUBING RECORD

Table with 8 columns: SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT\*, SCREEN (MD), SIZE, DEPTH SET (MD), PACKER SET (MD).

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

Table with 2 columns: PERFORATION RECORD (Intervals like 7735-41', 7654-58', etc.) and ACID RECORD (Acidized various intervals, 5140-5484: 23,520 gal Kcl gelled H2O w/ 24,000# sand).

33. PRODUCTION

DATE FIRST PRODUCTION PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) WELL STATUS (Producing or shut-in)

6-15-81 FLOWING SHUT-IN

DATE OF TEST HOURS TESTED CHOKER SIZE PROD'N. FOR TEST PERIOD OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO

8 HRS 1 1/2" 7-10 55

FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITY-API (CORR.)

50-150# 250# 20-30 150-200

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

DRILLING HISTORY, COMPLETION HISTORY, SAMPLE LOG

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [Signature] TITLE PRESIDENT DATE AUG. 13, 1981

\* (See instructions and spaces for Additional Data on Reverse Side)



MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
SE. NW. SECTION 26-27S-21E.  
SAN JUAN COUNTY, UTAH

DRILLING HISTORY

- Mar. 16-18: Moving Kenai Drilling Co. Rig #3 and rigging up.
- Mar. 19: Finished rigging up. Nippled-up to drill ahead below conductor pipe with 12 $\frac{1}{4}$ " bit using air for circulation. Drilled 40' to 153' (113'). Began drilling at 3 P.M. Drilling at rate of 17 feet/hr. Survey at 140' was  $\frac{1}{2}^{\circ}$ .
- Mar. 20: Drilled 153' to 669' (516'). Est. top of Chinle at 512'. Survey at 295' was  $\frac{1}{2}^{\circ}$ ; at 544' was  $\frac{1}{2}^{\circ}$ .
- Mar. 21: Drilled 669' to 925' (256'). Made rd-trip at 800' to check bit and clean hole. Had to ream out several tight spots. Bit #1 (Reedy-13) made 760' in 39 hrs. Drilled at an avg rate of 19 ft/hr. Est. top of Moenkopi at 855' and top of Shinarump at 807'. Drilled to 925' and circulated for  $\frac{1}{2}$  hr. and came out of hole to run casing. Ran 24 jts of 9 5/8", 36.00#, K-55 casing and landed casing at 920' K.B. Cemented casing w/250 sks of reg cement w/3% CaCl. Returns to surface. Plug down at 0300 A.M. on 3-22. Bit #2 (Reed Y-12) drilled 125' (800-925') in 10 hrs.
- Mar. 22: Waiting on cement to set. Cut off casing and welded on casing head. Nippled up BOP.
- Mar. 23: Finished installing BOP and tested rams. Had considerable trouble in stopping leaks. Tested rams to 2000#. Installed hydril, rotating head and blewie line. Picked up bit and started in hole. Couldn't get thru casing head. Had to unbolt BOP and get welder to grind off welding bead left inside head. Put BOP back down and secured it. Tested BOP again for leaks.
- Mar. 24: Drilled 925' to 1286' (361'). Survey at 1036' was 1 $^{\circ}$ ; at 1191' was 1 $^{\circ}$ . Drilling ahead with 8 3/4" bit and using air for circulation. Dusting good.
- Mar. 25: Drilled 1286' to 1773' (487'). Survey at 1286' was 3/4 $^{\circ}$ ; at 1440' was 1 $^{\circ}$ ; at 1560' was  $\frac{1}{2}^{\circ}$ ; at 1686' was 1 $\frac{1}{4}$  $^{\circ}$ . Dusting good. Drilling in red beds. Made rd-trip at 1411' for

new bit. Bit #3 (Reed Y-12) made 486' (925' to 1411') in 17 3/4 hrs. Drilled at avg rate of 27 ft/hr.

- Mar. 26: Drilled 1773' to 2180' (407'). Survey at 1814' was 1½°; at 1970' was 3/4°; at 2124' was 1°. Encountered moisture in hole at 2100' and had to convert to air-mist drilling.
- Mar. 27: Drilled 2180' to 2278' (98'). Survey at 2278' was ½°. Had to replace rubber in hydril. Rig down 10½ hrs to replace rubber bonnet in hydril. Drilling with air-mist.
- Mar. 28: Drilled 2278' to 2672' (394'). Drilling with air-mist at rate of 22 ft/hr. in red siltstone and shale. Survey at 2433' was 3/4°; at 2550' was 3/4°. Down for 5 hrs. to change hydril rubber on pump.
- Mar. 29: Drilled 2672' to 304' (352'). Drilling at rate of 16 ft/hr. in shale, limestone, siltstone, and sandstone. Est. top of Hermosa at 2910'. Survey at 2681' was 1°; at 2833' was 1°; at 2985' was 1½°.
- Mar. 30: Drilled 3024' to 3145' (121'). Made rd-trip at 3145' for new bit. Bit #4 (Security S86F) made 1734' (1411' to 3145') in 100½ hrs. Drilled at an avg. rate of 17 ft/hr. Survey at 3140' was 1°. Drilling in Hermosa formation.
- Mar. 31: Drilled 3145' to 3432' (287'). Survey at 3295' was 1°. Drilling w/20,000# on bit at 60 RPM. with air mist. Drlg in Hermosa lime and shale at rate of 10 ft/hr.
- Apr. 1: Drilled 3432' to 3635' (203'). Survey at 3438' was 1°; at 3574' was 1°. Changed out kelly bushings (1½ hr). Made short trip for changing bushings.
- Apr. 2: Drilled 3635' to 3830' (195'). Drlg at rate of 9 ft/hr. in dolomite, anhydrite and shale of Hermosa with air mist.
- Apr. 3: Drilled 3830' to 4010' (180'). Survey at 3808' was 1°; at 3975' was 1°. Drilling in lower Hermosa (Honiker Trail) at rate of 6 to 8 ft/hr. w/25,000# on bit at 60 RPM with air mist.

- Apr. 4: Drilled 4010' to 4173' (163'). Converted to salt water and soap at 4006' for air-mist drilling. Still drilling in lower Upper Hermosa (dolomite-black shale-red siltstone and shale). Air pressure running at 185#. Est. total cost to date is \$235,435.
- Apr. 5: Drilled 4173' to 4340' (167'). Survey at 4161' was 1°. Drilling in black shale, fine grained-quartzitic sandstone, and limestone at rate of 5 to 10 min/ft.
- Apr. 6: Drilled 4340' to 4594' (254'). Survey at 4301' was 1°; at 4533' was 1°. Made rd-trip at 4392' for new bit. Bit #5 (Reed FP53A) made 1247' (3145' to 4392') in 138½ hrs. Drilled at avg. rate of 9 ft/hr. Est top of salt at 4375'.
- Apr. 7: Drilled 4594' to 4840' (246'). Survey at 4610' was 1½°. Decided to convert to mud at 4840'. Mixed mud. Pulled 10 stds and filled hole with brine water and obtained circulation. Went back to bottom and circulated for 1 hr. Came out of hole to put jets in bit. Took off rotating head and installed drilling nipple and flow line to the mud tanks.
- Apr. 8: Drilled 4840' to 5047' (207'). Survey at 4932' was 2 3/4°. Drilled a clastic zone (anhydrite and black shale w/shows) from 4840' to 4940' and then pure xln salt. Salt drills at rate of 3 min/ft. with 10,000# to 12,000# weight on bit.
- Apr. 9: Drilled 5047' to 5288' (241'). Survey at 5118' was 3½°; at 5234' was 3½°. Reduced weight on bit. Drilled mostly salt at rate of 3 min/ft.
- Apr. 10: Drilled 5288' to 5490' (202'). Survey at 5428' was 2½°. Drilling slower due to reduced weight on bit, but hole straightened slightly. Drilled two thin clastic zones, but was mostly in salt.
- Apr. 11: Drilled 5490' to 5711' (221'). Survey at 5567' was 3°. Using 10,000# to 15,000# wt on bit, and turning at 60 RPM, and drilling at an avg. rate of 10 ft/hr. Mud wt is 10.2, Visc. is 35, and W.L. is 18. Drilled salt from 5500' to 5640', then granular anhydrite w/good fluor., stain, and cut and black petroliferous shale from 5640' to 5740' with a thin bed of salt in the middle.

- Apr. 12: Drilled 5711' to 5918' (207'). Survey at 5752' was  $1\frac{1}{2}^{\circ}$ . Drlg at avg rate of 9 ft/hr. Had salt from 5740' to 5850', then black shale and anhydrite to 5890', then more slat. Samples have strong gas odor and good fluorescence. Suspect an oil zone at 5700' to 5740', and at 5850' to 5890'.
- Apr. 13: Drilled 5918' to 6104' (186'). Survey at 6027' was  $2\frac{1}{2}^{\circ}$ . Loss pump pressure at 6070' so started out of hole to check drill string. Found hole in drill pipe at 48 stds out. Went back to bottom.
- Apr. 14: Drilled 6104' to 6285' (181'). Survey at 6180' was  $1\frac{1}{2}^{\circ}$ . Drlg. at avg. rate of 8 ft/hr. Drilled anhydrite from 6100' to 6130', then salt s/gypsum to 6285'. Samples are saturated with light brown oil, and have solid blue fluorescence. Put lots of caustic in mud.
- Apr. 15: Drilled 6285' to 6471' (186'). Drlg. fairly slow at avg. rate of 8 ft/hr. in salt with gyp. Lots of gas in mud. Samples contain live brown oil, solid fluorescence, strong crude oil odor, stain and cut.
- Apr. 16: Drilled 6471' to 6638' (167'). Survey at 6623' was  $2\frac{1}{2}^{\circ}$ . Drlg. w/10,000# on bit, 60 RPM. Drlg. in salt with gyp. Samples are sat. with oil, brownish red oil stain, solid fluorescence, good cut.
- Apr. 17: Drilled 6638' to 6689' (51'). Drlg. rate slowed down to 2 ft/hr. Decided to trip out to check bit. Made rd-trip at 6653'. Bit was okey, so went back in. Lots of gas plus brown oil came up off bottom. Took some time to work gas out of mud.
- Dec. 18: Drilled 6689' to 6818' (129'). Samples sat. w/lt. brown oil; good crude oil odor, solid blue fluorescence. Decided to run a test on a big section to determine origin of oil and gas. Circulated for  $3\frac{1}{2}$  hrs. to clean hole in preparation for DST.
- Apr. 19: Running DST #1. Came out of hole. Waited on tester for 1 hr. Picked up test tools and went back in hole. Opened tool at 11 AM. Ran DST as follows:
- Interval: 6050' to 6818' (168')
- Init Flow:  $\frac{1}{4}$  hr. Final Flow:  $1\frac{1}{2}$  hrs.
- Init Shut-in: 1 hr. Final Shut-in: 2 hrs.
- Blow: Strong blow immediate (18" in water). Weak blow initially and increasing to 15" in water in 25 min. on final flow and then finally decreasing to about 2" by end of test.
- Rec: 5200' of gas in D.P.; 650' of highly gas cut mud.
- Sample Chamber: 200#, .34 cu. ft. gas, 2250 cc. of g.c.m.
- Res: .06 ohms at  $50^{\circ}$ . Chlorides at 238,000 ppm.

Pressures:

IFP = 245-274#	FFP = 284#
ISIP = 571#	FSIP = 447#
IHP = 3333#	FHP = 3305#
BHT = 110°	

- Apr. 20: Drilled 6818' to 6966' (148'). Had considerable trouble getting back to bottom with Bit #6. Hit bridges at 6600' and 6650'. Circulated gas and oil up. Had to close pipe rams and circulate thru choke valves. Gas and oil blew the length of pits. Mud and gas continued to flow out of hole during the test so it is obvious that the production zone is above where the packer was set.
- Apr. 21: Drilled 6966' to 7200' (234'). Survey at 7051' was 1 3/4°. Drilling in salt at rate of 15 ft/hr. Salt is saturated with oil from zone above.
- Apr. 22: Drilled 7200' to 7270' (70'). Survey at 7258' was 2 1/2°. Had a plugged bit so had to make a rd-trip to unplug bit at 7258'. Strapped out and had a 2-ft. difference in pipe tally so made no correction. Est. top of Cane Creek section at 7255' due to marked decrease in drlg rate.
- Apr. 23: Drilled 7270' to 7323' (53'). Drlg. real slow in anhydrite, soft white gypssum and black shale and brn arg. dolomite with good fluorescence and stain. Porosity is poor.
- Apr. 24: Drilled 7323' to 7382' (59'). Still drilling slow. Oil in mud increasing. Bit began torquing up, so started out of hole at 9:00 P.M.
- Apr. 25: Drilled 7382' to 7436' (54'). Finished trip for new bit. Bit #6 (Security S86F) made 2990' (4392' to 7382') in 353 3/4 hrs. Drilled at an avg. rate of 8 1/2 ft/hr. Had lots of gas and oil when circulating bottoms up. Free oil on mud. Had to ream 200 ft back to bottom. Est. bottom of salt and top of Pinkerton Trail at 7433'. Survey at 7360' was 1 3/4°.
- Apr. 26: Drilled 7436' to 7480' (44'). Had 2 thin zones of porosity in section 7370' to 7390' so decided to run DST on Cane Creek section and below to check potential - suspect section is tight. Circulated 1 1/2 hrs, made short trip, circulated 1 1/2 hrs. and came out of hole to pick up test tool.
- Apr. 27: Picked up test tool and went in hole, and ran DST #2 as follows:

Interval:	7237' to 7480' (243').	
Init Flow:	1/2 hr.	Final Flow: 1 1/2 hr.
Init Shut-in:	1 hr	Final Shut-in: 2 hrs.

Blow: Good blow immediate - bottom of bucket in  
5 min. (1 lb.). Good blow thru-out final flow ( $\frac{1}{2}$  lb).  
Rec.: Est. 1000' of gas in D.P., 210' of gas cut mud.  
Sample Chamber: 76#, .08 cu. ft. gas; 2400 cc. of G.C.M.

Pressures:

I.F.P. = 93#	F.F.P. = 103-120#
I.S.I.P. = 375#	F.S.I.P. = 300#
I.H.P. = 4093#	F.H.P. = 3980#
B.H.T. = 118°	

Laid down and loaded test tool. Went back in hole with a tooth bit. Took  $8\frac{1}{2}$  hrs to circulate gas and oil out, and wash to bottom. Lots of free oil in mud.

- Apr. 28: Drilled 7480-7522' (42'). Reamed and washed to bottom for 120'. Lots of gas and oil on mud when bottoms were circulated up. Drilling real slow, 2 to 3 ft/hr, in dolomite, red and black shale.
- Apr. 29: Drilled 7522' to 7570' (48'). Made rd-trip at 7522' for new bit. Bit #8 (Security S3J) made 42' (7480-7522') in  $21\frac{1}{2}$  hrs. Drilled at an avg. rate of about 2 ft/hr. Est top of Mississippian at 7570', due to light gray Xln to chalky limestone. Had lots of gas and oil on mud after trip. Well continues to flow about a 1-inch stream continuously (3 gal/min). Had to circulate thru.
- Apr. 30: Drilled 7570' to 7658' (88'). Drlg in fractured, chalky to sucrosic limestone. Had drlg breaks at 7621' to 7629'; 7632-36'; 7641-44'; and 7649-52'. Samples show good fluorescence and stain but could be due to contamination by oil zone above.
- May 1: Drilled 7658' to 7670' (12'). Decided to run DST on top portion of Mississippian. Circulated for  $1\frac{1}{2}$  hrs to clean hole and came out to pick up test tools. Pick up test tools and went back in hole and ran DST #3 as follows:

Interval: 7576-7670' (94')

Init open: $\frac{1}{4}$ hr	Final Flow: $2\frac{1}{2}$ hrs.
Init Shut-in: 1 hr	Final Shut-in: 3 hrs.

Blow: Weak blow initial increasing to 18" in water in 15 minutes. Blow on final flow increased gradually to 7# in  $2\frac{1}{2}$  hrs.

Rec.: 2800' of gas in D.P., 2500' of gas cut saline sulphur water.

Sample Chamber: 30# pressure and 2300 cc of saline sulphur water. Res.: was 0.1 at 54° (60,000 ppm chlorides.)

Pressures:

IFP = 80-353#	FFP = 382-1342#
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ISIP = 2831#  
IHP = 4206#  
BHT = 122°

FSIP = 2802#  
FHP = 4168#

- May 2: Finished trip out with test tool. Laid down tools and went back in hole with Bit #5 (rerun). Drilled 7670' to 7701' (31'). Drilling in limestone at avg. rate of 2 ft/hr.
- May 3: Drilled 7701' to 7747' (46'). Circulated 1½ hrs for logs at 7730' which depth was about 200 ft. below the top of the Mississippian. However, Transcontinental wanted to drill the dolomite porosity zone, so went back in hole with Bit #5 and began drilling ahead. Had lots of gas and oil in mud when circulating bottoms up. Circulated 2½ hrs thru the chokes with the pipe rams closed.
- May 4: Drilled 7747' to 7800' (53'). Encountered top of dolomite porosity zone at 7730'. Had good shows in samples; but could be contamination from upper oil zone. Circulated for 1½ hrs for logs and came out of hole. Rigged up Schlumberger and began logging. Ran Dual-Laterolog and Gamma-Density-CNL logs. Bit #5 (Reed FP53A) made 1377' in 177½ hrs. Drilled at an avg. rate of 7.7'/hr.
- May 5: Ran Sonic and Temperature logs. Finished logging at noon. Decided to straddle test zones at 5630' to 5730'; so picked up test tool with inflatable packers and went in hole. Tried to set and pump up packers several times without success; so came out of hole to check packers and pump. The packers set for about 10 seconds and gas came to the surface immediately. When the tools were pulled, about 200 feet of free oil were recovered in the drill pipe along with a quantity of drilling mud.
- May 6: Changed out packers on DST tools and went in hole with hook-wall and conventional packers on the bottom and an inflatable packer and pump on top. Went back in hole and tried to set hook-wall and packers several times without success. Came out of hole and changed packers and went back in hole to below surface casing with the inflatable packers after plugging off the ports in the bottom packer and tried to pump-up packers without success. Came out and installed a sleeve below guide bails to engage drive gear on pump and tried again to pump-up packers without success. Called for additional packers and pumps.
- May 7: Went in hole with different inflatable packers pump, and guide springs and tried to pump up and set below surface casing without success. Gave up trying to test and decided to pre-

pare to run casing. Went in hole with drill string and cleaned and circulated hole for 2½ hrs. Came out of hole laying down drill pipe and collars.

- May 8: Finished laying down pipe and ran casing. Ran 209 jts of 5½", 17-23#, K-55 and N-80 casing (2800' of 17# on top and 5000' of 23# on bottom). Landed casing at 7799' K.B. and cemented w/1200 sks of RFC cement in 2 stages: 650 sks in 1st stage; and 550 sks in 2nd stage. Installed casing packer at 5530 ft., D.V. tool at 5320', and two cement baskets at 5400' and 5360'. This should keep cement off the zone from 5630' to 5730' and from 5460' to 5490'. Finally plug down at 7:15 P.M. Allowed cement to set.
- May 9: Waited on cement to set until 7 AM. Set slips on casing and cut casing off. Began rigging down. Moving rig from Lion Mesa #4-26 to Lion Mesa #5-28.

*Finis*

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COMPLETION HISTORY  
ON  
LION MESA #4-26 WELL  
SECTION 26, T 27S, R 21E.  
SAN JUAN COUNTY, UTAH

- May 18: Moving in Colorado Well Service Rig 35 and rigging up.
- May 19: Picked up 2 3/8 tubing and going in hole with 4 5/8" bit and casing scraper to drill out DV tool.
- May 20: Drilled out DV tool at 5291' to 5295'. Had cement stringers below DV tool and had to drill each joint down to total depth 7792'. Came out of hole with tubing. Started logging.
- May 21: Ran Correlation-Bond log to 7792'. Finished at 5 AM. Went in hole with casing gun and perforated zones 7735-7731' with 2 shots/ft. Finished perforating at 0900 hrs. Went in hole with tubing and packer. Set packer at 7700' and rigged up to swab test perms. Ran swab down to 2400' three times and swab wouldn't go deeper. Had lots of paraffin and salt in tubing. Need to order hot-oil truck to melt paraffin Tuesday morning. Released Crew for holiday.
- May 22-25: Crew off for Memorial Day weekend.

5/26/81 Tuesday

- 0800-1030 Colorado Well Service Rig #35 crew, Dennis Hot Oil Service, and Liquid Transport with 80 bbls. fresh water -- all on location as arranged. Picked up tubing string to open equalizer valve in the MSOT compression packer. Unseated the packer to give maximum annulus passage. Hooked up Dennis Hot Oil truck and pumped 80 bbls. of fresh water heated to 220° F down the tubing and up the annulus. Recovered water emulsified with green oil. No sign of heavy paraffin; must have melted.
- 1030-1100 Made run with swab mandrel only down to about 4000'. POH and measured sand line in to 7718'; good check for the seating nipple run above the packer.
- 1100-1430 Attempted repeatedly to reset the packer. The string would take a little weight and then slide down hole. Waited on another load of fresh water. Pumped about 40 bbls. down annulus in attempt to flush any debris from around the packer. Again worked the tubing string and finally got packer to take weight. Pressured up on the annulus to 700 psig using hot oil truck pump; held OK for 5 minutes. Apparently, packer set and holding OK.
- 1430-1600 Rigged up to swab. Can go to seating nipple with the sinker bar only but the mandrel with swab cups stops at 1940' per sand line measuring device. Worked a paraffin knife down through the tight spot with difficulty. There are no extra sinker bars or sandline jars on the service rig, so have to use discretion in running into the tight area (don't want to get hung up without jars). Attempted to run special 1.90" O.D. drift (made up for Salt Wash #1-15 well), but it would not go through the tight spot.
- 1600-1700 Had hot oil truck pump 8 bbls. of hot salt water down the tubing in final effort to help the tight spot in the tubing at 1940'. Subsequent run with swab stopped at the same place, i.e. 1940'. Conclude that the problem must be a crimped spot in the tubing rather than paraffin. Released the hot oil truck and the water truck. Released rig crew early but requested an additional swab sinker bar and a set of jars for the sandline as of next morning.

5/27/81 Wednesday

- 0800-1000 Colorado Well Service was unable to find a set of sand line jars. However, they have ordered a set. Consequently, released packer and started out of the hole to locate the tight spot in the tubing. Found a bad crimp in the 64th joint of tubing. The crimp was apparently caused by setting down the tubing string when the power slips were cocked.
- 1000-1530 Set packer easily on the initial try; packer apparently OK. Rigged up to swab. Found swab would only go about 300' below the depth where it had previously stopped. Ran paraffin knife and was able to work it through the tight place. Ran the 1.90" O.D. drift and it would not go through the tight place. Unseated packer and started out of hole. Found the 73rd joint down crimped as defined above. Rigged up and ran the 1.90" O.D. drift to the seating nipple. Went O.K. Laid down the crimped 73rd joint. Ran down hole and set the packer at 7696' K.B. (246 jts.).
- 1600-1900 Made 10 pulls with the swab. Fluid remained at 5000' from surface for the last 4 pulls. Recovered 24 bbls. water with some emulsified green oil. Shut well in for night.

5/28/81 Thursday

- 0800 Found tubing on a vacuum. Initial run with swab found fluid up to 1500' from surface. First 3 runs pulled fluid level down to 3200'. Recovering water with H<sub>2</sub>S odor. Swabbed well until noon when sandline parted at the rope socket, leaving the sinker bar and swab in the tubing. Made a total of 11 pulls. Swabbed fluid down from 1500' to 4400' from surface. Recovered 37 bbls. of blackish sulfur water.
- 1230-1500 Unseated packer and started POH, measuring out in doubles. Measured 123 doubles (246 joints) as 7672.06'. Recovered swab sinker bar etc. held by the seating nipple. Laid down the MSOT compression packer; the gauge rings and the drag springs showed considerable wear.
- 1615 Schlumberger on location.
- 1645-1800 Schlumberger started in hole with a Baker Model NC-1 cast iron, drillable, wireline set bridge plug. Found fluid level at 1850' on the trip in. Tied in measurements at the DV tool (5291=5295') and checked a short casing joint from 7570'-93',

5/28/81 Thursday (con't)

- 1645-1800 plus a casing collar at 7712'. Set the bridge  
(con't) plug at 7700' K.B.
- 1800-2000 Waited for electrical storm to pass over the area  
(a precaution; lightning can detonate the guns  
on the surface). Picked up 4" O.D. casing gun  
loaded with 27 Hyper Jet 22 gram charges (0.40"  
diam. casing hole). Checked DV tool at 5291'-  
95'. Checked short casing joint from 7570'-93'.  
Checked bridge plug at 7700'. Perforated the casing  
7654-58' with 9 shots (2 per foot). Perforated  
the casing 7646-48' with 5 shots (2 per foot).  
Perforated the casing 7633-40' with 8 shots (1  
per foot). Shots programmed for 7628-32' failed  
to fire. POH and replace a switch. Check of gun  
indicated all other shots fired OK.
- 2030-2130 Ran back in hole. Checked DV tool and the short  
joint of casing from 7570'-93'. Checked bridge  
plug at 7700'. Perforated the casing 7628'-32'  
with 5 shots (1 per foot). Fluid level checked  
at 1850' on trip out of hole. POH and rigged down  
Schlumberger. Closed blind rams and shut in well  
for the night.

5/29/81 Friday

- 0800-1100 Picked up new MSOT Model HD compression packer.  
Ran a 1 25/32" I.D. seating nipple immediately  
above the packer. Ran in hole with 246 joints  
of tubing. Set packer at 7692' K.B. (34' below  
the lowest new perf. at 7658' and 8' above the  
wireline set bridge plug at 7700'). Pressured  
up on tubing to 800 psig to test both the packer  
and the bridge plug. Held pressure OK for 5 minutes.
- 1100-1230 Released packer, laid down 3 single joints, and  
reset packer at 7598' K.B. (30" above the uppermost  
perf. at 7628'). Filled the casing annulus above  
the packer with water. Pressured up the annulus  
above the packer to 700 psig and held OK for 5  
minutes. (To test packer.)
- 1230-1830 Rigged up to swab test the new perfs. Made 11  
pulls with the swab. Swabbed fluid down from 450'  
to 7300' from surface. The last 4 pulls were from  
the seating nipple at 7590'. Waited 1/2 hour between  
the last 3 pulls; there was no indication of fill  
up after the well was swabbed down. Recovered  
26 bbls. water. There was no show of oil or gas.  
Rigged down lubricator in order to leave the tubing.  
Shut in with a good pressure gauge to monitor any  
pressure build up.

5/30/81 Saturday

0800 Overnight shut-in pressure was zero; the tubing was on a slight vacuum. Initial run in with the swab found fluid at 5300', an indicated 2000' overnight fill up. Fluid was water. On the second swab run, the swab hung up briefly near bottom and threw a tight loop in the sandline. This damaged the sandline to the extent that it will have to be professionally spliced before the rig can be operational for swabbing.

6/1/81 Monday

0800 Checked shut-in tubing. There was a slight positive pressure, but the pressure was too low to record on a 2000 psig gauge. Initial run with swab found fluid 3200' from surface. Made 2 runs; swabbed fluid down to 6600'. Recovered 4 bbls. water with no show of oil or gas.

1000 Dowell on location as scheduled for acid treatment of the 7628-7658' pers. Liquid Transport on location with 80 bbls. brine water.

1130 Pressured up the casing annulus, above the packer to 800 psig and held that pressure for the duration of the job. Pressure tested Dowell surface lines to 4100 psig; checked out OK.

1145 Started pumping 1000 gals. (24 bbls.) MSR acid. Caught pressure with 23 bbls. in. Started dropping 7/8" ball sealers when 2 bbls. pumped; then dropped 2 balls/bbl. until 35 balls dropped. With 24 bbls. acid pumped, started displacing with brine water at 1 1/2 bbls./min at 3000 psig. With 30 1/2 bbls. in, formation started to breakdown. Was able to briefly have a rate of 4 bbls./min at 3000 psig. Balls hit with 35 bbls. in. Worked rate back up to 3 3/4 bbls./min at 3000 psig. There was more ball action with 52 bbls. in.

1209 58 bbls. in. Final rate 3 1/2 bbls./min at 2950 psig.  
I.S.I.P. = 1800 psig  
5 min. S.I.P. = 1600 psig  
10 min. S.I.P. = 1300 psig  
15 min. S.I.P. = 900 psig

1230 Rigged down Dowell and rigged up to swab.

1300-1800 Pulled swab 15 times. Pulled fluid down to 3900' from surface. Recovered 65 bbls. of acid-cut water. There was no indication of oil or gas. Closed well in for night; installed pressure gauge.

6/2/81 Tuesday

- 0800-1400 Found 50 psig on the tubing after overnight shut-in. First run with swab found fluid 1600' from surface. Recovered acid water only; no show of oil or combustible gas. Continued swabbing. Made a total of 23 pulls. Swabbed fluid down from 1600' to 5700'. Recovered 92 bbls. of acid-cut water. There was no show of oil or combustible gas. The 92 bbls. above, plus the 65 bbls. recovered by the previous day's swabbing = 157 bbls. swabbed from well since the 58 bbls. of fluid introduced during the acid treatment of the 7628-7658' pers. It is concluded that subject zone lacks commercial production.
- 1400-1600 Released packer and started out of the hole. Pulled 121 1/2 double stands. Laid down MSOT packer; packer appears in excellent condition.

6/3/81 Wednesday

- 0800-0930 Cold, rainy day. In preparation for setting a wireline bridge plug and perforating up-hole, ran 28 double stands of tubing in the hole and came out of hole laying down 56 single joints.
- 1030 Schlumberger on location. Rigged up.
- 1130-1230 Schlumberger ran in hole with a Baker Model "S" wireline set bridge plug for 5 1/2" 23# casing. Checked DV tool 5291-5295'. Checked Lynes packer 5507-5509'. Checked short joint of casing from 6921-6955' and one from 7570-7593'. Set bridge plug at 7560' K.B. Got loose, picked up, and re-tagged plug OK. POH.
- 1245-1400 Picked up casing gun loaded with 28 Hyper Jet 22 gram charges. Found fluid level at 1790' from surface on trip in hole. Checked DV tool at 5291-5295' and Lynes packer at 5507-5509'. Checked short casing joint 6921' to 6955'. Tagged up very lightly on bridge plug at 7560'. Checked casing collar at 5640'. Perforated the 5 1/2" casing from 5714' to 5724' with 11 shots (1 per foot). Perforated the 5 1/2" casing from 5642' to 5658' with 17 shots (1 per foot). There was no discernable blow at the surface (however, there is a 3900' fluid cushion above the new pers). Schlumberger POH. Examination of the gun at the surface indicated all shots fired. Rigged down Schlumberger.

6/3/81 Wednesday (con't)

- 1400-1515 Picked up MSOT Model HD compression packer with a 1 25/32" I.D. seating nipple installed immediately above the packer. RIH on 93 double stands (5800.41'). Set packer at 5820' K.B. in order to pressure test bridge plug at 7560'. Pressured up to 800 psig below packer; pressure held Ok. Bridge plug OK.
- 1545 While pressuring up to test bridge plug at 7560', the well began to flow from the casing annulus. Consequently, released packer and pulled up 7 joints to set packer with 179 joints at 5602' K.B. (40' above the uppermost new perforation).
- 1545-1645 Well flowed oil cut water and combustible gas to pit through tubing for one hour; well then died. Rigged up to swab. Made 3 pulls: one from 900'; two from 1600'. Recovered oil and gas-cut water. Laid down lubricator. Installed pressure guage on the tubing and shut well in for the night.

6/4/81 Thursday

- 0800-0930 After overnight shut-in, tubing pressure was in excess of 1000 psig (pegged out a 1000 psi guage). Checked annulus and found a lot of pressure on annulus. This annulus pressure indicates possibility that packer is leaking. Blew well down to pit. Connected up to clean 500 bbl. frac tank.
- 0930 Flowed into frac tank for 30 min.; recovered mostly water. Considered possibility that water was dropping down out of the annulus due to a leaking packer.
- 1000 The tubing was set too low in the slips to permit putting more weight on the packer. Consequently added a 6' tubing pup and found that the entire string weight was stacked out on the packer. Laid down the 6' tubing pup, unseated the packer and pulled up and laid down 1 single joint. Now have 178 joints in string. Reset packer at 5571' K.B. (71' above uppermost new perf.) with 20,000# weight.
- 1100 Pumped brine water into casing annulus with the rig pump; caught pressure with only 3 bbls. pumped. Pressured up to 450 psig. Pressure held OK. It would appear that the packer is now holding OK.
- 1130-1730 Swabbing new perms. below packer. Made 20 pulls swabbing into 500 bbl. frac tank. Swabbed fluid down to about 1200'. Well would flow for varying periods after each pull. Recovered (from swabbing

6/4/81 Thursday (con't)

1130-1730 and flowing) 58 bbls. of oil-cut water. Found  
(con't) evidence of salt build up around swab mandrel.  
Had some indication of a tight spot in the tubing  
at 2600'; perhaps salt. Installed pressure gauge  
and shut well in for night.

6/5/81 Friday

0800 After overnight shut-in, found tubing pressure  
at 1170 psig and casing pressure at 470 psig. Apparently  
packer holding OK. Drained off the water from  
the fluid swabbed and flowed into the 500 bbl.  
frac tank. Calculate the fluid was 16% oil.

0930-1330 Swab testing the 5642-5648' and the 5714-5724'  
perfs. below packer set at 5571'. Made 11 pulls  
with swab. Swabbed fluid down to 1800'. Guaged  
total fluid recovered into frac tank as 55 bbls.  
(14 bbls per hour). Random samples averaged 13%  
oil. Then, for some reason, unable to get swab  
below 2900'. Possibly salt build up? Unseated  
packer. Ran 2 additional double stands; now 91  
double stand (182 joints = 5673.73') in hole. Reset  
packer between the above defined perfs. at 5694'  
K.B.

1500-1800 Trying to swab test the 5714-5724' perfs. below  
the packer. Had to use the sandline jars to work  
down through tight places in the tubing. Based  
on the salt sludge we are finding when we catch  
a swabbed sample, the tight places could very possibly  
be due to salt. Make 9 pulls with swab. Only  
able to swab down to 700' from surface. Recovered  
42 bbls. fluid into frac tank in 3 hours (14 bbls.  
per hour). Random samples averaged about 10% oil.  
Closed well in for night. The annulus casing pressure  
was 150 psig as of 1800 hours.

6/6/81 Saturday

0800-1000 After overnight shut-in, checked tubing pressure  
at 900 psig; casing pressure at 1100 psig. This  
would indicate communication between the 5642-  
5658' and 5714-5724' perfs. behind the casing.  
Opened well up to flow into the frac tank. After  
45 minutes of flow through the tubing, the casing  
annulus pressure had dropped from 1000 psig to 540  
psig -- tending to confirm communication between  
the perfs. Well flowed steadily to frac tank from  
0800 hrs to 1000 hrs. Casing pressure dropped  
to 250 psig as of 1000 hrs.

6/6/81 Saturday (con't)

- 1115 Well still flowing to frac tank. Draining water from bottom of tank as well is flowing. Closed drain to get a 2 hour check on the flow volume. Checked casing annulus pressure at 290 psig.
- 1315 Well still flowing into frac tank with drain closed. Made 12 bbls. fluid in 2 hours. Random checks indicate 12% oil. Casing pressure has increased to 390 psig.
- 1415 Well still flowing into frac tank with drain closed. Readings indicate the well made 12 bbls. fluid in the last one hour. Casing pressure was 335 psig. The oil cut fluctuated from 8 to 12%
- 1515 Well still flowing into frac tank with drain closed. Well made 6 bbls. fluid in the last hour. Casing pressure was 390 psig. Oil cut averaged 8%.
- 1615 Well still flowing into frac tank with drain closed. Well made 5.2 bbls. fluid in the last hour. Casing pressure was 360 psig. Oil cut averaged 7%. Left well open to frac tank. Released rig crews.

NOTE Well flowed until about 1000 hrs. Sunday and made 66 bbls. fluid into frac tank. There is a possibility that the tubing plugged off with salt. Well shut-in Sunday A.M.

6/8/81 Monday

- 0800 Found 800 psig on the tubing. When tubing was opened, this pressure blew down very quickly. The casing annulus pressure was 950 psig per gauge on the pump. Well would only flow a small trickle through the tubing.
- 0930-1030 Opened annulus. Well flowed to frac tank; 22 bbls. fluid the first hour. While well was flowing from casing made several unseccessful attempts to run a swab mandrel. Unable to get much below the lubricator because of salt, ordered a load of fresh water.
- 1030-1130 Well still flowing from casing to frac tank. Gauged 20 bbls. in the second hour of the flow test.
- 1130-1230 Well still flowing from casing to frac tank. Guaged 14 bbls. in the third hour of the flow test. There is significant oil in the fluid but it is so emulsified that the % of the oil cut is very difficult to determine.

6/8/81 Monday (con't)

1230-1330 Well still flowing from casing to frac tank. Gauged 7.8 bbls. in the last hour.

1330 Well still flowing from casing to frac tank. The oil cut is difficult to read but looks like 11.5%. Gauged 7 bbls. in the last hour. Liquid Transport delivered 100 bbls. fresh water to location.

1430 Hooked up water truck to rig pump. Pumped very slowly and intermittently down tubing holding pressure to maximum of 1500 psig. Ultimately able to pump constantly. Pumped in about 25 bbls. fresh water. Closed well in for 20 minutes. When tubing was opened up the well indicated it could flow back. Casing pressure remains at less than 100 psig. Ran in hole with a special 1.90" O.D. drifting knob on the sinker bar. Couldn't get below 2850'. Pumped an additional 10 bbls. fresh water with the drift in the tubing. Still unable to get 1.90" O.D. drift below 2850'. Ran in hole to seating nipple at approx. 5690' with sinker bar and upper part of the knuckle joint.

1700-1800 Opened well to frac tank through the tubing. Well flowed 8.5 bbls. in one hour. Oil cut was about 12% and there was about 25% of salt sludge in each sample caught. 6 foot 1 inch was final frac tank gauge. Left well flowing to frac tank through the tubing.

6/9/81 Tuesday

0800 Gauged frac tank. Well made 103 bbls. total fluid in 14 hours.  $103/14 = 7.4$  bbls./hour average. Casing pressure was 290 psig. Sample caught this A.M. indicated 9.4% oil.

0830-1130 Liquid Transport on location with 100 bbls. fresh water. Attempted to unseat packer. Unable to unseat packer. Emission a problem with salt. Hooked up water truck to rig pump. Pumped 35 bbls. fresh water; established circulation out casing annulus. Finally got packer unseated. POH. Found 87th joint of tubing crimped by power tongs. Laid down the damaged joint and picked up replacement. Schlumberger on location at 1100 hours. Out of hole. Laid down packer. Packer will have to be redressed. Rigged up Schlumberger to run temperature survey in an attempt to evaluate where the produced water is coming from.

6/9/81 Tuesday (con't)

1530-1700 Ran back in hole with 90 double stands (5615') of tubing. Landed bottom of tubing at 5630' K.B. (12' above the upper set of perforations). Well kicked off flowing into frac tank. Gauged frac tank at 7' 1/2" (325.3 bbls.). Released crew and Engineering Consultant for 2 days in accordance with instructions from Don Quigley.

1900 7' 6" (348 bbls.). C.P. 175 #

6/10/81 Wednesday

0800 8' 3" (356 bbls.). C.P. 550#

0800-1000 Plan change. Back to operational status; fortunate that rig crew did not disperse. POH with tubing in preparation for cement squeeze job.

1100 Schlumberger and MSOT on location. Rigged up Schlumberger.

1130 Dowell on location.

1130-1245 Schlumberger loaded 4" O.D. casing gun with 4 - 22 gram Hyper Jet II charges. RIH. Checked on DV tool 5292'-94', Lynes external casing packer 5507'-5509', and tagged WLBP at 7560'. Checked casing collars at 5977', 5935', 5892', and 5850'. Perforated with 4 defined shots 5835' to 5836'. Schlumberger POH. Examination of recovered gun indicated all shot fired.

1245 Schlumberger picked up wireline set MSOT cement retainer.

1300-1345 RIH with retainer. Checked depths at DV tool, Lynes packer and 5 casing collars. Set retainer at 5750' K.B. Pulled up and went back down and checked retainer -- OK. POH and rigged down Schlumberger.

1400 Picked up 3.35' stinger for the retainer. Ran stinger in the hole on 92 double stands of tubing (5739.79').

1515 Tagged up on retainer with stinger; circulated stinger into retainer. Dowell pressure tested surface lines to 3500 psig; OK.

1611 Pumped 20 bbls. brine water down tubing; apparently established circulation out the 5835' perfs. and out the production perfs to surface through casing annulus (2 bbls./min. at 3000 psig). Followed brine with 10 bbls. fresh water ahead of the cement.

6/10/81 Wednesday (con't)

- 1629 Dowell started mixing and pumping 33 sacks (9.2 bbls.) RFC cement. Average density 14.4 lbs./gal. Good circulation to surface throughout the job.
- 1634 Start displacing. Pumped 2 bbls. fresh water; followed with 21.5 bbls. brine water. Displaced at rate of 2 bbls./min. at 2000 psig. C.I.P.
- 1655 Pulled 4 double stands. Dowell reversed out with 37 bbls. brine. Estimate reversed out 3.5 bbls. of diluted cement.
- 1730-1830 Pulled rest of tubing out of hole.

6/11/81 Thursday

- 0800-1400 Picked up used 4 5/8" O.D. bit and necessary cross-over subs. Ran in hole on 2 3/8" EUE tubing. String took weight at 5251' K.B. (84 double stands in hole, 8 double stands above the retainer at 5750'). Riggged up rig pump and established reverse circulation. Found firm cement in the cuttings. Hooked up power tongs. Drilled 5251' to 5259' K.B. (84 double stands in hole). Power tongs ran smoking hot; the operation is very hard on the tubing.

NOTE

The used 4 5/8" bit ran in the hole for tag-up purposes was OK for drilling a small amount of cement, but the cone condition and bearings are not considered good enough to drill 500' of cement safely. Consequently decided to change out the bit while waiting on a rental power swivel lined up for the next morning.

- 1400-1530 POH with used bit.
- 1530-1800 Picked up new 4 5/8" O.D. Hughes Rock bit # RR333. Ran in hole and tagged up on top of cement at 5259' K.B. Pulled up and set back one double stand.

6/12/81 Friday

- 0800 BI Co power swivel delivered to rig. Hooked up same. Established reverse circulation with brine water.
- 1000-1300 Started rotating and circulating at 5135' K.B. (82 stands, plus 4' tools plus 15' to K.B.). Rotated down to cement top at 5259'. Drilled cement from 5259' down to 5346' where the bit dropped free (87' plus the 8' drilled previous day = 95' of cement in the casing i.e. about 2.4 bbls. of cement).

6/12/81 Friday (con't)

- 1000-1300 (con't) On a connection at 5352', the well flowed back to the surface.
- 1300-1400 Rotated and circulated from 5352' down to 5602'. The well flowed back on every connection, but flowed much more vigorously on connections from 5602' on down.
- 1400-1600 Rotated and circulated from 5602' to 5757' per tubing measurements (92 stands in hole). Picked up 6' tubing pups and tagged out on the cement retainer at 5763' K.B. per tubing measurements (5750' per Schlumberger).
- 1600-1700 Set back power swivel. Laid down pup joint, 2 singles and stood back one double. (Leaving 90 stands in hole; 11 doubles in derrick); bottom tubing at 5632'. 10' above uppermost perforation.
- 1700 Gauged frac tank at 4' 10". Started flowing well into frac tank.
- 1800 Well flowed 8.4 bbls. total fluid in one hour; tank gauged 5' 0". Random checks indicated 12% oil. Left well flowing to frac tank.

6/13/81 Saturday

- 0800-1300 Gauged frac tank at 7' 1 1/4" = 328.4 bbls. From 1700 hours on 6-12 to 0800 hours on 6-13, the well flowed 114 bbls. Then 114 bbls./15 hours = 7.6 bbls./hour average flow rate. Checked the oil cut as 5.4%. Monitored well flow and oil cut from 0800 hours to 1300 hours. In a 20 hour flow period the well made 161.2 bbls. or 8.06 bbls. total fluid per hour. The oil cut varied from 5 to 12% -- a good average would be 8% oil. Discussed and evaluated future possible completion program for this well with Don Quigley.
- 1300-1500 Start POH. Laid down 25 single joints of tubing on ground (this makes a total of 69 joints 2 3/8" EUE on ground). Well flowing through tubing; unable to kill with rig pump because of arbitrary limit of 1500 psig on the rotary hose. Wet string. Shut well in.

6/15/81 Monday

- 0800-0930 Schlumberger and Dowell on location. Schlumberger picked up a wireline-set Baker Model "S" cast-iron, Drillable bridge plug. RIH. Checked DV tool at

6/15/81 Monday (con't)

- 0800-0930 (con't) 5291', Lynes packer at 5507' and tagged up on cement retainer at 5750'. Checked casing collars at 5725', 5682', 5641' and 5598'. Set bridge plug at 5580' K.B. Pulled up and went back down to check bridge plug set; OK. POH.
- 0930 MSOT on location with 2 cement retainers and a squeeze manifold.
- 1000-1100 Schlumberger ran in hole with 4" O.D. casing gun loaded with 4 -22 gram Hyper Jet II shots. Checked DV tool and Lynes packer as above. Tagged newly-set bridge plug at 5580'. Perforated the 5 1/2" casing with 4 shots 5560'-5562' K.B.
- 1100-1145 Schlumberger picked up wireline set MSOT cement retainer. RIH. Checked DV tool at 5291' and Lynes packer at 5507'. Set retainer at 5520' K.B. POH and rigged down Schlumberger.
- 1200-1330 Picked up retainer stinger and RIH on tubing. With 53 double stands run in hole found tubing plugged with crystalline salt. Having to hammer each stands plus a single. Pumped down tubing to be sure it was clear of salt.
- 1330-1400 Dowell pressure-tested surface lines to 4000 psig. OK.
- 1400 Stung into retainer. Established injection rate of 1 bbl./min. at 3250 psig. Tight. Decided to spot cement. Pulled out of retainer but kept 800 psig on the backside.
- 1430 Dowell mixed and pumped 30 sacks Self Stress Cement with 18% salt. Followed with 1 bbl. fresh water and 9 bbls. brine.
- 1445 Stung back into retainer. Pressured up on backside to 1000 psig. Resumed displacing with brine water, 1 bbl./min. at 2750 psig.
- 1458 Completed 22 1/2 bbl. displacement at 1 1/2 bbls./min. at 3150 psig. C.I.P.
- 1500-1730 Pulled up out of retainer. Reversed out with 35 bbls. brine; no appreciable cement in the returns. Calculate 8 bbls. cement displaced out behind the casing. POH and laid down stinger. W.O.C. with well shut in.

6/16/81 Tuesday

- 0800-0900 Found 440 psig on shut-in well. Schlumberger picked up 4" O.D. casing gun loaded with 4 - 22 gram Hyper Jet II charges. RIH. Checked DV tool at 5291'. Checked PBSD (cement retainer at 5520'; little or no cement on top). Checked Lynes packer at 5507' and collars at 5501', 5458', and 5416'. Perforated the 5 1/2" casing with 4 shots 5390' to 5391' K.B. POH. Examination of the recovered gun indicated all shots fired.
- 0900-1000 Schlumberger picked up wireline set MSOT cement retainer. RIH. Checked DV tool at 5291'; checked casing collar at 5332'. Set retainer at 5340' K.B. Picked up and went back down to check retainer set; OK. POH and rigged down Schlumberger.
- 1000 Picked up retainer stinger and RIH on tubing. All the fluid displaced while running tubing was light green side. Tagged into the retainer with 85 double stands, plus a single, plus 16' of tubing pups.
- 1150 Dowell pressure-tested their surface lines to 4500 psig; OK. Stung into the retainer and pressured annulus up to 900 psig to test retainer and stinger; OK.
- 1202 Established injection rate (through the new 5390' perfs.) of 2 bbls./min. at 3500 psig. Pulled out of retainer in order to spot the cement.
- 1207 Dowell pumped 5 bbls. of fresh water ahead of the cement.
- 1210 Dowell started mixing and pumping 35 sacks (10 bbls.) of Self-Stress cement containing 18% salt. Average density 14.5 lbs./gal. Rate 2 bbls./min. at 1250 psig.
- 1221 With 6 bbls. brine pumped, stung back into retainer and pressured back side up to 1000 psig and held same for duration of the job.
- 1222 Resumed displacing with brine. Pumping 3/4 bbls./min. at 3000 psig.
- 1238 Displaced with a total of 20 1/2 bbls. (2 fresh plus 18 1/2 bbls. brine). Final rate 5/8 bbls./min. at 3350 psig. C.I.P. at 1238 hours.
- 1239 Picked up out of retainer. Started to reverse with 35 bbls. brine. Circulated out 1 1/2 bbls. cement. Calculate that 8 bbls. of slurry were displaced out behind the casing.

6/16/81 Tuesday (con't)

1245-1415 POH. Laid down stinger. Picked up used Hughes 4 5/8" rock bit #RR333 and MSOT casing scraper. RIH on 81 double stands (4 1/2 stands above the retainer). WOC.

6/17/81 Wednesday

0800-1430 RIH with 4 double stands. Picked up single and rigged BiCo power swivel. Started rotating with reverse circulation. Tagged up on retainer at 5340'.

1430-1630 Drilled on retainer. Made about 8 inches. Stripping head rubber ruptured at 1430 hours. No replacement on location. POH. Used bit had many teeth missing. Laid down the bit and casing scraper.

1630-1800 Picked up new Hughes 4 5/8" bit #MP671 and necessary sub to get from 2 3/8" EUE tubing to the 2 7/8" Reg. pin on the bit. RIH to within 5 double stands off retainer at 5340'. Shut down for night.

6/18/81 Thursday

0800-1715 Tagged up on retainer at 5340'. Resumed drilling. Drilled on retainer most of the day with a relatively new bit and with 800 ft. lbs. of torque and 20 RPM. Varied weight on the bit and circulation rate. Drilled through the bulk of the retainer as of 1630 hours. Drilled mushy cement and retainer fragments down to 5366'.

1715-1900 Drilled mushy cement and retainer fragments down to 5390' perfs. where the bit dropped through. Rotated and circulated down to tag lower retainer at 5520'. Circulated off bottom for 1/2 hour to thoroughly clean the hole. Pulled out 2 singles and shut down for the night.

6/19/81 Friday

0800 Pressured up 5 1/2" casing to 950 psig to test drilled-out perfs. at 5370'. Held OK for 10 minutes.

0830-1000 POH and laid down bit.

1030-1130 Schlumberger crew arrived on location. Rigged up. Loaded 4" O.D. casing guns with 13 - 22 gram Hyper Jet II shots. RIH. Checked DV tool at 5291'. Checked casing collars at 5373', 5416', and 5458'. Tagged up on retainer at 5520'. Perforated the 5 1/2" casing from 5472'-5484' with 13 shots as

6/19/81 Friday (con't)

- 1030-1130 defined. Examination of recovered gun indicated  
(con't) all shots fired. POH and rigged down Schlumberger.
- 1130-1330 Picked up MSOT compression packer. Installed a  
1 25/32 I.D. seating nipple directly above it and  
ran in hole on 68 stands of 2 3/8" EUE tubing.  
Set packer at 5446' K.B. Pressured up the casing  
annulus to 600 psig to test packer; held OK for  
5 minutes.
- 1330-1430 Poured new rope socket on the sandline.
- 1430-1800 Started swabbing to test new 5472-5484' perfs.  
Pulled swab seven times. Swabbed fluid down to  
5350' from surface. No recovery on the last 3  
pulls. Recovered about 19 bbls. brine water (approx.  
tubing capacity).

6/20/81 Saturday

- 0800 Found 1000 psig on the casing annulus after overnight  
shut-in. Ran down tubing with swab; fluid level  
still at 5350' -- no entry indicated. To check  
definitely that packer is set above the 5472-5484'  
perfs, unseated packer and went down hole to lightly  
tag retainer at 5520'. Measurements checked out;  
pulled up and reset packer at 5446' K.B.
- 0900 Dowell on location for acid breakdown of the 5472-5484'  
pers. Pressured casing annulus up to 1000 psig  
and shut it in. Installed safety pop-off valve  
(set for 2000 psig) on the casing annulus.
- 1020 Having difficulties with the Dowell remote-controlled  
Diesel Continuous Mix Pumper and the remote rate-  
pressure readout. (See notation on Dowell field  
ticket). Established injection rate of 2 bbls./  
min. brine at 3800 psig.
- 1033 Dowell started pumping 1000 gals. (24 bbls.) of  
MSR-100 28% acid. Having more difficulties with  
the Dowell pump truck and recorder.
- 1050 Finally pumped all the acid and started to displace  
with brine water. Had more difficulties with Dowell  
pump. Maximum displacement rate was 3 bbls./min.  
at 4200 psig.
- 1113 Completed acid displacement (pumped 22 bbls. brine;  
only 100 psig breakdown; 3 bbls./min. at 4100 psig).  
Waited 30 minutes for acid to work, then opened  
tubing to pit. Rigged down Dowell. I.S.I.P.,  
5 min. S.I.P., 10 min. S.I.P. and 15 min. S.I.P.  
all 3100 psig.

6/20/81 Saturday (con't)

1230-1800 Rigged up and started swabbing. Made 26 pulls. Swabbed fluid down to 2200' from surface. Recovered 49 bbls. of acid-cut brine. No show of oil or combustible gas.

6/22/81 Monday

0800-1300 No pressure on tubing or casing after shut down over Sunday. Initial run with swab found fluid 2000' from surface. Recovered only acid-cut brine water. Swabbed fluid level down to 4700' from surface in 17 pulls. Recovered 53 bbls. of acid-cut brine water; no show of oil or gas. At 1330 hours, the operator missed a flag and ran into the lubricator, parting the sandline and dropping the sinker bar and mandrel to bottom.

1330-1800 POH. Poured new rope socket. Ran back in hole with over-shot on sand line. Failed to recover anything.

6/23/81 Tuesday

0800 Found casing annulus on a vacuum. Made a run to bottom with over-shot run on the sandline. No recovery.

0830-1000 Released packer and POH. Recovered sinker bar and swab hardware in the bottom joint -- just above the seating nipple. Fortunately, the sandline had not parted but had pulled out of the rope socket.

1030-1515 Schlumberger arrived on location. Loaded hole with brine in preparation for running a repeat section of the CBL log from 5520' up to 5000'. The centralized CBL tool would not go below 5200'. Perhaps salt in the casing? POH and removed centralizers from the CBL tool. Made second attempt to get CBL log. Tool would not operate properly. POH.

1515-1630 Schlumberger loaded a 4" O.D. casing gun over a 32' vertical length with 33 - 22 gram Hyper Jet II jet charges. RIH. Checked DV tool at 5291' and went down and tagged retainer at 5520'. Checked 4 casing collars. Perforated casing from 5302'-5334' with one shot per foot. Examination of the recovered gun indicated all shots fired; there was light green oil on the gun.

1630-1830 Picked up MSOT retrievable bridge plug run below a MSOT type HD compression packer with a 1 25/32" I.D. seating nipple run immediately above the packer. RIH on 85 double stands of tubing plus a single. Tools stacked out several times from 2500' on down as if rubber or salt were underneath. Finally worked bridge plug on down and set it at 5365' K.B. Laid down 3 singles and set packer at 5259' K.B. thus straddling the new 5302'-5334' perms.

6/24/81 Wednesday

- 0800-1200 No pressure on shut-in tubing. Initial pull with swab found fluid 2500' from surface. Swabbed fluid down to 5200' in 5 pulls. Made a total of 7 pulls by 1200 hours. Waited 30 minutes between last 2 pulls. Recovered 15 bbls. brine water with a little emulsified oil and a small amount of combustible gas.
- 1200-1800 Pulled swab once per hour. Recovered about 4/10 bbl. brine with trace of oil per pull. Cleaned salt, cement etc. out of rig flat tank and filled the tank with fresh water.

6/25/81 Thursday

- 0800-1400 Found positive pressure -- about 25 psig on the tubing. Initial run with swab found fluid at 3600'. Swabbed fluid down to seating nipple at 5250' in 3 pulls. Recovered 5.5 bbls. of fluid which checked out at 100% green oil. There was also an indication of appreciable gas during the first 3 swab runs. Made a total of 9 swab runs. Strangely, the last two swab runs recovered predominantly water.
- 1400-1530 Rigged down swab, unseated packer with difficulty (many tries). Perhaps a problem with salt. Pumped about 40 bbls. fresh water down tubing. Went down hole with 3 singles to latch on to the bridge plug --- again, with difficulty. Started out of hole with packer and, hopefully, with the bridge plug. Pulled through several "tight" spots in pulling the first 4 double stands.
- 1730-1800 Out of hole with both packer and retrievable bridge plug. Found pieces of band metal under slips of the bridge plug and one drag spring was broken with 1/2 of it left in the hole.

6/26/81 Friday

- 0800-1300 Waited on Schlumberger until 0945 hours. Rig up and run repeat CBL from 5520' up to 5000' to evaluate squeeze cementing work. There was an indication of fluid 2100' from surface on the run into the hole.
- 1300-1415 Schlumberger loaded a 4" O.D. casing gun over a 12' interval with 13 Hyper Jet II charges. RIH. Checked DV tool at 5291', tagged retainer at 5520', checked casing collars at 5458', 5416', 5373', 5332', 5250', 5208', and 5170'. Perforated the 5 1/2" O.D. casing with 13 shots from 5140' to 5152' K.B. Examination of recovered gun indicated all shots fired.

6/26/81 Friday (con't)

- 1415 Picked up MOST retrievable bridge plug run below a MSOT type HD compression packer with a 1 25/32" I.D. seating nipple run immediately above the packer. RIH on 83 stands (5177'). Attempted to set bridge plug at 5206' K.B. Worked 1 1/2 hours unsuccessfully. Pumped 12 bbls. fresh water down tubing.
- 1645 Reluctantly decided to POH to examine bridge plug and packer.
- 1800 Out of hole. MSOT representative hauled bridge plug to shop.

6/27/81 Saturday

- 0700-1000 Picked up new MSOT retrievable bridge plug run below on MSOT type HD compression packer with a 1 25/32" I.D. seating nipple directly above the packer. Attempted to set bridge plug at 5206' K.B. Again, bridge plug would not set. Finally dropped down one additional stand (84 stands = 5239') and pumped 21 bbls. fresh water down the tubing. Ultimately set bridge plug at 5268' K.B. Acts as if salt is dropping out in the bottom of the hole. Set back two stands, laid down a single and set packer (81 1/2 stands = 5083') at 5105' K.B., thus straddling the new 5140' to 5152' perforations.
- 1000-1100 Rigged to swab. Swabbed fluid down in 5 pulls. Had same combustible gas while making 5th pull at 1100 hours. Slight show of oil.
- 1100-1500 Pulling swab once per hour. Recovered 1/2 bbls. oil-cut water after the first hour. No fluid recovery on the last 3, hourly swab pulls. Shut well in.

6/29/81 Monday

- 0800-1600 Found 25 psig on the tubing after 38 hour shut-in. Initial pull with swab found fluid 3800' from surface. Recovered 900' of green oil with a trace of water. Pulled swab a total of 8 pulls -- once per hour. The second, sixth, seventh and eighth pulls recovered green oil with some water in a tight emulsion -- very difficult to evaluate the oil cut as a percentage. No fluid recovery on the third, fourth and fifth pulls. Caught fluid sample. Estimate total swabbed recovery at 4 bbls.

6/30/81 Tuesday

- 0800-1600 No pressure on tubing after overnight shut-in. Initial pull with swab found fluid 4800' from surface. Recovered 200' of fluid -- i.e. water emulsified with green oil. Pulled swab once per hour through day. Very

6/30/81 Tuesday (con't)

0800-1600 little recovery after initial pull: perhaps a total  
(con't) of 1 1/2 bbls. total fluid for day. BICO moved in  
a second 500 bbl. frac tank in late afternoon.

7/1/81 Wednesday

0800-1030 Rainy day. Drained water off first frac tank; 19 1/2"  
= 64 bbls. left in tank. Released packer at 5105'  
K.B.; ran down hole and released and latched on to  
bridge plug. Packer looked in excellent condition.  
Liquid Transport hauling fresh water to new frac tank.

1030-1230 Ran back in hole with same packer on 86 double stands  
plus a single (5395'). Set packer at 5413' K.B. in  
preparation for treating the 5472' - 5484' K.B. perms.

1230-1800 Rigged up to swab. Made 15 runs; swabbed fluid down  
from 1800' from surface to 3500'. Calculate a fluid  
recover (brine water) of 42 bbls. The tubing capacity  
plus the casing capacity between the packer and the  
top perf. only calculates at about 23 bbls.

7/2/81 Thursday

0800-1200 Hauling fresh water for possible stimulation treatment.  
Now have about 800 bbls. fresh water on location.  
Swab testing the 5472'-5484' perms. Initial run with  
swab found fluid 3800' from surface. Pulled swab  
10 times; lowered fluid level to 4900'. No recovery  
on last pull after 1 1/2 hour wait. Recovered 20 bbls.  
brine water with no show of oil or gas.

1200-1400 In order to double check the packer setting depth,  
unseated packer and ran down hole for tag on cement  
retainer at 5520' K.B. per Schlumberger. Tagged  
retainer at 5529' K.B. per tubing measurements; this  
is consistent with previously established difference  
between tubing tally and Schlumberger measurements.  
Then, in order to check retainer at 5520' for leakage  
from below, reset packer at 5508' K.B. Made 3 pulls  
with the swab below the 5472'-5484' perms. -- all  
from the seating nipple at 5500'. Recovered 300'  
of brine water on the first pull; there was no recovery  
on the last two pulls. It appears that there is no  
leakage from below through the retainer at 5520'.  
However, the fact that the fluid level was so low  
after unseating the packer, suggests that either the  
packer (at 5413') was leaking or that there was commun-  
ication behind the casing and around the packer to  
deplete the annulus.

1400-1700 Unseated packer at 5508', pulled up and reset packer  
at 5413' K.B. Introduced 85 bbls. (approx. annulus  
capacity) brine water into the casing annulus. Ran

7/2/81 Thursday (con't)

- 1400-1700 (con't) down tubing with swab. Found fluid level in tubing about 900' from surface. This rise in fluid in the tubing indicates that either the packer is leaking, or there is communication behind the casing around the packer, or there is a split in the tubing. Pumped about 28 bbls. more water down annulus and established circulation out of tubing at 1/2 bbl./min. at 700 psig. Rig pump engine overheating.
- 1700-1800 Unseated packer again. Moved it up hole 2 joints and reset it at 5351' K.B. (above the 5390-91' perfs. introduced for squeeze cementing) -- 85 stands plus a single. Restarted rig pump. Pumped up annulus to 1150 psig. There was no circulation out of tubing but pressure bled off very slowly - probably into the two open sets of perfs. 5140'-52' and 5302'-34'. It is now reasonably established that the packer is holding OK and there is no indication of a leak in the tubing. It is concluded that there is communication behind the casing from the 5390' squeeze cementing perfs. all the way down to the 5472'-5484' perfs.

7/3/81 Friday

- 0800-1200 Found tubing still full of fluid in morning. Swabbed fluid down to seating nipple at 5345' in 5 runs. Made a total of 9 swab runs. The last 4 runs failed to recover any fluid. Total swab recovery was 19 bbls. brine water. No show of oil or gas. Shut well in for 4th of July holiday.

7/6/81 Monday

- 0800 Dowell on location to sand frac the 5472'-5484' perfs. Ran swab one time to check tubing fluid level; found fluid 4900' from surface.
- 1000 Pressured casing annulus up to 1000 psig and shut it in. Established injection rate (down tubing and below packer) of 5 bbls./min. at 4300 psig.
- Established injection rate of 5 bbls./min. at 4300 psig.
- Pumped 60 bbl. gelled fluid pad at 5 bbls./min. at 3900 psig.
- Pumped 12 bbls. with 1/4#/gal. 100 mesh sand at 5 bbls./min. at 3900 psig.
- Pumped 18 bbls. with 1/2#/gal. 100 mesh sand at 5 bbls./min. at 3900 psig.
- Pumped 12 bbls. with 1/2#/gal. 20/40 sand at 5 bbls./min. at 3900 psig.

7/6/81 Monday (con't)

1000 Pumped 24 bbls. with 1#/gal. 20/40 sand at 5 bbls./min.  
(con't) at 3900 psig.

Pumped 18 bbls. with 1 1/2#/gal 20/40 sand at 5 bbls./min.  
at 3800 psig.

Pumped 12 bbls. pad at 5 bbls./min. at 4000 psig.

Annulus pressure increased to 3100 psig -- either  
communication behind casing or the packer failed.  
Started second stage.

Pumped 12 bbls. with 1/2#/gal. 100 mesh sand at 5  
bbls./min at 3950 psig.

Pumped 25 bbls. flush at 5 bbls./min. at 3900 psig.

NOTE: The planned 4 stage frac treatment was aborted  
after the first stage because of pressure build up  
in the annulus -- i.e. 3100 psig (wellhead and BOP  
are only rated for 3000 psig).

1200-1300 Unseated packer and reversed out with 75 bbls. water.  
Recovered considerable sand. See Dowell Treatment  
Report for details.

1300-1400 Pulled up 5 stands and attempted to reseal packer  
above all existing perms. to pressure up backside  
and test packer. Unable to set packer.

1400-1600 POH. Packer showed evidence of erosion near the equal-  
izing valve. Polished or sand blasted spots 1 foot  
apart on the bottom joint of tubing indicated the  
frac had communicated behind the casing and come back  
in the 5302'-5334' perms.

7/7/81 Tuesday

0700-1200 MSOT delivered a Model 32-A Tension packer to location.  
Picked up packer, installed a 1 25/32" seating nipple  
above it and measured in hole on tubing. Ran 86 stands  
(5354.56'). Set packer at 5370' K.B. with 25,000#  
tension. Pumped into casing annulus at rate of 1/2  
bbl./min. at 2000 psig. There was no indication of  
communication at that pressure.

Laid down 3 joints of tubing and reset packer at 5284'  
K.B. (above the 5302'-5334' perms.). Pumped down  
annulus at rate of 1/2 bbl./min. at 2000 psig. There  
was no indication of communication at this pressure.  
Pumped 5 bbls. fluid. Pulled 3 double stands and  
reset packer at 5097' K.B. (above all existing perms.).  
Pressured annulus up to 2000 psig; held OK, packer  
apparently OK.

7/7/81 Tuesday (con't)

0700-1200 (con't) Went back down hole with 3 double stands and reset packer at 5284' K.B. (84 1/2 stands).

1330 Pressured up backside with rig pump to 1000 psig.

1330-1400 Dowell started what was to be a 40 bbl. pad down tubing. With less than 2 bbls. in, the pressure climbed to 3300 psig and annulus went to 1800 psig. Shut down; tubing and annulus pressure equalized at 1800 psig. Definite communication. Pulled up 3 double stands. Reset packer at 5097' K.B. with 30,000# tension over string weight.

Prepared to frac below packer with following perfs open:

5140-52'	13 holes
5302-34'	33 holes
5390-91'	4 holes
5472-84'	<u>13 holes</u>

63 holes

1430 Pressured up casing annulus with rig pump to 1800 psig; held OK for duration of frac treatment.

1140-1600 Dowell fraced above perfs. with 23,520 gals. with 7,000# of 100 mesh sand plus 17,000# of 20/40 mesh sand. The job was done in 4 stages. 35 ball sealers were used. Average rate was 7.3 bbls.min. at 4300 psig. I.S.I.P., 5 min. SIP, 10 min. SIP and 15 min. SIP were all 3150 psig. See Dowell Treatment Report for details. Rigged down Dowell. Left well shut-in overnight in accordance with Dowell's recommendation.

7/8/81 Wednesday

0800-1600 Checked shut-in tubing pressure at 2850 psig. Rigged up to flow well back. Flowed well back to pit for 8 hours. Initial flow rate was 43 bbls./hr. Flow rate at end of 8 hours was 17 bbls. fluid per hour. After 4 hours there was an intermittent show of combustible gas. The 8 hour flow was calculated at 217 bbls. There was no show of oil. Left well open to pit in order to recover as much entrained sand as possible.

7/9/81 Thursday

0800-1730 Guage indicated well was flowing to pit at 2 bbl. per hour rate. Calculate 16 hour flow at 136 bbls. plus, bbls. fluid flowed on Wednesday 217 bbls. Total to 0800 hours this date = 353 bbls.

7/9/81 Thursday (con't)0800-1730 Calculate fluid introduced in 2 frac jobs as follows:  
(con't)

Frac #1	200 bbls.
Frac #2	<u>560 bbls.</u>
Total	760 bbls.
Less, flow back	<u>353 bbls.</u>
Remaining	<u>407 bbls.</u>

A 5 gal. bucket left under the flow line overnight was almost 1/2 full of white crystalline salt. Attempted to run down tubing with swab. Unable to work down below 900' from surface. Suspect the problem is crystalline salt. Pumped 24 bbls. fresh water down tubing at 1/2 bbl/min. at 2200 psig. Flowed back to flat tank and tried swabbing again. Initially could work swab down to 1800', but lost depth with each subsequent pull. Pumped 30 bbls. fresh water down tubing at 2500 psig. Flowed back to flat tank and resumed swabbing. Made a total of 18 pulls with swab. Ultimately, worked swab down to 4200' and lowered fluid level to 2600'. Recovered 62 bbls. saturated brine water with crystalline salt and frac sand. Consequent total fluid recovered to 1730 hours, this date, 353 + 62 = 415 bbls.

7/10/81 Friday

0800-1730 Continued swab testing 4 sets of perfs. following Dowell frac. Found tubing full of fluid in morning. Had fluid swabbed down to seating nipple by 1100 hours (9 pulls). Made a total of 25 pulls. Recovered a total of 60 bbls. brine water with some sand. Last 16 pulls only recovered 36 bbls. There was only a breath of gas while pulling swab after the well was swabbed down. There was no show of oil.

Recap	760 bbls. in (2 fracs)
	<u>475 bbls.</u> out as of 1730 hrs. 7/10/81
	<u>285 bbls.</u> remaining

7/11/81 Saturday

0800-1500 Swab testing. Found fluid level at 1200' from surface. Swabbed fluid down to seating nipple in 5 pulls. Recovered 24 bbls. brine water in first 5 pulls. After pulling fluid down to seating nipple, continued swabbing one pull per hour. Recovered only 6 bbls. brine in last 5 pulls. Very slight amount of combustible gas during a swab pull. There was no show of oil.

Recap	760 bbls. (2 fracs)
Less	<u>535 bbls.</u> recovered as of 1500 hrs. 7/11/8
	<u>225 bbls.</u> remaining

MEGADON ENERGY CORP.  
LION MESA #4-26 WELL  
COMPLETION HISTORY

7-11-81 Saturday (Con't)

After fluid swabbed down, made 5 swab pulls one hour apart; recovered a total of 6 bbls brine water from last 5 pulls. There was a very slight amount of combustible gas when the swab was pulled. There was no show of oil.

Recap: In: 760 bbls (2 fracs)  
Out: 505 as of 1500 hrs, 7-11-81  
255 bbls. remaining

7-13-81 Monday

0800 hrs: There was no pressure on tubing. Initial run with swab found fluid 1200' from surface. Again, swabbed fluid down to 4200' in 5 pulls. Recovered 18 bbls brine water with no show of oil.

1100-1500: Made 5 additional pulls with swab --approximately 1 hr apart. Last 5 pulls only recovered a total of 5 bbls brine water. Again there was no show of oil.

Recap: In: 760 bbls (2 fracs)  
Out: 528 as of 1500 hrs, 7-13-81  
232 bbls remaining

It was decided to POH with packer in preparation for drilling out a cement retainer at 5520' and a wireline set bridge plug at 5580' K.B.

1500-1700: Released packer and started out of hole. Found a spot in the casing at about 4450' where the tension packer really dragged. Had to pull 50,000# tension to get through the tight spot.

1700: Laid down packer. Lower packoff rubber damaged; part of rubber left in hole.

7-14-81 Tuesday

0800 Picked up Stewart flat bottom mill and cross-over sub (240' over all). Measured in hole on 2 3/8" tuing.

1100 Something at 5177' K.B. took weight. Rigged up power swivel.

1100-1300 Rotated and reverse circulated for about 2 ft. Pieces of packer rubber in the returns.

1300-1400 Had to rotate and reverse circulate down with 2 more jts (down to 5245') before dropping free. Circulated returns indicated pieces of rubber.

1400-1830 Dropped free 5245-5448'. Drilled 5448' down to 5472' where some sand was encountered in the returns. Rotated and circulated down through sand from 5472' to 5520' (top of retainer). Circulated to clean hole. Pulled up 3 double stands. Shut well in for night.

MEGADON ENERGY CORPORATION  
LION MESA #+-26 WELL  
CONTINUED COMPLETION HISTORY

7-15-81 WEDNESDAY

- 0800-1230 Ran back the 3 stds pulled and resumed drilling on the retainer at 5520'. Retainer finally gave way at 1230 hrs. Pushed retainer fragments down hole and resumed drilling at 5565' using direct circulation.
- 1230 Rotating and circulating (direct and indirect) on retainer or retainer fragments at 5565'. Mill plugged frequently and it was necessary to change direction of circulation frequently.
- 1830 Pulled up 3 double stands. Shut well in for night.

7-16-81 THURSDAY

- 0800-1030 Ran back the 3 stands pulled and resumed drilling at 5565'. Finally dropped through retainer fragments at 1030 hrs and circulated on down to top of bridge plug at 5580.
- 1030-1900 Drilled down to 5586' per tubing tally. Mill plugged frequently. It was necessary to change direction of circulation frequently.

7-17-81 FRIDAY

- 0800-1130 Ran back the 3 stands pulled and resumed drilling at 5586' per tubing tally. Finally dropped through (or pushed down) the bridge plug set at 5580' as of 1130 hrs.
- 1130-1445 Pushed debris on down hole to 5700' K.B. and resumed drlg. Evidence of some gas and oil in the rig flat tank as of 1200 hrs at a depth of 5708' K.B. Drilled and circulated down to 5753' per tubing measurements (cement retainer at 5750' per Schlumberger measurements.)
- 1445-1630 Circulated on bottom for one hour to clean hole. Laid down the power swivel. Released power swivel.
- 1630-1800 POH. Laid down mill. Closed well in for night.

7-18-81 SATURDAY

- 0800-1100 Found slight positive pressure on well; blew down quickly. Ran production tubing string as follows:  
1-32' open ended 2 3/8" EUE bottom joint with collar on bottom  
1-1 25/32" I.O. seating nipple  
178 jts of 2 3/8" EUE tubing\*  
Total tubing tally: 179 jts = 5580.94'
- 1100 Landed bottom of tubing at 5595' K.B.  
Note: Several joints near bottom of the string were slightly corkscrewed as the result of the significant amount of stress and torque in drilling out cement retainers and bridge plugs. Subject corkscrewed condition is not severe enough to give any problems in either swabbing or pumping.
- 1100-1300 Stripped off BOP's and installed 3000# flange and master

MEGADON ENERGY CORPORATION  
LION MESA #4-26 WELL  
COMPLETION HISTORY

7-18-81 SATURDAY (Con't)

1300-1730 valve. Poured new sandline rope socket and rigged up to swab.  
Swabbing well down through production tubing string (no packer). Made 17 runs. Lowered fluid level from surface to 2000' from surface. Recovered brine water. Slight show of gas.  
Released rig flat tank and pump. Shut well in for weekend.

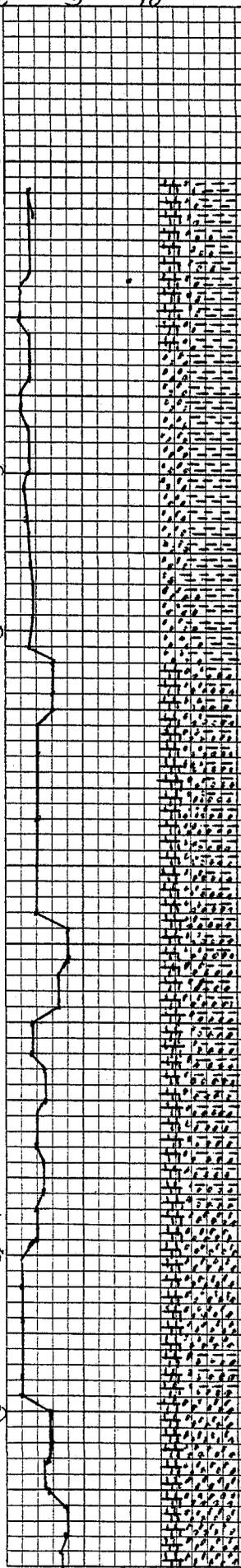
Delta Time  
min / ft.  
5 10

Megadon - Lion Mesa # 4-26  
SE. NW - Sec. 26-27 S 21 E - San Juan Co. Utah.  
(1900' to W line + 1940' to N line)  
Elev. 5480' R.B.

46 0862

5 X 5 TO 1/2 INCH • 7 X 10 INCHES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

8000  
900  
1000  
1100  
1200  
1300  
1400  
1500  
1600  
1700  
1800

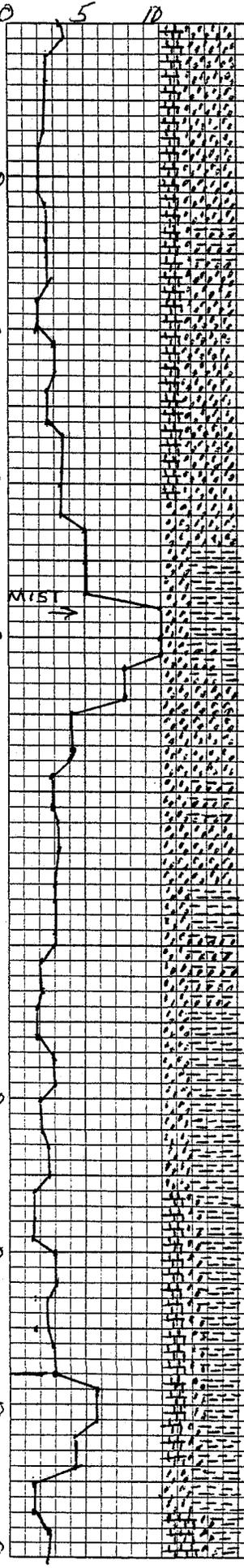


Black rd sil calc. silt & sh. + gray-gm sh.  
Rd, gm, & pm calc. sh. & vfg. calc. rd. ss.  
+ rd calc. silt.  
Rd mica silt.  
+ some gray-gm sh.  
+ some rd vfg. ss.  
Rd. vfg. sil calc. mica. ss. & silt.  
Rd. v mica. vfg. calc. ss. & silt.  
+ pm. mica. silt.  
Rd. vfg. calc. ss. & silt.  
DK. rd. mica calc. vfg. ss.  
lt. rd. calc. vfg. mica. ss & silt.  
lt. rd. vfg. calc. ss.

# Lion Mesa # 4-26 nit

Min/ft.

1800  
1900  
2000  
2100  
2200  
2300  
2400  
2500  
2600  
2700  
2800



LT. ad. vfg. calc. ss.  
 LT. ad. vfg. calc. ss.  
 LT. ad. calc sist + vfg. calc. ss.  
 Rd. fg. calc. ss.  
 (mica)  
 (vfg.)  
 DR. ad. calc mica vfg. ss.  
 Rd. fg. mica ss. (WAT)  
 Rd. + gn mica sist.  
 AIR MIST →  
 Rd. + gn mica sh. sist. + mg. ss.  
 Rd. mica fg. mg. ss.  
 Bright rd. sist + vfg. ss.  
 DR. ad. v. mica fg. ss.  
 Rd. mica sist.  
 + gn + pur. fg. ss.  
 Rd. mica sist.  
 Bright rd. sist.  
 DR. ad + gn calc. mica sist.  
 Pur. + gn calc. sist + sh.  
 Rd. calc. sist.  
 Rd. + gn mica sist + sh.  
 + brn. ms.

46 0862

5 X 5 TO 1/2 INCH • 7 X 10 INCHES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.

Only Line  
shown - 5-11-10

# Lion Mesa # 4-26

2800

Mica:

DK rd, fine, gny, dpe, sist & sh

2900

PRV

DK gny mica sh

LT SWN XIM IMS

Gny ang. - muddy ms & sh.

Gny ms & calc. sh + some rd veg. ss

LT. gny to pk calc. veg. ss & sist.

Gny ms & sh + rd sist.

3000

Rd sist & gny calc sh

Gny & wh. ms (some chalky)

Rd calc sist & sh (mica) + gny mica sh

Rd sist & sh + gny ms & sh

DK. gny calc. sh. & ms

3100

Gny & bow ms + gny calc sh

Rd mica calc. sist & sh

Gny mica calc. g. calc. ss & sist.

3200

+ gny ms & sh

3300

LT rd calc sist

DK. gny mica calc. sist & sh

3400

LT rd, calc. veg. ss

DK gny calc. sh. mica sh -

+ bow ms.

3500

LT gny & wh. XIM IMS

Rd calc. sist

DK. gny mica calc. sh.

3600

Gny, gny, & rd calc sh & lt gny rd. veg. ss

Rd, gny & gny calc sh & sist.

DK gny ms

DK gny calc sh

Gny ms, mica calc. sh. & g. calc. ss

3700

DK bow to dk XIM IMS

DK. gny, gny, & rd calc. sh & sist.

3800

DK gny dol. & dol. sh.

46 0862

5 X 5 TO 1/2 INCH • 7 X 10 INCHES  
KEUFFEL & ESSER CO. MADE IN U.S.A.









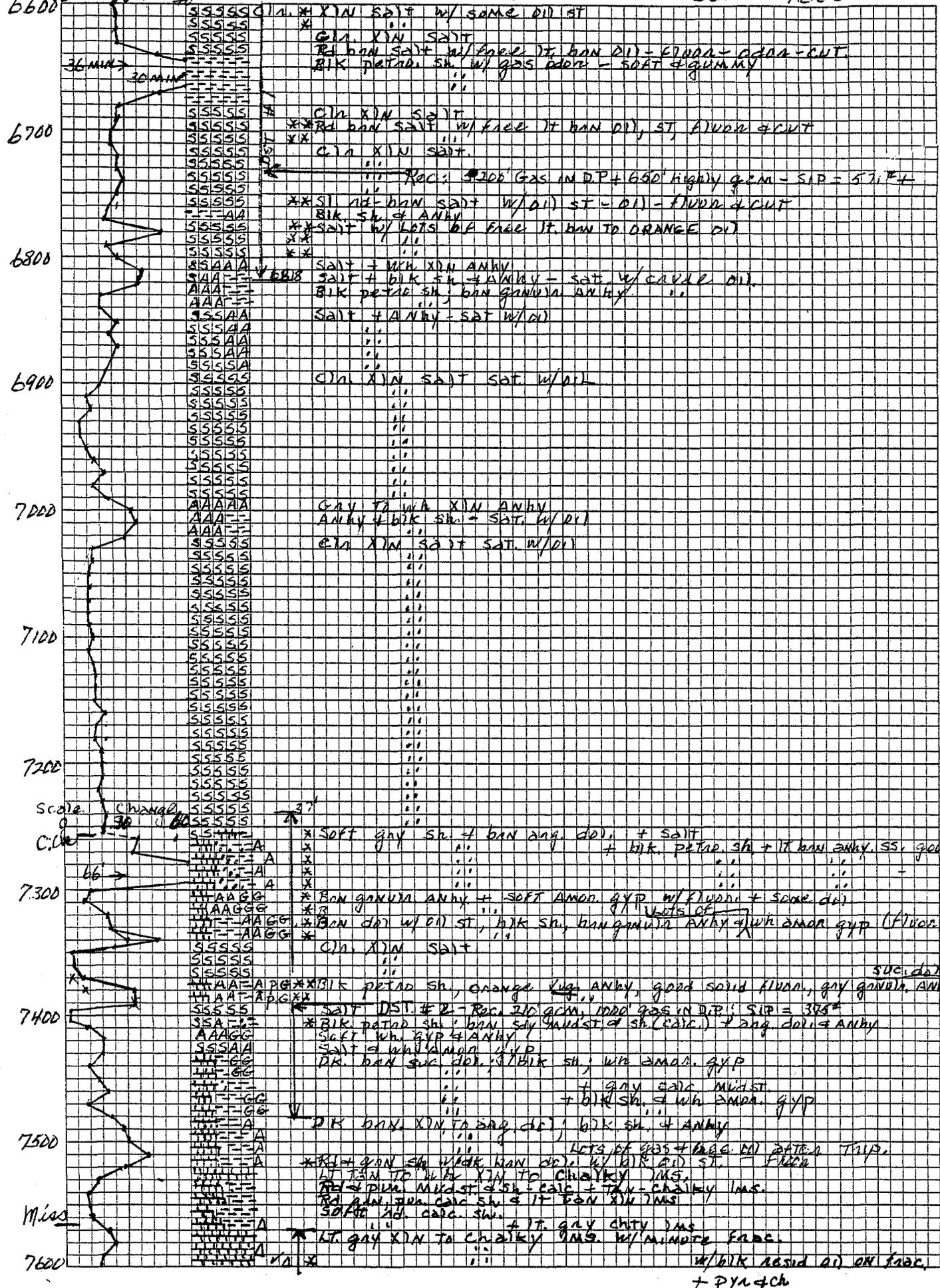
# Lion Mesa #4-26

6600 - 7600

*Drill Time*  
*March 1957*

46 0862

5 X 5 TO 1/2 INCH • 7 X 10 INCHES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.



# Lion Mesa # 4-26

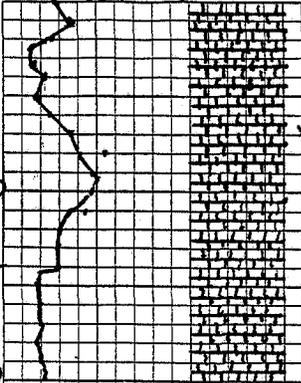
7600'

Relay time  
0 min 30 60

7600

7700

7800



\* LT. gray to wh. XIN TO CHALKY Ims w/ main frac w/ blk resid. oil.  
 \* Wh. chalky TO SUC. Ims w/ solid blue fluor & some oil ST  
 \* DST #3: Rec. 2800' GAS IN DP + 2500' blk. solid blue Ims. w/ ST  
 \* LT gray to wh. chalky, XIN & SUC Ims w/ v gas - good fluor & cut  
 \* Wh. chalky SUC. Ims. w/ good fluor. NO ST or cut.  
 \* Wh. XIN TO CHALKY Ims - some suc.  
 \* Wh. XIN TO SUC. Ims. & S.A. SUC. dal. w/ scat. fluor.  
 \* Wh. TO MILKY SUC. dal. w/ scat. fluor. & ST  
 \* Wh. TO LT gray SUC. frac. dal. w/ blk & tan STs of resid oil - good fluor.  
 \* LT. BAN. XIN. frac. dal. w/ some v gas.

46 0862



# MEGADON ENTERPRISES, INC.

309 Guaranty Bank Building • 817 17th St. • Denver, Colorado 80202 • (303) 573-0093  
57 West South Temple • Salt Lake City, Utah 84101 • (801) 359-3575

May 10, 1982

Mr. John Johnson  
J & W Oilfield Services Inc.  
P. O. Box 146  
Moab, Utah 84532

Re: Clean-up work  
Lion Mesa Wells

Dear John:

Yesterday along with U.S.G.S. and BLM personnel, I visited the Lion Mesa wells and there are several things that need to be done to meet their demands.

1. We need to put up signs on three of the wells: #27-1A, #4-26, and #5-28. The following information should be printed on the signs:

Lion Mesa #27-1A: (The one with the tanks)

Megadon Enterprises Inc.  
Lion Mesa #27-1A  
NE. SW. Sec. 27-27S-21E.  
Elev: 5587' Grd.

Lion Mesa #4-26: (The one behind the hill and east of 27-1A)

Megadon Enterprises Inc.  
Lion Mesa #4-26  
SE. SW. Sec 26-27S-21E.  
Elev: 5464' Grd.

Lion Mesa #5-28: (The one on the west side of the road, west of 27-1A)

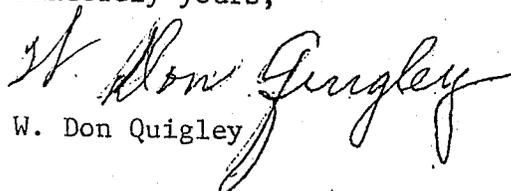
Megadon Enterprises Inc.  
Lion Mesa #5-28  
Se. Ne. Sec. 28-27S-21E.  
Elev: 5515' Grd.

2. We need a lock on the load valve on the #27-1A well plus a spill barrel at the end of the load line. Put the lock on immediately. We need a lock on the #5-28 well also. Simply run a short chain thru the wheels on the valves and padlock it. A lock needs to be placed on the #4-26 well - a chain can be run thru the wheels of the master valve and around the well head and padlocked. Also put a 2" bull plug in the flange on each side of the casing since these valves can't be locked very easily. Give JB one set of the keys to

3. We need to pick up the pipe protectors on #27-1A and the extra tubing and rods. I guess the pipe protectors can go to the dump since no one seems to want them anymore. The rods and tubing should be stored in the yard for future work-over use. Some of the rods are broken and can be discarded. We need also to make a wooden storage bin (approximately 4' X 2' X 2' high) with a sloping top that can be locked to store all the little stuff at the well. Such things as valves, nipples, unions, change-over nipples, etc. that are needed at the well can be placed in the box and locked. The box could be placed next to the shed and painted the same color. Incidentally, I had a choke valve at the #27-1A well, but I didn't see it there yesterday. You might ask JB about it. Maybe JBCO took it to their yard. We need this valve for the Ten-Mile well.
4. The #4-26 well needs cleaning-up real bad. There are a large number of plastic 5-gal cans that need to be picked up and hauled to the dump. The cable, barrel, samples, etc. also need to be removed. The tubing (54 jts) should be hauled to the yard and stored for future use. The fence should also be removed, so that Jan Boyd can fold-in the reserve pit and the burn pit. She will also reduce the size of the location and contour the sides. The cat work should be done as soon as the fence is removed; so Jan should be contacted so that the work can be coordinated.
5. There is some spare tubing (18 jts) on the #5-28 well which should also be hauled to the yard. The reserve pit at this well is nearly dry and can be folded in. As soon as Jan is ready, the fence should be removed and the work begun. This location can also be reduced in size and contoured on the sides. The erosion trench near the SE. anchor needs to be filled in. This can be done when the pit work is accomplished.

I would appreciate your attention to this work as soon as you can work it into your schedule. If there are any questions, please contact me accordingly.

Sincerely yours,

  
W. Don Quigley

cc: Minerals Management  
Attn: Don English  
Durango, Colo.

- District Office, BLM  
Attn: Paul Brown  
Moab, Utah

- Jan Boyd

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
(FORM 9-329)  
(2/76)  
OMB 42-RO 356

Lease No. U-27505  
Communitization Agreement No. \_\_\_\_\_  
Field Name \_\_\_\_\_  
Unit Name LION MESA  
Participating Area \_\_\_\_\_  
County SAN JUAN State UTAH  
Operator \_\_\_\_\_  
 Amended Report

MONTHLY REPORT  
OF  
OPERATIONS

The following is a correct report of operations and production (including status of all unplugged wells) for the month of 7-18-81 to Present, 1981 5-27-82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
									<p>COMPLETION ON THE 4-26 WELL WAS ACCOMPLISHED DURING THE PERIOD MAY 18 TO JULY 18, 1981. THE LAST WORK INDICATED THAT FURTHER TREATMENT OF A ZONE AROUND 5800' WOULD POSSIBLY PROVIDE PRODUCTION. PRIOR TESTING OF THIS ZONE RECOVERED ON A FLOW TEST FLUID AT THE RATE OF APPROXIMATELY 160 BBL/DAY WITH 10-13% OIL AND THE REST SALT WATER.</p> <p>OUR PARTICIPANTS ELECTED TO CEASE OPERATIONS ON THIS WELL UNTIL SOME LATER DATE WHEN EVALUATION AND CONSIDERATION OF THE ECONOMICS COULD BE COMPLETED. THE WELL IS IN A SUSPENDED STATE UNTIL SUCH TIME AS THESE DECISIONS ARE MADE.</p> <p>REHABILITATION IS SCHEDULED FOR ACCOMPLISHMENT AS INDICATED IN OUR LETTER OF MAY 10, 1982.</p>

**RECEIVED**  
JUN 04 1982

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area)

**DIVISION OF OIL, GAS & MINING**

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXX

Authorized Signature: Merrill Bateman Address: 57 WEST SOUTH TEMPLE, SLC.

Title: SEC/TREAS. Page \_\_\_\_\_ of \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
(FORM 9-329)  
(2/76)  
OMB 42-RO 356

Lease No. U-35008  
Communitization Agreement No. N/A  
Field Name \_\_\_\_\_  
Unit Name LION MESA UNIT  
Participating Area \_\_\_\_\_  
County SAN JUAN State UTAH  
Operator MEGADON ENTERPRISES INC.  
 Amended Report

MONTHLY REPORT  
OF  
OPERATIONS

The following is a correct report of operations and production (including status of all unplugged wells) for the month of 9-30-81 to PRESENT 9 5-27-82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
									<p>OUR COMPLETION WORK ON THE LION MESA #5-28 WELL WAS VERY DISAPPOINTING AND NONE OF THE ZONES THAT WERE PERFORATED AND TREATED GAVE UP APPRECIABLE QUANTITIES OF OIL OR GAS. WE, THEREFORE, WILL HAVE TO EITHER PLUG AND ABANDON THE WELL OR FILE FOR A PERMIT TO USE THE WELL FOR WATER DISPOSAL PURPOSES. WE ARE AWAITING THE DECISIONS OF THE WORKING INTEREST PARTICIPANTS.</p> <p>THE REHABILITATION OF THE ABOVE LOCATION WILL BE STARTED IMMEDIATELY AS PER OUR LETTER OF MAY 10, 1982 TO J &amp; W OILFIELD SERVICES.</p>

\*If none, so state.

DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXX

Authorized Signature: *Herb R. Bateman* Address: 57 WEST SOUTH TEMPLE, S.C., UT.  
Title: SEC/TREAS. Page \_\_\_\_\_ of \_\_\_\_\_



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

October 1, 1985

Megadon Enterprises, Inc.  
57 West South Temple #253  
Salt Lake City, Utah 84101

Gentlemen:

Re: Attached Wells

We have received your July Production Report indicating that these wells are temporarily abandoned; however, there is no information as to where the temporary plugs are set in are files.

If plugs have been set, it is necessary to submit this information on "Sundry Notices". If plugs haven't been set, the well is not temporarily abandoned; it is either shut in or operations have been suspended.

Thank you for your prompt attention to this matter.

Sincerely,

Tami Alexander  
Well Records Specialist

Enclosure

cc: Dianne R. Nielson  
Ronald J. Firth  
John R. Baza  
Suspense File  
File

0277/01

Attachement:

- 1- Well No. Bolinder #C-1 - Sec. 12, T 16S, R 12E, Emery County, Utah - API #43-015-15603.
- 2- Well No. Federal 1-26 - Sec. 26, T 24S, R 17E, Grand County, Utah - API #43-019-30688.
- 3- Well No. Federal 4-26 - Sec. 26, T 27S, R 21E, San Juan County, Utah - API #43-037-30617.
- 4- Well No. Lion Mesa 5-28 - Sec. 28, T 27S, R 21E, San Juan County, Utah - API #43-037-30650.

0277/02



Attachment:

- 1: Well No. Bolinder #C-1, Section 12, T 16S, R 12E, Emery County,  
Utah - API #43-015-15603.
- 2: Well No. Federal 1-26, Section 26, T 24S, R 17E, Grand County,  
Utah - API #43-019-30688.
- 3: Well No. Federal 4-26, Section 26, T 27S, R 21E, San Juan County,  
Utah - API #43-037-30617
- 4: Well No. Lion Mesa 5-28 - Section 28, T 27S, R 21E, San Juan  
County, Utah - API #43-037-30650.

*HS*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE  
(Other instructions on re-  
verse side)

Form approved,  
Budget Bureau No. 42-R1424.  
G. LEASE DESIGNATION AND SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED  
MAY 27 1993

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME Lion Mesa
2. NAME OF OPERATOR MEGADON ENERGY CORPORATION		8. FARM OR LEASE NAME Federal
3. ADDRESS OF OPERATOR Suite 20; 175 South West Temple, Salt Lake City, DIVISION OF		9. WELL NO. LM #4-26
4. LOCATION OF WELL (Report location clearly in accordance with any State requirements. See also space 17 below.) At surface SE. NW. Section 26, T 27S, R 21E, SLM. (1900' fr. W-line and 1940' fr. N-line)		10. FIELD AND POOL, OR WILDCAT
14. PERMIT NO. 42-037-20617	15. ELEVATIONS (Show whether of, at, or, etc.) 5464' Grd; 5480' K.B.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SE. NW. Sec. 26-27S-21E. SLM.
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

It is planned to plug and abandon subject well in the following manner:

1. Reset packer in casing at about 6600' (Packer now set at 6862'). Pump in a 20-sk cement plug and squeeze to 5000#. (Should fill up to 6650'). Bridge or collapsed casing at 6900'.
2. Reset packer in casing at 5550' and pump in 20 sk cement plug and squeeze to 5000# (should fill up 5850' to 5600'). Perfs at 5714-24' and at 5642-58'.
3. Reset packer at about 5200' and pump in 25 sk cement plug and squeeze to 5000#. (Should fill up 5550' to 5250'). Perfs at 5472-84' and 5302-34'.
4. Reset packer at about 5050' and pump in 10 sk cement plug and squeeze to 5000# (should fill up 5200' to 5100'). Perfs at 5140-52'.
5. Come out of hole with packer. Lay down packer and go back in hole with 2 7/8" tubing to 4400'. Pump in 10 sk cement plug. (Should fill up 4400' to 4300'). Top of salt at 4370'.
6. Come out of hole laying down tubing. Remove X-mas tree and valves. Cut off well head. Pump in a 10 sk cement plug and place well marker.
7. Fold in pits. Rehab location.

We would like to reserve the option at the time of plugging to attempt further completion of this promising oil well in the Cane Creek section according to the original plan filed previously before abandonment, if the moneys are available to accomplish this work at that time.

18. I hereby certify that the foregoing is true and correct

SIGNED W. How Gugley

ACCEPTED BY THE STATE  
President  
DIVISION OF  
OIL, GAS, AND MINING

DATE 5-24-93

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

DATE: 5-28-93

BY: J.P. Matthews

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
UTU-27505

RECEIVED  
FIELD OFFICE

6. If Indian, Allottee or Tribe Name

2014 OCT 28 AM 8:44

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

Oil Well     Gas Well     Other

7. If Unit of CA/Agreement, Name and/or No.  
LION MESA UNIT

2. Name of Operator  
MARATHON OIL COMPANY

8. Well Name and No.  
FEDERAL LION MESA    4-26

3a. Address  
1501 Stampede Avenue  
Cody, WY 82414

3b. Phone No. (include area code)  
R. Tigner 307.431.2291 Cody, WY

9. API Well No.  
49-037-30617

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1940' FNL & 1900' FWL, SENW Sec. 26-T27S-R21E, SLM

10. Field and Pool or Exploratory Area  
WILDCAT

11. Country or Parish, State  
SAN JUAN, UT

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Marathon Oil Company performed plugging and abandonment operations on the above well from 10/09/14 through 10/14/14.

Attached is the P&A well job history and wellbore diagram detailing the plugging operations. The procedure had been revised from its original approval date of 04/28/14. Verbal approval was received by Bill Steward, MOC Workover and Completions Superintendent, from Eric Jones with the BLM on 10/06/14 to proceed ahead with the plugging of this well. Jeff Brown with the Monticello Field Office was on location throughout plugging operations.

CC: MOC/Hou-Tic  
Attachments: P&A Well History / Wellbore Diagram

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Rhonda K. Tigner

Title Authorized Representative

Signature

*Rhonda K. Tigner*

Date 10/21/2014

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*Boeth Rans*

Title Field Manager

Date 1/15/15

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Moab Field office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

APPROVE w/ FAN Cont: *day 10.29.14*  
*MWA 1.12.15*  
*JB 1.13.15*

**CONDITIONS OF APPROVAL ATTACHED**

Marathon Oil Company  
Well No. Lion Mesa 4-26  
Section 26, T27S, R21E  
Lease UTU27505  
San Juan County, Utah

### CONDITIONS OF APPROVAL

Section V. of Onshore Oil and Gas Order No. 1 requires that operators submit three separate Sundry Notices (Form 3160-5) in relation to the plugging and abandonment of any jurisdictional well, i.e., a Notice of Intent to Abandon (NIA) as a precursor to the commencement of actual abandonment operations or as a written confirmation of any orally prescribed abandonment program; a Subsequent Report of Abandonment (SRA) reflecting the actual downhole abandonment operations performed, which is to be submitted within 30 days of completing those operations; and, a notice from the operator that the location is ready for inspection. Section V. also states that "Final abandonment shall not be approved until the surface reclamation work required by the approved drilling permit or approved abandonment notice (NIA) has been completed to the satisfaction of the Moab Field Office.

Accordingly, final approval of an abandoned well has two components:

- 1) Satisfactory completion of the approved downhole plugging plan.
- 2) Satisfactory reclamation of the site.

You will therefore be required to submit a Final Abandonment Notice (Sundry Notice - Form 3160-5) when vegetative reclamation is complete. You will not be released from bond liability on this location until such final abandonment has been approved by the Moab Field Office.



Well History by Job
Well Name: LION MESA 4-26

Table with 4 columns: Well Name (LION MESA 4-26), API/ IPO UWI (4303730617), Job Category (ABANDON), WBS Number. Sub-rows for Qtr/Block/Sec/Town/Range, North/South Distance (ft), N/S Ref, East/West Distance (ft), E/W Ref.

Report Start Date: 10/9/2014, Report End Date: 10/10/2014

Well secure no operations
Held safety orientation with rig crew
Spot rig on location and RU same
No frac tank and water, valves connections,
Bleed off well and check for H2S, none. Nipple down wellhead and NU BOPE
Unland tubing and remove tubing hanger. Work packer and release. POH with 4 joints tubing and packer hung up. Work packer would not go uphole. TIH with tubing.
RU Cutter wireline. run junk basket and gauge ring to 5,182'. Could not work deeper. Call BLM for cutting tubing at that point. Per Jeff Brown with BLM cut at 5,182'. Rsn jet cutter and cut tubing at 5,182'. POH and wireline hung up.
Secure well and SDFN
Jeff Brown with BLM on location.

Report Start Date: 10/10/2014, Report End Date: 10/11/2014

Well secure no activity
Held TGSM with rig and wireline crew
Work wireline uphole to 5,132' stuck tight. RU pump and pressure up on tubing to 1,500 psi no movement. RU and pump down annulus, got circulation. Worked wireline and freed up. POH with all tools.
Circulate well with water. RD wireline unit.
POH with tubing. recovered 170 jts plus cut joint. Tubing cut at 5,181' KB.
Held afternoon TGSM with rig crew.
MU bit and scrapper. TIH hit obstruction at 1,076' worked through. Tubing was spinning while TIH. POH and LD scrapper. TIH with bit and tubing still spinning in areas while TIH to 1,076'.
Circulate well to clean out trash and debris.
Finish TIH to 5,164'. tubing occasionally spinning while TIH. SDFN
Jeff Brown with BLM on location all day.

Report Start Date: 10/11/2014, Report End Date: 10/12/2014

Well secure no activity
TGSM with rig crew and planning
POH with bit spinning occasionally
LD bit and PU scrapper, TIH to 5,140. no spinning
POH with scrapper and LD same. no spinning
Safety meeting and afternoon planning
PU 5 1/2" CICR and TIH set at 5,108' KB. Set same
RU to pump establish injection rate below CICR at 3/4 BPM at 1,300 psi. Release CICR and pressure test CICR to 700 psi,
Held 5 min ok. SDFN
Jeff Brown with BLM on location all day.

Report Start Date: 10/12/2014, Report End Date: 10/13/2014

well secure no activity
Held TGSM with crews and Orientation with Cementing and perforating crews
RU cement crew. Try to establish injection rate below CICR set at 5,108' pressured up to 2,000 psi and held. PU and pump 10 sacks of Class G 1.15 cu-ft/sk, 15.8 ppg. 200' of cement on top of plug, per Jeff Brown with BLM.
PU and LD 7 joints tubing, reverse out and circ hole with 9 #/gal mud.
PU to 4,400' and set 200' balanced plug. 10 sxs Class G 15.8 ppg, 1.15 cu-ft/sk yield.
POH and LD 73 joints tubing. Fininsh OOH with tbg standing back.
RU wireline unit. TIH with perforator to 2,292'. POH all shots fired
MU CICR and TIH to set 5 1/2" CICR at 2,259'.
RU and pump cement below retainer, 3 bpm at 0 psi. placed 15 sacks Class G 15.8 ppg, 1.15 cu-ft/sk yeild. 100' plug on top of CICR.
POH and LD 46 joints tubing, stand remaining tubing in derrick.
RU wireline and perforate for squeeze at 925' 4 SPF all shots fired
Dig out 9 5/8" casing head TIH with 5 1/2" CICR and set at 870'



**Well History by Job**  
**Well Name: LION MESA 4-26**

Com

RU and circ 9 5/8" X 5 1/2" annulus with water and 9 #/gal mud. had returns to surface. Pump 215 sacks Class G 15.8 ppg, 1.15 cu-ft/sk yeild. cement to surface with returns.

POH LD tubing and stand back 3 joints. RD BOP and TIH with 3 joints tubing.

Pump 3 sacks Class G, 15.8 ppg, 1.15 cu-ft/sk yield cement from 100' to surface. POH and LD tubing.

RDMO cement and wireline units. SIFN

Jeff Brown with BLM on location all day.

Report Start Date

10/13/2014

Report End Date

10/14/2014

Com

well secure. WO crews and equipment

Top off cement in 5 1/2' casing with 2 sacks Sacrete.. RDMO rig. Excavate out wellhead. Cut casing strings and weld plate over casing top. Backfill over well. Dig out anchors and backfill.

Report Start Date

10/14/2014

Report End Date

10/15/2014

Com

Sample mud pits for analysis. Load and move out tubing to Price UT yard

END OF REPORTS

Qtr/Qtr, Block, Sec. Town, Range Section 26, T27S, R21E, SLM		License #	Field Name WILDCAT	State/Province UTAH	Country UNITED STATES
API/IPO UWI 4303730617	Ground Elevation (ft) 5,464.00	Original KB Elevation (ft) 5,480.00	KB-Ground Distance (ft) 16.00	KB-Casing Flange Distance (ft)	KB-Tubing Head Distance (ft)
Well Spud Date 3/9/1981	East/West Distance (ft) 1,900.0	East/West Reference FWL	North/South Distance (ft) 1,940.0	North/South Reference FNL	

