FILE NOTATIONS

Entered in NID File ...✓...
Location Map Pinned .....
Card Indexed ...✓...

Checked by Chief PMB
Approval Letter 12-18-72
Disapproval Letter .....

COMPLETION DATA:
Date Well Completed 3-14-73

Location Inspected .....

Bond released
State or Fee Land .....

W..... WW..... TA...✓...
OW..... OS..... PA.....

LOGS FILED

Driller's Log.....
Electric Logs (No.) ...✓...
E..... I..... Dual I Lat..... GR-N..... Micro.....
BHC Sonic GR..... Lat..... MI-L..... Sonic.....
CBLog..... CCLog..... Others.....

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: -

7. UNIT AGREEMENT NAME: -

8. FARM OR LEASE NAME: Mt. Fuel-Skyline Geyser

9. WELL NO.: 1-25

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: NW NW 25-22S-16E., SLB&M

12. COUNTY OR PARISH: Grand

13. STATE: Utah

1a. TYPE OF WORK: DRILL [x] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [x] OTHER Wildcat SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL, 585' FWL NW NW NW
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 36 miles southeast of Moab, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 585' / -

16. NO. OF ACRES IN LEASE: 240.00

17. NO. OF ACRES ASSIGNED TO THIS WELL: -

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: - / -

19. PROPOSED DEPTH: 10,000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): GR 4120'

22. APPROX. DATE WORK WILL START*: December 31, 1972

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	48	200	275
12-1/4	9-5/8	36	2000 est.	to be determined
8-3/4	7	23 & 26	to be	determined

We would like to drill the subject well to an estimated depth of 10,000', anticipated formation tops are as follows: Morrison at the surface, Curtis at 370', Entrada at 520', Carmel at 870', Navajo at 1020', Kayenta at 1420', Wingate at 1570', Chinle at 1970', Shinarump at 2195', Moenkopi at 2220', Coconino at 2570', Cutler at 2920', Permian carbonates 3170', Honaker Trail at 4270', Paradox at 5020', Paradox salt at 5270', Lower Paradox and Molas (undiff) at 9120' and Leadville at 9320'.

Mud will be adequate to contain formation fluids and blow out preventers will be checked daily.

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.

24.
SIGNED B. H. Crutchfield TITLE Vice President, Gas Supply Operations DATE Dec. 15, 1972

(This space for Federal or State office use)

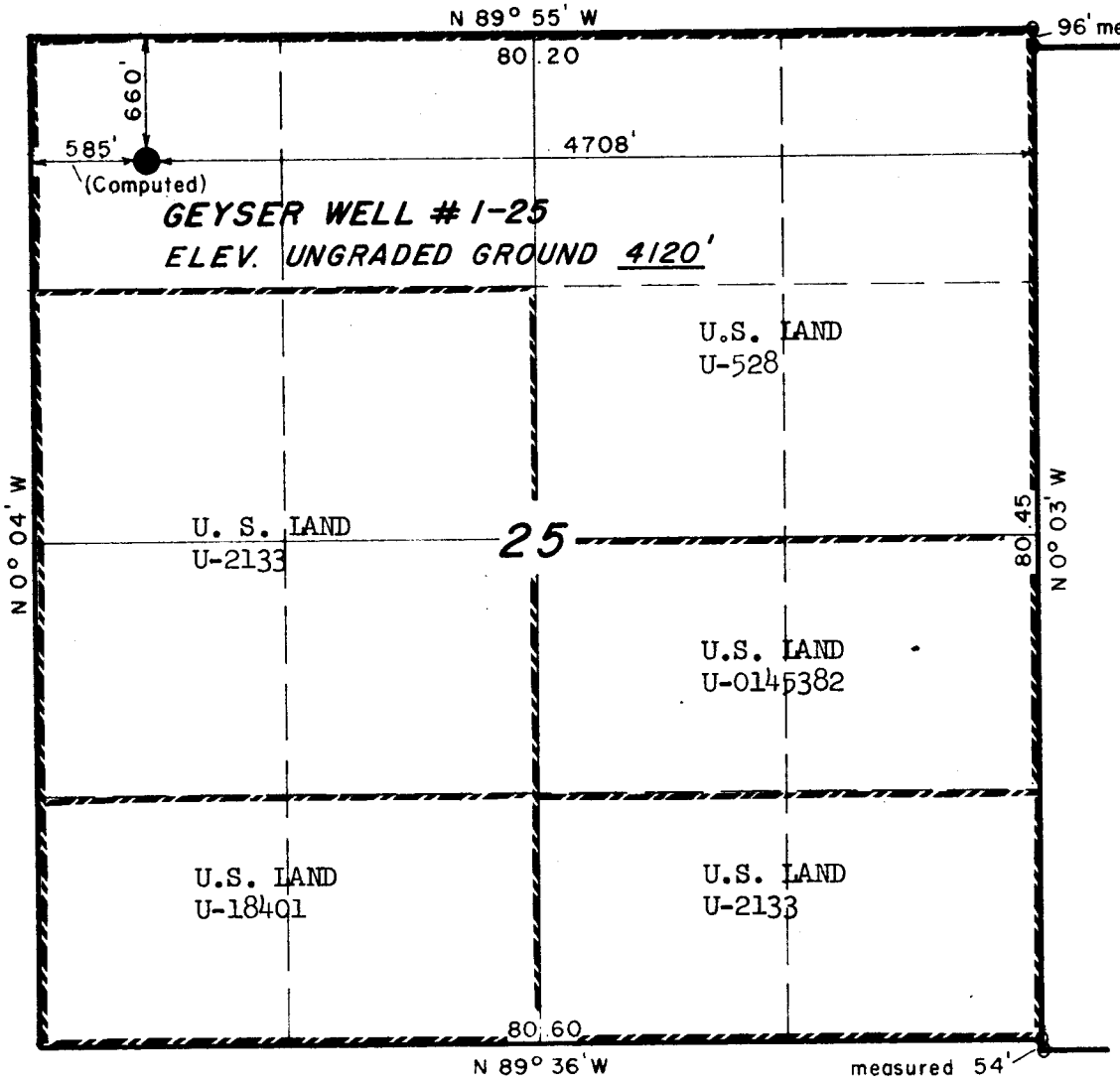
PERMIT NO. 43-019-30124 APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

T22S, R16E, S.L.B.&M.



O = Section Corners Located (STONE)

PROJECT

MOUNTAIN FUEL SUPPLY CO.

Well location, *GEYSER WELL #1-25*, located as shown in the NW1/4 NW 1/4 Section 25, T22S, R16E, S.L.B.&M. Grand County, Utah.

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5137
STATE OF UTAH

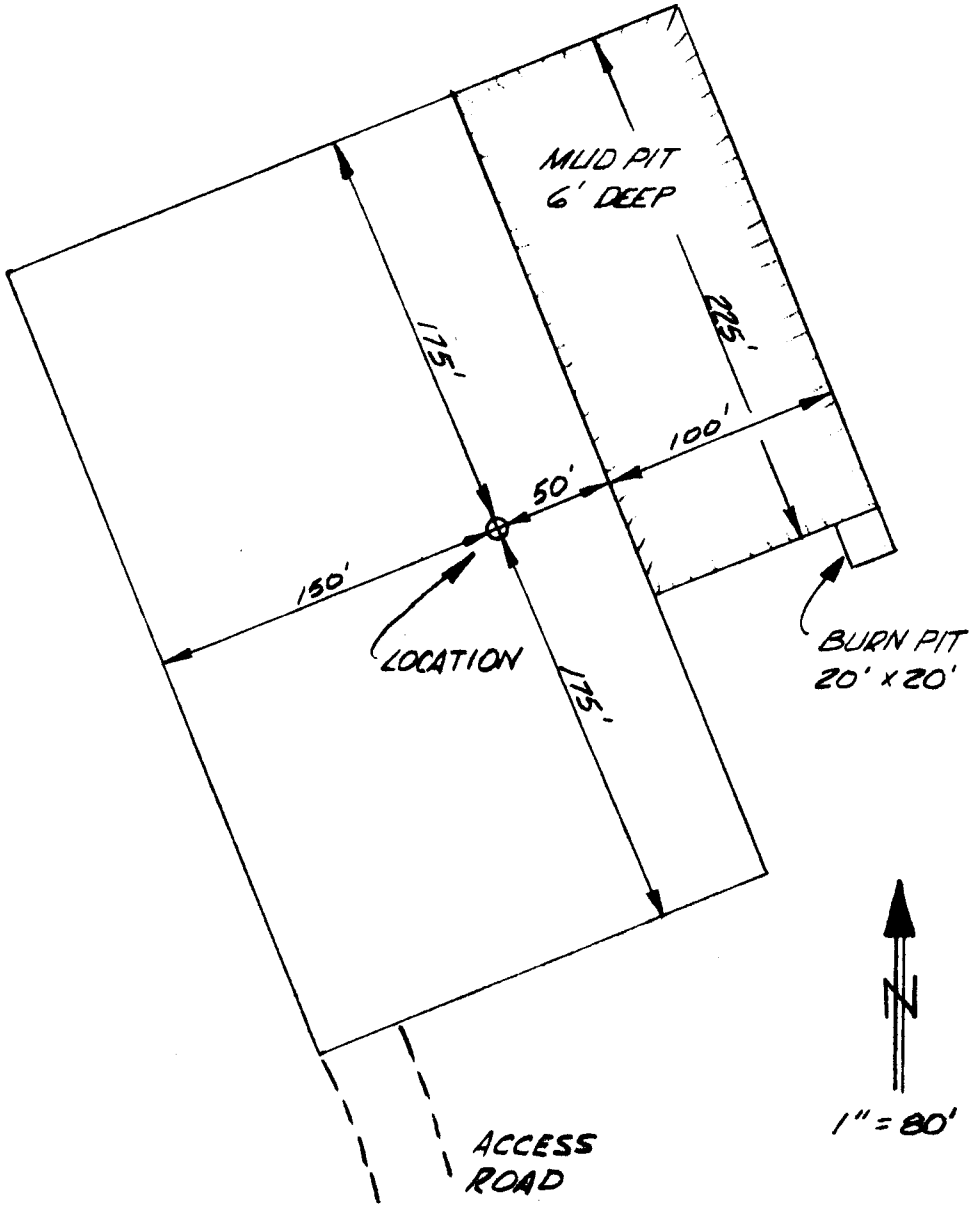
UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q — 110 EAST - FIRST SOUTH
VERNAL, UTAH - 84078

SCALE	DATE	
1" = 1000'	16 Nov., 1972	
PARTY	REFERENCES	
L.K. L.T. R.R. E.C.	GLO PLAT	
WEATHER	FILE	
COOL	MOUNTAIN FUEL	M-10967

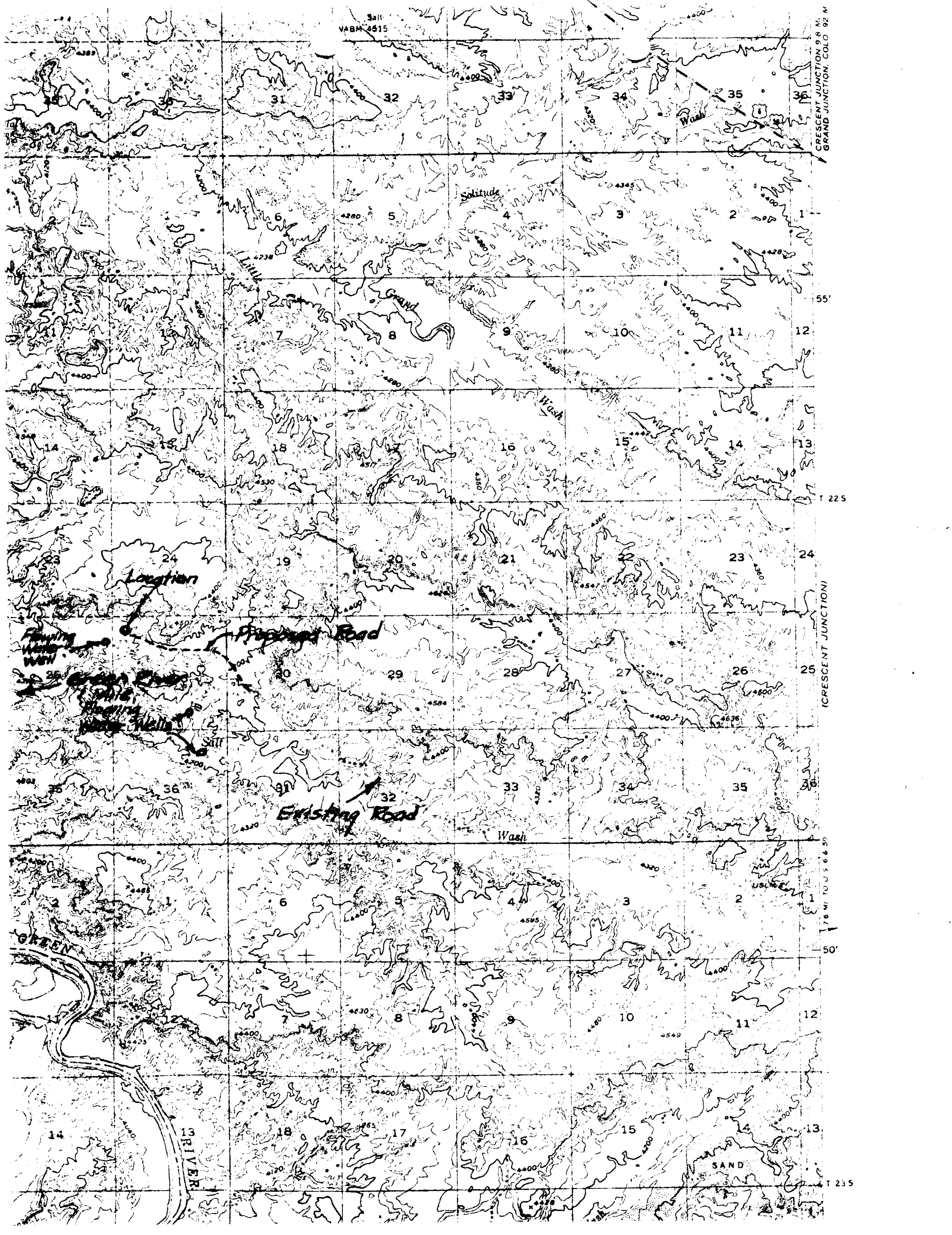
PROPOSED LOCATION
GEYSER WELL 1-25

LOCATED IN THE NW 1/4 NW 1/4
SECTION 25, T22S, R16E,
S.L.M.

MOUNTAIN FUEL SUPPLY CO.



UINTAH ENGINEERING
VERNAL, UTAH



Location
Proposed Road
Flowing Water Well
Green River
Existing Road
Solitude
Little Grand Wash
Wash
GREEN RIVER
SAND
Salt
VABM 4515
T 22 S
T 23 S
55'
50'
CRESCENT JUNCTION 9.8 MI.
GRAND JUNCTION, COLO. 92 MI.
(CRESCENT JUNCTION)

DEVELOPMENT PLAN
FOR
U.S.G.S. APPROVAL
OF
SURFACE USE
MOUNTAIN FUEL DRILLING WELLS

Well Name Geyser Well #1-25

Field or Area South of Green River, Utah (Salt Wash)

1. Existing roads. Road to Location to use existing Roads to Area within one mile of location, then proposed road to follow existing Seismic Trail into location.

2. Planned access roads. Proposed Road to follow existing seismic trail from end of Salt Wash road into location. Road to follow seismic trail but may be straightened slightly. If this location is a producer the road to be improved with culverts, crossings of washes, etc.

3. Location of wells. No oil well locations within one mile of location in any direction. There are three water wells that flow salt water within one mile of this location. These water wells are shown on attached plats.

4. Lateral roads to well locations. At the present time there are no proposed lateral roads to locations in this area, but if this well is a producer, there will be lateral roads.

5. Location of tank batteries and flowlines. None planned except that which will be needed if this location is a producer.

6. Location and types of water supply. Water for broilers, etc. to come from the Green River. Water for drilling to come from three water wells that flow water into the Salt Wash. These wells are shown on the attached plats.

7. Methods of handling waste disposal. Burn pit to remove the burnable portion, mud and mud debris to be left to dry and will then be burried in the mud pits.

8. Location of camps. None within five miles, none needed for this location.

9. Location of airstrips. None

10. Location layout to include position of the rig, mud tanks, reserve pits, burn pits, pipe racks, etc. As shown on attached plats.

11. Plans for restoration of the surface. Surface area to be graded and shaped so that no berms, cuts or fills will be outstanding.

12. Any other information which the Approving Official considers essential to his assessment of the impact on the environment. None

From: T. M. Colson

Rock Springs, Wyoming

To: R. G. Myers

September 6, 1972

Tentative Plan to Drill
Geyser Well No. 1-25
Grand County, Utah

This well will be drilled by _____ Drilling Company using a contract rig. One work order has been originated for the drilling and completion of the well, namely _____, Drill Geyser Well No. 1-25 located in Grand County, Utah. An 8-3/4-inch hole will be drilled to a total depth of 10,000 feet. Ten drill stem tests are anticipated.

1. Drill 17-1/2-inch hole to approximately 225 feet KBM.

2. Run and cement approximately 200 feet of 13-3/8-inch O.D., 48-pound, H-40, 8 round thread, ST&C casing. Casing will be cemented with 275 sacks regular bulk cement which represents theoretical requirements plus 100 percent excess for 13-3/8-inch O.D. casing in 17-1/2-inch hole with cement returned to the surface. The cement will be treated with 1274 pounds of Dowell D43A. Plan on leaving a 10 foot cement plug in the bottom of the casing after the displacement is completed. A 13-3/8-inch O.D. Baker guide shoe will be run on the bottom of the casing. The top and bottom of all casing collars will be spot welded in the field at the time the casing is being run and the guide shoe will be spot welded to the shoe joint on the pipe rack at location. Install a NSCo. Type "B" 12-inch 3000 psi regular duty casing flange tapped for 13-3/8-inch O.D., 8 round thread casing. The bottom of the surface casing should be landed in such a manner that the top of the 12-inch 3000 psi casing flange will be 1.77 feet below ground level. Thus the top of the 12-inch 3000 psi by 10-inch 3000 psi casing spool, in which the 7-inch O.D. production casing will be landed, will be approximately at ground level. A cellar four feet deep will be necessary. Circulate 50 barrels of drilling mud prior to beginning cementing operations. Capacity of the 13-3/8-inch O.D. casing is 35 barrels.

3. After a WOC time of 6 hours, wash off collar and remove landing joint, install NSCo. 12-inch 3000 psi casing flange threaded for 13-3/8-inch O.D. casing, adequate preventers and finish nippling up. After a WOC time of 12 hours, pressure test casing and all rams in preventers to 1000 psi for 15 minutes. The internal pressure rating for the 13-3/8-inch O.D., 48-pound, H-40 casing is 1730 psi.

4. Drill 12-1/4-inch hole to tentative 9-5/8-inch O.D. intermediate casing point of approximately 2000 feet. After drilling out surface casing, use a gel-chemical mud system. A fully manned mud logging unit will be used from surface casing to total depth (catch 10 foot samples from surface to total depth). A mud desander will be used from the bottom of the surface casing to total depth drilled with mud. Ten drill stem tests are anticipated starting at 2100 feet. Anticipated formation tops are as follows:

	Approximate Depth (Feet KBM)
Morrison	Surface
Curtis	370
Entrada	520
Carmel	870
Navajo	1,020
Kayenta	1,420
Wingate	1,570
Chinle	1,970
Shinarump	2,195
Moenkopi	2,220
Coconino	2,570
Cutler	2,920
Permian Carbonates (undiff)	3,170
Honaker Trail	4,270
Paradox	5,020
Paradox Salt	5,270
Lower Paradox & Molas (undiff)	9,120
Leadville	9,320
Total Depth	10,000

5. Run a dual induction laterolog and an integrated gamma ray sonic caliper log from surface casing to total depth of the 12-1/4-inch hole.

6. Go in hole to total depth with 12-1/4-inch bit and drill pipe to condition mud and hole prior to running 9-5/8-inch O.D. casing. Pull bit.

7. Rams will not be changed in the ram type preventer since the Hydril preventer will be on the wellhead. Run 9-5/8-inch O.D. casing as outlined in Item No. I, General Information. Cement casing with sufficient Regular Type "G" cement in order to bring the cement level outside the 9-5/8-inch O.D. casing approximately 1000 feet above the bottom of the casing. A Baker 9-5/8-inch O.D. Type G float collar and guide shoe will be run as floating equipment. The bottom of the collars of six joints of 9-5/8-inch O.D., 36-pound, J-55, 8 round thread, ST&C casing will be spot welded on the rack and the float shoe, shoe joint, float collar, and the next six joints of casing will be spot welded in the field at the time the casing is being run. Touch bottom and pick the casing up one foot. Circulate 200 barrels of drilling mud prior to beginning cementing operations. Capacity of the 9-5/8-inch O.D. casing is approximately 155 barrels. Rotate casing while circulating, mixing, and displacing cement. Displace cement with drilling mud.

8. Immediately after cementing operations are completed, land the 9-5/8-inch O.D. casing with full weight of casing on slips and record indicator weight. Install NSCo. 12-inch 3000 psi by 10-inch 3000 psi heavy duty casing spool. Pressure test slip and seal assembly to 1500 psi for 5 minutes. The minimum collapse pressure for 9-5/8-inch O.D., 36-pound, K-55 casing is 2220 psi. Install adequate preventers.

9. After a WOC time of 24 hours, pressure test casing and preventer to 1000 psi for 15 minutes using water and rig pump. The internal pressure rating for new 9-5/8-inch O.D., 36-pound, K-55 casing is 3520 psi.

10. Go into hole with an 8-3/4-inch bit and adequate drill collars. Drill to a total depth of 10,000 feet or to such depth as recommended by the Exploration Department. The mud system will be converted to a salt saturated mud at the top of the Paradox Salt at 5270 feet.
11. Run a Schlumberger dual laterolog and integrated gamma ray sonic caliper log from surface pipe to total depth. Run a compensated neutron porosity log over zones of interest.
12. Assuming commercial quantities of oil or gas are encountered, run 8-3/4-inch bit to total depth and condition mud and hole. Pull bit laying down drill pipe and drill collars. Install 7-inch rams in preventer.
13. Run 7-inch O.D. casing as outlined in Item No. 1, General Information. A Baker Type G float collar and guide shoe will be used as floating equipment. Pozmix "A" cement requirements will be determined at a later date. Precede cement with 500 gallons mud flush. Circulate 450 barrels of drilling mud prior to beginning cementing operations. Capacity of the 7-inch O.D. casing is 394 barrels. Rotate casing while circulating, mixing, and displacing cement. Displace cement with water.
14. Immediately after cementing operations are completed, land the 7-inch O.D. casing with full weight of casing on slips and record indicator weight. Install NSCo. 10-inch 3000 psi by 6-inch 5000 psi pressure crossover tubing head spool. Pressure test seal assembly to 3000 psi for 5 minutes. The minimum collapse pressure for 7-inch O.D., 23-pound, AR-95 casing is 5650 psi. Install steel plate on 6-inch 5000 psi flange.
15. Release drilling rig and move off location.
16. Move in and rig up a completion rig. Install a 6-inch 5000 psi hydraulically operated double gate preventer equipped with blind rams and 2-3/8-inch tubing rams.

17. After a WOC time of 48 hours, rig up Dresser Atlas and run a cement bond PFC log from plugged back depth to the top of the cement behind the 7-inch O.D. casing.

18. After a WOC time of 56 hours, go in hole with open ended 2-7/8-inch O.D., 6.5-pound, N-80 seal lock tubing, check plugged back depth, and pressure test casing and tubing rams to 4000 psi for 15 minutes using a Halliburton pump truck and water. Land tubing on NSCo. Type "H-1" tubing hanger, remove landing joint, and pressure test casing and blind rams in preventer to 4000 psi for 15 minutes. The internal pressure rating for 7-inch O.D., 23-pound, AR-95 casing is 7530 psi.

19. A tentative plan to complete the well will be issued after the results of the above items have been evaluated.

GENERAL INFORMATION

I. The following tubular goods have been assigned to the well.

Description	Approximate Gross Measurement (feet)	Availability
	Surface Casing	
13-3/8-inch O.D., 48-pound, H-40, 8 round thread, ST&C casing	225	To be purchased
	Intermediate Casing	
9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing	2,100	To be purchased
	Production Casing	
7-inch O.D., 23-pound, AR-95, 8 round thread, LT&C casing	9,300	To be purchased
7-inch O.D., 26-pound, AR-95, 8 round thread, LT&C casing	1,000	To be purchased
Total	10,300	
	Production Tubing	
2-7/8-inch O.D., 6.5-pound, N-80, seal lock tubing	10,300	To be purchased

II. Drill pipe rams will be operated once each 24 hours and the blind rams will be operated when drill pipe is out of hole. Hand wheels will be installed on all ram type preventers.

December 18, 1972

Mountain Fuel Supply Company
Box 1129
Rock Springs, Wyoming

Re: Mt. Fuel-Skyline Geyser #1-25
Sec. 25, T. 22 S, R. 16 E,
Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the 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:

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

This approval terminates within 90 days if the well has not been spudded-in within said peridd; however, the termination date may be extended upon written request of the operator.

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

The API number assigned to this well is 43-019-30124.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
cc: U.S. Geological Survey

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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.)

5. LEASE DESIGNATION AND SERIAL NO.: Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: –

1. OIL WELL ☐ GAS WELL ☐ OTHER: Wildcat

7. UNIT AGREEMENT NAME: –

2. NAME OF OPERATOR: Mountain Fuel Supply Company

8. FARM OR LEASE NAME: Mt. Fuel-Skyline Geyser

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' FNL, 585' FWL NW NW

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: NW NW 25-22S-16E., SLB&M

14. PERMIT NO.: 43-019-30124

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 4132.10' GR 4120'

12. COUNTY OR PARISH: Grand

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) Supplementary history			X
(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.) *

Depth 1425', drilling.

Spudded January 6, 1973.

Landed 217.04' net, 219.07' gross of 13-3/8"OD, 48#, H-40, 8rd thd, ST&C casing at 230.91' KBM and set with 275 sacks of cement, returned 18 barrels slurry to surface.

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

SIGNED [signature] TITLE Vice President, Gas Supply Operations DATE Jan. 16, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 Wildcat

2. NAME OF OPERATOR
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
660' FNL, 585' FWL NW NW

5. LEASE DESIGNATION AND SERIAL NO.
Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
-

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
Mt. Fuel-Skyline Geyser

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NW NW 25-22S-16E., SLB&M

12. COUNTY OR PARISH
Grand

13. STATE
Utah

14. PERMIT NO.
43-019-30124

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 4132.10' GR 4120'

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) Supplementary history			X
(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.)*

Depth 2536', drilling.

Landed 2,042.96' net, 2,062.01' gross of 9-5/8"OD, 36#, K-55, 8rd thd, ST&C casing at 2056.83' KBM and set with 550 sacks of cement.

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

SIGNED R. H. Crafton TITLE Vice President, Gas Supply Operations DATE Jan. 23, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 Wildcat

2. NAME OF OPERATOR
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
660' FNL, 585' FWL NW NW

5. LEASE DESIGNATION AND SERIAL NO.
Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
—

7. UNIT AGREEMENT NAME
—

8. FARM OR LEASE NAME
Mt. Fuel-Skyline Geyser

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NW NW 25-22S-16E., SLB&M

12. COUNTY OR PARISH
Grand

13. STATE
Utah

14. PERMIT NO.
43-019-30124

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 4132.10' GR 4120'

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) Supplementary history			X
(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.) *

Depth 3480', mixing mud.

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

SIGNED B. H. Crofts TITLE Vice President, Gas Supply Operations DATE Jan. 29, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL FILE

GEOLOGICAL REPORT

MOUNTAIN FUEL SUPPLY COMPANY

SKYLINE GEYSER # 1-25

Section 25 Township 22 South Range 16 East

GRAND COUNTY, UTAH

January 1973

TOOKE ENGINEERING COMPANY

GEORGE WING
LOGGER

GENERAL INFORMATION SUMMARY

OPERATOR:	Mountain Fuel Supply Company
WELL:	Skyline Geyser #1-25
LOCATION:	NW¼NW¼ Section 25, T22S, R16E (660' FNL - 585' FWL)
COUNTY:	Grand
STATE:	Utah
ELEVATION:	4120' Ground (ungraded), 4130' Kelly Bushing
CONTRACTOR:	Loffland Brothers Drilling Company, Casper, Wyoming Tool Pusher: Carl Maser and W. L. DeWitt Drillers: Gene McCartney, Chas Noel, Richard Pfander, Kenneth Neilson
EQUIPMENT:	Rig 234. Lee C. Moore, 136 foot triple mast with Model V-40 draw wroks, powered by two LeRoi V-12 gas motors developing 950 horsepower. One D-700 and one D-500 pump compounded to the draw works.
COMMENCED:	Spud January 6, 1973
SURFACE CASING:	Eight joints of 13 3/8 inch, set at 243' K.B. with 275 sacks of regular cement.
INTERMEDIATE CASING:	Sixty-seven joints of new, 36 pound, 9 5/8 inch casing set at 2056' K.B. with 550 sacks of Type G cement.
SAMPLES:	Taken at 30 foot intervals to 450 feet and at 10 foot intervals from 450 feet to total depth.
DRILLING FLUID:	Water, natural mud and weight material to 4800 feet. Converted to salt saturated weighted mud from 4800 feet to total depth.
GEOLOGIST:	John J. McNamee, Denver, Colorado
LOGGER:	George Wing, TOOKE ENGINEERING, Casper, Wyoming
TESTING:	Halliburton Testers, Vernal, Utah
CORING:	None

LOGGING:	Dresser Atlas Dual Induction Laterolog and Integrated Acoustilog from surface casing to 2070 feet. Laterolog and Integrated Acoustilog from 2056 feet to total depth. Sidewall Neutron Porosity Log from 5000 feet to total depth. Four Arm Dipmeter from 8000 feet to total depth. Tooke Engineering, two man logging unit from surface casing to total depth.
TOTAL DEPTH:	9500 feet, drillers depth, 9508 feet SLM, 9514 feet, loggers depth
COMPLETED:	March 13, 1973
STATUS:	Plugged and Abandoned

CHRONOLOGICAL WELL HISTORY

December 28, 1972	Moving in and rigging up.
January 5, 1973	Rigging up. Weather cold and snowy.
January 6, 1973	Drilled rat hole. Spudded 1 a.m. January 6, drilling 12 1/4" surface hole at 38'.
January 7, 1973	Tripping to pick up reamer. Drilled 12 1/4" hole to 243'.
January 8, 1973	Reaming surface hole to 17 1/2" at 143'.
January 9, 1973	Running surface casing. Reamed to 243'.
January 10, 1973	Ran 8 joints of 13 3/8" Armco, new 48 pound casing, set at 243' K.B. with 275 sacks cement. Nippling up.
January 11, 1973	Drilled mousehole. Finished nippling up. Pressured up to 900 pounds and wellhead parted from casing.
January 12, 1973	Installed new wellhead. Nippled up. Pressure tested Hydril, casing and blanks at 1000 psi for 60 minutes. Held O.K. Drilled cement. Drilled out at 4:30 a.m., January 12, 1973. Present depth 300', drilling 12 1/4" hole.
January 13, 1973	Drilling at 577'
January 14, 1973	Drilling at 868'
January 15, 1973	Drilling at 1,226'
January 16, 1973	Drilling at 1,445'
January 17, 1973	Drilling at 1,658'
January 18, 1973	Drilling at 1,870'
January 19, 1973	PTD 2,070 running logs. Ran Dresser Atlas Dual Induction Laterolog and Integrated Sonic GR to T.D.
January 20, 1973	At 2,070, running 9 5/8" casing.
January 21, 1973	Ran 67 joints of 9 5/8" casing; set at 2,056' with 550 sacks of cement. WOC
January 22, 1973	Tripping at 2,342'. Drilled out at 3:30 p.m., January 21, 1973. Drilling 8 3/4" hole.

January 23, 1973	Drilling at 2,559'
January 24, 1973	Drilling at 2,883'. Have strong water flow from 2,580 - 2,600 feet.
January 25, 1973	Drilling at 3,179'. Well still flowing water.
January 26, 1973	Fishing for 2 cones at 3,364'.
January 27, 1973	At 3,480'; circulating to D.S.T.
January 28, 1973	At 3,480'; mixing mud to kill water flow.
January 29, 1973	At 3,480'; mixing mud to kill water flow.
January 30, 1973	Pulling D.S.T. #1, 3,442 - 3,480 feet.
January 31, 1973	Drilling at 3,646'. Preparing to D.S.T.
February 1, 1973	Ran D.S.T. #2, 3630 - 3650 feet. Drilling at 3,677'.
February 2, 1973	Drilling at 3,836'.
February 3, 1973	At 4,000'; circulating for D.S.T. #3.
February 4, 1973	Pulled D.S.T. #3, 3945 - 4,000 feet. Well flowing sulphur water at 100 bbl per hour. Running in to kill same.
February 5, 1973	Killed flow with 9.8 mud. Drilling at 4,156'
February 6, 1973	Drilled to 4,232. Running D.S.T. #4
February 7, 1973	Drilling at 4,355'. Recovered water on D.S.T. #4.
February 8, 1973	Drilling at 4,470'
February 9, 1973	Drilling at 4,670'
February 10, 1973	T.D. 4,812'. Down for repair and converting mud to salt base.
February 11, 1973	Drilling at 4,869' on bit #14
February 12, 1973	Drilling at 5,090'
February 13, 1973	Drilling at 5,160'. Made two trips to find holes in the drill pipe.
February 14, 1973	Drilling at 5,322'. Top of Paradox Salt 5,230'

February 15, 1973	Drilling at 5,770'
February 16, 1973	Tripping for D.S.T. #5 at 6,000'
February 17, 1973	Ran D.S.T. #5, 5,940 - 6,000 feet. Recovered 195' SWCM. Running in to drill.
February 18, 1973	Drilling at 6,209'
February 19, 1973	Testing 6,384'; D.S.T. #6
February 20, 1973	Drilling at 6,680'
February 21, 1973	Testing at 6,843'; D.S.T. #7
February 22, 1973	Ran D.S.T. #7. Now drilling at 7,135'
February 23, 1973	Drilling at 7,436'
February 24, 1973	Testing at 7,624'; D.S.T. #8
February 25, 1973	Drilling at 7,765'
February 26, 1973	Drilling at 8,373'. Connections are pulling tight.
February 27, 1973	Drilling at 8,743'. Connections are pulling tight.
February 28, 1973	Drilling at 8,822'; deviation now 11 1/2°.
March 1, 1973	Tripping at 8,898'; deviation now 6 1/2°.
March 2, 1973	Drilling at 9,016'
March 3, 1973	Drilling at 9,131'
March 4, 1973	Drilling at 9,212'; Molas at 9,132'
March 5, 1973	Total depth 9,225'; running D.S.T. #9.
March 6, 1973	Total depth 9,280; running D.S.T. #10.
March 7, 1973	Drilling at 9,348'
March 8, 1973	Reached 9,500' T.D. at 7:30 a.m. Circulating to log.
March 9, 1973	Logging. SLM - 9,508'; log T.D. 9,514' Ran Dresser Atlas Laterolog & Acoustilog.

March 10, 1973	Ran Sidewall Neutron Porosity log and Dipmeter. Prepare to run D.S.T. #11, 4,005 - 4,030 feet.
March 11, 1973	D.S.T. #11, misrun. Prepare to re-test, 4,010 - 4,024 feet.
March 12, 1973	Ran D.S.T. #12. Mixing mud to kill water flow at 2,600 feet.
March 13, 1973	Waiting on orders. RAn D.S.T. #13, 4,770 - 4,800 feet.
March 14, 1973	Pulled test #13. Prepare to plub and abandon.

BIT RECORD

Bit #	Make	Type	Size	Depth Out	Footage	Hours	Wt	RPM
1	Smith	DGH	12 1/4	243	243		15 M	60
2	Smith	DGH (RR)	12 1/4	544	301	18 1/2	20 M	60
3	Reed	YT1AG	12 1/4	856	312	23 1/4	20 M	85
4	Sec.	S4T	12 1/4	1242	386	24 3/4	20 M	60
5	Smith	K2H	12 1/4	1500	258	19 1/2	25 M	60
6	Smith	V2H	12 1/4	1765	265	26 1/4	35 M	60
7	Smith	DGH	12 1/4	2070	305	24 1/4	40 M	60
8	Smith	DGTH	8 3/4	2342	272	16 1/4	35 M	60
9	Smith	5JS	8 3/4	3364	1022	73 3/4	35 M	60
10	Smith	4JS	8 3/4	3650	286	28 1/2	35 M	45
11	Smith	5JS	8 3/4	4000	350	43	40 M	60
12	Smith	4JS	8 3/4	4379	379	48	40 M	60
13	Smith	4JS	8 3/4	4812	433	52	40 M	60
14	Smith	3JS	8 3/4	5108	296	37	40 M	60
15	Smith	4JS	8 3/4	6000	892	62 1/2	40 M	45
16	Smith	3JS	8 3/4	7188	1188	76 1/4	35 M	60
17	Smith	3JS	8 3/4	7624	436	22 3/4	35 M	60
18	Smith	3JS	8 3/4	8785	1161	56 1/2	35 M	60
19	Smith	V2H	8 3/4	8898	113	14 1/2	40 M	60
20	Smith	4JS	8 3/4	9148	250	51 1/2	35 M	45
21	Reed	SCH5	8 3/4	9418	270	31 1/2	35 M	45
22	Smith	5JS	8 3/4	9500	82	8 1/4	35 M	45

DEVIATION SURVEY

Depth	Deviation	Depth	Deviation	Depth	Deviation
102	1/4°	1181	1°	3008	2°
132	1/4°	1243	1 1/4°	3261	2 1/4°
243	3/4°	1274	1 1/4°	3364	2°
281	3/4°	1338	1 1/4°	3650	2°
311	1/2°	1401	1 1/4°	4000	2 1/2°
368	1°	1464	1°	4379	2°
428	1°	1500	1°	4812	1 3/4°
458	3/4°	1564	3/4°	5108	2°
489	3/4°	1628	1 1/4°	5985	2 1/2°
544	3/4°	1765	1 1/4°	6384	6°
613	3/4°	1883	1°	6457	6°
678	3/4°	2070	3/4°	6843	7°
771	3/4°	2194	1 1/4°	7188	6 1/2°
856	1 1/2°	2288	1 1/4°	7624	8 1/2°
898	1°	2536	1 1/2°	8785	11 1/2°
963	1°	2661	1 3/4°	8890	6 1/2°
1024	3/4°	2755	2°	9220	6 1/2°
1088	3/4°	2883	2°	9418	6°
1151	1°	2945	2 1/4°		

ELECTRIC LOG TOPS

Formation	Depth	Datum
Morrison	Surface	
Entrada	507	+3623
Carmel	663	+3467
Navajo	820	+3310
Kayenta	1275	+2855
Wingate	1412	+2718
Chinle	1600	+2530
Shinarump	1840	+2290
Moenkopi	1920	+2210
Coconino	2550	+1580
Cutler	2848	+1282
Permian Carb	3130	+1000
Honaker Trail	3963	+167
Paradox	4940	-810
Paradox Salt	5175	-1045
Base of Salt	8903	-4773
Molas	9120 - 32	-4990
Leadville	9157	-5027
Total Depth	9514	-5383

DRILL STEM TESTS

#1 3,442 - 3,480 feet

Initial open 30 minutes, shut in 60 minutes, final open 120 minutes, final shut in 225 minutes. Weak blow increased to moderate in 30 minutes and remained steady throughout. Recovered 190 feet of fluid (100' mud, 90' water). Sampler recovered 2150 cc water, .112 cubic feet gas at 90 pounds surface pressure. Water resistivity .24 at 60° F. BHT 94°.

Initial flow pressure - 14-41
Initial shut in pressure - 1289
Final flow pressure -- 55 - 110
Final shut in pressure - 1371
Hydrostatic pressure - 1743 - 1743

#2 3,630 - 3,650 feet

Initial open 30 minutes, shut in 60 minutes, final open 60 minutes, final shut in 150 minutes. Weak blow, dead in 5 minutes, remained dead. Recovered 10 feet mud. BHT 98°

Initial flow pressure - 13 - 13
Initial shut in pressure - 13
Final flow pressure - 13-13
Final shut in pressure - 13
Hydrostatic pressure - 1743 - 1743

#3 3,945 - 4,000 feet

Open 30 minutes, shut in 60 minutes, open 120 minutes, final shut in 245 minutes. Weak blow on initial open. Strong steady blow on final open. Recovered 40 feet mud. Sampler recovered 1150 cc mud. No pressure. Resistivity 1.57 at 74°.

Flow pressure - 8/14 initial, 22/28 final
Shut in pressure - 316 initial, 1771 final
Hydrostatic - 1881 initial, 1881 final

#4 4,175 - 4,232 feet

Open 30 minutes, shut in 60 minutes, final open 120 minutes, final shut in 195 minutes. Recovered 120 feet mud, 200 feet sli GCMCSW, 421 feet SGCSW Sampler recovery 120 cc mud, 300 cc SW, resistivity .085 ohm at 68°. BHT 106° F

Initial flow pressure - 28-110
Final flow pressure - 124-357
Shut in pressure - 1854 initial, 1881 final
Hydrostatic pressure - 2088 initial, 2075 final

#5 5,940 - 6,000 feet

Open 30 minutes, shut in 60 minutes, open 60 minutes, final shut in 135 minutes. Strong initial blow. Final flow opened with a strong blow, died in 50 minutes. Recovered 195 feet of salt water cut mud. BHT 116°

Initial flow pressure - 129-134
Initial shut in pressure - 282
Final flow pressure - 134-134
Final shut in pressure - 308
Hydrostatic pressure - 3269-3282

#6 6,347 - 6,384 feet

Open 30 minutes, shut in 60 minutes, final open 90 minutes, final shut in 180 minutes. Strong blow on initial open. Final flow opened with a strong blow, decreased to weak in 30 minutes, died in 75 minutes. Recovered 105 feet salt water cut mud. BHT 119°

Flow pressure - 110-96 initial
Initial shut in pressure - 357
Final flow pressure - 96-110
Final shut in pressure - 302
Hydrostatic pressure - 3503-3503

#7 6,754 - 6,843 feet

Open 30 minutes, shut in 60 minutes, final open 60 minutes, final shut in 135 minutes. Initial flow opened with a strong blow, decreased slightly in 30 minutes. Final flow opened with a very weak blow, died in 10 minutes. Recovered 205 feet drilling mud. BHT 119°

Initial shut in pressure - 137
Initial flow pressure - 110-124
Final flow pressure - 124-124
Final shut in pressure - 137
Hydrostatic pressure - 3712

#8 7,577 - 7,624 feet

Initial open 30 minutes, shut in 60 minutes, final open 120 minutes, final shut in 240 minutes. Recovered 3152 feet HGCWCM. Sampler recovered 2150 cc HG & WCM at 75 psi. BHT 120°

Initial flow pressure - 220-357
Initial shut in pressure - 727
Final flow pressure - 522-837
Final shut in pressure - 1289
Hydrostatic pressure - 4118-4062

#9 9,160 - 9,225 feet

Open 30 minutes, shut in 60 minutes, final open 60 minutes, final shut in 135 minutes. Recovered 160 feet of drilling mud. Weight 10.4, resistivity .80 at 62°. BHT 165°

Initial flow pressure - 102-123
Initial shut in pressure - 2596
Final flow pressure - 123-143
Final shut in pressure - 3869
Hydrostatic pressure - 4937-4957

#10 9,225 - 9,280

Initial open 30 minutes, shut in 60 minutes, final open 120 minutes, final shut in 250 minutes. Strong blow decreased to moderate in 2 hours. No gas to surface. Recovered 8,600 feet salt water, resistivity .68 at 71°, weight 9.5. Sampler recovery 2200 cc salt water. BHT 160°

Initial flow pressure - 716-2192
Initial shut in pressure - 4212
Final flow pressure - 2414-4212
Final shut in pressure - 4212
Hydrostatic pressure - 5038-4998

#11 4,005 - 4,030 feet

Straddle test with Lynes inflatable packer. Open 30 minutes, shut in 60 minutes, final open 120 minutes, final shut in 225 minutes. Opened with a strong blow on initial flow, no gas to the surface. Final flow opened with a strong blow, gas to the surface immediately, too small to measure. Gauged maximum 3 MCFPD at 1 1/2 pounds surface pressure on 1/8" choke in 90 minutes. Recovered 2484 feet gas and water cut mud. Bottom packer failed. Misrun.

#12 4,010 - 4,024 feet

Straddle test by Lynes. Open 30 minutes, shut in 90 minutes, final open 120 minutes, final shut in 225 minutes. Opened with a strong blow. Gas to surface in 10 minutes, too small to measure. Final flow opened very weak (2"H_2O), gas immediately, too small to measure. Blow decreased to dead in 75 minutes. Recovered 25 feet slightly gas cut mud.

Initial flow pressure - 32-32
Initial shut in pressure - 43
Final flow pressure - 32-32
Final shut in pressure - 43
Hydrostatic pressure - 2159/2159

#13 4,770 - 4,800 feet

Straddle test with Lynes inflatable packers. Open 30 minutes, shut in 90 minutes, final open 120 minutes, final shut in 225 minutes. Strong immediate blow decreasing slightly in 30 minutes. Final open very weak, died in 20 minutes. Recovered 30 feet slightly GC mud. Weight 10.6. Sampler recovery 700 cc MCSW at 23 psi. BHT 112°

Initial hydrostatic pressure - 2681
Initial flow pressure - 49
Final shut in pressure - 61
Final hydrostatic pressure - 2629

NOTE: All other pressures could not be read in the field. There was no indication on the chart where the tool opened and closed.

COMMENTS

This well was drilled as a combination structure and stratigraphic prospect with the Coconino Sandstone, Cutler Formation and Permian Carbonates as primary objectives. The Mississippian Leadville formation is also productive at Salt Wash Field, seven miles to the southeast.

Rigging up was started on December 28, 1972, but mechanical problems and very adverse weather conditions delayed drilling operations out from under surface casing until January 12, 1973.

A 12 1/4 inch hole was drilled to 2,070 feet at which point Dual Induction Laterolog, Integrated Sonic log and 9 5/8 inch intermediate casing were run to total depth. To this point, no shows of gas or oil were recorded and no tests were run. There were no serious problems with lost circulation up to this point.

Minor shows of tar and dead oil were found in the Coconino Sandstone. Also, a strong flow of relatively fresh water was encountered in this formation. The volume was estimated to be 100 bbls. per hour. Chlorides were in the 8000 to 9000 ppm range.

Several small shows of gas were recorded in the Permian Carbonates and were tested either during drilling, by conventional methods, or after logging, by straddle tests. No hydrocarbons were recovered.

Upon penetrating the Paradox Salt, the background gas readings increased several fold and remained high throughout the salt interval. Several of the clastic breaks in the salt section were tested on the basis of increased gas readings but recovered only mud. It is my opinion that the gas came from dark grey and black, lignitic shales. These shales lacked permeability and porosity and thus became high pressure - low volume reservoirs which continued to slowly bleed in to the mud system, causing the background readings to remain high.

The Mississippian rocks consisted of crystalline dolomite with excellent porosity and permeability. Unfortunately, they were void of any shows and yielded a large volume of salt water on a test.

Structurally, this well ran approximately 650 feet high to the Superior Number 22-34, Salt Wash Field well at the base of the salt and on the top of the Leadville formation. Being water wet and without shows, this indicates two separate reservoirs. It also indicates possible production if the reservoir can be located at a higher structural position.

Water samples were delivered to Mountain Fuel's office in Salt Lake City, and cuttings samples were shipped by common carrier to American Stratigraphic Company in Denver, Colorado.

LITHOLOGY

240-270	SS bff med grn sub rdd loose grains tr SLTST red
270-300	SS pnk vf gr slty sft fri
300-330	SD clr wh qtz f-mg sub rdd loose ark SS pnk a/a
330-360	SS pnk fg sub ang sft fri SD a/a tr SH red
360-390	SD wh clr qtz. fg sub ang lse tr LS wh pnk sft
390-420	SS pnk wh bff fg slty sub ang sft fri p s
420-490	SS wh lt red pnk fg sub ang fri calc tr SH red tr ANHYD
490-510	SS red fg sub rdd sft fri SLTST red shy
507	Entrada
510-520	SS red vfg slty sft ANHYD SLTST lt gy speckled hd
520-550	SLTST red sdy frm
550-560	SD vfg (having to bypass the shaker-mechanical problems with motor pulley) samples not good
560-565	SLTST red sdy sft tr gy hd tr LS wh-pnk SD a/a
565-580	LS pnk-wh sft chalky sdy SLTST a/a SS red fg
580-590	SS red or vfg slty sub ang sft tr SH rd LS a/a
590-600	SLTST red sdy ANHYD SH a/a tr SS wh
600-610	SS lav-red vfg slty hd
610-670	SD or clr qtz mg sub rdd loose tr SLTST red
663	Carmel
670-750	SS bff fg sub ang w s fri tr LS wh tr SLTST gy
750-820	SS bff or a/a tr limonite SLTST red & gy LS a/a
820	Navajo
820-850	SS bff-or wh f-mg sub ang hd fri tr DOLO wh
850-870	SS a/a with tr pnk CHT & Pyrite
870-880	SS bff or wh fg a/a
880-900	SS bff or a/a tr pyrite tr DOLO tr SLTST gy

900-960	SS wh pnk gy fg sub ang calc tr glavc tr LS tr SLTST gy sdy
1000-1020	SS or wh a/a
1020-1050	SS wh or fg sli glavc tr SH grn sft GYP wh
1050-1080	SS wh pnk fg glavc sft tr SH grn rust sft
1080-1110	SS clr qtz fg ang fri SH brn lav grn sft GYP wh
1110-1120	SS rusty f-mg ang fri 30% SH brn-lav
1120-1130	SS red brn a/a
1130-1160	SS clr rust mg ang sli glavc fri 30% SH a/a
1160-1180	ANHYD pnk shy earthy sft SS & SH a/a
1180-1200	ANHYD a/a SLTST gy sdy SH red grn SS clr-pnk
1200-1210	SLTST red sdy sft
1210-1220	SS pnk vfg slty glavc, GYP pnk
1220-1240	SS wh-pnk f-mg sub ang tr SLTST red
1240-1260	SS wh fg sub ang tite fri GYP stringers
1260-1280	SS red pnk fg a/a IB SH red
1275	Kayenta
1280-1340	SS or fg sub ang glavc fri tr SH red
1340-1350	SS wh a/a tr SH & GYP
1350-1400	SS red-or vfg slty sft mica
1400-1420	SS bff pnk a/a tr SLTST red
1412	Wingate
1420-1430	DOLO pnk sft earthy SS red fg slty
1430-1440	SS red vf-fg slty fri
1440-1450	SS pnk red a/a DOLO stringers
1450-1460	SS pnk fg sub ang mica sft fri DOLO a/a
1460-1470	SS a/a tr SH grn DOLO
1470-1490	SS pnk a/a tr DOLO pnk sft shy
1490-1560	SS or red vf-fg sft fri

1560-1580	SS a/a DOLO pnk sft tr SLTST red
1580-1590	SS pnk & wh a/a DOLO tr GYP wh
1590-1600	SH dk red slty sft SS a/a
1600	Chinle
1600-1610	SLTST red sdy SH a/a
1610-1640	SLTST lav red a/a
1640-1650	SS lav vfg shly sil hd
1650-1660	SS grn gy lav vfg frm sharp tite tr SLTST red
1660-1690	SS red vfg slty sft thin red SH
1690-1700	SH red slty blocky hd tr SS grn vfg hd
1700-1730	SLTST red shy hd
1730-1750	SS red wh vfg slty mica SLTST a/a
1750-1790	SH red slty blocky hd
1790-1840	SH a/a with tr SH grn wxy sft
1840	Shinarump
1840-1850	SLTST dk red shy SH a/a tr SS wh fg hd tite
1850-1860	SS red pnk vf-mg slty p s ang hd SLTST & SH a/a
1860-1880	SS lav pnk cong SH lav red brn SLTST lav tr LS pnk sft earthy
1880-1900	SLTST lav LS wh SH red grn abund clr qtz grains
1900-1910	CLY wh sft SLTST a/a (conglomerate)
1910-1920	Cong CHT qtz varicolored SH & SLTST a/a
1920	Moenkopi
1920-1940	SLTST red lav sdy hd cong a/a
1940-1950	SLTST a/a SS wh fg sub ang hd tite
1950-2030	SLTST a/a thin DOLO bff dns
2030-2050	SLTST red brn sdy mica SH lav
2050-2070	SH red lav grn slty blocky
2070-2100	SLTST red shy tr SS gy hd tite sli pyritic

2100-2130	SH red slty blocky SLTST a/a ANHYD lt gy
2130-2140	SS red vfg slty hd SLTST & SH a/a
2140-2170	SLTST red sdy SH red blocky
2170-2200	SH red slty ANHYD lt gy sft
2200-2220	SH red pnk slty sft
2220-2230	SLTST red pnk SH a/a
2230-2240	SH red brn slty blocky
2240-2250	SLTST red brn sdy sli calc SH a/a
2250-2260	SLTST a/a tr lav SH
2260-2270	SLTST dk lt red brn slty frm SLTST a/a
2270-2290	SH a/a SS lt gy pnk wh vfg hd tite
2290-2300	SS pnk bff gy grn sft pyr
2300-2320	SS gy grn vfg shy pyr calc sft
2320-2330	SS a/a becoming shaley
2330-2350	SS gy wh a/a . SH lt gy pyrite
2350-2364	SH lt gy slty pyritic frm Dolomitic
2364-2368	DOLO wh vf xln sft (blk tar stn good cut, dead oil 12 unit inc)
2368-2380	DOLO a/a no shows
2380-2390	SS lt gy-wh vfg tite Dolomitic pyritic
2390-2410	SLTST brn sdy SS bff vfg tite
2410-2430	SLTST a/a SH red brn
2430-2440	DOLO bff-gy mica xln sdy frm SLTST & SH a/a
2440-2450	SH red brn slty tr gy pyritic
2450-2470	SH a/a IB SS bff DOLO tite
2470-2480	DOLO lt gy bff sdy sft SH a/a
2480-2500	SH & SLTST red brn DOLO a/a
2500-2510	SS bff pnk vfg hd SH brn mar gy slty pyritic

2510-2540	SH red brn gy mar slty fiss SS a/a
2540-2550	SH red brn hd tr CHT pebs & floating coarse SD grains
2550	Coconino
2550-2560	SS bff pnk wh vf-mg cherty hd red SLTST & SH a/a
2560-2570	SS bff wh fg cherty DOLO mica hd
2570- 2580	SS a/a tr SLTST dk gy sdy
2580-2590	SD arkosic crs ang SS a/a SH lt gy DOLO sft
2590-2610	SD clr qtz sub rdd cg ps SS bff hd tr DOLO
2610-2670	SD a/a f-mg tr DOLO wh sli dead oil stn abund pyrite well flowing water @ estimated 100 bbls per hour
2670-2700	SD a/a DOLO with tar SH red thin beds
2700-2790	SD a/a tr cht peb DOLO gy-wh dead oil SLTST gy sdy
2790-2820	SS clr fg sub ang cht DOLO wh earthy SLSTS gy samples are probably not representative becaues of water flow
2820-2840	SLTST dk gy speckled sdy frm DOLO & SD a/a
2840-2850	SS fg sub ang fri DOLO & SLTST a/a
2848	Cutler
2850-2890	DOLO wh sft chkly SLTST a/a SD clr fg
2890-2900	SS clr- gy fg DOLO & SLTST a/a
2900-2920	SS bff gy fg hd tite CHT or DOLO a/a tr red SH
2920-2950	SLTST gy speckled sdy tr red SS & DOLO a/a
2950-2970	SLTST red sdy SS pnk bff fg SH red brn
2970-3050	SLTST a/a mica SH red brn CHT cgl
3050-3080	SLTST red mica SH red brn frm LS pnk sft
3080-3090	SLTST & SH a/a tr LS lt gy
3090-3100	LS lt gy pnk sft shy SLTST & SH a/a
3100-3110	DOLO pnk gy bff sft shy SLTST & SH a/a
3110-3120	SH red brn slty DOLO a/a
3120-3130	LS bff gy pnk mica xln shy sft

Permain Carbonates

3130	Elephant Canyon
3130-3140	LS a/a thin SH interbeds
3140-3150	LS gy bff mic xln sft shy sdy in part
3150-3160	LS a/a IB SH silver sft DOLO
3160-3170	LS lt gy a/a IB SLTST gy-wh vfg calc tr dead oil-tar
3170-3180	SH brn red lav slty sub-fiss mic
3180-3190	LS lt gy bff mic xln sft sli argill SH a/a
3190-3200	LS dk - lt gy mic xln frm SH blk slty sli calc
3200-3220	SH blk slty calc LS a/a
3220-3260	LS lt & dk gy mic xln frm slty
3260-3310	LS a/a CHT gy bff SH blk slty
3310-3340	LS lt gy brn mic xln hd slty SS gy vfg hd vitreous CHT a/a
3340-3360	LS a/a tr red SH
3360-3370	LS lt gy mic xln v/sdy argill cherty
3370-3380	DOLO dk-lt gy sdy sft SH dk gy mic calc
3380-3390	SLTST dk gy sdy hd tr CHT
3390-3400	SLTST a/a gy CHT LS lt gy argill foss
3400-3410	SS gy fg slty sub rdd hd mic pyritic
3410-3426	LS lt gy mic xln sdy hd SS a/a CHT bff
3426-3430	CHT dk gy; LS a/a with oil odor tr flour faint cut, 40 units gas inc
3430-3442	DOLO lt gy mic xln frm possible frac & vvg por IB SS lt gy vfg
3442-3458	DOLO lt gy mic xln sli succrosic sdy with 43 units inc tr flour very sli cut
3458-3465	DOLO gy brn slty with DOLO a/a
3465-3470	SS dk gy fg slty mic hd tite
2470-2480	SS lt & dk gy a/a LS bff mic xln hd CHT bff brn

3480-3500	DOLO dk gy v/slty mic xln hd DOLO lt gy CHT dk lt
3500-3510	LS wh mic xln chlky CHT a/a IB SLTST red lt gy
3510-3530	SS bff fg DOLO sft LS bff mic xln SLTST a/a
3530-3540	SS gy slty vfg mic hd SS a/a
3540-3550	DOLO lt gy mic xln slty
3550-3570	DOLO dk gy slty argill tr CHT tr SH blk slty
3570-3590	DOLO gy brn slty hd CHT gy brn
3590-3610	LS lt gy sdy frm sli foss SLTST grn gy sdy
3610-3628	DOLO bff lt gy pnk mic xln sdy sft
3628-3635	SLTST red brn DOLO blk dead oil stain no f good cut 106 units gas inc
3635-3640	SS clr -f-cg and ps tite with dead oil O.S. 88 units gas inc SLTST a/a DOLO
3640-3650	SS pnk f-mg and ps slty mic with 12 units gas inc
3650-3670	SS dk gy brn vfg slty v/mic frm
3670-3680	LS lt gy mic xln dns sli chkly tr SS pnk fg
3680-3690	SS lt gy pnk vfg slty v/mic fri LS a/a
3690-3710	SS a/a IB SH blk red slty LS a/a
3710-3730	SLTST red brn sdy v/mic LS lt gy mic xln argill SH dk
3730-3750	SS lt gy pnk slty mic SLTST & SH a/a
3750-3760	SS lt gy vfg slty DOLO mic
3760-3770	SS a/a DOLO dk gy slty
3770-3780	SS gy pnk vf-mg ps ang y/mic tite
3780-3790	LS dk gy mic xln argill chty hd
3790-3800	SS med gy vfg v/limey micro mic hd
3800-3810	SLTST blk sdy hd SS a/a tr LS bff mic xln sli foss
3810-3820	LS dk gy mic xln sli frag foss SLTST a/a pyritic
3820-3830	SLTST blk sdy hd SS lt gy fg mic pyr

3830-3844	SLTST & SS a/a LS blk slty chty pyr
3844-3848	LS lt gy sdy sft with 58 units gas inc SLTST blk a/a
3848-3855	LS lt gy mic xln sli frag chkly in part CHT lt gy
3855-3880	LS blk mic xln slty hd
3880-3900	LS dk & lt gy mic xln dns tr lt gy CHT
3900-3920	LS lt & dk gy a/a sli frag tr SLTST gy
3920-3947	LS lt brn mic xln dns cherty SLTST a/a
3947-3950	DOLO brn vf xln succrosic with gd stn f cut por gas 320 units
3950-3960	SS lt gy-wh vf-mg sub rdd glavc mic hd IB SH gy
3963	Honaker Trail
3960-3985	SS a/a with tr SS pnk mic tr LS bff dns
3985-3990	SS dk gy vfg slty frm
3990-4000	LS dk gy slty & bff crs xln sdy sft
4000-4010	SS lt gy fg slty vitreous tite DOLO
4010-4030	SS a/a ANHYD wh tr CHT dk gy
4030-4040	ANHYD wh gy sft gran SLTST dk gy sdy
4040-4050	ANHYD & SLTST a/a LS dk gy bff mic xln hd slty
4050-4060	LS dk brn mott mic xln argill chty with tr LS tan crypto xln dens fract
4060-4070	LS a/a IB SS wh ANHYD wh
4070-4090	LS dk gy brn mott ANHYD SLTST dk gy
4090-4100	LS dk brn tan mott mic xln slty frm foss CHT smokey
4100-4110	LS dk gy brn vf xln slty hd tr CHT & ANHYD
4110-4130	LS a/a abund CHT
4130-4150	LS brn gy mott vf xln slty abund CHT
4150-4160	LS dk brn vg xln argill hd CHT a/a
4160-4170	LS a/a ANHYD wh clr
4170-4177	DOLO lt gy fn xln frag frm tr ANHYD
4177-4183	DOLO a/a with 75 units gas inc

4183-4186	DOLO, no shows
4186-4192	DOLO, lt gy, fn xln, frag, argill, firm; tr anhyd
4192-4209	DOLO, dk brn, f xln, argill, hd, no show
4209-4214	SS, wh, fg, sbl, tite w/tr f & 240 unit gas increase
4214-4218	DOLO, as above
4218-4224	SS, as above, fair por, light oil stain, gd f & cut & ordor, 340 unit gas increase.
4224-4226	DOLO, as above
4226-4230	SS, as above, tite, tr f & cut, 200 units gas
	DST #4
4230-4240	DOLO, dk brn, fn xln, slty w/dolo, bff, mic xln; cht gy
4240-4250	DOLO, as above; tr sh, red, anhyd; cht, orange, wh
4250-4260	DOLO, blk, dolo, hd
4260-4270	SLTST, blk, dolo, hd
4270-4280	SS, lt gy, vfg, sb rdd, hd, tite, glauc, calc, Siltst as above
4280-4290	SS & SLTST as above; anhyd, sft, wh
4290-4300	LS, dk brn, gy, mic xln, v/slty; tr sh, blk
4300-4320	SS, lt gy-wh, vfg, calc, firm, tite; sltst, dk gy
4320-4340	LS, gy brn, slty-shy, brittle w/ls, dk brn, mic xln, hd, chty
4340-4350	LS, dk gy-brn, f xln, frag, slty firm
4350-4370	SLTST, dk gy, sdy, calc, hd; ls as above
4370-4380	SLTST, as above; w/tr ss, wh, fg
4380-4390	SS, gy-wh, fg, sbl, glauc, mic; sltst as above
4390-4410	SS, as above, w/tr f in sli break 4397-4400. 100 unit gas increase
4410-4420	LS, dk gy, mic xln, slty, firm; sltst, dk gy
4420-4440	LS, dk & lt gy, mic xln, as above, foss
4440-4450	LS, lt gy, mic xln, slty; abund cht

4450-4460	SS, lt gy, vfg sb rdd, hd, chty, mic sli glauc; cht as above
4460-4470	LS, lt gy, mic xln, firm, chty in part, dolomitic
4470-4480	LS, as above becoming sandy
4480-4490	LS, as above, w/tr sh, blk lignitic
4490-4500	SH, blk; sltst, dk gy, sdy, hd
4500-4520	LS, dk brn, gy, vf xln, slty, hd
4520-4540	LS, lt gy, mic xln, sandy, sft
4540-4560	LS, gy brn, mott, vf xln, cherty; tr anhyd
4560-4580	LS, lt gy, frag, slty, f xln; cht, wh; anhyd
4580-4600	LS, gy brn, mott, f xln, argill
4600-4610	SS, lt gy, vfg, sb rdd, mic, tite, no shows
4610-4620	SS, red, vfg, slty w/ss as above
4620-4632	LS, dk gy, hd, chty, sdy, w/ls, wh, chalky
4632-4643	DOLO, bff, m xln, succ, gd por, no show
4643-4650	LS, lt gy, mott, f xln, sli grag, sdy in part
4650-4660	SH, red, hd, sltst, red, sdy
4660-4670	SS, gy, rusty, pnk, fg, v/mic, tite
4670-4698	LS, gy brn, mic xln, mott, slty
4698-4705	DOLO, bff, f m xln, sdy, sft, porous, no shows
4705-4710	SS, clrqtz, tr grn, m-cg, ang, vitreous, tite; dolo as above
4710-4730	DOLO, dk brn, mic xln, limey, slty; cht wh; anhyd, wh
4730-4750	DOLO, bff, sdy, sft; cht & anhyd as above
4750-4770	DOLO, gy brn, argill, sft
4770-4780	DOLO as above; anhyd, wh-clr
4780-4790	DOLO, dk brn, mic xln, slty, hd
4790-4800	LS, dk brn, mott, mic xln
4800-4810	LS, as above; cht, wh
4810-4830	LS, dk brn, mott, slty, mic xln, hd; cht; anhyd, wh

4830-4840	DOLO, gy tan, mic xln, argill, hd; sh, blk, slty
4840-4850	DOLO, lt gy, sdy, hd; cht, wh; anhyd, wh
4850-4900	DOLO, dk gy brn, f xln, argill; anhyd, white
4900-4920	LS, dk brn, f xln, slty, firm w/ls, bff, mic xln, dns
4920-4940	LS, as above; cht, wh; ss, gy, fg, dolomitic
4940	Paradox
4940-4950	DOLO, bff, mic xln, argill, frag, sft, good por
4950-4960	DOLO, as above; ls, dk brn, slty; sh, blk; sltst, lt gy, sdy, dolo
4960-4970	SS, gy brn, vf-fg, sft; ls and sh as above
4970-4990	LS, gy brn, mic xln; sltst, dk gy, sft
4990-5000	DOLO, dk brn, slty, mic xln; anhyd, wh
5000-5010	DOLO, gy brn, slty; anhyd 20%
5010-5020	LS, gy, brn, bff, mic xln, slty-sdy; sh blk, slty
5020-5030	LS, as above; anhyd, wh
5030-5080	LS, dk gy, mic xln, slty-shy, sft; anhyd, wh
5080-5100	LS, as above; dolo, tan, crypto xln, foss; anhyd wh
5100-5110	LS, dk & lt gy, mic xln, slty, dns; anhyd as above
5110-5120	LS, bff, lt gy, slty, mic xln, w/ls as above; anhyd as above
5120-5130	LS, as above, v/anhydritic
5130-5160	LS, dk gy, v/argill, mic xln, hd; tr cht, & anhyd
5160-5173	LS, as above; IB ss, lt gy, vfg, sft, fri
5175-	Salt
5173-5185	Salt
5220-5230	Salt
5230-5268	Salt
5268-5290	No samples. No cuttings up after trip at 5276'

5290-5310	SLTST, lt gy, sdy sft; sh, blk, slty, mushy; tr ls, dk brn, firm
5310-5328	SS, lt gy, tan, vfg; anhyd, wh, firm; ls dk brn, mic xln, dense slty
5328-5400	Salt
5400-5500	Salt
5500-5600	Salt
5600-5700	Salt
5700-5800	Salt
5800-5900	Salt
5900-5929	Salt
5929-5960	SS, lt gy,wh, vfg, slty, calc; ls, dk brn, mic xln
5960-5970	SLTST, lt gy, sdy, sft
5970-5980	SLTST, dk gy, as above; tr sh, blk, slty
5980-6000	SLTST, as above; with 170 unit gas increase, no flo or cut
	DST #5
6000-6020	SH, blk, slty, sft; tr ss, wh, fg, tite
6020-6050	No samples (salt?)
6050-6080	SLTST, tan, gy, sdy, v/sft; dolo, gy, slty; sh as above
6080-6100	SH, blk, sft, gummy. Gas increase 90 units
6100-6110	SLTST, lt gy tan, sdy, dolo, sft-firm
6110-6120	SH, blk, slty, sft
6120-6132	SH, as above; dolo, wh, sft, chalky
6132-6166	Salt
6166-6180	SLTST, lt gy brn, sdy, sft-firm; sh, blk, slty, dolo
6180-6190	LS, lt brn, v/sdy, firm; anhyd, wh
6190-6200	SLTST, gy brn, sdy, sft; sh, blk, slty

6200-6210	SS, gy brn slty frm, DOLO ; SLTST & SH as above
6210-6228	SS, as above, abund salt
6228-6300	Salt
6300-6330	Salt
6330-6340	SLTST, lt gy brn, sdy sft; SH blk, slty
6340-6345	SLTST as above; ANHYD white
6345-6365	SS, tan, sft, por, gas increase 92 units, no other s
6365-6370	LS, gy tan , mic xln, dns; ANHYD, white
6370-6385	SH, blk, slty; ANHYD, white;
	DST #6
6385-6410	SH, blk, slty, calc; SLTST, gy brn, sdy; ANHYD white
6410-6450	Salt
6450-6500	Salt
6500-6550	Salt
6550-6594	Salt
6594-6610	SH, blk, slty, sft, gummy
6610-6620	SH, blk, sft, gummy; ANHYD, white, sft
6620-6626	SLTST, lt gy; SH & ANHYD as above
6626-6650	Salt
6650-6707	Salt
6707-6716	SH, blk, sft; LS, dk brn, mic xln; ANHYD, white, sft
6716-6733	Salt
6733-6740	SH, blk, sft, slty; SLTST, lt gy brn, sdy, sft
6740-6760	SLTST, as above; ANHYD, white
6760-6770	SH, blk, slty, gummy; 350 units gas increase
6770-6779	SLTST, lt gy brn, sdy, sft, dolomitic
6779-6795	SLTST, as above; with 90 unit gas increase; LS, lt
6795-6800	SH, blk, calc

6800-6903	Salt
	DST #7
6903-6910	SH, blk, slty, sft; SLTST, brn gy tan, sft, DOLO; ANHYD
6910-6920	SLTST, lt gy, sft, DOLO; ANHYD, white; SH as above
6920-6950	SLTST as above becoming sli sdy; ANHYD & SH as above
6950-6960	SS, lt gy tan, vfg, slty; DOLO, bff, mic xln, dns; SH & ANHYD as above
6960-7000	Salt
7000-7102	Salt
7102-7110	SS, dk gy, vfg, shy, sub rdd, hd, tite; SH , blk
7110-7120	SH, blk, slty, blocky, firm
7120-7140	SH as above; SS lt gy, vfg, sub rdd, sft, fri
7140-7148	SH as above; DOLO, lt gy, sft, chalky; ANHYD
7148-7160	Salt
7160-7170	SS, lt gy tan, vfg, slty, firm; SH, blk; DOLO, tan
7170-7200	SH, blk; SS as above
7200-7230	SLTST, lt gy, sdy sft; SH as above
7230-7424	Salt
7424-7430	DOLO, wh-bff, mic xln, chalky, sft, with DOLO, gy, slty; traces SH, blk
7430-7440	SH, blk, slty, blocky, sft, traces pyrite
7440-7454	SH as above; abund ANHYD, white, chalky, sft, calc
7454-7565	Salt
7565-7572	DOLO, bff, chalky, sft, dull yellow f, no cut; SH blk
7572-7585	DOLO, as abovr with 280 unit gas increase
7585-7599	Salt
7599-7603	DOLO, bff, mic xln, earthy, firm, bright yellow f, no cut; 320 unit gas increase
7603-7618	Salt

DST # 8

7618-7630	SS, lt gy, vfg, slty sft; DOLO, buff, chalky; SH, blk, v/pyritic
7630-7650	DOLO as above, very slty; SH, blk; tr ANHYD
7650-7700	Salt
7700-7790	Salt
7790-7811	DOLO, lt-dk gy, sft, shaley, chalky; SH, blk, calc
7811-7840	Salt
7840-7846	SLTST, gy, sdy; DOLO, bff-white, sft, chalky; SH blk
7846-7876	Salt
7876-7892	DOLO, bff-gy, shy, sft, chalky; ANHYD, white
7892-7917	Salt
7917-7926	DOLO as above; SH, blk
7926-8000	Salt
8000-8100	Salt
8100-8200	Salt
8200-8247	Salt
8247-8265	SLTST, gy, sdy, sft; LS, lt gy; ANHYD; SH, blk
8265-8453	Salt
8453-8470	SH, blk, hd, slty; SLTST, dk gy, hard, calc; LS, dk gy, mic xln, dns
8470-8500	SLTST, dk-lt gy, firm-sft, calc; SH & LS as above
8500-8520	SLTST & SH as above; ANHYD, white, sft
8520-8528	SS, lt gy brn, vfg, sft, fri, slty; ANHYD as above
8528-8600	Salt
8600-8653	Salt
8653-8666	SLTST, gy brn, mott, very sdy, sft-firm, ANHYD; SH, blk, hd
8666-8700	Salt

8700-8743	Salt
8743-8750	DOLO, dk gy, mic xln, argill, firm, ANHYD
8750-8760	SLTST, dk gy, v/ slty, shy; SH blk; DOLO asaabove
8760-8780	DOLO, dk gy, mott, v/slty, shaley, firm: SLTST as above
8780-8790	LS, dk - lt gy, DOLO, mic xln, chalky, hard
8790-8810	LS, dk-lt gy, mic xln, sdy, hd
8810-8820	LS, lt gy, chslky, shaley, sft; SH, blk, calc, hd
8820-8830	LS as above with LS, blk, mott, shy, firm: ANHYD, white; SLTST, dk gy
8830-8840	LS, white, lt gy, mott, shy, v/slty; ANHYD, white
8840-8850	SH, blk; SS, lt gy, vfg, slty; LS as above
8850-8890	Salt
8890-8910	SS, lt gy, vfg, DOLO, firm, fri; LS, dk gy; SH, blk
8903	Base Salt
8910-8920	DOLO, lt-dk gy, mic xln, argill, hd, ANHYD; SH, blk
8920-8930	DOLO, lt & dk gy as above; abund Salt
8930-8940	SLTST, lt gy, sdy, sft
8940-8960	SLTST as above; abund ANHYD; Salt
8960-8970	LS, med gy, mic xln, sdy, argill, hd, ANHYD
8970-8980	LS, med-dk gy as above
8980-8990	SS, lt gy, vfg, slty; DOLO, hd tite; ANHYD, white, s
8990-9000	SH, blk; DOLO, slty, hd; SLTST, dk gy, sdy
9000-9010	LS, blk, shy-slty, mic xln, hd; SH as above
9010-9030	SLTST, dk gy, sdy; LS as above
9030-9040	LS, lt gy, mic xln, sdy in part, sft, mushy in part
9040-9060	LS, lt-dk gy, mic xln, as above
9060-9070	LS, dk brn, mic xln, hd, tr vug por, tr frac

9070-9080	LS as above with LS, lt gy, shaley, sft
9080-9090	LS, lt gy, mic xln, sdy, firm
9090-9100	LS, dk gy brn, slty, mic xln, hd
9100-9110	LS, med gy, mic xln, shy, sft, with LS as above
9110-9120	LS, lt gy, shaley, v/soft; tr SH, blk
9120	Molas
9120-9132	LS, lt gy, fn xln, sli, frag, firm with LS, brn, mic xln, chty, hd, frac
9132-9150	SH, gy grn pnk, sft, calc; SLTST, grn pnk; LS as abo
9150-9160	LS, bff, white, vf-mic xln, firm, chty in part; CHT, smokey; SLTST, grn
9160-9170	LS, bff, white, f-mic xln, calcite, sft, no apparent por
9170-9180	LS as above with lt brn, tr red LS, vf xln, sft, suc
9180-9190	LS, gy brn, vf xln, sft; CHT, brn
9190-9200	LS, bff-lt gy, f-mic xln, dns; CHT as above; SLTST grn; SH, blk, red
9200-9210	LS, bff-white, f-mic xln, chty in part; tr SH blk,
9210-9225	DOLO, lt brn, vf xln, succ, sft, fair por; no F or
	DST #9
9225-9230	LS, tan, f-xln, DOLO, firm; ANHYD with salt casts; SH, blk
9230-9240	DOLO, tan, white, vf xln, frim, tite; CHT, tan
9240-9260	LS, white, bff, mic xln-chalky, dns, calcitic
9260-9270	LS as above, abund calcite rhombs, med
9270-9280	DOLO, wh, tr pnk, mic xln, tr vug por, no shows
	DST #10
9280-9290	DOLO, tan, wh, vf-mic xln, firm, fair por
9290-9310	DOLO, wh, fn xln, firm, good por
9310-9410	DOLO, wh, vf-mic xln, firm, cherty in part, fair po

9410-9430	DOLO, wh, pale gy, fn xln, hd, fair por; SH, blk, slty; tr SS, dk gy
9430-9450	DOLO, wh, fn xln, firm, good xln & vug por
9450-9500	DOLO as above; with DOLO, lt brn, mic xln, dense
	DST # 11

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Utah
LEASE NUMBER
UNIT Skyline Geyser

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* MF - Skyline Geyser

The following is a correct report of operations and production (including drilling and producing wells) for the month of JAN 1973, *19*

Agent's address P. O. BOX 11368 *Company* MOUNTAIN FUEL SUPPLY COMPANY

SALT LAKE CITY, UTAH 84111 *Signed* J. Murphey

Phone 328-8315 *Agent's title* CHIEF ACCOUNTANT

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DATE PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
MF - Skyline Geyser #1-25 - Utah 528										
NW NW 25	22S	16E	1-25							Spud January 6, 1973 3,659' Drilling

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 Wildcat

2. NAME OF OPERATOR
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
660' FNL, 585' FWL NW NW

5. LEASE DESIGNATION AND SERIAL NO.
Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
—

7. UNIT AGREEMENT NAME
—

8. FARM OR LEASE NAME
Mt. Fuel-Skyline Geyser

9. WELL NO.
1-25

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NW NW 25-22S-16E., SLB&M

12. COUNTY OR PARISH
Grand

13. STATE
Utah

14. PERMIT NO.
43-019-30124

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 4132.10' GR 4120'

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) Supplementary history			XX
(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.) *

Depth 4145', drilling.
DST #1: 3442-3480', Permian, IO ½ hour, ISI 1 hour, FO 2 hours, FSI 3-3/4 hours, opened with weak blow on both openings, no gas, recovered 100' mud and 90' water.
IHP 1743, IOFP's 13-41, ISIP 1289, FOFP's 55-110, FSIP 1371, FHP 1743.

DST #2: 3630-3650', Permian, IO ½ hour, ISI 1 hour, FO 1 hour, FSI 2½ hours, opened weak, dead in 5 minutes, reopened dead, no gas, recovered 10' mud.
IHP 1743, IOFP's 13-13, ISIP 13, FOFP's 13-13, FSIP 13, FHP 1743.

DST #3: 3945-4000', Permian, IO ½ hour, ISI 1 hour, FO 2 hours, FSI 245 minutes, opened weak continuing, reopened strong, no gas, recovered 40' mud.
IHP 1881, IOFP's 8-14, ISIP 316, FOFP's 22-28, FSIP 1771, FHP 1881.

18. I hereby certify that the foregoing is true and correct
SIGNED B. W. Crofts TITLE Vice President, Gas Supply Operations DATE Feb. 5, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Utah
LEASE NUMBER 528
UNIT Geyser Area

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* MF - Skyline Geyser

The following is a correct report of operations and production (including drilling and producing wells) for the month of FEB 1973, *19*----,

Agent's address P. O. BOX 11368 *Company* MOUNTAIN FUEL SUPPLY COMPANY

SALT LAKE CITY, UTAH 84111 *Signed* D. Murphey

Phone 328-8315 *Agent's title* CHIEF ACCOUNTANT

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
			MF - Skyline Geyser #1-25 - Utah 528							
NW NW 25	22S	16E	1-25							Spud January 6, 1973 8,898' Drilling

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side).

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: Utah 528

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: Wildcat

7. UNIT AGREEMENT NAME: -

2. NAME OF OPERATOR: Mountain Fuel Supply Company

8. FARM OR LEASE NAME: MF-Skyline Geyser

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

9. WELL NO.: 1-25

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' FNL, 585' FWL NW NW

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: NW NW 25-22S-16E., SLB&M

14. PERMIT NO.: 43-019-30124

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 4132.10' GR 4120'

12. COUNTY OR PARISH: Grand

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*	X	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Supplementary history			X
(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.)

TD 9508', rig released 3-14-73.

DST #4: 4175-4232', Honaker Trail, IO ½ hour, ISI 1 hour, FO 2 hours, FSI 3¼ hours, opened weak increasing to fair on both openings, no gas, recovered 421' water cut mud.
IHP 2088, IOFP's 28-110, ISIP 1854, FOFP's 124-357, FSIP 1881, FHP 2075.

DST #5: 5940-6000', Paradox salt, IO ½ hour, ISI 1 hour, FO 1 hour, FSI 2¼ hours, opened strong on both openings, no gas, recovered 195' salt water.
IHP 3269, IOFP's 129-134, ISIP 282, FOFP's 134-134, FSIP 308, FHP 3282.

DST #6: 6347-6384', Paradox, IO ½ hour, ISI 1 hour, FO 1½ hours, FSI 3 hours, opened strong on both openings, no gas, recovered 105' water cut mud.
IHP 3503, IOFP's 110-96, ISIP 357, FOFP's 96-110, FSIP 302, FHP 3503.

DST #7: 6754-6843', Paradox, IO ½ hour, ISI 1 hour, FO 1 hour, FSI 2¼ hours, opened strong, reopened very weak, no gas, recovered 205' mud.
IHP 3712, IOFP's 110-124, ISIP 137, FOFP's 124-124, FSIP 137, FHP 372.

DST #8: 7577-7624', Paradox salt, IO ½ hour, ISI 1 hour, FO 2 hours, FSI 4 hours, opened weak increasing to strong on both openings, no gas, recovered 3152' mud.
IHP 4118, IOFP's 220-357, ISIP 727, FOFP's 522-837, FSIP 1289, FHP 4062.

* Continued on reverse

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

SIGNED B. W. Crafter TITLE Vice President, Gas Supply Operations DATE March 27, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

DST #9: 9160-9225', Mississippi, IO ½ hour, ISI 1 hour, FO 1 hour, FSI 2¼ hours, opened moderate, reopened very weak, no gas, recovered 160' mud. IHP 4937, IOFP's 102-123, ISIP 2596, FOFP's 123-143, FSIP 3869, FHP 4957.

DST #10: 9225-9280', Miss., IO ½ hour, ISI 1 hour, FO 2 hours, FSI 250 minutes, opened strong, reopened medium strong, no gas, recovered 8600' salt water, IHP 5038, IOFP's 716-2192, ISIP 4212, FOFP's 2414-4212, FSIP 4212, FHP 4998.

DST #11: 4005-4030', straddle test, Honaker Trail, mis-run, packer failed.

DST #12: 4010-4024', Honaker Trail, straddle test, IO ½ hour, ISI 1½ hours, FO 2 hours, FSI 3-3/4 hours, opened strong decreasing not enough to gauge, reopened weak decreasing, recovered 25' mud. IHP 2159, IOFP's 32-32, ISIP 43, FOFP's 32-32, FSIP 43, FHP 2159.

DST #13: 4770-4800' straddle test, Honaker Trail, IO ½ hour, ISI 1½ hours, FO 2 hours, FSI 3-3/4 hours, opened strong decreasing, reopened weak, no gas, recovered 30' gas cut mud. IHP 2681, FP 49, SIP 61, FHP 2669.

Verbal approval was granted on March 10, 1973 by Mr. Burchell with the Utah Dept. of Natural Resources and on March 12, 1973 by Mr. Guynn with the U.S.G.S. during a telephone conversation with Mr. Colson with Mt. Fuel to plug and abandon the subject well as follows:

Plug No. 1: 9200-9100', 35 sacks
Plug No. 2: 8100-8000', 35 sacks
Plug No. 3: 6600-6500', 35 sacks
Plug No. 4: 5000-4900', 35 sacks
Plug No. 5: 4000-3900', 35 sacks
Plug No. 6: 2900-2800', 35 sacks
Plug No. 7: 2100-2000', 35 sacks
Plug No. 8: 65 sacks between 9-5/8" and 13-3/8" casing
Plug No. 9: 10 sacks in surface pipe.

MAR 29 1973

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

U.S. GOVERNMENT PRINTING OFFICE: 1968—O-685229
847-485

COMPLETION REPORT

Well: MF-Skyline #1-25 Geyser Date: March 23, 1973

Area: Geyser Lease No: Utah 528

[X] New Field Wildcat [ ] Development Well [ ] Shallower Pool Test

[ ] New Pool Wildcat [ ] Extension [ ] Deeper Pool Test

Location: 660 feet from north line, 585 feet from west line

NW ¼ NW ¼

Section 25, Township 22 South, Range 16 East

County: Grand State: Utah

Operator: Mountain Fuel Supply Company

Elevation: KB 4132.10' Gr 4120' Total Depth: Driller 9508' Log 9513'

Drilling Commenced: January 6, 1973 Drilling Completed: March 8, 1973

Rig Released: March 14, 1973 Well Completed: March 14, 1973

Sample Tops: (unadjusted)

Curtis	335	Moenkopi	1920	Molas	9132
Entrada	510	Coconino	2290	Leadville	9155
Carmel	820	Perm Carb	3120		
Navajo	1260	Honaker Trail	4030		
Kayenta	1470	Paradox	4710		
Wingate	1650	Salt	5230		
Chinle	1900	Base Salt	8890		

Log Tops:

Entrada	505	Coconino	2550
Carmel	665	Cutler	2848
Navajo	820	Perm Carb	3130
Kayenta	1275	Honaker Trail	3963
Wingate	1412	Paradox	4950
Chinle	1600	Salt	5175
Shinarump	1840	Base Salt	8903
Moenkopi	1895	Molas	9120
		Leadville	9157

Sample Cuttings:
101' dry cut surface pipe to TD, stored in Core House, Rocksprings, Wyoming

Status: D & A

Producing Formation: NA

Perforations: NA

Stimulation: NA

Production: NA

Plug Back Depth: NA

Plugs: 9200-9100, 8100-8000, 6600-6500, 5000-4900, 4000-3900, 2900-2800, 2100-2000

Hole Size:

Casing/Tubing: 13-3/8" csg @ 230.91' w/275 sx; 9-5/8" csg @ 2056.83' w/550 sx cmt

Logging - Mud: 250-9512'

Mechanical: DIF 229-2065'; Acoustilog 300-2058', 2158-9504'; SN Gamma Ray 5000-9512'; Acoustilog F 2058-9512'; Laterolog 2058-9506'; Diplog 8000-9511'

Contractor: Loffland Brothers Company

Completion Report Prepared by: S. S. Lange

Remarks:

COMPLETION REPORT (cont.)

Well: MF-Skyline #1-25 Geyser

Area: Geyser

Cored Intervals (recovery):

Tabulation of Drill Stem Tests:

No.	Interval	IHP	IFP (min.)	ISIP (min.)	FFP (min.)	FSIP (min.)	FHP	Samples Caught	Remarks
1	3442-3480	1760	16-38 (32)	1311 (59)	59-100 (119)	1381 (225)	1739	Water	Rec. 100' mud, 90' water
2	3630-3650	1750	7-7 (30)	11 (60)	7-7 (60)	10 (150)	1747		Rec. 10' mud
3	3945-4000	1884	19-19 (32)	334 (58)	22-23 (120)	1778 (245)	1867		Rec. 40' mud
4	4175-4232	2099	15-121 (29)	1856 (59)	130-375 (122)	1887 (195)	2099	Water	Rec. 120' mud, 200' SG & MCSW, 421' Sli GCS
5	5940-6000	3260	122-136 (28)	297 (63)	133-133 (56)	317 (135)	3226		Rec. 195' WCM
6	6347-6384	3483	91-81 (30)	330 (58)	80-80 (93)	293 (179)	3483		Rec. 105' WCM
7	6754-6843	3725	111-118 (30)	144 (60)	125-125 (60)	146 (135)	3725		Rec. 205' mud
8	7577-7624	4105	239-343 (30)	735 (60)	516-845 (120)	1293 (240)	3980		Rec. 3152' HG & WCM (Leak in drill collars)
9	9160-9225	4981	105-126 (31)	2600 (58)	126-146 (62)	3905 (134)	4981		Rec. 160' mud
10	9225-9280	4966	5360-2186 (29)	4216 (59)	2345-4220 (122)	4220 (252)	4962		Rec. 8600' SW
11	4005-4030	2141	54-63	2124	63-1326				Misrun, bottom packer failed, Straddle packer, GTS immed. on second open 3 Mcf, rec. 2484' mud
12	4010-4024	2159	32-32 (30)	43 (90)	32-32 (120)	43 (225)	2159		Straddle packer test, rec. 25' mud
13	4770-4800	2681	49	61			2669		Straddle packer test, rec 30' mud, 700 cc. mud-cut SW in sample chamber

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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 Wildcat

2. NAME OF OPERATOR
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR
P. O. Box 1129, Rock Springs, Wyoming 82901

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

660' FNL, 585' FWL, NW NW

5. LEASE DESIGNATION AND SERIAL NO.
Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
—

7. UNIT AGREEMENT NAME
—

8. FARM OR LEASE NAME
MF-Skyline Geyser

9. WELL NO.
1-25

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NW NW 25-22S-16E., SLB&M

14. PERMIT NO.
43-019-30104

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 4132.10' GR 4120'

12. COUNTY OR PARISH
Grand

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*	X
REPAIR WELL	☐	CHANGE PLANS	☐				
(Other)				(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.) *

TD 9508', PBD 0', rig released March 14, 1973, well plugged and abandoned as follows:

Plug No. 1: 9200-9100', 35 sacks
Plug No. 2: 8100-8000', 35 sacks
Plug No. 3: 6600-6500', 35 sacks
Plug No. 4: 5000-4900', 35 sacks
Plug No. 5: 4000-3900', 35 sacks
Plug No. 6: 2900-2800', 35 sacks
Plug No. 7: 2100-2000', 35 sacks
Plug No. 8: 65 sacks between 9-5/8" and 13-3/8" casing
Plug No. 9: 10 sacks into top of surface pipe.

A regulation abandonment marker was installed and the location will be cleaned at a later date.

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

SIGNED B. H. Crofts pz TITLE Vice President, Gas Supply Operations DATE March 27, 1973

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: Utah 528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: -

7. UNIT AGREEMENT NAME: -

8. FARM OR LEASE NAME: MF-Skyline Geyser

9. WELL NO.: 1-25

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: NW NW 25-22S-16E., SLB&M

12. COUNTY OR PARISH: Grand

13. STATE: Utah

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 660' FNL, 585' FWL NW NW
At top prod. interval reported below
At total depth

14. PERMIT NO.: 43-019-30124 DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
1-6-73	3-8-73	3-14-73	KB 4132.10' GR 4120'	-

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
9508	0		→	0 - 9508	-

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: D & A

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Induction Laterolog, BHC Sonic-GR, Sidewall Neutron, Dipmeter

27. WAS WELL CORED: No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	48	230.91	17-1/2	275	0
9-5/8	36	2056.83	12-1/4	550	0
			8-3/4		

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

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

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

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

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Vented while testing.

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: Logs as above, Well Completion and Well Lithology will be sent at a later date.

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

SIGNED R. H. Crafter TITLE Vice President, Gas Supply Operations DATE March 27, 1973

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Log tops:		
Curtis	0'	
Entrada	505	
Carmel	665	
Navajo	820	
Kayenta	1275	
Wingate	1412	
Chinle	1600	
Shinarump	1840	
Moenkopi	1895	
Coconino	2550	
Cutler	2848	
Permian Carbonates (undiff)	3130	
Honaker Trail	3963	
Paradox	4950	
Paradox salt	5157	
Lower Paradox	8903	
Leadville	9157	

MAR 26 1973

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636
837-497

FORM OGC-X
FILL IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: MFS - Skyline Geyser #1-25

Operator: Mountain Fuel Supply Company Address: P. O. Box 11368 Salt Lake City

Contractor: Loffland Brothers Company Address: Farmington, New Mexico

Location: NW 1/4 NW 1/4 Sec. 25 T. 22 ~~N~~ S, R. 16 E W, Grand County, Utah

Water Sands: 9 lab reports on formation waters in file

	Depth: From-	To-	Volume: Flow Rate or Head-	Quality: Fresh or Salty-
1.	2585	2605	100 Bbls/hr	Salty
2.	4005	4030	DST Recovery	"
3.	4010	4024	" "	"
4.	4770	4800	" "	"
5.	3442	3480	" "	"

(Continue on reverse side if necessary)

Formation Tops: Entrada 505', Carmel 665', Navajo 820', Kayenta 1275', Wingate 1412', Chinle 1600', Shinarump 1840', Moenkopi 1895', "Coconino" 2550' Cutler 2848', Permian Carbonates 3130', Honaker Trail 3963', Paradox 4950', Salt 5175', Base Salt 8903', Molas 9120', Leadville 9157'

Remarks:

NOTE: (a) Upon diminishing supply of forms, please inform this office.
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (see back of this form)
(c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

FORM OGC-X
FILL IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: MFS - Skyline Geyser #1-25

Operator: Mountain Fuel Supply Company Address: P. O. Box 11368 Salt Lake City

Contractor: Loffland Brothers Company Address: Farmington, New Mexico

Location: NW 1/4 NW 1/4 Sec. 25 T. 22 ~~N~~ S R. 16 ~~E~~ W, Grand County, Utah

Water Sands:

	Depth: From-	To-	Volume: Flow Rate or Head-	Quality: Fresh or Salty-
1.	4175	4232	DST Recovery	Salty
2.	7577	7629	" "	"
3.	9160	9225	" "	"
4.	9225	9280	" "	"
5.				

(Continue on reverse side if necessary)

Formation Tops: Entrada 505', Carmel 665', Navajo 820', Kayenta 1275', Wingate 1412', Chinle 1600', Shinarump 1840', Moenkopi 1895', "Coconino" 2550' Cutler 2848', Permian Carbonates 3130', Honaker Trail 3963', Paradox 4950', Salt 5175', Base Salt 8903', Molas 9120', Leadville 9157'

Remarks

NOTE: (a) Upon diminishing supply of forms, please inform this office.
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (see back of this form)
(c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Company	LAB NO.	9820-6 REPORT NO. 3-673
OPERATOR	Mountain Fuel Supply Company	LOCATION	Section 25-22S-16E
WELL NO.	Geyser 1-25	FORMATION	Coconino
FIELD	Wildcat	INTERVAL	2585-2605
COUNTY	Grand	SAMPLE FROM	DST (Flowline)
STATE	Utah	DATE	March 21, 1973

REMARKS & CONCLUSIONS: Slightly cloudy water with clear filtrate.

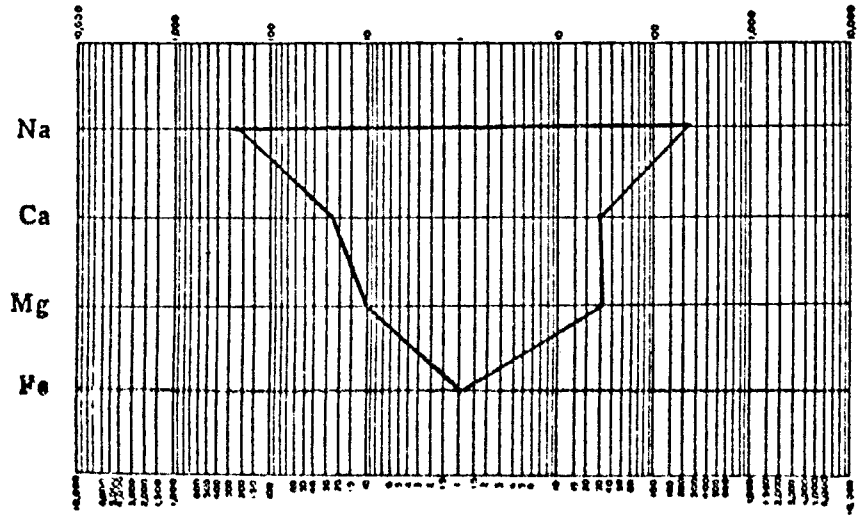
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	5,704	248.14	Sulfate	1,550	32.24
Potassium	170	4.35	Chloride	8,000	225.60
Lithium	-	-	Carbonate	-	-
Calcium	515	25.70	Bicarbonate	1,842	30.21
Magnesium	120	9.86	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		288.05	Total Anions		288.05

Total dissolved solids, mg/l	16,966	Specific resistance @ 68° F.:	
NaCl equivalent, mg/l	15,876	Observed	0.45 ohm-meters
Observed pH	7.5	Calculated	0.43 ohm-meters

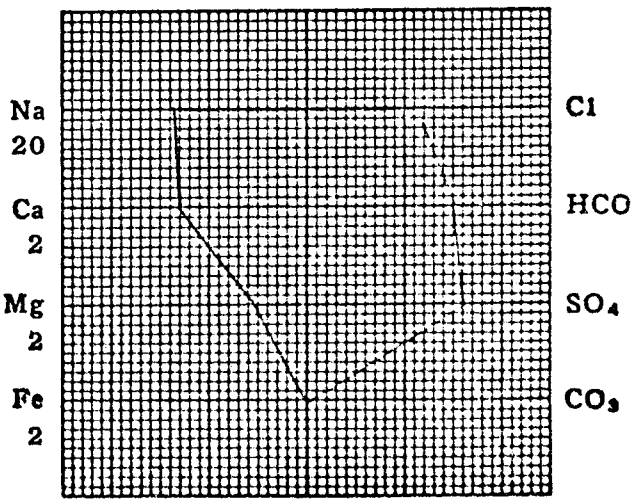
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent by Dunlap & Hawthorne calculation from components

CL1-5i (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER Mountain Fuel Supply Company
OPERATOR Mountain Fuel Supply Company
WELL NO. Geyser 1-25
FIELD Wildcat
COUNTY Grand
STATE Utah

LAB NO. 9820-1 REPORT NO. 3-973
LOCATION Section 25-22S-16E
FORMATION Permian
INTERVAL 3442-3480
SAMPLE FROM DST No. 1 (MFE)
DATE March 21, 1973

REMARKS & CONCLUSIONS: Cloudy water.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	24,363	1059.78	Sulfate	2,850	59.28
Potassium	620	15.87	Chloride	42,000	1184.40
Lithium	-	-	Carbonate	-	-
Calcium	2,450	122.26	Bicarbonate	207	3.39
Magnesium	598	49.16	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		1247.07	Total Anions		1247.07

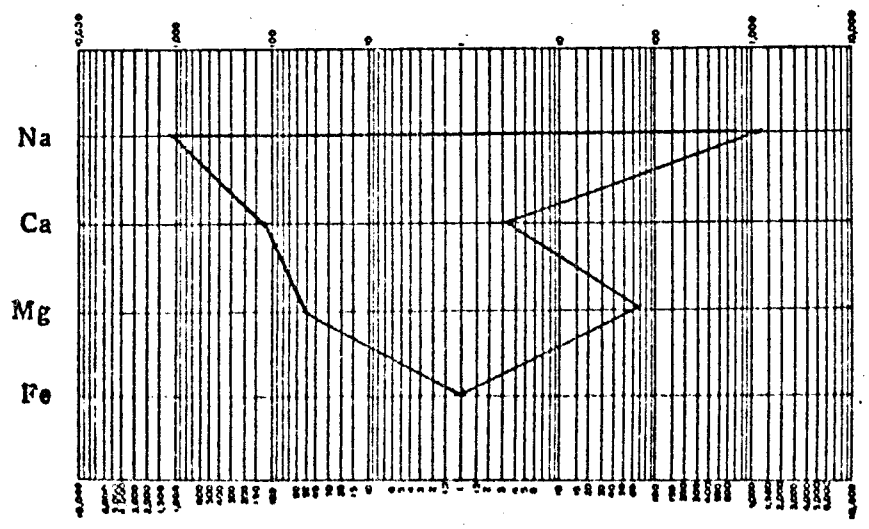
Total dissolved solids, mg/l 72,983
NaCl equivalent, mg/l 71,987
Observed pH 7.4

Specific resistance @ 68° F.:
Observed 0.115 ohm-meters
Calculated 0.105 ohm-meters

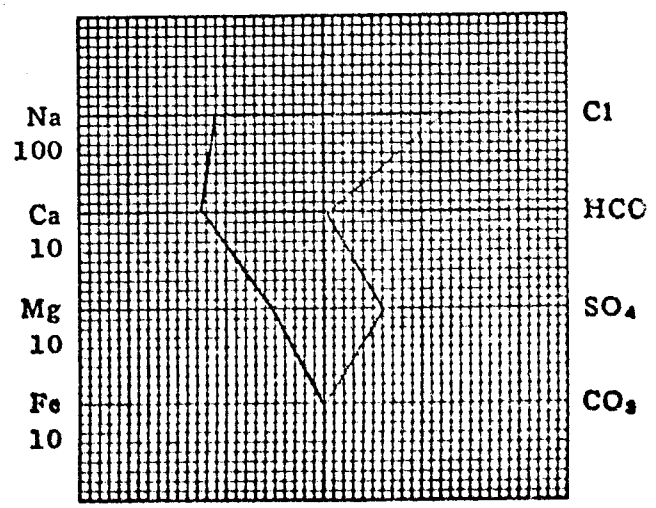
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter
Sodium chloride equivalent by Dunlap & Hawthorne calculation from components

*CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Company	LAB NO.	9820-2
OPERATOR	Mountain Fuel Supply Company	REPORT NO.	3-773
WELL NO.	Geyser 1-25	LOCATION	Section 25-22S-16E
FIELD	Wildcat	FORMATION	Honaker Trail
COUNTY	Grand	INTERVAL	4175-4232
STATE	Utah	SAMPLE FROM	DST No. 4 (Bottom)
		DATE	March 21, 1973

REMARKS & CONCLUSIONS: Cloudy water.

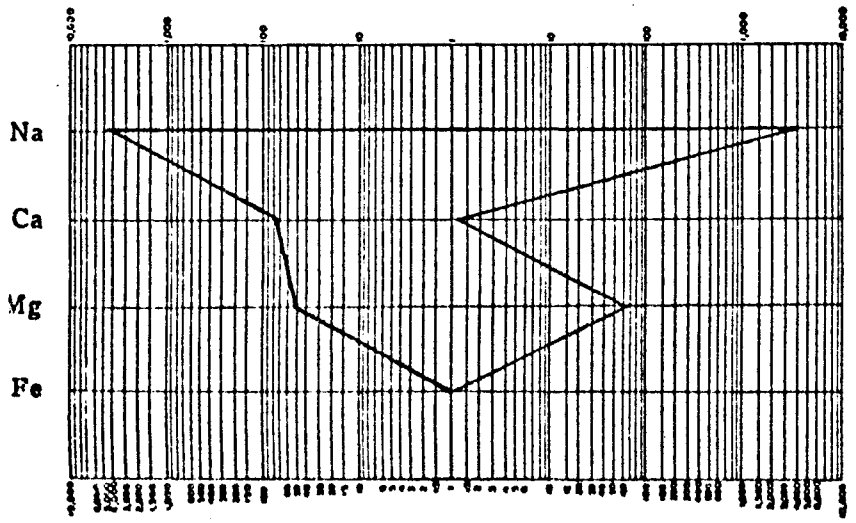
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	86,597	3766.98	Sulfate	3,500	72.80
Potassium	770	19.71	Chloride	136,000	3835.20
Lithium	-	-	Carbonate	-	-
Calcium	1,470	73.35	Bicarbonate	73	1.20
Magnesium	598	49.16	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		3909.20	Total Anions		3909.20

Total dissolved solids, mg/l	228,971	Specific resistance @ 68° F.:	
NaCl equivalent, mg/l	227,729	Observed	0.049 ohm-meters
Observed pH	8.1	Calculated	0.048 ohm-meters

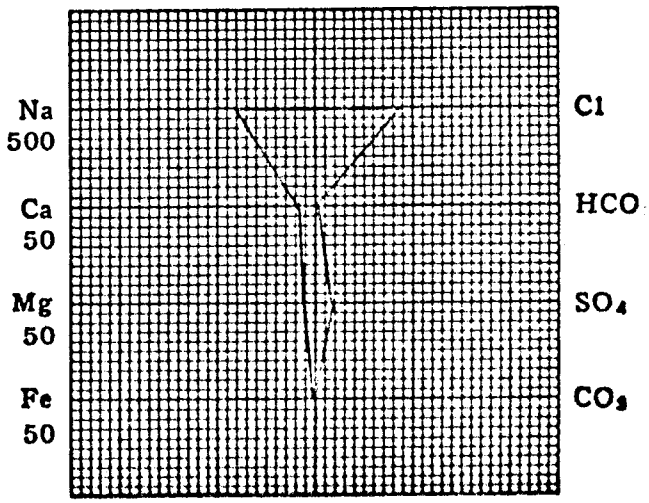
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent = by Dudley & Hawthorne calculation from components

CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Company	LAB NO.	9820-3 REPORT NO.
OPERATOR	Mountain Fuel Supply Company	LOCATION	Section 25-22S-16E
WELL NO.	Geyser 1-25	FORMATION	Paradox
FIELD	Wildcat	INTERVAL	7577-7629
COUNTY	Grand	SAMPLE FROM	DST No. 8 (MFE)
STATE	Utah	DATE	March 21, 1973

REMARKS & CONCLUSIONS: Mud, high water loss, with cloudy filtrate.
Hydroxide contamination noted.
Believe this is mud filtrate.

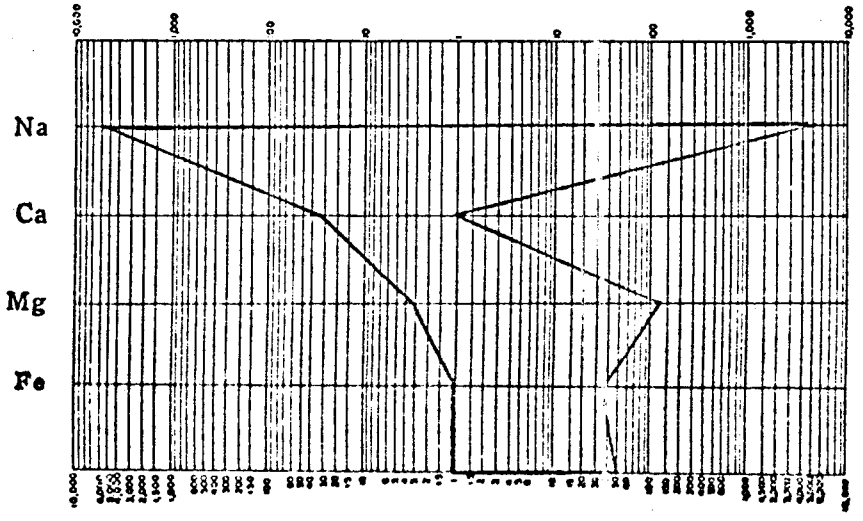
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	119,247	5187.25	Sulfate	6,000	124.80
Potassium	3,500	89.60	Chloride	181,000	5104.20
Lithium	-	-	Carbonate	1,044	34.77
Calcium	637	31.79	Bicarbonate	-	-
Magnesium	45	3.70	Hydroxide	826	48.57
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		5312.34	Total Anions		5312.34

Total dissolved solids, mg/l	312,299	Specific resistance @ 68° F.:		
NaCl equivalent, mg/l	309,584	Observed	0.048	ohm-meters
Observed pH	12.3	Calculated	0.042	ohm-meters

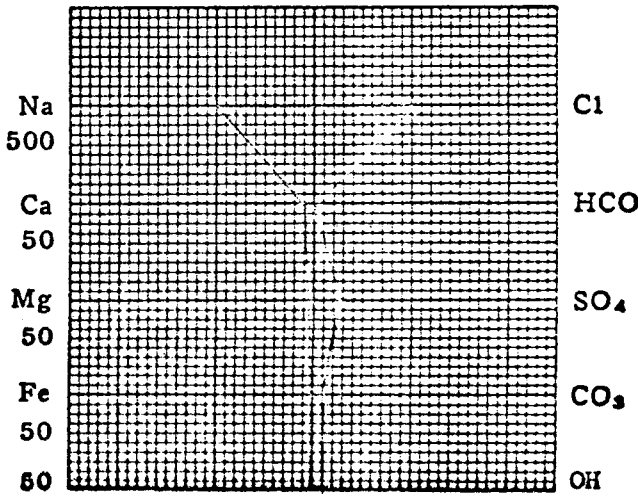
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER Mountain Fuel Supply Company
OPERATOR Mountain Fuel Supply Company
WELL NO. Geyser 1-25
FIELD Wildcat
COUNTY Grand
STATE Utah

LAB NO. 9820-4 REPORT NO.
LOCATION Section 25-22S-16E
FORMATION Leadville
INTERVAL 9160-9225
SAMPLE FROM DST No. 9 (MFE)
DATE March 21, 1973

REMARKS & CONCLUSIONS: Cloudy water.
Hydroxide contaminated.
Believe this is mud filtrate.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	120,669	5249.12	Sulfate	7,500	156.00
Potassium	2,400	61.44	Chloride	182,000	5132.40
Lithium	-	-	Carbonate	312	10.39
Calcium	417	20.81	Bicarbonate	-	-
Magnesium	Trace	-	Hydroxide	554	32.58
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		5331.37	Total Anions		5331.37

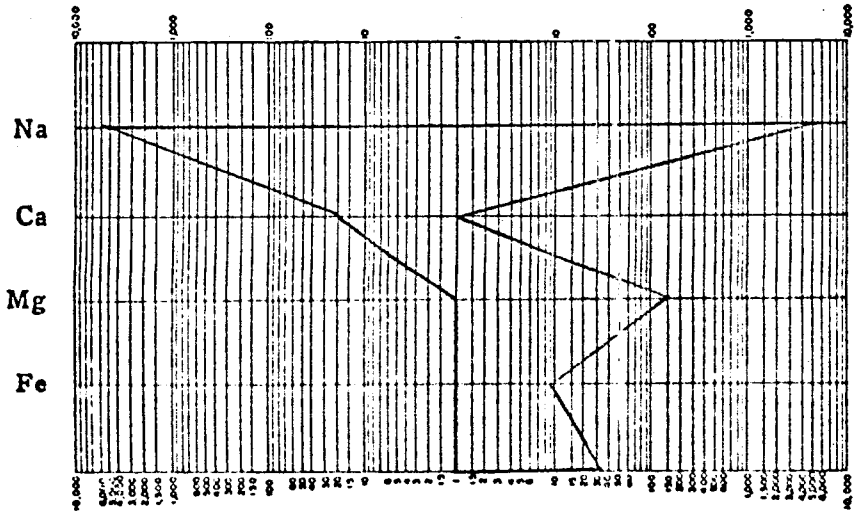
Total dissolved solids, mg/l 313,852
NaCl equivalent, mg/l 310,162
Observed pH 12.3

Specific resistance @ 68° F.:
Observed 0.048 ohm-meters
Calculated 0.042 ohm-meters

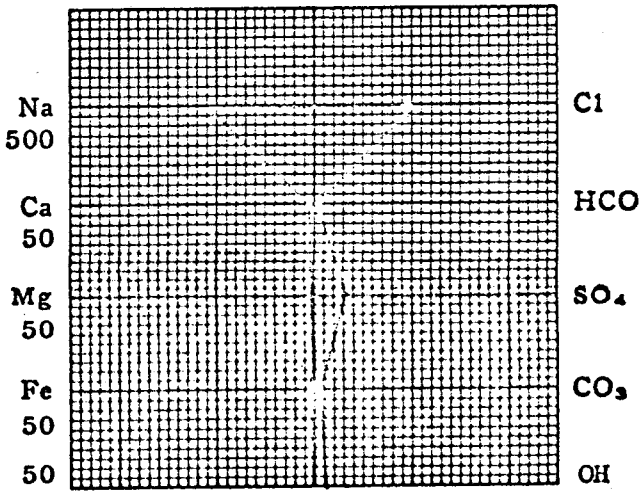
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CL1-B1 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER Mountain Fuel Supply Company
OPERATOR Mountain Fuel Supply Company
WELL NO. Geyser 1-25
FIELD Wildcat
COUNTY Grand
STATE Utah

LAB NO. 9820-5 REPORT NO. 3-873
LOCATION Section 25-22S-16E
FORMATION Leadville
INTERVAL 9225-9280
SAMPLE FROM DST No. 10 (MFE)
DATE March 21, 1973

REMARKS & CONCLUSIONS: Cloudy water.

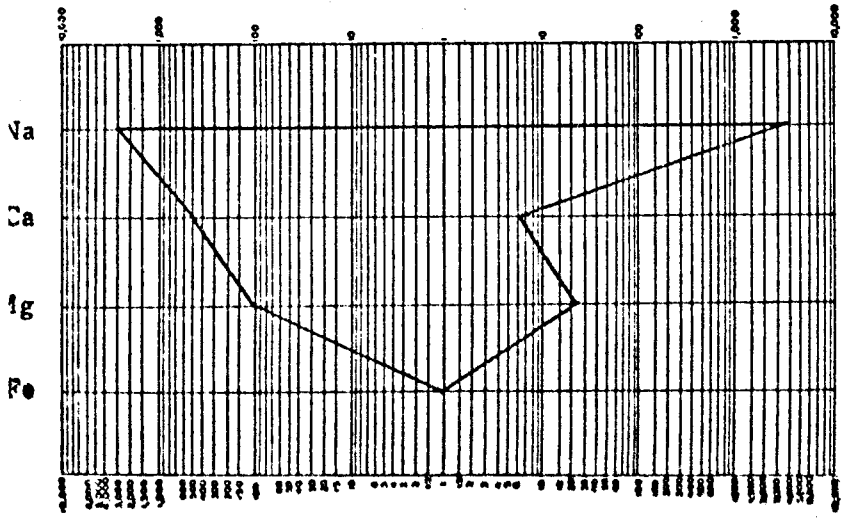
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	64,376	2800.34	Sulfate	1,200	24.96
Potassium	2,700	69.12	Chloride	121,000	3412.20
Lithium	-	-	Carbonate	-	-
Calcium	9,555	476.79	Bicarbonate	451	7.40
Magnesium	1,196	98.31	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		3444.56	Total Anions		3444.56

Total dissolved solids, mg/l	200,249	Specific resistance @ 68° F.:	
NaCl equivalent, mg/l	200,267	Observed	0.055 ohm-meters
Observed pH	6.6	Calculated	0.051 ohm-meters

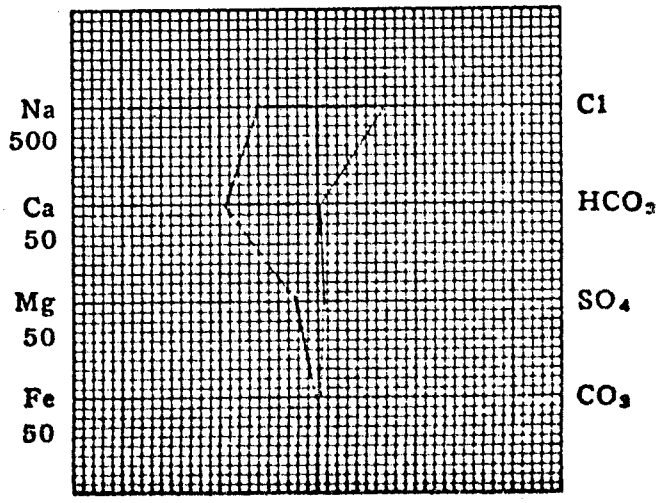
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Co.	LAB NO.	9821-1 REPORT NO.
OPERATOR	Mountain Fuel Supply Co.	LOCATION	NW NW 25-22S-16E
WELL NO.	Geyser 1-25	FORMATION	Honaker Trail
FIELD	Wildcat	INTERVAL	4005 - 4030
COUNTY	Grand	SAMPLE FROM	DST No. 11
STATE	Utah	DATE	Mar. 21, 1973

REMARKS & CONCLUSIONS: Mud, high water loss with cloudy filtrate.

Hydroxide contaminated. This is probably mud filtrate.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	123263	5361.92	Sulfate	14250	296.40
Potassium	2200	56.32	Chloride	180000	5076.00
Lithium	--	--	Carbonate	660	21.98
Calcium	343	17.12	Bicarbonate	--	--
Magnesium	Trace	Trace	Hydroxide	697	40.98
Iron	--	--	Hydrogen sulfide	--	--
Total Cations		5435.36	Total Anions		5435.36

Total dissolved solids, mg/l	321413
NaCl equivalent, mg/l	314442
Observed pH	12.2

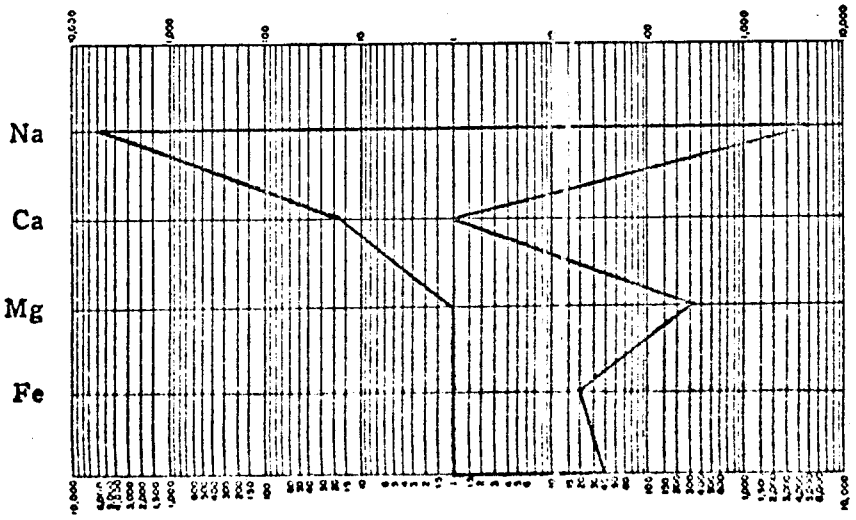
Specific resistance @ 68° F.:

Observed	0.050	ohm-meters
Calculated	0.046	ohm-meters

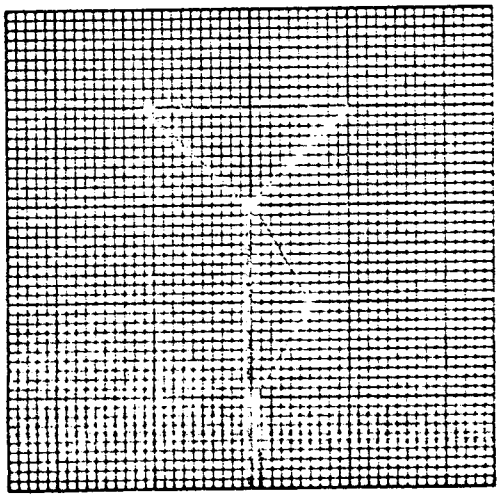
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Co.	LAB NO.	9821-2 REPORT NO.
OPERATOR	Mountain Fuel Supply Co.	LOCATION	NW NW 25-22S-16E
WELL NO.	Geyser 1-25	FORMATION	Ilonaker Trail
FIELD	Wildcat	INTERVAL	4010 - 4024
COUNTY	Grand	SAMPLE FROM	DST No. 12
STATE	Utah	DATE	Mar. 21, 1973

REMARKS & CONCLUSIONS: Mud, high water loss with cloudy filtrate.

Hydroxide contaminated. This is probably mud filtrate.

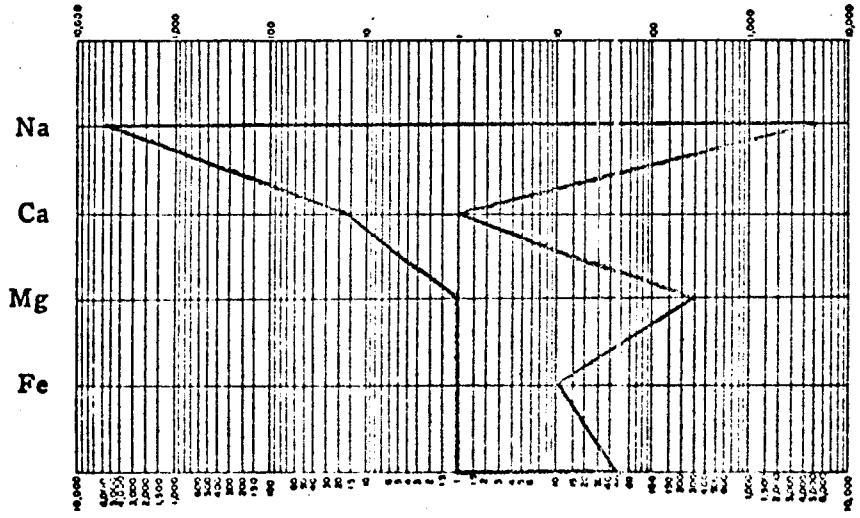
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	122110	5311.77	Sulfate	12000	249.60
Potassium	2100	53.76	Chloride	180000	5076.00
Lithium	--	--	Carbonate	372	12.39
Calcium	333	16.62	Bicarbonate	--	--
Magnesium	Trace	Trace	Hydroxide	751	44.16
Iron	--	--	Hydrogen sulfide	--	--
Total Cations		5382.15	Total Anions		5382.15

Total dissolved solids, mg/l	317666	Specific resistance @ 68° F.:	
NaCl equivalent, mg/l	311746	Observed	0.050 ohm-meters
Observed pH	12.3	Calculated	0.046 ohm-meters

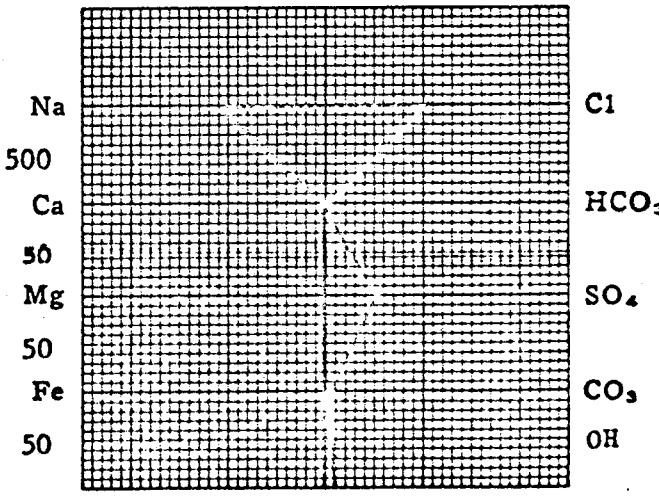
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

CL1-51 (REV. 1966)

CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER	Mountain Fuel Supply Co.	LAB NO.	9821-3 REPORT NO.
OPERATOR	Mountain Fuel Supply Co.	LOCATION	NW NW 25-22S-16E
WELL NO.	Geyser 1-25	FORMATION	Honaker Trail
FIELD	Wildcat	INTERVAL	4770 - 4800
COUNTY	Grand	SAMPLE FROM	DST No. 13
STATE	Utah	DATE	Mar. 21, 1973

REMARKS & CONCLUSIONS: Mud, high water loss with slightly cloudy filtrate.

Hydroxide contaminated. This is probably mud filtrate.

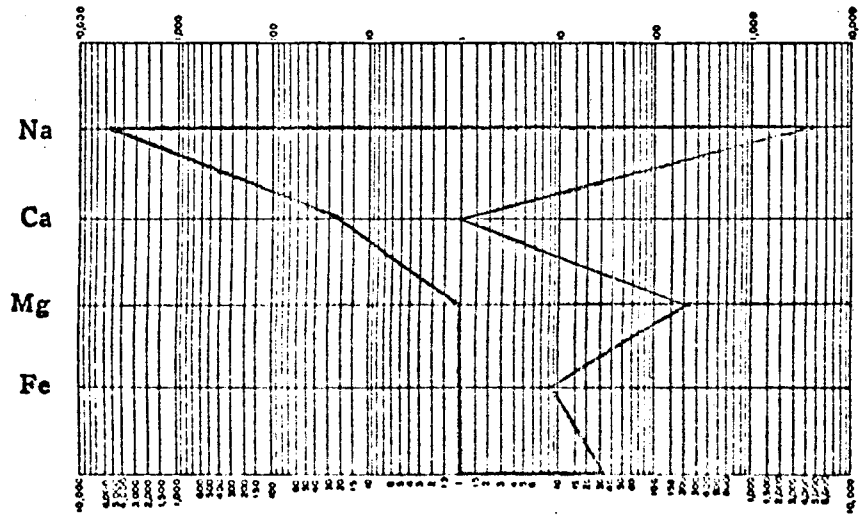
Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	118704	5163.64	Sulfate	12250	254.80
Potassium	1700	43.52	Chloride	175000	4935.00
Lithium			Carbonate	264	8.79
Calcium	441	22.01	Bicarbonate	--	--
Magnesium	Trace	Trace	Hydroxide	520	30.58
Iron	--	--	Hydrogen sulfide	--	--
Total Cations		5229.17	Total Anions		5229.17

Total dissolved solids, mg/l	308879	Specific resistance @ 68° F.:	
NaCl equivalent, mg/l	302801	Observed	0.050 ohm-meters
Observed pH	12.2	Calculated	0.047 ohm-meters

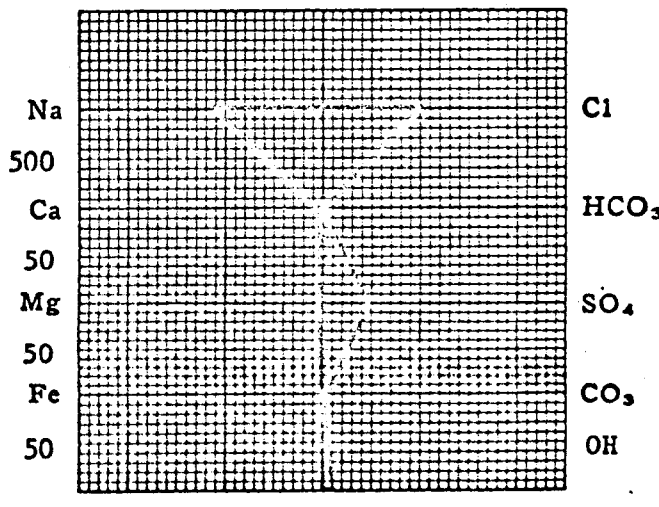
WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC



STANDARD



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter. Meq/l = Milligram equivalents per liter

Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

Budget Bureau No. 42-R356.5.
Approval expires 12-31-60.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Utah
LEASE NUMBER 528
UNIT Geyser Area

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* MF - Skyline Geyser

The following is a correct report of operations and production (including drilling and producing wells) for the month of MAR 1973, *19*....,

Agent's address P. O. BOX 11368 *Company* MOUNTAIN FUEL SUPPLY COMPANY

SALT LAKE CITY, UTAH 84111 *Signed* D. Murphey

Phone 328-8315 *Agent's title* CHIEF ACCOUNTANT

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
	MF - Skyline Geyser #1-25 - Utah 528									
NW NW 25	22S	16E	1-25							Spud January 6, 1973 TD 9,508' Dry and abandoned 3-14-73 Final Report

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
(January 1950)

16—25766-8 U. S. GOVERNMENT PRINTING OFFICE