

FILE NOTATIONS

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

Checked by Chief *RWB*
Approval Letter *8-1-74*
Disapproval Letter ...

COMPLETION DATA:

Date Well Completed *8-31-74*

Location Inspected

W..... WW..... TA.....

Bond released

GW..... OS..... PA..... ✓

State or Fee Land

LOGS FILED

Driller's Log..... ✓

Electric Logs (No.) ✓

E..... F..... Dual I Lat..... GR-N..... Micro.....

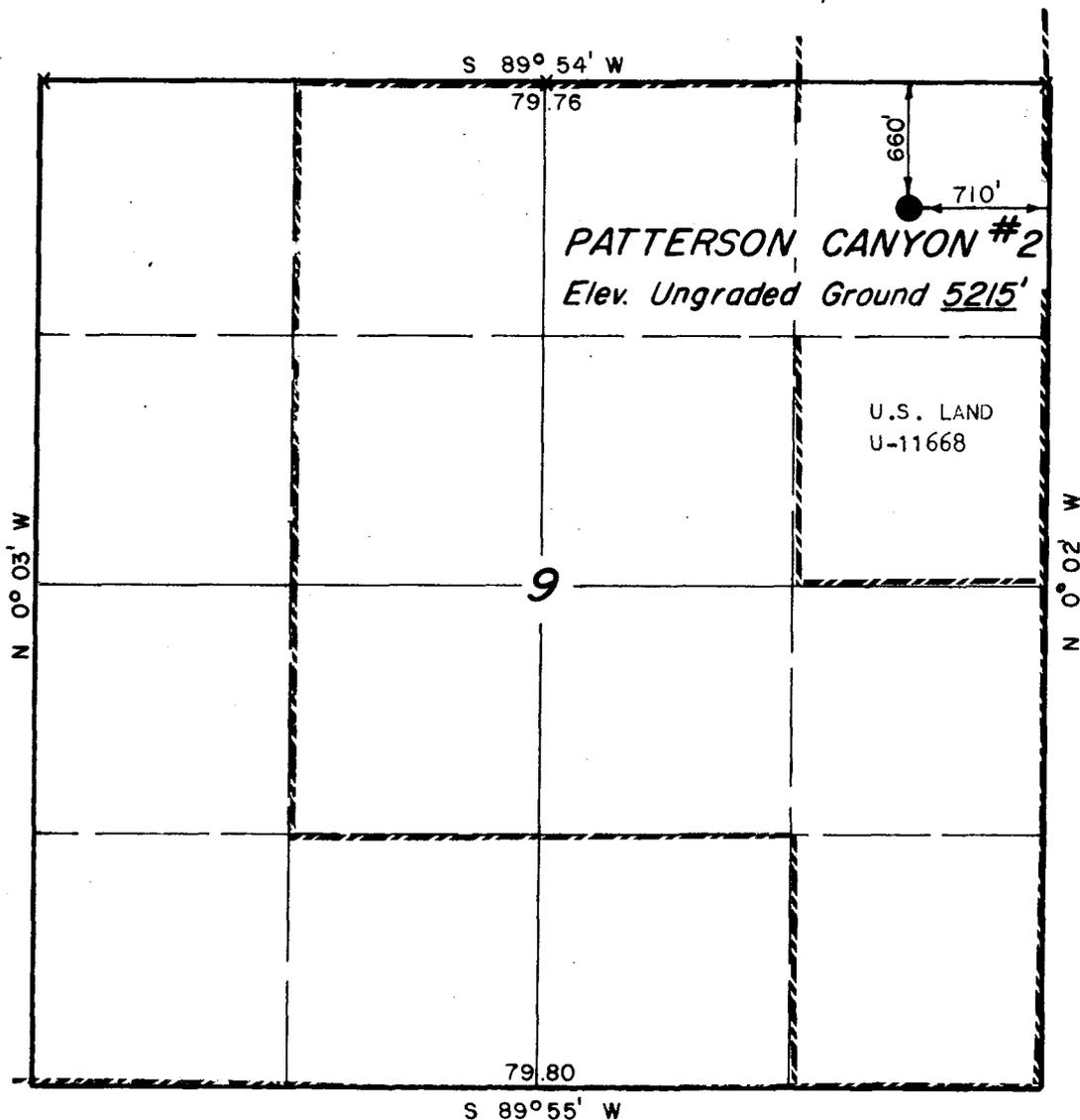
WAC Sonic GR..... Lat..... IR-L..... Sonic.....

CBLog..... CCLog..... Others.....

T38S, R25E, S.L.B. & M.

PROJECT
MOUNTAIN FUEL

Well location, located as shown in the NE 1/4 NE 1/4 Section 9, T38S, R25E, S.L.B. & M. San Juan 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.

David Stewart

REGISTERED LAND SURVEYOR
REGISTRATION NO 3154
STATE OF UTAH

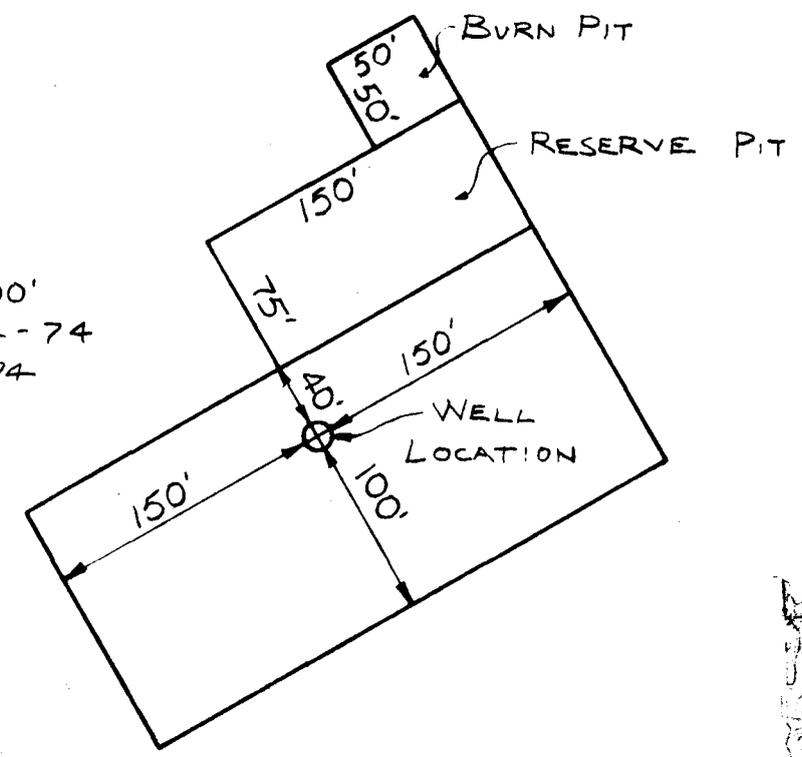
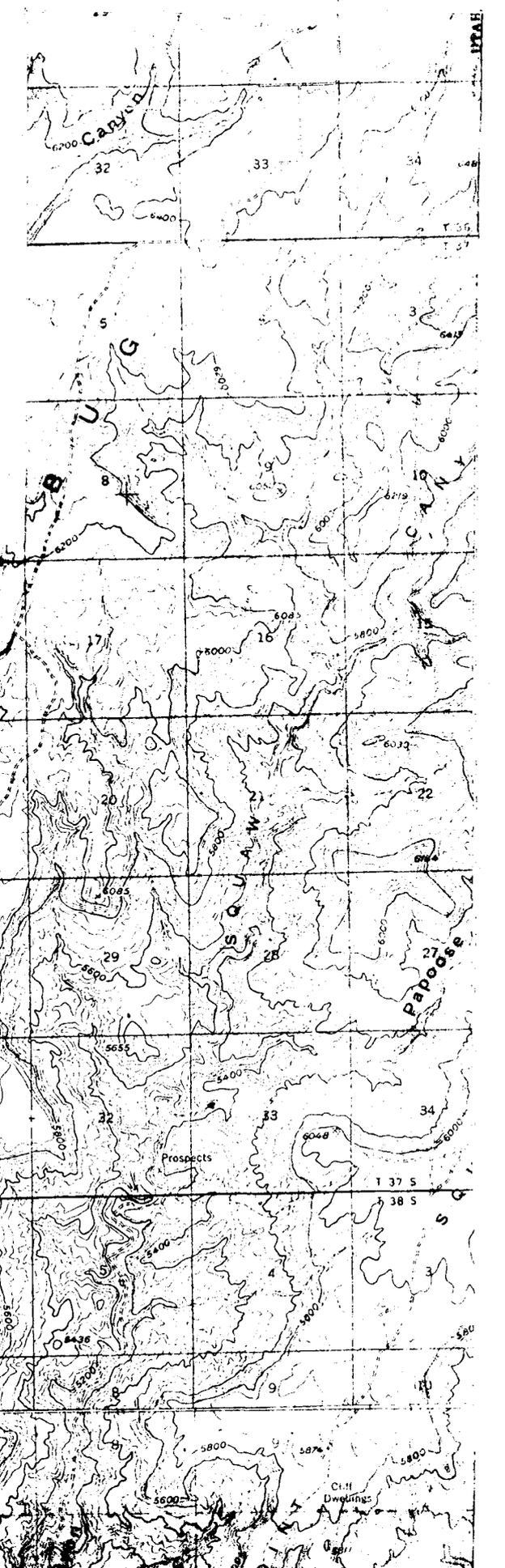
UINTAH ENGINEERING & LAND SURVEYING P. O. BOX Q - 110 EAST - FIRST SOUTH VERNAL, UTAH - 84078			
SCALE	1" = 1000'	DATE	6/25/74
PARTY	GS KS	REFERENCES	GLO PLAT
WEATHER	WARM	FILE	MOUNTAIN FUEL M-116

X = Section corners located.

MOUNTAIN FUEL SUPPLY COMPANY PROPOSED LOCATION LAYOUT FOR SECTION 9

SECTION 9, T38S, R25E, SLB&M.
SAN JUAN COUNTY, UTAH

SCALE 1" = 1 MILE



SCALE 1" = 100'
DATE 6-24-74
REVISED 7-3-74

WIND DIRECTION
EAST

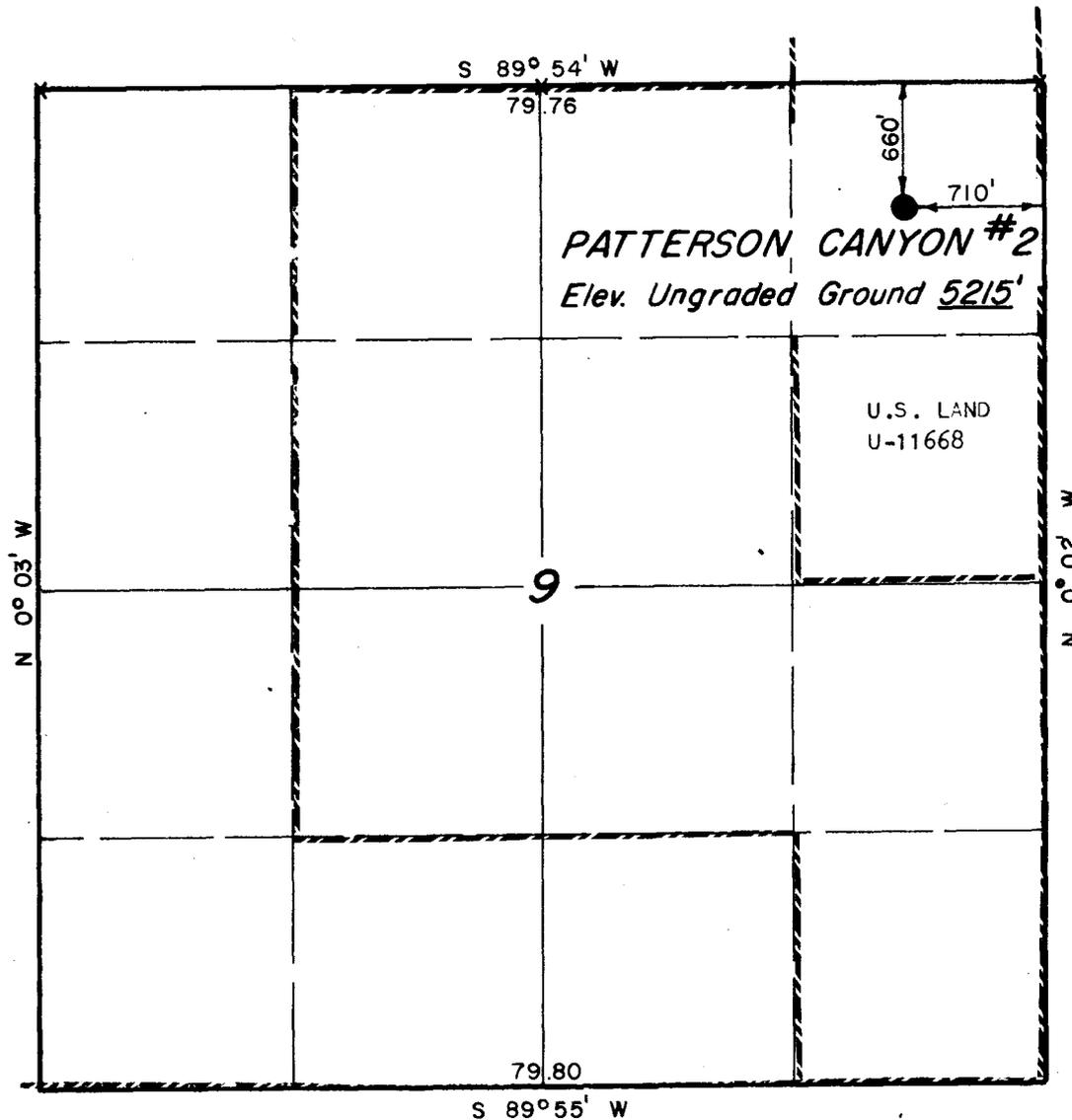
ITEM:

3. NEAREST WELLS
THERE ARE NO KNOWN WELLS WITHIN A RADIUS OF 1/2 MILE.
5. THERE WILL BE NO TANK BATTERY UNLESS THE WELL PRODUCES LIQUID.
6. WATER REQUIRED TO DRILL THIS WELL, WILL BE HAULED FROM PERKINS RANCH
7. WASTE DISPOSAL
ALL WASTE THAT CAN BE BURNED WILL BE BURNED.
ALL OTHER WASTE WILL BE BURIED.
8. CAMPS
THERE WILL BE NO CAMPS.
9. AIRSTRIPS
NO AIRSTRIPS TO BE BUILT.
11. RESTORATION OF SURFACE
ON COMPLETION, PITS WILL BE FILLED, LOCATION WILL BE LEVELLED, REMAINING PRODUCTION FACILITIES WILL BE FENCED, AND DISTURBED AREA WILL BE RESEEDED AS REQUIRED.
12. TOPOGRAPHY
SCATTERED CEDARS + HILLS

PROJECT
MOUNTAIN FUEL

T38S, R25E, S.L.B. & M.

Well location, located as shown in the NE 1/4 NE 1/4 Section 9, T38S, R25E, S.L.B. & M. San Juan 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.

David Stewart

REGISTERED LAND SURVEYOR
REGISTRATION NO 3154
STATE OF UTAH

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

SCALE	1" = 1000'	DATE	6/25/74
PARTY	GS KS	REFERENCES	GLO PLAT
WEATHER	WARM	FILE	MOUNTAIN FUEL M-1167

X = Section corners located.

INTEROFFICE COMMUNICATION

FROM T. M. Colson

Rock Springs, Wyoming
CITY STATE

TO R. G. Myers

DATE July 12, 1974

SUBJECT Tentative Plan to Drill
Patterson Canyon Well No. 2
San Juan County, Utah

Attached for your information and files is a tentative plan to drill the above-captioned well. This plan was written in accordance with the Geologic Prognosis dated June 17, 1974.

TMC/gm

Attachment

cc: J. T. Simon
B. W. Croft
L. A. Hale (6)
A. K. Zuehlsdorff
Geology (2)
D. E. Dallas (4)
J. E. Adney
B. M. Steigleder
E. A. Farmer
U.S.G.S.
State 
Paul Zubatch
P. E. Files (4)

9. Rig up a contract workover rig. Install a 6-inch 5000 psi double gate preventer with blind rams in bottom and 2-7/8-inch rams in top.
10. Pick up a 3-3/4-inch bit and run on 2-7/8-inch O.D., 6.4-pound, J-55 seal lock tubing to plugged back depth. Using Halliburton pump truck and water, pressure test pipe rams and casing to 3000 psi for 15 minutes. The minimum internal yield for 4-1/2-inch O.D., 11.6-pound, J-55 tubing is 5350 psi. Land the tubing on a H-1 tubing hanger and pressure test blind rams to 3000 psi for 15 minutes. Pull tubing, standing same in derrick.
11. After the above items have been evaluated, a tentative plan to complete the well will be finalized.

GENERAL INFORMATION

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

<u>Description</u>	<u>Approximate Gross Measurement (feet)</u>	<u>Availability</u>
	<u>Surface Casing</u>	
10-3/4-inch O.D., 32.75-pound, H-40, 8 round thread, ST&C casing	550	Warehouse stock
	<u>Production Casing</u>	
4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing	5,900	Warehouse stock
	<u>Production Tubing</u>	
2-7/8-inch O.D., 6.4-pound, J-55, seal lock tubing	5,600	Warehouse stock

- II. The salt content of the mud will be checked prior to cementing the 4-1/2-inch O.D. casing to determine if a salt saturated cement will be required.
- III. All ram type preventers will have hand wheels installed and operative at the time the preventers are installed.
- IV. Well responsibility: J. A. Colburn

5. After reaching a total depth of approximately 5600 feet, run a dual induction laterolog (with 2-inch linear, 5-inch logarithmic) integrated sonic gamma ray-caliper log from bottom of surface casing to total depth, and a sidewall neutron log from 4400 feet to total depth. Note: Check salt content of the mud prior to logging to determine if the logging program should be changed.
6. Assuming commercial quantities of gas and/or oil are present, go into hole with 7-7/8-inch bit and condition hole prior to running 4-1/2-inch O.D. casing. Pull and lay down drill pipe and drill collars.

7. Run 4-1/2-inch O.D. casing as follows:

(Top of String in Well)

- A. 5560 feet 4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing.
- B. One Larkin filrite float collar.
- C. One joint 4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing.
- D. One Larkin filrite float shoe.

Run the casing to bottom and pick up one foot. The casing will be cemented with 50-50 Pozmix cement. Cement requirements will be the actual volume as calculated from the caliper log plus 20% excess. Circulate 150 barrels mud prior to beginning cementing operations. The capacity of the 4-1/2-inch O.D. casing is 93 barrels. Rotate casing while circulating, mixing, and displacing cement. Displace cement with water.

8. Immediately after cementing operations are completed, land the 4-1/2-inch O.D. casing with full weight on slips and record indicator weight. Cut off the 4-1/2-inch O.D. casing and install a 10-inch 3000 psi by 6-inch 3000 psi NSCo. Type B tubing spool. Pressure test seals to 2000 psi for 5 minutes. The collapse pressure for the 4-1/2-inch O.D., 11.6-pound, K-55 casing is 4540 psi. Install a steel plate over the tubing spool and release drilling rig.

casing flange and a 2-inch extra heavy bull plug in the opposite side.

Install adequate preventers. After a WOC time of 12 hours, pressure test surface casing and all preventer rams to 1000 psi for 15 minutes using rig pump and mud. The burst pressure rating for the 10-3/4-inch O.D. casing is 1820 psi.

4. Drill a 7-7/8-inch hole to a tentative total depth of 5600 feet or to such other depth as the Geological Department may recommend. A mud desander and desilter will be used from under the surface casing to total depth to remove all undesirable solids from the mud system and to keep the mud weight to a minimum. A fully manned logging unit will be used from 4200 feet to total depth. 10 foot samples will be caught by contractor from surface to 4200 feet and the logging unit will be responsible for catching 10 foot samples from 4200 feet to total depth. The mud system will consist of properties adequate to allow the running of drill stem tests. Three drill stem tests are anticipated starting at a depth of approximately 4800 feet. Anticipated tops are as follows:

	<u>Approximate Depth</u> <u>(Feet KBM)</u>
Morrison	Surface
Summerville	480
Entrada	565
Carmel	725
Navajo	755
Kayenta	1,115
Wingate	1,245
Chinle	1,475
Shinarump	2,300
Moenkopi	2,430
Cutler	2,460
Honaker Trail	4,315
Paradox	4,835
Upper Ismay	5,210
Lower Ismay	5,475
Total Depth	5,600

From: T. M. Colson

Rock Springs, Wyoming

To: R. G. Myers

July 12, 1974

Tentative Plan to Drill
Patterson Canyon Well No. 2
San Juan County, Utah

This well will be drilled to total depth by Loffland Drilling Company. One work order has been originated for the drilling and completion of the well, namely 22091-2, Drill Patterson Canyon Well No. 2. This well is located in the NE NE Sec. 9, T. 38 S., R. 25 E., San Juan County, Utah. The well will be drilled to a total depth of 5600 feet to test the Paradox formation. Surface elevation is at 5215 feet.

1. Drill a 13-3/4-inch hole to approximately 525 feet KBM.
2. Run and cement approximately 500 feet 10-3/4-inch O.D., 32.75-pound, H-40, 8 round thread, ST&C casing. The casing will be cemented with 350 sacks of regular Type G cement which represents theoretical requirements plus 100 percent excess cement for 10-3/4-inch O.D. casing in 13-3/4-inch hole with cement returned to the surface. Cement will be treated with 1645 pounds Dowell D43A. Plan on leaving a 20 foot cement plug in the bottom of the casing after displacement is completed. Floating equipment will consist of a Baker guide shoe. The top and bottom of ten casing collars and the guide shoe will be spot welded in the field. The bottom of the surface casing should be landed in such a manner that the top of the 10-inch 3000 psi casing flange will be at ground level. A cellar three feet deep will be required. Prior to cementing, circulate 75 barrels of mud. Capacity of the 10-3/4-inch O.D. casing is 50 barrels.
3. After a WOC time of 6 hours, remove landing joint. Install a NSCo. Type B 10-inch 3000 psi regular duty casing flange tapped for 10-3/4-inch O.D., 8 round thread casing. Install a 2-inch extra heavy nipple, 6-inches long, and a WKM Figure B138 (2000 psi WOG, 4000 psi test) valve on one side of the

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION

1588 WEST NORTH TEMPLE
 SALT LAKE CITY, UTAH 84116
 328-5771

State Lease No. Utah
 Federal Lease No. 0146520A
 Indian Lease No. _____
 Fee & Pat. _____

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY San Juan FIELD/LEASE Paradox Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of:
JUL 1974, 19____.

Agent's Address P.O. Box 11368
Salt Lake City, Utah 84139

Company Mountain Fuel Supply Company
 Signed D. Murphy
 Title Chief Accountant

Phone No. 328-8315

Sec. and 1/4 of 1/4	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)
			<u>Marvin Wolf - Utah 0146520A</u>				<u>Patterson Canyon</u>		<u>Well No. 1</u>	
<u>NE NW 9</u>	<u>38S</u>	<u>25E</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>Spud April 30, 1974</u> <u>TD 5,818'</u> <u>PBD 5,726'</u> <u>Shut In.</u>

GAS: (MCF)

Sold _____ 0
 Flared/Vented _____ 0
 Used On/Off Lease _____ 0

OIL or CONDENSATE: (To be reported in Barrels)

On hand at beginning of month _____ 0
 Produced during month _____ 0
 Sold during month _____ 0
 Unavoidably lost _____ 0
 Reason: _____ 0
 On hand at end of month _____ 0

August 1, 1974

Mountain Fuel Supply Company
Box 1129
Rock Springs, Wyoming 82901

Re: Well No. Patterson Canyon #2
Sec. 9, T. 38 S, R. 25 E,
San Juan 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

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API Number assigned to this well is 43-037-30201.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sw
cc: U.S. Geological Survey

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

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, 710' FEL NE NE

14. PERMIT NO.
API # 43-037-30201

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GR 5215'

5. LEASE DESIGNATION AND SERIAL NO.
U - 11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
-

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
PATTERSON CANYON

9. WELL NO.
2

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
NE NE 9-38S-25E., SLB&M

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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

NOTICE OF INTENTION TO :		SUBSEQUENT REPORT OF :	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u> <input checked="" type="checkbox"/>	
(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 5697', logging.

Spudded August 6, 1974, landed 10-3/4", 32.75#, H-40 casing at 355.13' and cemented with 355 sacks of cement.

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

SIGNED R. E. Myers TITLE General Manager, Gas Supply Operations DATE August 29, 1974

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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.

U - 11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Patterson Canyon

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Patterson Canyon

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

NE NE 9-38S-25E., SLB&M

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

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

1.

OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

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, 710' FEL NE NE

14. PERMIT NO.

API # 43-037-30201

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

GR 5215'

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Supplementary history

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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

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

TD 5697', rig released 8-31-74.

DST #1: Straddle test 5453-5540', Ismay, IO 1/2 hr, ISI 1 1/2 hrs, FO 2 hrs, FSI 4 hrs, opened very weak continued, no gas, reopened dead continued, no gas, recovered 250' mud. IHP 2693, IOFP's 27-54, ISIP 2348, FOFP's 54-135, FSIP 2269, FHP 2680.

Verbally approval was granted on 8-30-74 during a telephone conversation between Mr. Schmidt with the U.S.G.S. and Mr. Colson with Mt. Fuel and between Mr. Burchell with the Utah Oil & Gas Conservation Commission and Mr. Colson to plug and abandon the subject well as follows:

- Plug No. 1: 5600-5200', 125 sacks
- Plug No. 2: 4400-4300', 35 sacks
- Plug No. 3: 2550-2450', 35 sacks
- Plug No. 4: 1527-1427', 35 sacks
- Plug No. 5: 840-740', 35 sacks
- Plug No. 6: 400-300', 50 sacks
- Plug No. 7: 20 sacks into surface pipe.

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

SIGNED

R. D. Myers

General Manager,

TITLE Gas Supply Operations

DATE Sept. 5, 1974

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

**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.

U - 11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Patterson Canyon

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Patterson Canyon

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

NE NE 9-38S-25E., S1B&M

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

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

1.

OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

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, 710' FEL NE NE

14. PERMIT NO.

API # 43-037-30201

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

GR 5215'

18.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(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 5697', PBD 0', rig released 8-31-74, well plugged and abandoned as follows:

- Plug No. 1: 5600-5200', 125 sacks
- Plug No. 2: 4400-4300', 35 sacks
- Plug No. 3: 2550-2450', 35 sacks
- Plug No. 4: 1527-1427', 35 sacks
- Plug No. 5: 840-740', 35 sacks
- Plug No. 6: 400-300', 50 sacks
- Plug No. 7: 20 sacks into surface pipe.

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

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

SIGNED

R. L. Myers

TITLE

General Manager,

Gas Supply Operations

DATE

Sept. 5, 1974

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

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.

5. LEASE DESIGNATION AND SERIAL NO.

U - 11668

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Patterson Canyon

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Patterson Canyon

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

NE NE 9-38S-25E., SLB&M

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

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, 710' FEL NE NE

At top prod. interval reported below

At total depth

14. PERMIT NO. DATE ISSUED

API # 43-037-30 | 201

15. DATE SPUNNED 8-6-74 16. DATE T.D. REACHED 8-28-74 17. DATE COMPL. (Ready to prod.) 8-31-74 18. ELEVATIONS (DF, REB, RT, GR, ETC.)* GR 5215' 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5697' 21. PLUG, BACK T.D., MD & TVD 0' 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS 0-5697' CABLE TOOLS

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, Sidewall Neutron Porosity 27. WAS WELL CORED? Yes

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4	32.75	355.13	13-3/4	355	0
			7-7/8		

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

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

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.) none TEST WITNESSED BY

35. LIST OF ATTACHMENTS
Logs as above, Well Completion and Well Lithology to 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. G. Myers TITLE _____ DATE Sept. 5, 1974

*(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.	TOP	
				MEAS. DEPTH	TRUE VERT. DEPTH
			Log tops:	0'	
			Morrison	behind casing	
			Summerville	600	
			Entrada	750	
			Carmel	790	
			Navajo	1155	
			Kayenta	1300	
			Wingate	1477	
			Chinle	2342	
			Shinarump	2472	
			Moenkopi	2500	
			Cutler	4362	
			Honaker Trail	4870	
			Paradox	5256	
			Upper Ismay	5576	
			Lower Ismay	5660	
			B Marker	5680'	
			Desert Creek		

38.

GEOLOGIC MARKERS

COMPLETION REPORT

P-1

Well: Patterson Canyon Well No. 2

Date: July 8, 1975

Area: Patterson Canyon

Lease No: U-11668

New Field Wildcat

Development Well

Shallower Pool Test

New Pool Wildcat

Extension

Deeper Pool Test

Location: 660' feet from N line, 710 feet from E line

NE 1/4 NE 1/4

Section 9, Township 38S, Range 25E

County: San Juan State: Utah

Operator: Mountain Fuel Supply Co.

Elevation: KB 5228' Gr 5215' Total Depth: Driller 5697' Log 5685'

Drilling Commenced: August 6, 1974 Drilling Completed: August 29, 1974

Rig Released: August 31, 1974 Well Completed: August 31, 1974

Sample Tops: (unadjusted)

Log Tops:

None Reported

Morrison	-	Surface	Moenkopi	247
Summerville	-	Behind csg.	Cutler	250
Entrada		600'	Honaker Trail	436
Carmel		750'	Paradox	487
Navajo		790'	Upper Ismay	525
Kayenta		1155'	Lower Ismay	557
Wingate		1300'	"B" Zone	566
Chinle		1477'	Desert Creek	568
Shinarump		2342'		

Sample Cuttings:
10' samples from 4200' to 5697'
set sent to AmStrat, Denver, Colo.

Status:
D & A
Producing Formation: None

Perforations: None

Stimulation: None

Production: None

Plug Back Depth: Surface

Plugs: 5600-5200/125 sx; 2550-2450/35 sx; 840-740/35 sx.
4400-4300/35 sx; 1527-1427/35 sx; 400-300/50 sx.

Hole Size: 13-3/4" to 380'; 7-7/8" to 5697' 20 sx plug in surface pipe

Casing/Tubing: 10-3/4" @ 355.13, cemented with 355 sx.

Logging - Mud: None

Mechanical: Schlumberger
DIL, SNP-GR, BHC-GR

Contractor: Lofflgn Brothers
Completion Report Prepared by:
E. G. Mickel

Remarks:

COMPLETION REPORT (cont.)

Well: Patterson Canyon Well No. 2

Area: Patterson Canyon

Cored Intervals (recovery):

(1) 5353-5413 cut 60', recovered 60'
(2) 5413-5452 cut 39', recovered 39'

Tabulation of Drill Stem Tests: (3) 5452-5510 cut 58', recovered 58'

<u>No.</u>	<u>Interval</u>	<u>IHP</u>	<u>IFP (min.)</u>	<u>ISIP (min.)</u>	<u>FFP (min.)</u>	<u>FSIP (min.)</u>	<u>FHP</u>	<u>Samples Caught</u>	<u>Remarks</u>
(1)	5453- 5540	2118	27-73 (32)	2365 (89)	86-172 (120)	2310 (240)	2718	None	NGTS Recovered 250' mud

(Straddle Test)

COMPANY Mountain Fuel Supply FARM Patterson Canyon WELL NO. 2

LOCATION 660' FNL; 710' FEL ELEV. 5228 KB; 5215 Gr.

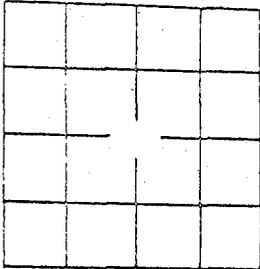
DRILLING COMMENCED August 6, 1974 COMPLETED August 29, 1974

RIG RELEASED August 31, 1974 TOTAL DEPTH 5697 feet

CASING RECORD 10-3/4" @ 355.13' cemented w/355 sx.

TUBING RECORD _____

PERFORATIONS _____



I. P. GAS _____ OIL _____

SANDS _____

SHUT-IN SURFACE PRESSURES _____

REMARKS D & A

	FROM	TO
Sandstone - white, medium to very fine grained, med-sorted subangular, subrounded, friable quartz grains with calcareous cement.	4200	4209
Siltstone - dark brown, friable, quartzitic, micaceous, glauconitic; interbedded with shale, red, slightly silty, friable.	4209	4270
Siltstone and Shale - as above with siltstone, gray, friable to hard, quartzitic, micaceous	4270	4280
Shale - as above, interbedded with siltstone, dark brown, friable, quartzitic, micaceous	4280	4327
Limestone - gray, fine to medium crystalline, hard, slightly clayey	4327	4328
Sandstone - white to light green, fine grained to very fine grained, well-sorted, subangular to subrounded, friable quartzitic, micaceous, glauconitic.	4328	4342
Siltstone - as above	4342	4345
Sandstone, as above	4345	4347
Siltstone - as above	4347	4357
Limestone - as above	4357	4359
Siltstone - as above	4359	4368
Limestone - as above, interbedded with siltstone, as above	4368	4386
Siltstone - as above	4386	4397
Limestone - tan, very fine crystalline, hard	4397	4404
Siltstone - light gray, friable, quartzitic, calcareous cement; interbedded with shale, red, slightly silty, friable	4404	4407
Siltstone - as above	4407	4440
Siltstone - as above; interbedded with Sandstone, light green, very fine grained, medium sorted, subangular, friable, quartzitic, micaceous, glauconitic, calcareous cement.	4440	4453
Limestone - dark gray to black, hard, very silty	4453	4463
Limestone - as above; interbedded with Siltstone, as above	4463	4467
Limestone - white to light tan, friable, very fine to aphanitic, crystalline; and Limestone, white to light tan, friable hard, fine-grained.	4467	4482
Siltstone - light gray, friable, quartzitic, calcareous cement	4482	4490
Siltstone - brown, friable, micaceous, quartzitic, glauconitic, calcareous cement	4490	4509
Shale - red, friable	4507	4508
Siltstone - dark gray, hard, quartzitic, calcareous cement	4508	4510
Siltstone - gray to light gray, friable, quartzitic and micaceous, calcareous cement	4510	4545

COMPANY Mountain Fuel Supply

	FROM	TO
Limestone - green and brown, fine to medium crystalline, hard	4545	4548
Siltstone - as above	4548	4550
Sandstone - clear to light green, very fine grained to sub-angular, well-sorted, friable to hard, quartzitic, micaceous, glauconitic, calcareous cement; and Sandstone, dark gray, very fine-grained to medium-grained, sub-rounded, medium sorted, friable to hard, quartzitic, micaceous, slightly calcareous	4550	4570
Siltstone - dark gray, friable, quartzitic and micaceous, calcareous cement	4570	4580
Siltstone - as above; interbedded with Limestone, tan, fine crystalline, friable	4580	4602
Sandstone - light gray, very fine grained, sub-rounded, medium-sorted, quartzitic and micaceous, calcareous cement	4602	4607
Limestone - white, very fine crystalline, hard	4607	4618
Siltstone - as above; Siltstone, brown, friable, micaceous, calcareous cement; Siltstone, gray, friable, quartzitic, calcareous cement	4618	4681
Sandstone - clear, medium-grained, well-sorted, sub-rounded, friable, quartzitic, slightly calcareous	4681	4685
Siltstone - brown, friable, micaceous, calcareous cement	4685	4686
Sandstone - as above	4686	4693
Siltstone - as above	4693	4702
Siltstone - as above; interbedded with Limestone, white, soft and Limestone, gray, friable, silty	4702	4705
Limestone - as above	4705	4720
Siltstone - gray, friable, calcareous cement	4720	4725
Limestone - as above	4725	4730
Siltstone - light gray, friable, quartzitic and micaceous, calcareous cement	4730	4753
Shale - gray, friable	4753	4756
Siltstone - light green, friable, quartzitic and micaceous, calcareous cement	4756	4770
Limestone - white, medium-crystalline, soft, slightly siliceous	4770	4780
Siltstone - dark green, hard, quartzitic and micaceous, slightly calcareous	4780	4810
Siltstone - brown, friable to hard, quartzitic and micaceous, calcareous	4810	4815
Sandstone - white to light green, very fine-grained, medium sorted, subangular, hard, quartzitic, glauconitic and micaceous, slightly calcareous	4815	4825
Siltstone - as above	4825	4833
Sandstone - as above	4833	4836
Siltstone - as above and Siltstone, dark gray, hard, quartzitic and micaceous, slightly calcareous	4836	4850
Siltstone, as above, interbedded with Sandstone, white to light gray, fine-grained, as above	4850	4855
Siltstone - as above	4855	4860
Siltstone - brown, as above; Siltstone, gray, friable, quartzitic and micaceous, very calcareous	4860	4872
Limestone - white, crystalline, hard	4872	4875
Siltstone - gray, as above	4875	4887
Limestone - as above	4887	4889
Siltstone - as above	4889	4925
Limestone - gray and tan, hard, clayey; Limestone, white, crystalline, soft, slightly silty; Limestone, dark gray to black, hard, silty	4925	4950
Siltstone - dark gray to black, hard, calcareous	4950	4960
Limestone - dark gray, black, hard, silty; Limestone, tan, hard, silty	4960	4990
Sandstone - light gray, very fine-grained, medium-sorted, friable, quartzitic, glauconitic and micaceous, calcareous interbedded with Siltstone, brown, friable, micaceous, slightly calcareous	4990	5000
Sandstone and Siltstone - as above; interbedded with Limestone, white, friable, slightly silty	5000	5008

FARM

Patterson Canyon

WELL NO. 1

COMPANY

Mountain Fuel Supply Co.

	FROM	TO
Limestone - gray, hard, silty; interbedded with Siltstone, dark brown, hard, very calcareous	5008	5020
Limestone - tan and white, medium crystalline, hard; Limestone, dark gray, hard, silty	5020	5060
Siltstone - gray, to dark gray, hard, very calcareous; interbedded with Limestone, gray to dark gray, hard, very silty	5060	5090
Sandstone - gray, very fine-grained, medium sorted, sub-angular, sub-rounded, friable, quartzitic and micaceous, slightly calcareous	5090	5093
Siltstone - as above	5093	5097
Limestone - as above	5097	5107
Sandstone - dark gray, very fine-grained, medium sorted, sub-rounded, hard, quartzitic and micaceous, very calcareous	5107	5109
Limestone - Light gray to tan, very fine crystalline, hard,	5109	5133
Limestone - light gray, hard, very silty; Limestone, white, soft; Limestone, light and dark gray, friable to hard, very silty		
Siltstone - Light and dark gray, friable to hard, very calcareous; interbedded with Limestone, light and dark gray, friable to hard, very silty	5133	5150
Siltstone - as above	5150	5180
Limestone - white, soft; and Limestone, tan, very fine crystalline, hard, clayey; interbedded with Siltstone, light gray, very calcareous	5180	5190
Siltstone - light and dark gray and black, friable to hard, very calcareous	5190	5202
Siltstone - as above; interbedded with Limestone, black, hard, silty; Limestone, tan, very fine crystalline, hard, clayey, and Limestone, white, fine crystalline, soft	5202	5220
Limestone - gray to tan, friable to hard, very silty, interbedded with Siltstone, gray to tan, friable to hard, very calcareous	5220	5228
Siltstone - tan, gray and dark gray, friable, very calcareous	5228	5250
Limestone - tan, gray and dark gray, hard, very silty,	5250	5280
Limestone, dark gray and tan, fine crystalline, hard;		
Limestone - tan, very fine crystalline, hard		
Limestone - tan, hard, very silty; interbedded with Siltstone, tan, hard, very calcareous	5280	5290
Limestone and Siltstone - as above; with Siltstone, dark gray to black, hard, very calcareous	5290	5300
Siltstone - as above; with Siltstone, light gray, friable, very calcareous	5300	5310
Siltstone - dark gray to black, hard, very calcareous, interbedded with Limestone, tan fine crystalline, hard	5310	5316
Possibly an Anhydrite bed; none seen in samples but mud is gummed up and drilling very slow	5316	5317
Siltstone - as above	5317	5322
Limestone, as above and Limestone, white, fine crystalline, soft	5322	5353

Cored from 5353' to Total Depth - See Core Descriptions

PATTERSON CANYON WELL NO. 2
Sec. 9, T. 38 N., R. 25 E.
San Juan County, Utah

Core #1: 5353-5413'. Cut 60', rec. 60'.

No visible porosity, no shows.

Fractures: 5395-5395½'

5353-56' Limestone, dark gray to black, hard argillaceous.

5356-58' Shale, black, hard, waxy, calcareous.

5358-402' Limestone as above. (with 1 mm size calcite grains @ 5379.6-5380.6' & 5390-5401'); some carbonized shell fragments at 5396-99½'.

5402-13' Shale, black, hard, waxy, slightly silty, calcareous.

Core #2

5413-5452', Cored 39', Rec. 39'

No visible porosity

No fractures

No shows

5413-13 Top 3" are shale, maroon and hard. Shale, black, hard, slightly silty, trace pyrite, some carbonized and calcitic pelecypods.

5413-23 Limestone, dark gray to black, hard, argillaceous, some micaceous and carbonaceous material.

5423-29 Anhydrite, white to tan, and light gray with some shale and limestone, as above, some dolomite, black.

5429-31 Shale, as above.

5431-33 Limestone, as above with dolomite crystals, black (1 mm size)

5433-35 Anhydrite, white to dark gray and tan

5435-40 Shale, black, hard, silty, calcareous with anhydrite, white (5437-38)

5440-41 Limestone, dark gray-black, with anhydrite as above.

5441-43 Limestone, as above, with dolomite crystals.

5443-44 Limestone, dark gray-black, hard, argillaceous.

5444-45 Anhydrite, white to light gray with black dolomite.

5445-52 Siltstone, dark gray to black, hard, dolomitic, calcareous and shaley in lower part, some anhydrite (5447-49).

PATTERSON CANYON WELL NO. 2
Sec. 9, T. 38 S., R. 25 E.
San Juan County, Utah

Core #3: 5452-5510'. Cut 58', rec 58'.

Highly Fractured @ 5508-5510'

Oil Stain @ 5501 $\frac{1}{2}$ -5507'

- 5452-55' Limestone, light gray, hard, very silty with anhydrite at 5452'.
- 5455-58' Anhydrite, white, light gray, mottled with trace dolomite, light gray.
- 5458-59' Anhydrite, mottled with limestone, light gray, hard.
- 5459-60' Anhydrite, white to light gray.
- 5460-61' Dolomite, argillaceous.
- 5461-93' Anhydrite, white to light gray.
- 5493-94' Limestone, light gray, hard, very silty.
- 5494-550' Anhydrite, white to light gray.
- 5501-01 $\frac{1}{2}$ ' Shale, black, hard, mica, slightly calcareous, with white anhydrite and black crystalline dolomite.
- 5501 $\frac{1}{2}$ -07' Limestone, light gray, hard, very argillaceous, with some calcite and dolomite crystals, and some anhydrite at base, some oil stain, no fluorescence or cut.
- 5507-10' Dolomite, light gray, hard, sucrosic with some white anhydrite.