



POWERS ELEVATION

OIL WELL ELEVATIONS AND LOCATIONS
CHERRY CREEK PLAZA, SUITE 1201
800 SOUTH CHERRY STREET
DENVER, COLORADO 80222
PHONE NO. 303/321-2217

May 29, 1980

U.S. Geological Survey
E. W. Guynn, District Engineer
1745 West 1700 South
2000 Administration Bldg.
Salt Lake City, Utah 84138

RE: Filing NTL-6 and A.P.D. Form 9-331C
William C. Kirkwood
#44-4 White Rim
955' FSL & 598' FEL
Sec. 4 T31S R15E
Garfield County, Utah

Dear Mr. Guynn:

Enclosed are three copies of the NTL-6 program and A.P.D. Form 9-331C for the above-referenced well location.

Please notify us when you have arranged a time with the B.L.M. to inspect the site, in order that Larry Becker, our surveyor who did the ground work for this application may be present during the inspection.

The archaeological report is not included with the NTL-6 but will be forwarded to your office, and to the B.L.M. office, from our Archaeological Division.

Sincerely yours,

POWERS ELEVATION

Connie L. Frailey
Connie L. Frailey

CLF:ss
Enclosure

cc: William Vandeventer, William C. Kirkwood, Casper, Wyo.
Larry Becker, Powers Elevation, Grand Junction, Colo.
Dirt Contractor

Powers Elevation
Suite 1201 Cherry Creek Plaza
600 So. Cherry Street
Denver, Colorado 80222

RE: Filing NTL-6 and A.O.D. Form 9-331C
William C. Kirkwood
#44-4 White Rim
955' FSL & 598' FEL
Sec. 4 T31S R15E
Garfield County, Utah

Gentlemen:

This is to confirm our understanding with you that Powers Elevation is authorized to act as our agent in the following capacities:

- A. In surveying, staking, and preparing and filing necessary applications, permits and compliance programs, including complete NTL-6 reports, for the above-referenced project.
- B. In accepting on our behalf any changes to location, proposed facilities and/or surface use plan and compliance program requested at on-site inspections, when we are unable to have a Company representative present. Such changes will then be binding upon us or designated Operator.

POWERS' responsibilities do not include construction of location or supervision of drilling, completion or rehabilitation operations.

W C Kirkwood oil & Gas
Company

by: Stuart C. Hinkle

Title: Geologist

Date: 5/2/80



United States Department of the Interior

IN REPLY REFER

3100(U-504)

BUREAU OF LAND MANAGEMENT

Henry Mountain Resource Area
P.O. Box 99
Hanksville, UT. 84734

June 30, 1980

George Diwachak
USGS Conservation Division
2000 Administration Building
1745 W. 1700 S.
Salt Lake City, UT. 84104

Re: Kirkwood Oil
Proposed Drilling Project
T. 31 S., R. 14 E. and T. 31 S., R. 15 E.

Dear Mr. Diwachak:

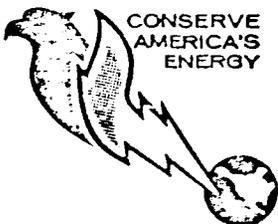
The following information concerns surface protection stipulations to be incorporated into the APD's for the above referenced drilling project.

Site specific stipulations for each of the eight locations include the following:

<u>WELL NAME</u>	<u>LOCATION</u>	<u>LEASE NUMBER</u>
1- Magnum 23-8	NE $\frac{1}{2}$ SW $\frac{1}{4}$ 8 T. 31 S., R. 15 E.	U-21478

- a - The site will be moved roughly 400 ft. to the east to a point where it's coordinates in section 8 are 1900' FEL and 1790' FSL.
- b - The drill site will not be bladed.
- c - A small reserve pit will be constructed to hold cuttings.
- d - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LBS/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2



Save Energy and You Serve America!

See page 2 for strips - Page 5 for Clearances

- e - All trash and debris will be carried off site and disposed of in a BLM approved location.
- f - Access to the site will be on an existing road. Blading will be kept to a minimum, old rocks and debris will be removed and no new cuts will be authorized.

2 - White Rim 44-4. SE $\frac{1}{2}$ SE $\frac{1}{2}$ SE $\frac{1}{2}$ 4, T. 31 S., R. 15 E. U-21083

- a - The site ^{was} ~~will be~~ moved from the SESESE, to the NESESE of section 4.
- b - The drill site will not be bladed.
- c - A small ^{10' x 10'} reserve pit will be cut to hold cuttings.
- d - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- e - All trash and debris will be carried off site and disposed of in a BLM approved location.
- f - Access to the site will be on an existing road. Blading will be kept to a minimum.

3 - Garfield 44-15 SE $\frac{1}{2}$ SE $\frac{1}{2}$ 15, T. 31 S., R. 15 E. U-21037

- a - The drill site will not be bladed.
- b - A small reserve pit will be constructed to hold cuttings.
- c - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- d - All trash and debris will be carried off-site and disposed of in a BLM approved site.
- e - Access to the site will be confined to the existing road. Blading will be kept to a minimum by simply removing any rocks and debris

blocking the road and by filling in any washed out areas.

4 - Winfield 21-15 NE $\frac{1}{4}$ NW $\frac{1}{4}$ 15, T. 31 S., R. 15 E. U-21037

- a - The drill site will not be bladed.
- b - A small reserve pit will be constructed to hold cuttings.
- c - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- d - All trash and debris will be carried off-site and disposed of in a BLM approved site.
- e - Access to the site will be confined to the existing road. Blading will be kept to a minimum by removing only those rocks and debris blocking the road and by filling in any washed out areas.

5 - Remington 14-15 SW $\frac{1}{4}$ SW $\frac{1}{4}$ 15, T. 31 S., R. 15 E. U-21037

- a - The drill site will not be bladed.
- b - The two rock cairns on the access road will be left intact.
- c - A small reserve pit will be constructed to hold cuttings.
- d - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- e - All trash and debris will be carried off-site and disposed of in a BLM approved site.
- f - Access to the site will be confined to the existing road. Blading will be kept to a minimum by removing only those rocks and debris blocking the road and by filling in any washed out areas.

6 - Monroe 22-20 SE $\frac{1}{4}$ NW $\frac{1}{4}$ 20, T. 31 S., R. 15 E. U-21477

- a - The drill site will be moved 75 feet to the west in order to drill on a level spot on the old existing road.
- b - The drill site will not be bladed.
- c - A small reserve pit will be constructed to hold cuttings.
- d - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRES</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- e - All trash and debris will be carried off-site and disposed of in a BLM approved site.
- f - Access to the site will be confined to the existing road. Blading will be kept to a minimum by removing only those rocks and debris blocking the road and by filling in any washed out areas.

7 - Eastex 41-20 NE $\frac{1}{4}$ NE $\frac{1}{4}$ 20, T. 31 S., R. 15 E. U-21477

- a - The drill site will not be bladed and will be located directly adjacent to main access road in North Hatch Canyon.
- b - A small reserve pit will be constructed to hold cuttings.
- c - Upon completion of the well the pit will be covered, the site will be disked, and the following seed mixture will be hand broadcasted over the site.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- d - All trash and debris will be carried off-site and disposed of in a BLM approved site.

8 - Cromwell 33-29 SW $\frac{1}{4}$ SE $\frac{1}{4}$ 29, T. 31 S., R. 15 E. U-21476

- a - The drill site will not be bladed.
- b - A small reserve pit will be constructed to hold cuttings.

- c - Access to the site will involve blading roughly 3/4 mile of new road from the existing road in South Hatch Canyon. This road will be constructed with a minimum amount of blading and will be reclaimed from the site all the way back to the South Hatch Canyon road. All cuts will be recontoured, the road disked and revegetated by hand broadcasting the following species.

<u>SPECIES</u>	<u>LB/ACRE</u>
Shadscale	3
Indian ricegrass	3
Galleta grass	2

- d - Upon completion of the well the pit will be covered, the site will be disked and the above listed species will be hand broadcasted over the site.
- e - All trash and debris will be carried off and disposed of in a BLM approved site.

In addition to the above mentioned site specific stipulations the entire project should be covered by two more protective measures.

- 1) No unnecessary off-road driving will be authorized. Four-wheel drives will be restricted to existing roads.
- 2) No uranium claim markers, or cairns, will be destroyed or damaged.

The majority of the project takes place in BLM Wilderness Inventory Unit # 241, Fiddler Butte. The areas wilderness characteristics are not exceptional and as a result the BLM's inventory has recommended that the unit be dropped from any further wilderness study. However, under BLM's Interim Management Policy of Lands Under Wilderness Review (IMP), we are mandated to protect the area from any further undue or unnecessary degradation until October 1, 1980, at which time the area will officially fall out of further wilderness consideration. This time frame allows the public to comment on our decision. If there are any comments or protests to put this area back into wilderness study status, then the Bureau will have to assess the comments and decide if they are worthy of consideration. Therefore, the area could go back into wilderness study status in October and as a result we must protect the area.

The BLM's IMP Guidelines mandate that these wilderness guidelines be addressed in an Environmental Assessment (EA).

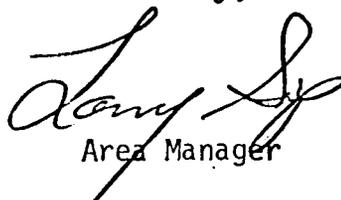
Therefore, since the GS is preparing the EA for this project, we would request that this information be included in the document. You can also include the statement that the Bureau has determined that impacts from this project will not impair the wilderness characteristics of the area and that if the mitigating measures are followed, the impacts can be returned to a substantially unnoticeable condition.

The BLM has also conducted surveys for Threatened and Endangered Plants and Animals in the project area and as a result of these surveys T & E clearances

are granted as no T & E plants or animals were found. The BLM can also grant Archaeological clearance at this time based on an archaeological survey conducted of the area by Powers Elevation Company.

If you have any questions concerning the foregoing discussion, or if you need any additional information, please feel free to contact our office.

Sincerely,



Area Manager

CC; Chuck Horsburgh
Richfield BLM

W.J. Averett, Consulting Petroleum Engineer
1682 Woodland Dr.
Provo, Utah 84601

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 William C. Kirkwood

3. ADDRESS OF OPERATOR
 P. O. Drawer 3439, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 955' FSL & 598' FEL (SE SE)
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 53 Miles East of Hanksville, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 598'

16. NO. OF ACRES IN LEASE 2082

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2640'

19. PROPOSED DEPTH 1590'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6034' GR

22. APPROX. DATE WORK WILL START* June 15, 1980

5. LEASE DESIGNATION AND SERIAL NO.
 U-21083

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A

7. UNIT AGREEMENT NAME
~~W~~ Hatch Canyon

8. FARM OR LEASE NAME
 White Rim

9. WELL NO.
 #44-4

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC, T, R, M, OR BLK. AND SURVEY OR AREA
 Sec. 4 T31S R15E

12. COUNTY OR PARISH 13. STATE
 Garfield Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 1/2"	6 5/8" New	24# K-55 8 Rd.	20'	10 sxs Cement, Class "G", 2% Ca
5 5/8"	4 1/2" New	9.5# K-55 8 Rd.	1590'	50 sxs Cement, Class "G", 2% Ca

1. Drill 8 1/2" hole and set 6 5/8" surface casing to 20' with good returns.
2. Log B.O.P. checks in daily drill reports and drill 5 5/8" hole to 1590'.
3. Run tests if warranted and run 4 1/2" casing if productive.
4. Run logs, as needed, and perforate and stimulate as needed.

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
- "B" The Ten-Point Compliance Program
- "D" The Multi-Point Requirements for A.P.D.
- "E" Access Road Maps to Location
- "F" Radius Map of Field

RECEIVED
 JUL 08 1980

DIVISION OF
APPROVED BY THE DIVISION
 OF OIL, GAS, AND MINING
 DATE: 7-9-80
 BY: M.J. Minder

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 Wm. C. Handwerker TITLE Pete Engle DATE 7-11-80

(This space for Federal or State office use)
 PERMIT NO. 43-017-30091 APPROVAL DATE 7/9/80

APPROVED BY _____ TITLE _____ DATE _____

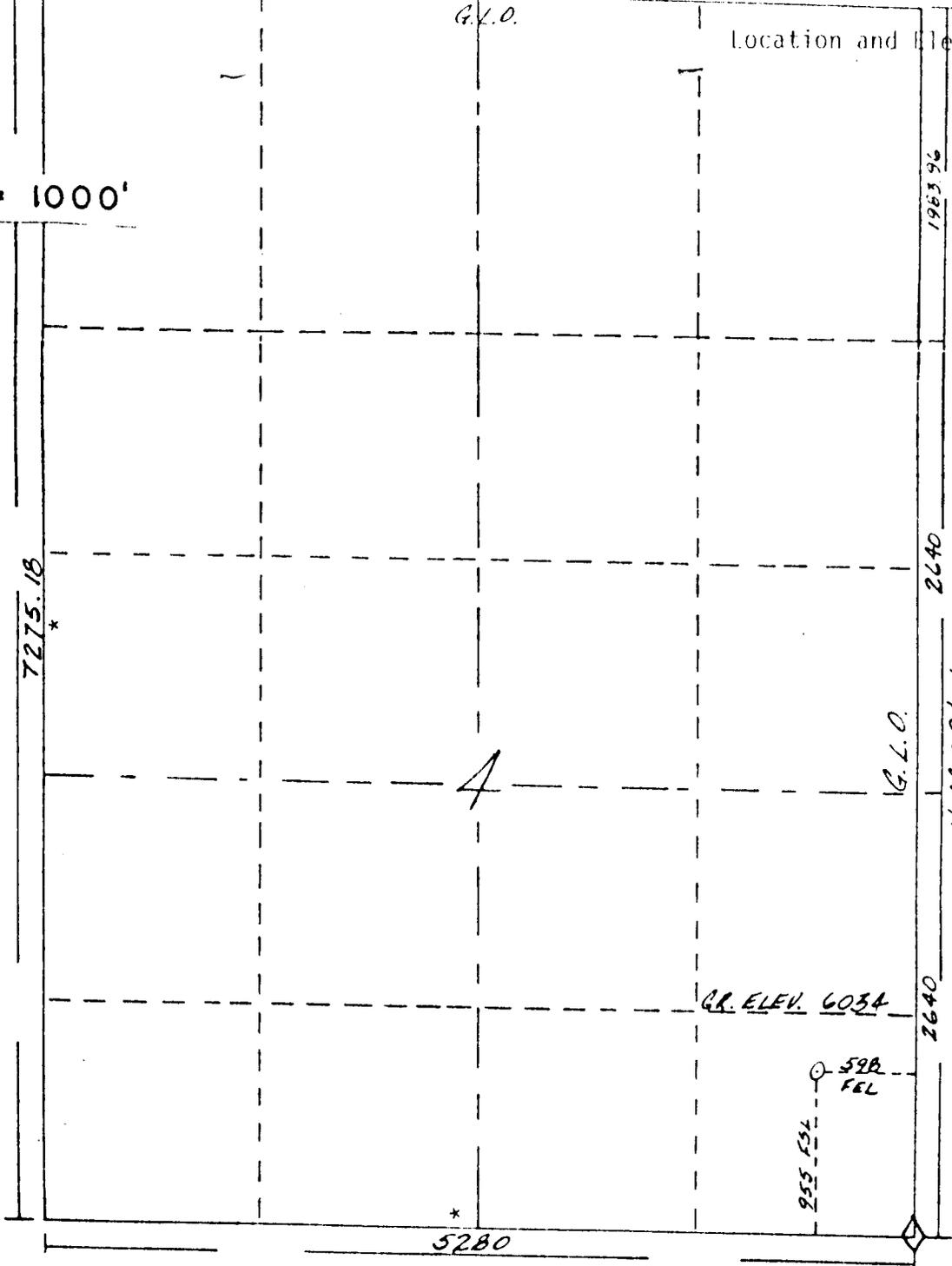
CONDITIONS OF APPROVAL, IF ANY: _____



Scale... 1" = 1000'

R. 15 E.

BLM Area 2
March 7, 1961



T. 31 S.

Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from *Tim Schowalter* for *WILLIAM C. KIRKWOOD* determined the location of *#44-4 WHITE RIM* to be *955 FSL & 598 FEL* of Section A Township 31 S. Range 15 E. of the *Salt Lake Base and Meridian* *Garfield County, Utah.*

I hereby certify that this plat is an accurate representation of a correct survey showing the location of *#44-4 WHITE RIM*

Date: 5-10-80

Spring R. Becken
 Licensed Land Surveyor No. 4189
 State of Utah

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM

OF NTL-6 APPROVAL OF OPERATIONS

William C. Kirkwood
White Rim 44-4
SESE, Sec. 4 T31S R15E
955' FSL & 598' FEL
Garfield County, Utah

1. The Geologic Surface Formation

The surface formation is the Navajo.

2. Estimated Tops of Important Geologic Markers

White Rim	1290'
Organ Rock	1570'
Total Depth	1590'

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

No water zones are anticipated
White Rim 1290' Oil

4. The Proposed Casing Program

<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>SECTION LENGTH</u>	<u>SIZE (OD)</u>	<u>WEIGHT, GRADE & JOINT</u>	<u>NEW OR USED</u>
8 $\frac{1}{2}$ "	0-20'	20'	6 5/8"	24#, K-55, 8Rd.	New
5 5/8"	0-1590'	1590'	4 $\frac{1}{2}$ "	9.5#, K-55, 8Rd.	New

Cement Program

- A. Surface casing - 10 sxs, cement, Class "G". 2% CaCl.
- B. Production casing - 50 sxs, cement, Class "G", 2% CaCl.

5. The Operator's Minimum Specifications for Pressure Control
Not Applicable.

6. The Type and Characteristics of the Proposed Circulating Muds
Not Applicable - Air Drilled.

7. The Auxiliary Equipment to be Used
Not Applicable.

8. The Testing, Logging and Coring Programs to be Followed

(a) No DST'S are anticipated.

(b) An IES Log and a Density log will be run from surface to 1570 feet.

(c) Coring is anticipated from the top of the White Rim to top of the Organ Rock, a total of 280 feet.

(d) Stimulation procedures will be determined after evaluation of logs. If treatment is indicated, appropriate Sundry Notice will be submitted.

9. Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for June 15, 1980, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 8 days after spudding the well and drilling to casing point.

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331C
William C. Kirkwood
#44-4 White Rim
SESE, Sec. 4 T31S R15E
955' FSL & 598' FEL
Garfield County, Utah

1. Existing Roads

- A. The proposed well site and elevation plat is shown as EXHIBIT "A". Staking included two 200' directional reference stakes, also shown on EXHIBIT "A".
- B. From Hanksville Post Office go Easterly 18.2 miles on Highway 95; turn left on BLM dirt road to Poison Spring Canyon; go 16.4 miles to Dirty Devil River. Ford river and take road around Buckacre Point and into North Hatch Canyon. Continue up North Hatch Canyon; turn left onto road up Big Ridge. On top, take left fork toward Two Pipe Springs. Flagged access road is on left approximately ½ mile before Springs.
- C. All roads to location are color-coded on EXHIBIT "E". A new access road from the existing road will be used as shown on EXHIBIT "E".
- D. This is an exploratory well. All existing roads within a three-mile radius are shown on EXHIBIT "E".
- E. N/A
- F. The existing roads need no improvement except to clear off rocks and repair winter damage.

2. Planned Access Roads

Map showing all necessary access roads to be constructed or reconstructed is shown as EXHIBIT "E" for the following:

A. Drilling Operations

1. If rocks are removed, the 0.1 mile of new access road can be used without blading. No surfacing is planned. The truck-mounted rig used for drilling weighs approximately 8 tons.

2. The grade will be 4 %.
3. No turnouts are planned.
4. No drainage design is planned.
5. No culverts are needed.
6. No gates or fence cuts and cattleguards will be required.
7. The new access road to be used was center line flagged. This road does cross B.L.M. lands, as shown on EXHIBIT "E".

B. Production

1. The grade on the existing roads ranges from 0-15%; most areas are 3-4%. No road construction or upgrading is planned if well is productive.

3. Location of Existing Wells

For all existing wells within two mile radius of Exploratory well, see EXHIBIT "F".

- (1) There are 0 water wells within a two mile radius of this location.
- (2) There are 0 abandoned wells in this two mile radius.
- (3) There are 0 temporarily abandoned wells.
- (4) There are 0 disposal wells.
- (5) There are 0 wells presently being drilled.
- (6) There are 0 producing wells within this two mile radius.
- (7) There are 0 shut-in wells.
- (8) There are 0 injection wells.
- (9) There are 0 monitoring or observation wells for other uses.
- (10) There are several core holes for prospecting located throughout the canyon lands.

4. Location of Existing and/or Proposed Facilities

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

- (1) Tank Batteries: None

(2) Production Facilities: None

(3) Oil Gathering Lines: None

(4) Gas Gathering Lines: None

(5) Injection Lines: None

(6) Disposal Lines: None

B. If production is obtained, there will be no production facilities installed at this time.

5. Location and Type of Water Source

No water will be required. This well is to be air-drilled.

6. Construction Materials

No construction materials are needed for any phase of the proposed operations.

7. Handling of Waste Materials and Disposal

(1) There will be no drill cuttings. This well is to be air-drilled and exhaust will be dispersed into the atmosphere.

(2) There will be no drill fluids and no pits will be dug. If any water is encountered during drilling, a surface tank will be set.

(3) Garbage and trash will be collected in containers and hauled away to approved sanitary landfill. Human waste will be collected in chemical facility and hauled away.

(4) All materials used during drilling will be removed from the drillsite within 30 days after completion of drilling.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

(1) No drill pad will be constructed for drilling this well.

(2) A truck-mounted rig will be used. The truck is approximately 30' long and weighs approximately 8 tons.

- (3) No pits will be dug. There will be no living facilities or trailers on site.

10. Plans for Restoration

- (1) Such disturbance as will be created by this drilling operation can be easily repaired should this area be finalized as a Wilderness and Recreation Area.
- (2) After drilling operations cease, revegetation and restoration will be performed in accordance with B.L.M. recommendations. This will be undertaken within whatever time frame the B.L.M. deems advisable.

11. Other Information

- (1) Soil is shallow clay loam. Location is situated on top of The Big Ridge Southeast of Two Pipe Springs. The terrain gently slopes to the North until the edge, which drops off 1,000'. Vegetation is cedar and pinon, mormon tea, grasses, cactus and sage.
- (2) The primary surface use is for grazing and recreation. The surface is owned by the U.S. Government.
- (3) The closest live water is in South Hatch Canyon, 4.5 miles from location, as shown on EXHIBIT "E".

The closest dwelling is Hite Marina, 20 miles to the Southwest.

There are no known archaeological, historical, or cultural heritages that will be disturbed by this drilling.

- (4) There are no reported restrictions or reservations noted on the oil and gas lease.
- (5) Drilling is planned for on or about June 15, 1980. It is anticipated that the casing point will be reached within 8 days after commencement of drilling.

12. Lessee's or Operator's Representative

George Lapaseotes
Agent Consultant for
William C. Kirkwood
600 South Cherry Street
Suite 1201
Denver, Colorado 80222
Phone (303) 321-2217

William C. Vandeventer
William C. Kirkwood
Drawer 3439
Casper, Wyoming 82601
(307) 265-5178

13. Certification

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

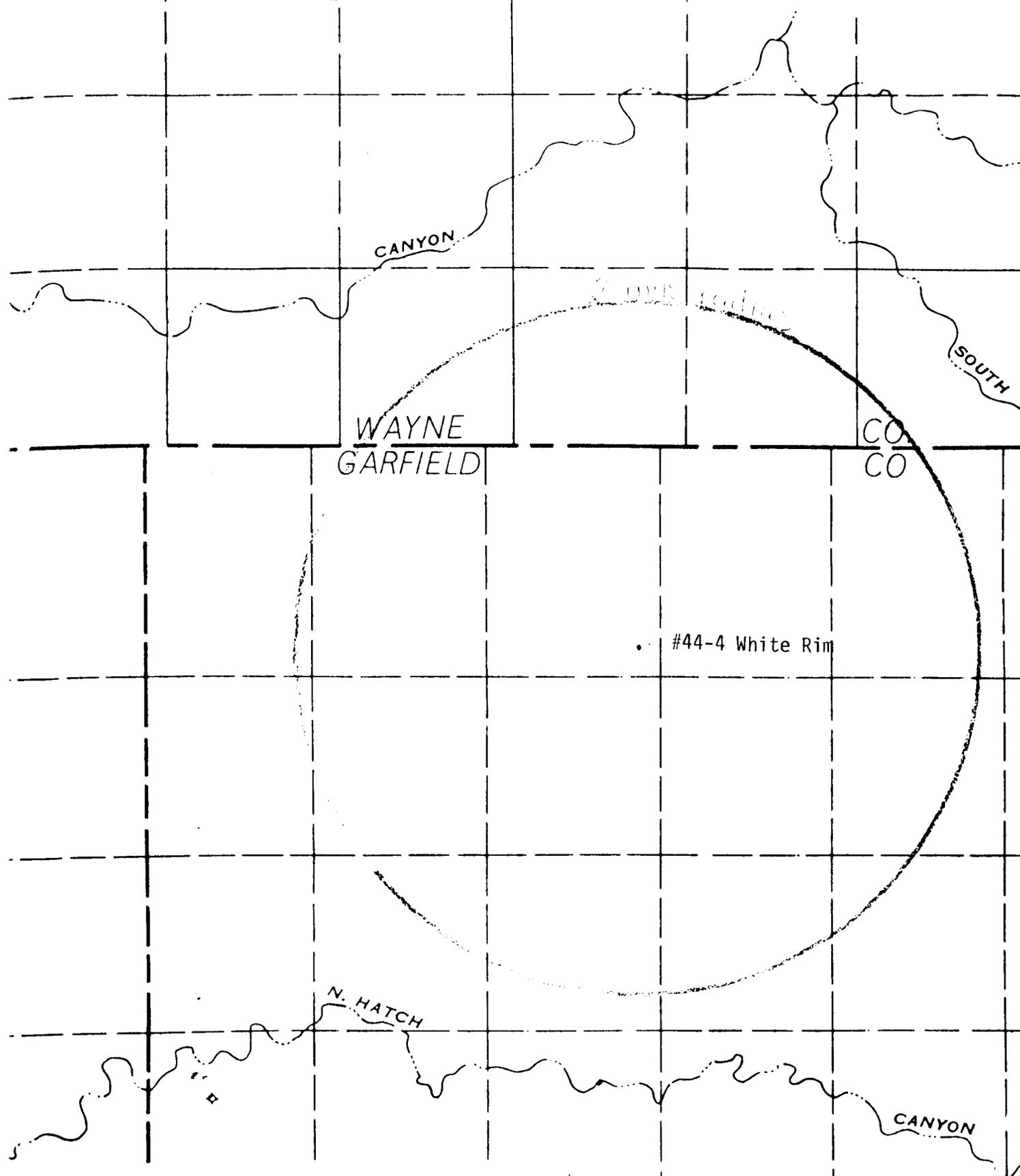
Date

5-29-80

George Lapaseotes

George Lapaseotes
Agent Consultant for
William C. Kirkwood

EXHIBIT "F"
Radius Map of Field



LEGEND

- | | |
|-----------------------|----------------------------|
| ○ LOCATION | ★ OIL & GAS WELL |
| ◊ DRY HOLE | ✱ ABANDONED OIL & GAS WELL |
| ● OIL WELL | ⊛ GAS WELL |
| ◆ ABANDONED OIL WELL | ⊛ ABANDONED GAS WELL |
| △ TRIANGULATION POINT | ⊔ WATER WELL |

FROM : DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-21083-A

OPERATOR: William C. Kirkwood

WELL NO. 44-4

LOCATION: NE $\frac{1}{2}$ SE $\frac{1}{2}$ SE $\frac{1}{2}$ sec. 4, T. 31S., R. 15E., SLM
Garfield County, Utah

1. Stratigraphy: Operator tops appear reasonable

Navajo	surface
White Rim	1290'
Organ Rock	1570'
<u>TD</u>	<u>1590'</u>

2. Fresh Water:

None probable

3. Leasable Minerals:

4. Additional Logs Needed: Adequate

5. Potential Geologic Hazards: None anticipated

6. References and Remarks:

Heavy oil. - might require Tertiary extraction methods

Signature: Gregory W. Wood

Date: 6-24-80

Oil and Gas Drilling

EA # 484-80

United States Department of the Interior
Geological Survey
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, Utah 84104

Usual Environmental Analysis

Date: August 4, 1980

Operator: William C. Kirkwood Project or Well Name and No.: 44-4
Location: 1498' FSL & 401' FEL Sec. 4 T. 31 S R. 15 E
County: Garfield State: Utah Field/Unit: Wildcat
Lease No.: U-21083-A Permit No.:

Joint Field Inspection Date: June 26, 1980

Prepared By: George Diwachak

Field Inspection Participants, Titles and Organizations:

George Diwachak	Environmental Scientist	USGS
Larry Gearhart	Surface protection	BLM
Lynn Jackson	Geologist	BLM
Wallace J. Averett	Engineer	Wm. C. Kirkwood
Larry Becker	Surveyor	Powers Elevation

Related Environmental Analyses and References:

1. Final Environmental Statement-Proposed General Management Plan, Wilderness Recommendation, Road Study Alternatives, Glenn Canyon National Recreation Area, National Park Service, Page Arizona, July 1979.

sk 8-20-80

Drill site 50' x 100' - 710 blading
Reserve pit 10' x 10'
Pit toilet
Moved location
Conditions of approval p. 7 (1-4)
Administratively complete

DISCRIPTION OF PROPOSED ACTION

Proposed Action:

1. Location State: Utah
 County: Garfield

1498' FSL, 401' FEL, NE 1/4 SE 1/4
Section 4 T 31S R 15E S L M.

2. Surface Ownership Location: Public
 Access Road: Public

Status of Reclamation Agreements:
NA

3. Dates APD Filed: June 4, 1980
 APD Technically Complete: June 23, 1980
 APD Administratively Complete: *Aug. 4, 1980*.

4. Project Time Frame
Starting Date: Upon approval
Duration of Drilling activities: 2-3 days.

A period of 30 to 60 days is normally necessary to complete a well for production if hydrocarbons are discovered. If a dry hole is drilled, recontouring and reseeding would normally occur within one year; revegetation or restoration may take several years. If the well is a producer, an indefinite period of time would occur between completion and rehabilitation.

5. Related actions of other federal or state agencies and Indian tribes: The Location falls within a BLM Wilderness Study Area with no exceptional wilderness characteristics and as a result of a BLM inventory, the Unit has been recommended to be dropped from further study (See attached BLM Memo.)

6. Nearby pending actions which may affect or be affected by the proposed action:

None known

7. Status of variance requests:

None known

The following elements of the proposed action would/could result in environmental impacts:

1. The drill site would not be bladed. A truck mounted, air drilling rig would be employed utilizing an area 50 ft. wide by 100 ft. long. A small 10'x10' reserve pit would be constructed to hold cuttings. A pit toilet would also be constructed for human sewage.
Surface disturbances would be kept to a minimum.
This well is part of an eight well program within T 31S R 15E.
2. Drilling-techniques would employ a small truck mounted, air rig.
3. Waste disposal-All trash would be confined to containers and disposed of in a BLM approved location.
4. Traffic-Would be minimal and should be confined to existing roadways.
5. Water requirements-None Needed
6. Completion-None Anticipated.
7. Production-No production facilities are anticipated at this time.
8. Transportation of hydrocarbons-Not requested in APD

Details of the proposed action are described in the Application for Permit to Drill.

The location was moved adjacent to an existing road to reduce surface disturbances by eliminating road construction, and positioning the rig on flat terrain. (See attached Sundry Notice)

The access road was changed per the attached maps to reduce grade. A special Use Permit has been issued by the National Park Service, Glen Canyon National Recreation Area (pers. comm. Wm. Supernaugh, Director, 8-4-80) to allow access through the recreation area for the drilling rig only. (See maps) the permit authorizes one rig trip in and one trip out for drilling two wells. The steep switchbacks along the proposed route would not facilitate rig traffic without major upgrading. Crews and support vehicles would use the proposed route. A helicopter may also be used if access is impaired by weather conditions.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography: Regional topography consists of Canyonlands terrain steep, rock walled canyons and mesas with relatively flat valleys, within the Dirty Devil River Basin. The location is situated on a flat area on the Big Ridge, rim of North Hatch Canyon.

PARAMETER

A. Geology

1. Other Local Mineral Resources to be Protected: None
Information Source: MER APD, Mining report

2. Hazards:

a. Land Stability: None expected, wellsite terrain is basically flat. A truck mounted rig with hydraulically controlled leveling devices would be used. Some instability could be encountered on the steep switchbacks (see map) during wet weather.

Information Source: APD F.O. Operator

b. Subsidence: None expected

Information Source: APD F.O.

c. Seismicity: The wellsite is in an area of minor seismic risk.

Information Source: "Rocky Mountain Association of Geologists."

d. High Pressure Zones/Blowout Prevention: No high pressure anticipated or found during drilling of nearby State wells in Sec. 32 T 3S R 15E and Sec 36 T 31S R 15E. No BOP equipment planned for this shallow test.

Information Source: APD, Operator.

B. Soils:

1. Soil Character: Soils in the area are a sandy clay with occasional sandy areas. Soil disturbance would be minimal and confined to Pit and road construction.

Information Source: F.O., APD, BLM.

2. Erosion/Sedimentation: Minimal as surface disturbances would be limited.

Information Source: F.O., APD, BLM.

C. Air Quality: The wellsite is in a class II attainment area. Air quality would decrease slightly from equipment and vehicle emissions and fugitive dust.

Information Source: BLM, F.O.

D. Noise Levels: Noise levels would increase temporarily from rig and vehicle operations affection wildlife in a distributional sense.

Information Source: Field Observation

E. Water Resources

1. Hydrologic Character

a. Surface Waters: No perennial drainages in area. Well site is in Dirty Devil River Basin which flows to Lake Powell. Some siltation to Lake Powell could occur but would be minimal. No water is needed for drilling.

Information Source: APD, F.O.

b. Ground Waters: No fresh water expected to be encountered during drilling. Commingling of any aquifers in area is possible.

Water wells drilled into the White Rim Formation 30 miles to the north-northeast have yielded sufficient quantities of useable, though highly mineralized water. However, the two wells drilled on nearby state locations did not discover any water in significant quantities. Cementing the entire hole upon abandonment as proposed would eliminate potential impacts to groundwater.

Information Source: Mineral Evaluation Report

2. Water Quality

a. Surface Waters: Spill to live surface waters is minimal.

Information Source: F.O.

b. Ground Waters: Insignificant impacts expected since air drilling techniques would be employed.

Information Source: F.O. APD

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the formal comments received from BLM on July 1, 1980, we determine that there would be no effect on endangered and threatened species and their critical habitat.

2. Flora: Vegetation in area is sparse due to limited water. Plants are of a Pinyon-juniper-blackbush community.

Information Source: BLM F.O.

3. Fauna: Wildlife in area is sparse due to limited food source and consists predominantly of rodents, coyotes, reptiles, chukars, songbirds and few raptors.

Information Source: BLM APD F.O.

G. Land Uses

1. General: The general area is used for grazing, minimal mineral exploration/extraction and recreation.

Information Source: BLM F.O.

2. Affected Floodplains and/or Wetlands: None.

Information Source: F.O.

3. Roadless/Wilderness Area: The wellsite falls within BLM wilderness Inventory Unit #241, Fiddler Butte. The area's wilderness characteristics are not exceptional and as a result, a BLM inventory has been recommended that the unit be dropped from any further wilderness study, however, under BLM's Interim Management Policy of Lands under Wilderness Review (IMP), it is mandated that the area be protected from any further undue or unnecessary degradation until October 1, 1980, at which time the area will officially fall out of further wilderness consideration. This allows for public comment on the BLM's decision. Any comments or protests to turn this area back into wilderness study status will require the BLM to assess the comments and decide if they are worthy of consideration. Therefore, the area could return into wilderness Study Status in October.

The BLM has determined that impacts from this project would not impair the wilderness characteristics of the area. This fact is supported by the operating plan presented in the APD. Furthermore, if recommended mitigative measures are followed, any impacts could be returned to a substantially un-noticed condition.

Information Source: BLM

H. Aesthetics: The operation does not blend in with the natural surroundings. However, considering the short duration of drilling the proposed 8 well program and the minimal surface disturbances proposed, this action would pose little impact to area aesthetics.

Information Source: F.O. APD

I. Socioeconomics: The remoteness of the area limits socioeconomic impacts in Garfield County, Utah-Most services and personell would emanate from Moab, Utah, utilizing company camp facilities on State Lands. Some economic increases could be expeced in Hanksville, Utah, the nearest town.

Information Source: F.O.

J. Cultural Resources Determination: Based on the Formal comments received from BLM, on 7-1-80 we determine that there will be no effect on cultural resources.

Information Source: BLM

K. Other: Glen Canyon National Recreation Area is located about 5 miles south-east of the project area. No impacts to the recreation area are expected. Rig access in and out of the location through the recreation area has been authorized by a special use permit.

Information Source: F.O. W. Supemaugh (pers. comm.)

L. Adequacy of Restoration Plans: The restoration plan meets the minimum requirements of NTL-6. Restoration recommendations have been supplied by the BLM.

Information Source: APD, BLM F.O.

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.

2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:

- a. A minimal amount of vegetation would be removed, slightly increasing and accelerating erosion potential.
- b. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
- c. The potential for fires, leaks, spills of gas and oil or water exists, but is minimal
- d. During construction and drilling phases of the operation, noise and dust levels would increase.
- e. Distractions from aesthetics during the lifetime of the project would exist.
- f. Erosion from the site would eventually be carried as sediment in Lake Powell.
- g. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

2. Conditional Approval:

All adverse impacts described in section one above would occur, except.

- a. Constructing a reserve pit would provide for adequate disposal of cuttings and any encountered ground water.
- b. Keeping dirt work to a minimum would preserve the remote, pristine characteristics of the area.

Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached BLM Stipulations.
2. The drillsite will not be bladed; however a small 10'x10' reserve pit and a pit toilet would be constructed.
3. All trash and debris will be removed from the site.
4. Rig access must use roads through Glen Canyon National Recreation Area as authorized by the National Park Service Special Use Permit.

Controversial Issues and Conservation Division Response:

None

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination:

I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102 (2)(C).



FOR E. W. GUYNN
DISTRICT ENGINEER

SEP 16 1980

Signature & Title of Approving Official

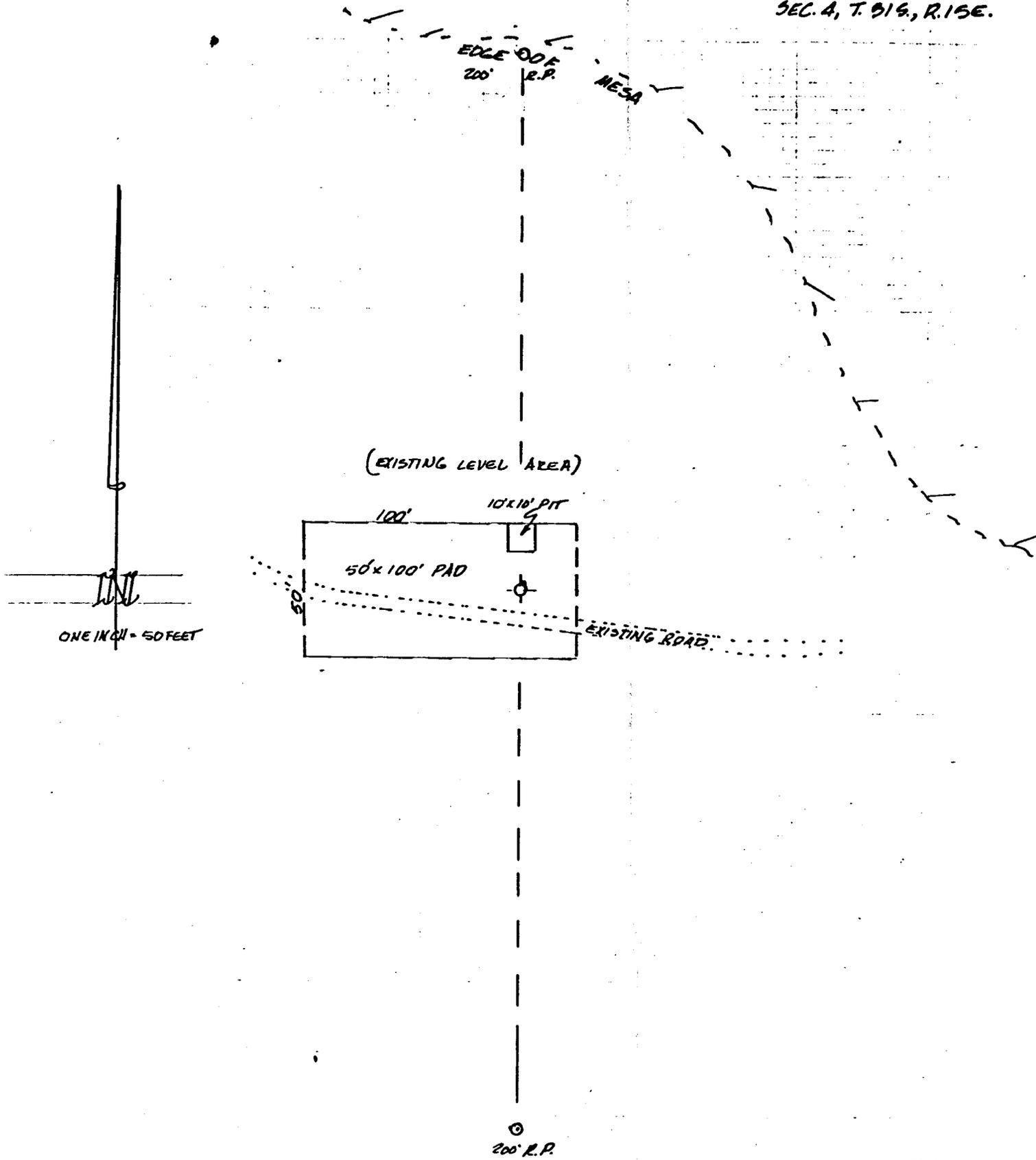
Date



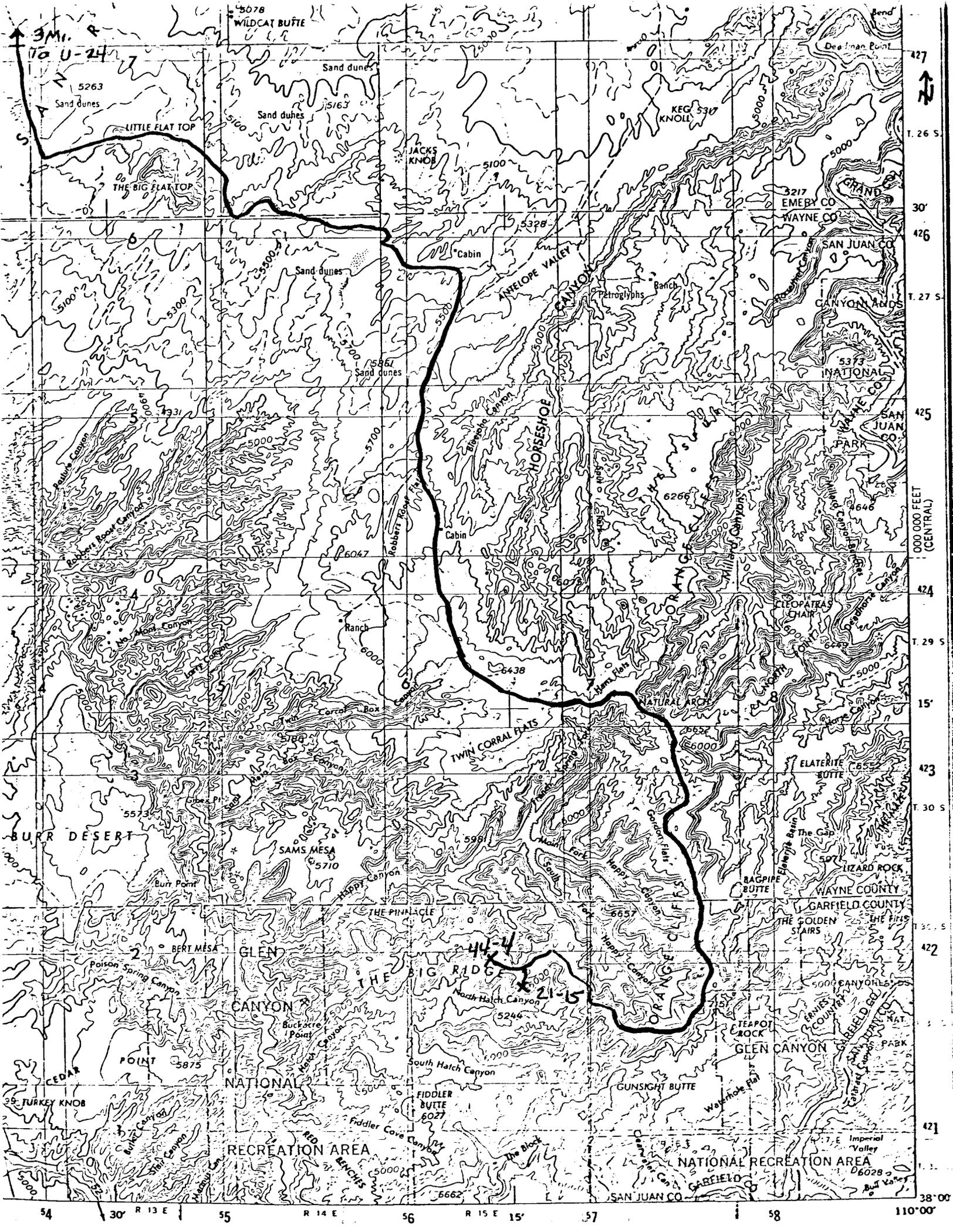
SELECTED REFERENCES

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- Bureau of Land Management, 1979, Final Initial Wilderness Inventory, Utah: U.S. Department of the Interior, BLM, Salt Lake City, Ut., 50 p.
- Bureau of Land Management, 1979, Intermin Management Policy and Guidelines for Lands Under Wilderness Revidew: U.S. Department of the Interior, BLM, Washington D.C., 32 p.
- Keller, E.A., 1976, Environmental Geology: C.E. Merril Publishing Company, Columbus, Ohio. 488 p.
- National Park Service, 1979, Draft Mineral Management Plan: USDI/NPS, Page A2. 56p.
- National Park Service, 1979, Proposed General Management Plan, Wilderness Recommendation, Road Study Alternatives, Final environmental Statement, Glen Canyon National Recreation Area/ Arizona-Utah: USDI-NPS Page A2. 347 p.
- Rocky Mountain Association of Geologists, 1972, Geologic Atlas of the Rocky Mountain Region: Denver, Colorado. 331 p.
- Sumsion, C.T. and E.L. Bolke, 1972, Water Resources of Part of Canyonlands National Park, Southeastern Utah: USDI-USGS, Salt Lake City, Ut. open file Report. 756 p.
- Wilson, LeMoyne, et.al, 1975, Soils of Utah: Agricultural experiment Station, Bulletin 492, Utah State University, Logan, Utah. 94 p.
- Zarn, Mark, 1977, Ecological Characteristics of Pinyon-Juniper Woodlands on the Colorado Plateau: U.S. Dept. of Interior, Bureau of Land Management, Technical Note 310, Denver, Colorado 183 p.

PIT & PAD LAYOUT
AA-4 WHITE RIM
WILLIAM C. KIRKWOOD
SEC. 4, T. 51 S., R. 15 E.



POWERS ELEV., Co.
GRAND JCT., COLO.
BY
LARRY D. DECKER
6.28.80



3 Mi. U-24

5078 WILDCAT BUTTE

Sand dunes

Sand dunes

LITTLE FLAT TOP

THE BIG FLAT TOP

JACKS KNOB

KEG 5317 KNOLL

3217 EMEBY CO WAYNE CO

SAN JUAN CO

Sand dunes

Cabin

ANTELOPE VALLEY CANYON

Petroglyphs

Ranch

GRAND CANYON NATIONAL

5373 NATIONAL

SAN JUAN CO

PARK

Sand dunes

5861 Sand dunes

Cabin

HORSESHOE CANYON

6266

ELATERITE BUTTE

5071 LIZARD ROCK

6047

Ranch

6438

25632

ELATERITE BUTTE

5071 LIZARD ROCK

BURR DESERT

SAMS MESA

THE PINNACLE

5710

5981

6657

THE GOLDEN STAIRS

5000 CANYONS

POINT

GLEN CANYON NATIONAL

5875

5246

6027

TEAPOT ROCK

GLEN CANYON NATIONAL

POINT

RECREATION AREA

5662

6662

IMPERIAL VALLEY

66028

39 TURKEY KNOB

54

55

56

57

58

30° R 13 E

R 14 E

R 15 E

15'

38°00'

110°00'

FROM: : DISTRICT GEOLOGIST ME, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-21083-A

OPERATOR: William C. Kirkwood

WELL NO. 44-4

LOCATION: NE $\frac{1}{2}$ SE $\frac{1}{2}$ SE $\frac{1}{2}$ sec. 4, T. 31S., R. 15E., SLM

Garfield County, Utah

1. Stratigraphy: Operator tops appear reasonable

Navajo	surface
White Rim	1290'
Organ Rock	1570'
<u>TD</u>	<u>1590'</u>

2. Fresh Water:

None probable

3. Leasable Minerals:

4. Additional Logs Needed: Adequate

5. Potential Geologic Hazards: None anticipated

6. References and Remarks:

Heavy oil. - might require Tertiary extraction methods

Signature: Gregory W. Wood

Date: 6-24-80

William Harrison

Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-21083-A Well No. 44-4

1. The location appears potentially valuable for:

- strip mining*
- underground mining**
- has no known potential.

2. The proposed area is

- under a Federal lease for _____ under the jurisdiction of this office.
- not under a Federal lease under the jurisdiction of this office.
- Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at _____ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

**If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed *Allen L. Vance*

** FILE NOTATIONS **

DATE: July 8, 1980
OPERATOR: William C. Kirkwood
WELL NO: Hatch Canyon Unit # 44-4 (White Rim)
Location: Sec. 4 T. 31S R. 15E County: Garfield

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

API Number 43-017-30091

CHECKED BY:

Petroleum Engineer: M. J. Minder 7-9-80

Director: _____

Administrative Aide: K on unit boundary spacing

APPROVAL LETTER:

Bond Required: Survey Plat Required:

Order No. _____ O.K. Rule C-3

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

Lease Designation - Unit Plotted on Map

Hot Line Approval Letter Written ltm
P.I.

Unit approval

July 9, 1980

William C. Kirkwood
P.O. Drawer 3459
Casper, Wyoming 82601

RE: HCU #33-29 (Cromwell), Sec. 29, T. 31S, R. 15E., Garfield County, Utah
HEU #44-4 (White Rim), Sec. 4, T. 31S, R. 15E., Garfield County, Utah
HCU #44-15 (Garfield), Sec. 15, T. 31S, R. 15E., Garfield County, Utah
HCU #41-20 (Eastex), Sec. 20, T. 31S, R. 15E., Garfield County, Utah

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

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

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

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

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

The API numbers assigned to these wells are #33-29: 43-017-30090; #44-4: 43-017-30091; #44-15: 43-017-30092; #41-20: 43-017-30093.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Petroleum Engineer

/btm

cc: USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUPLICATE

LEASE DESIGNATION AND SERIAL NO.

U-21083-A

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 William C. Kirkwood

3. ADDRESS OF OPERATOR
 P. O. Drawer 3439, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface
 At proposed prod. zone
 Same
 955' FSL & 598' FEL (NE SE) location change
 1498' 401'

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 53 Miles East of Hanksville, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 59'

16. NO. OF ACRES IN LEASE
 2082

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 2640'

19. PROPOSED DEPTH
 1590'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6005 6034' GR

22. APPROX. DATE WORK WILL START*
 June 15, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 1/2"	6 5/8" New	24# K-55 8 Rd.	20'	10 sxs Cement, Class "G", 2% CaCl
5 5/8"	4 1/2" New	9.5# K-55 8 Rd.	1590'	50 sxs Cement, Class "G", 2% CaCl

1. Drill 8 1/2" hole and set 6 5/8" surface casing to 20' with good returns.
2. Log B.O.P. checks in daily drill reports and drill 5 5/8" hole to 1590'.
3. Run tests if warranted and run 4 1/2" casing if productive.
4. Run logs, as needed, and perforate and stimulate as needed.

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
- "B" The Ten-Point Compliance Program
- "D" The Multi-Point Requirements for A.P.D.
- "E" Access Road Maps to Location
- "F" Radius Map of Field

State of Utah, Department of Natural Resources
 Division of Oil, Gas, and Mining
 1588 West North Temple
 Salt Lake City, Utah - 84116

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen existing well, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Wm C. Vandewater TITLE Petro. Engr. DATE 2-14-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 FOR E. W. GUYNN DISTRICT ENGINEER

APPROVED BY WJ Martin TITLE _____ DATE SEP 22 1980
 CONDITIONS OF APPROVAL, IF ANY: _____

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

NOTICE OF APPROVAL

*See Instructions On Reverse Side

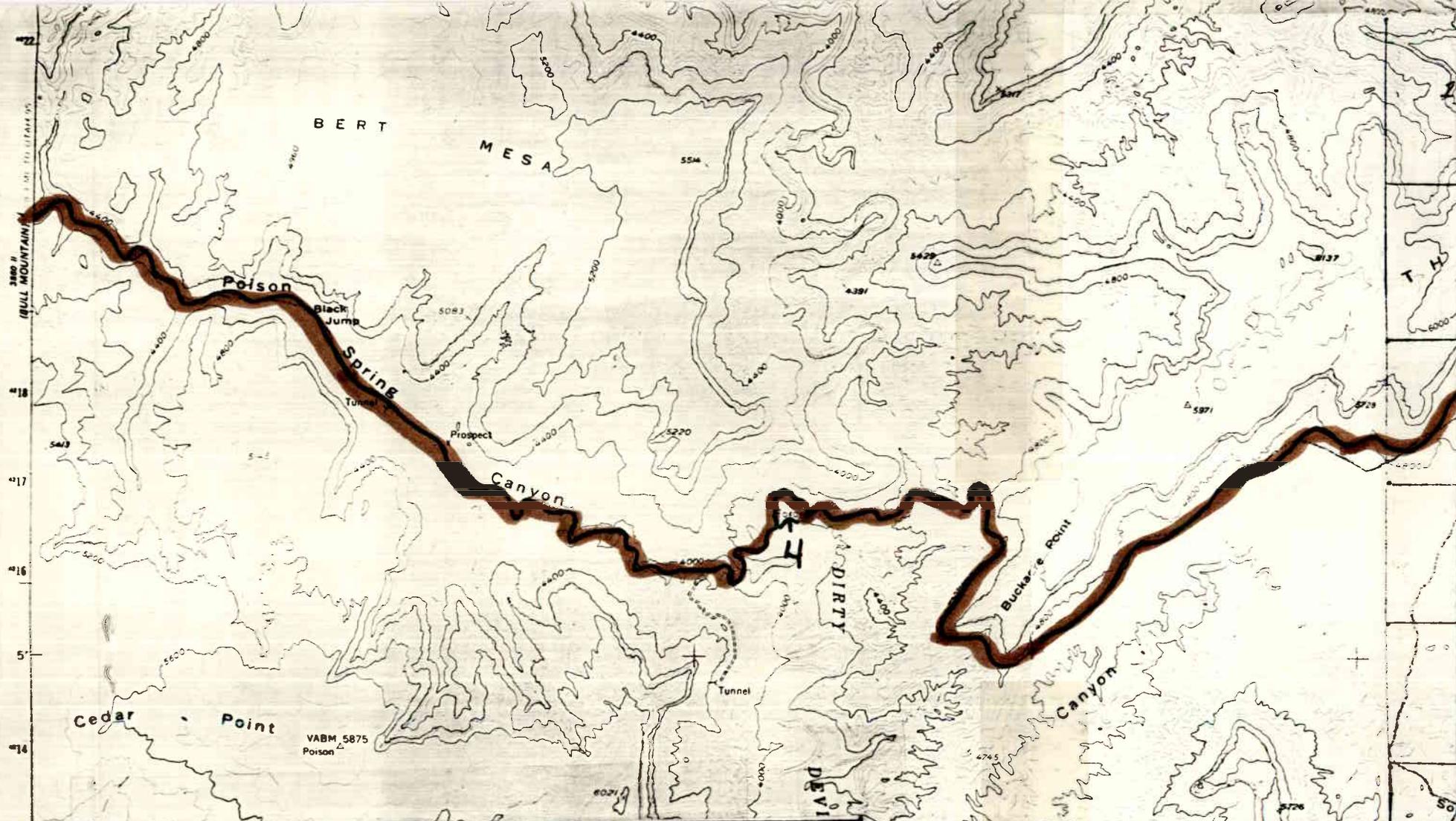


EXHIBIT "E" - Access Roads to Location

LEGEND

1. Location:
William C. Kirkwood
#44-4 White Rim
955' FSL & 598' FEL
Sec. 4 T31S R15E
Garfield County, Utah
2. Water Supply - N/A
3. Nearest Town - Not shown
4. Nearest Live Water
5. Closest Dwelling - Not shown

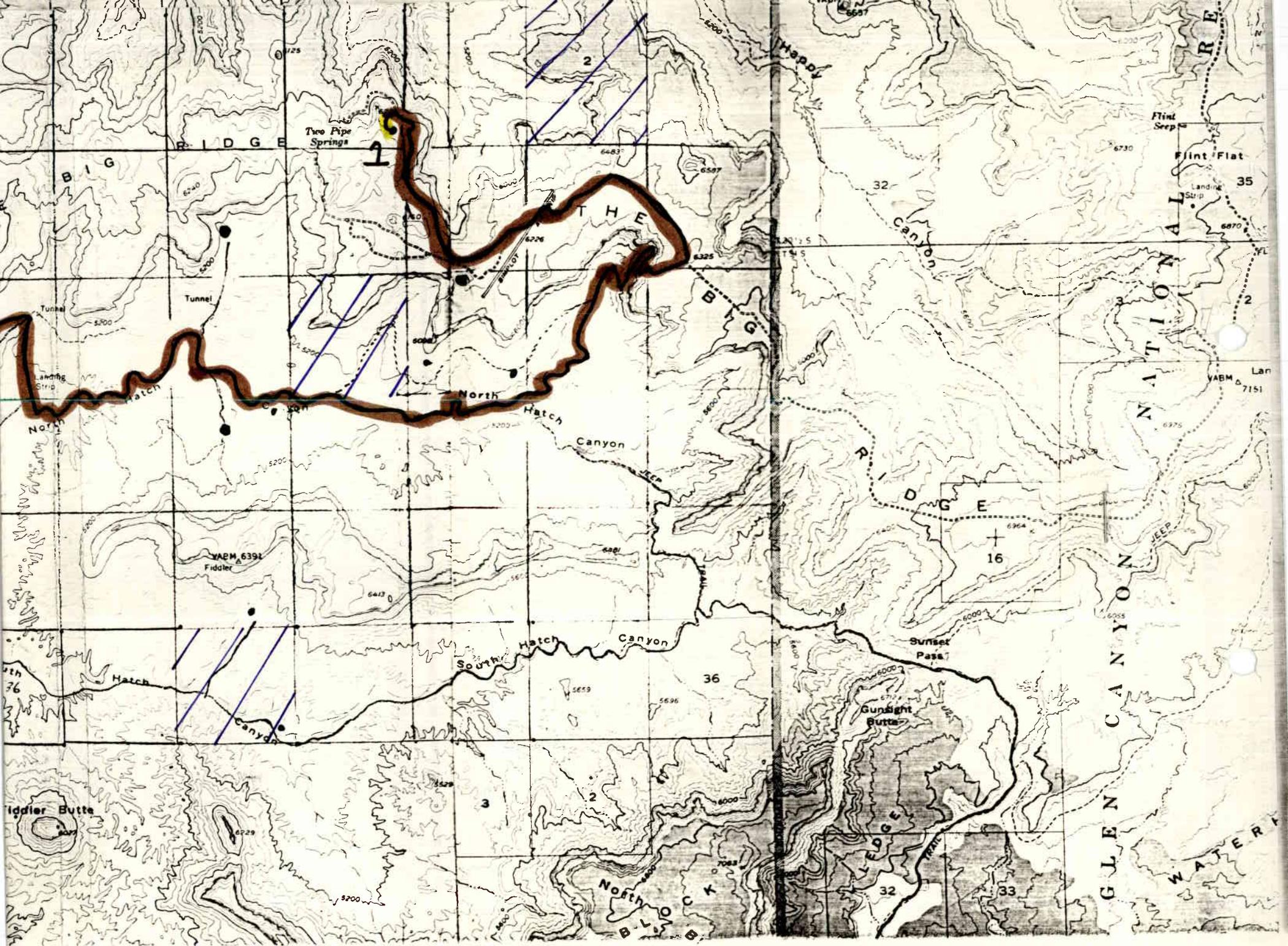
Color Coding

 Dirt Trail

 New Access Road

 State Land

Remainder of Township is Federal Surface



William C. Kirkwood
 44-4 White Rim
 GL 6034'
 Spud at 5:50 AM 8/15/80

DEPTH	FORMATION	LITHOLOGY	THICKNESS DRILLED
0- 680'	Wingate	Orange Sandstone	680'
680-1060'	Chinle	Verigated Siltstone & Tan- Gray Sandstone	480'
1060-1320'	Moenkopi	Red & White Siltstone	260'
1320-1400'	Upper White Rim	Sandstone & Dolomite interlayered	80'
1400- ?	White Rim	White Sandstone	
? -1640'	Cedar Mesa	Tan & White Sandstone	240'

T.D. at 1640' 8/16/80

Saturation:

Upper White Rim - 30' Light to Moderate in thin (<1")
 Sandstone layers
 50' Moderate to heavy saturation in Sandstone with
 thin Dolomite (< 1/2") layers

White Rim - 106' Moderate to heavy Saturation Throughout
 Core
 15' light to moderate saturation throughout core

Total Good Saturation 156' Moderate to Heavy Saturation

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See instructions on reverse)

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

9

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

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

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

2. NAME OF OPERATOR: William C. Kirkwood

3. ADDRESS OF OPERATOR: P.O. Box 3439, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 401' FEL 1498' FSL At top prod. interval reported below same At total depth same

14. PERMIT NO. 43-017-30071 DATE ISSUED 7-7-80

5. LEASE DESIGNATION AND SERIAL NO. U-21083 6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A 7. UNIT AGREEMENT NAME Hatch Canyon 8. FARM OR LEASE NAME White Rim 9. WELL NO. 44-4 10. FIELD AND POOL, OR WILDCAT Wildcat 11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA Sec 4, T31S, R15E 12. COUNTY OR PARISH Garfield 13. STATE Utah

15. DATE SPUNDED 8/14/80 16. DATE T.D. REACHED 8/16/80 17. DATE COMPL. (Ready to prod.) 9-80 18. ELEVATIONS (DF, RKB, RT, CR, ETC.)* 6005' GL 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 1640' 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)* 1320'-1510' White Rim 25. WAS DIRECTIONAL SURVEY MADE NO 26. TYPE ELECTRIC AND OTHER LOGS RUN Gamma Ray-Caliper Density-Resistance 27. WAS WELL CORED yes

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

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Rows include 6 5/8" 20# 20' 7 7/8" 5 sacks and 4 1/2" 9.5# 158.02' 6" 150 sacks.

29. LINER RECORD and 30. TUBING RECORD tables with columns for SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT, SCREEN (MD), DEPTH SET (MD), PACKER SET (MD).

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

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

Table with 8 columns: DATE OF TEST, HOURS TESTED, CHOKE SIZE, PROD'N. FOR TEST PERIOD, OIL-BBL., GAS-MCF., WATER-BBL., GAS-OIL RATIO. Includes a row for 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.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. SIGNED [Signature] TITLE [Signature] DATE 10-28-80

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



SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON
Chairman

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

May 21, 1981

William C. Kirkwood
P.O. Box Drawer 3439
Casper, Wyoming 82601

Re: SEE ATTACHED SHEET ON WELL DUE

Gentlemen:

In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not recieved any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. (If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill these wells and action will be taken to terminate the application.) If you plan on drilling these location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

SANDY BATES
CLERK-TYPIST

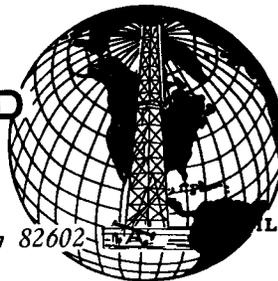
ATTACHED SHEET ON WELLS DUE

1. Well No. White Rim #44-4
Sec. 4, T. 31S. R. 15E.
Garfield County, Utah
2. Well No. Magnum #23-8
Sec. 8, T. 31S. R. 15E.
Garfield County, Utah
3. Well No. Remington #14-15
Sec. 15, T. 31S. R. 15E.
Garfield County, Utah
4. Well No. Winfield #21-15
Sec. 15, T. 31S. R. 15E.
Garfield County, Utah
5. Well No. Garfield #44-15
Sec. 15, T. 31S. R. 15E.
Garfield County, Utah
6. Well No. Hatch Canyon Unit #34-16A
Sec. 16, T. 31S. R. 15E.
Garfield County, Utah
7. Well No. Monroe #22-20
Sec. 20, T. 31S. R. 15E.
Garfield County, Utah
8. Well No. Eastex #41-20
Sec. 20, T. 31S. R. 15E.
Garfield County, Utah
9. Well No. State #11-2
Sec. 2, T. 32S. R. 15E.
Garfield County, Utah
10. Well No. State #31-16
Sec. 16, T. 32S. R. 15E.
Garfield County, Utah
11. Well No. State #34-16
Sec. 16, T. 31S. R. 15E.
Garfield County, Utah

WILLIAM C. KIRKWOOD

Suite 300 Market Square Building — 307/265-5178

P. O. Drawer 3439 — Casper, Wyoming 82602



OIL & GAS EXPLORATION & PRODUCTION

January 29, 1982

State of Utah
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, UT 84116

RE: Filing Additions to USGS Form
9-330 or OGCC-3

William C. Kirkwood
#44-4 White Rim
401' FEL 1498' FSL
Sec. 4, T31S, R15E
Garfield County, Utah

Gentlemen:

Enclosed is a copy of the logs (where run), sample and core descriptions, geologic summaries and other data obtained during drilling and completion operations to date.

Our delay in the further completion of this well, is due to testing presently being done to determine the best method of completion to be used to produce oil from this reservoir. Testing is being done by the University of Utah Fuels Engineering Department on core samples and oil from this reservoir. Additional wells have been cored to obtain samples for analysis of reservoir characteristics and to further delineate oil reserves in the Hatch Canyon Unit. In addition several wells of a pilot test pattern have been drilled.

If you require further information or have any questions please contact me.

Sincerely,

Robert Montgomery

RM:bal

Enclosures

William C. Kirkwood
#44-4 White Rim
401' FEL 1498' FSL
Sec 4 Twp 31S R 15E
Garfield Co., Utah
G.L. 6005'

Spudded	8/14/80	
T.D.	8/16/80	1640'

FM TOPS NOTES	DEPTHS	POROSITY	GRADES	ROUNDING	SORTING	% OF FMWRK	GRAIN SIZE	HOLE # 44-4 WHITE RIM SPOT SEC 4 T31S R15E		SATURATION- OIL
								LITHOLOGY	DISCRIPTION	
WHITE RIM UPPER	1320'-1350'									SAT MOD IN SS
	1350'-1400'									" " " "
WHITE RIM	1400'-1475'									SAT MOD TO HVY THIN
	1475'-1484'									SAT HVY THROUGHOUT
	1484'-1485'									SAT LIGHT THIN
	1485'-1496'									SAT MOD TO HVY THIN
	1496'-1497'									SAT LIGHT THIN
	1497'-1509'									SAT MOD TO HVY THIN
	1509'-1522'									NO SAT
	1522'-1525'									LIGHT TO MOD SAT.
	1525'-1540'									NO SAT
UTAH 1476' DEN 1467'										

S ALL
T01511'
1516'
1520-25'
1530'
1536'

DOL W/ THIN (<1") SS LYRS
 SS W/ THIN (<10) DOLC LYRS LT CALC CNT
 SS, BED 0°-30° LT CALC CNT
 SS, BED 0°-10°, w/ LYRS (<1/4") w/ HVY CALC CNT
 SS, " " " MOD TO WELL CNT
 SS, BED (0-5°), w/ LYRS (<1/4") w/ HVY CAL CNT
 SS, " " " MOD TO WELL CNT
 SS, BED 0°-10°, w/ LYRS (<1/4") w/ HVY CAL CNT
 SS, WT, HVY CAL CNT
 " " " CNT IN PDS & THIN LYRS
 SS, WT, BED (0°-5°) WELL CNT

WILLIAM C. KIRKWOOD



27

Suite 300 Market Square Building — 307/265-5178

P. O. Drawer 3439 — Casper, Wyoming 82602

OIL & GAS EXPLORATION & PRODUCTION

March 24, 1983

Attn: Cari Furse ✓
State of Utah
Natural Resources & Energy
Oil, Gas, & Mining
4241 State Office Building
Salt Lake City, Utah 84114

RE: Wells No. 23-8 Magnum
Sec. 8, T31S, R15E &
44-4 White Rim Sec. 4
T31S, R15E. Garfield
County, Utah

Dear Cari:

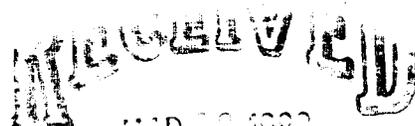
Enclosed please find sundry notices and revised survey plats for the above referenced wells. The changes in location were made due to topographic and access problems determined during on-site inspections. Notification of these changes were apparently not sent to your office due to personnel changes within our organization, at that time.

If you require further information, please contact me.

Sincerely,

Robert C. Montgomery
Geologist

RCM/jf
enclosures



DIVISION OF
OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.	U-21083
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	N/A
7. UNIT AGREEMENT NAME	Hatch Canyon
8. FARM OR LEASE NAME	White Rim
9. WELL NO.	44-4
10. FIELD AND POOL, OR WILDCAT	Wildcat
11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA	Sec. 4, T31S, R15E
12. COUNTY OR PARISH	Garfield
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
William C. Kirkwood

3. ADDRESS OF OPERATOR
P. O. Box 3439, Casper, WY. 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
401' FEL & 1498' FSL (NE SE)

14. PERMIT NO.
43 017 30091

15. ELEVATIONS (Show whether DV, RT, GR, etc.)
6005

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"/>	FULL 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>Change of Location</u> <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

This location was changed before drilling from 955' FSL & 598' FEL (SE SE) to 401' FEL & 1498' FSL (NE SE) because of topographic and access problems at the original location.

This well was completed in Sep 1980 (SIOW)

RECEIVED
MAR 8 1983

DIVISION OF
OIL, GAS & MINING

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

SIGNED [Signature] TITLE Geologist DATE 3/24/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

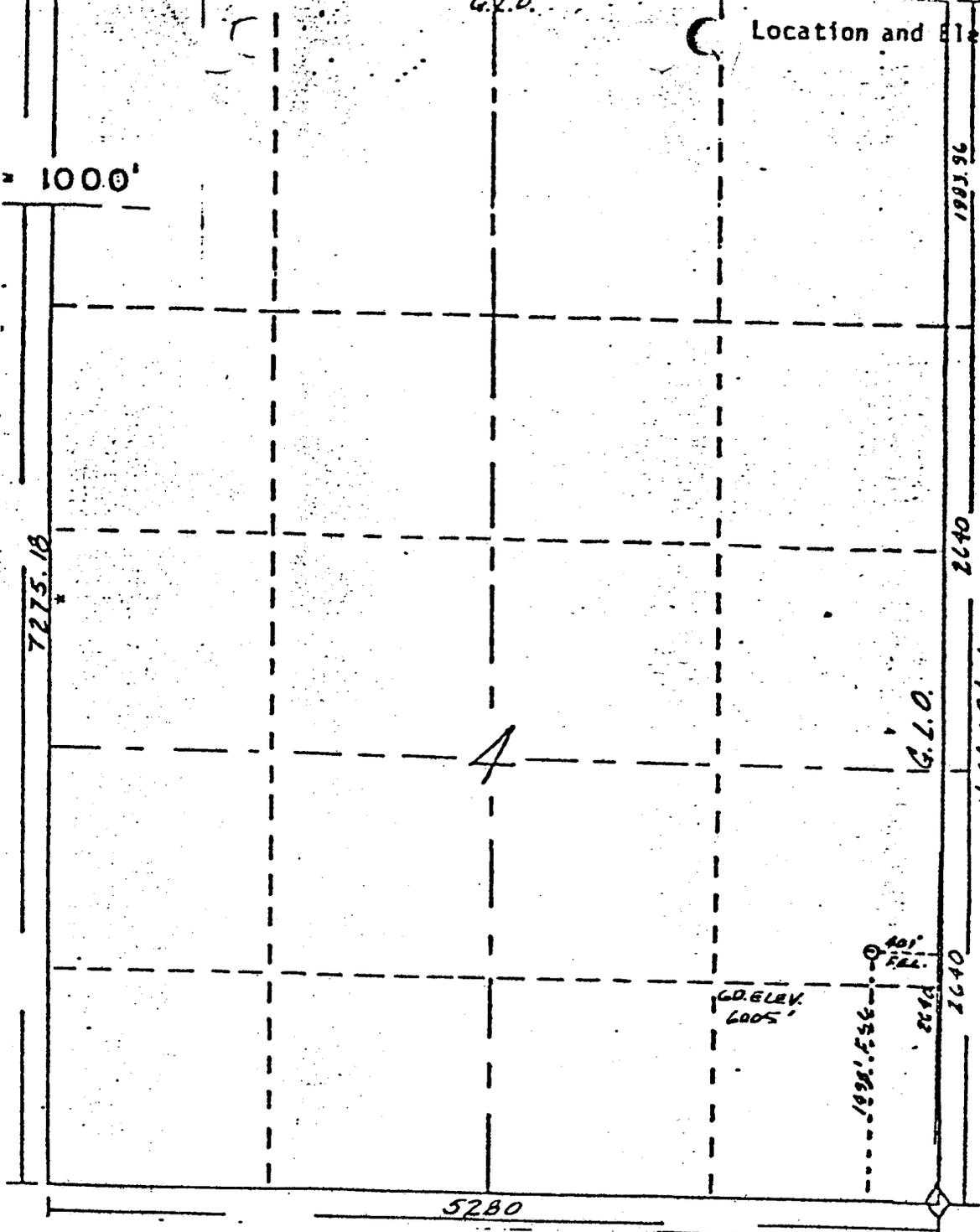
CONDITIONS OF APPROVAL, IF ANY:



Scale... 1" = 1000'

R. 15 E.

*Protraction Diagram No. 3
B.M. Area 2
March 7, 1961



T. 31 S.

(MOVED FOR TAPD)

Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from *Tim Schowalter* for *WILLIAM C. KIRKWOOD* determined the location of #44-4 WHITE RIM to be 1498' FSL & 401 FEL of Section 4 Township 31 S. Range 15 E. of the Salt Lake Base and Meridian Garfield County, Utah.

I hereby certify that this plat is an accurate representation of a correct survey showing the location of

#44-4 WHITE RIM

Date: 5-10-80

Orin D. Becken
Licensed Land Surveyor No. 4189
State of Utah

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO.
2. NAME OF OPERATOR W. C. Kirkwood Oil and Gas		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P. O. Drawer 3439 Casper, WY 82602		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface Wells located in Townships 31 and 32 South Ranges 14 & 15 East		8. FARM OR LEASE NAME
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	9. WELL NO.
		10. FIELD AND POOL, OR WILDCAT
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
		12. COUNTY OR PARISH 18. STATE

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

NOTICE OF INTENTION TO:

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

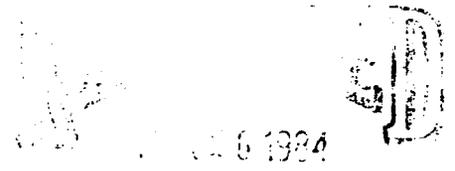
SUBSEQUENT REPORT OF:

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

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

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

The wells described on the enclosed list are located within the Hatch Canyon Federal Oil and Gas Unit. This unit is located within the Tar Sand Triangle Special Tar Sand Area. All operations within the Hatch Canyon Unit have been suspended pending conversion of the federal leases within the unit to Combined Hydrocarbon Leases. Thus all operations on these wells have been suspended until conversion has taken place. At that time an additional Sundry Notice will be submitted outlining future activities involving these wells.



DIVISION OF
OIL, GAS & MINING

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

SIGNED Robert Halgerson TITLE Geologist DATE March 22, 1984

(This space for Federal or State office use)

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

William C. Kirkwood
#14-36 Technology
2076' FWL 746' FSL
Sec 36 Twp 31S R 14E
Garfield County, Utah
G.L. 4823'

Spudded 6/23/80
T.D. 6/25/80 462'

Deepened 7/1/80
T.D. 7/12/80 1000'

William C. Kirkwood
#33-29 Cromwell
2023' FEL 741' FSL
Sec 29 Twp 31S R 15E
Garfield County, Utah
G.L. 5120

Spudded 7/5/80
T.D. 7/8/80 700'

William C. Kirkwood
#23-8 Magnum
1934' FEL 1667' FSL
Sec 8 Twp 31S R 15E
Garfield County, Utah
G.L. 5084

Spudded 7/17/80
T.D. 7/22/80 1100'

William C. Kirkwood
#22-20 Monroe
2962' FEL 1790' FNL
Sec 20 Twp 31S R 15E
Garfield County, Utah
G.L. 4988

Spudded 7/9/80
T.D. 7/15/80 800'

William C. Kirkwood
#14-15 Remington
554' FWL 697' FSL
Sec 15 Twp 31S R 15E
Garfield County, Utah
G.L. 5307'

Spudded 8/1/80
T.D. 8/3/80 1540'

William C. Kirkwood
#14-15 Garfield
4497' FWL 599' FSL
Sec 15 Twp 31S R 15E
Garfield County, Utah
G.L. 5321'

Spudded 8/4/80
T.D. 8/6/80 1000'

William C. Kirkwood
#21-15 Winfield
2222' FWL 481' FNL
Sec 15 Twp 31S R 15E
Garfield County, Utah
G.L. 6127'

Spudded 8/12/80
T.D. 8/14/80 1800'

William C. Kirkwood
#44-4 White Rim
401' FEL 1498' FSL
Sec 4 Twp 31S R 15E
Garfield County, Utah
G.L. 6005'

Spudded 8/14/80
T.D. 8/16/80 1640'

William C. Kirkwood
#34-16 State
699' FSL 1842' FEL
Sec 16 Twp 31S R 15E
Garfield County, Utah
G.L. 5058'

Spudded 8/22/80
T.D. 8/24/80 620'

William C. Kirkwood
#34-16 Hatch Canyon Unit
SWSE 16-31S-15E
699' FSL 1842' FEL

Spudded 8/22/80
T.D. 620'
G.L. 5058'

William C. Kirkwood
34-16A Hatch Canyon Unit
SWSE 16-31S-15E
752 FSL 1789 FEL

Spudded 10/6/80
T.D. 440'
G.L. 5058'

William C. Kirkwood
34-16B Hatch Canyon Unit
SWSE 16-31S-15E
805' FSL 1736' FEL

Spudded 6/21/81
T.D. 800'
G.L. 5058'

William C. Kirkwood
34-16C Hatch Canyon Unit
SWSE 16-31S-15E
699' FSL 1736' FEL

Spudded 12/19/81
T.D. 500'
G.L. 5058'

William C. Kirkwood
34-16C Hatch Canyon Unit
SWSE 16-31S-15E
805' FSL 1842' FEL

Spudded 6/12/82
T.D. 510'
G.L. 5058'

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

<p>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.)</p>		<p>5. LEASE DESIGNATION AND SERIAL NO. U-21083</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A</p> <p>7. UNIT AGREEMENT NAME Hatch Canyon</p> <p>8. FARM OR LEASE NAME White Rim</p> <p>9. WELL NO. 44-4</p> <p>10. FIELD AND POOL, OR WILDCAT Wildcat</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 4, T31S, R15E</p> <p>12. COUNTY OR PARISH Garfield</p> <p>13. STATE UT</p>
<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR William C. Kirkwood</p> <p>3. ADDRESS OF OPERATOR P.O. Box 3439, Casper, WY 82602</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 401' FEL, 1498' FSL NESE</p>	<p>14. PERMIT NO. 43-017-30091</p> <p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6005 GL</p>	

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) <input type="checkbox"/>	
(Other) <input type="checkbox"/>	<input checked="" type="checkbox"/>	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

This well is located in the Hatch Canyon Unit. All operations in this Unit have been suspended pending the conversion of Federal Oil and Gas leases within this Unit to Combined Hydrocarbon leases. Once these leases are converted a new Combined Hydrocarbon Unit will be formed and operations resumed. Until that time this well has been shut in and temporarily abandoned.

RECEIVED

JAN 17 1985

DIVISION OF
OIL, GAS & MINING

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

SIGNED *John Montgomery* TITLE Geologist DATE 1-4-85

(This space for Federal or State Office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:



355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut
84180-1203. (801-538-5340)

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

HATCH CYN UNIT

• KIRKWOOD, WILLIAM C.
P O BOX 3439
CASPER WY 82602
ATTN: AUDREY FISHER

* Combined Hydrocarbon
* Oper. Filed Bankruptcy

Utah Account No. N3260

Report Period (Month/Year) 1 / 89

Amended Report

Well Name	Producing Zone	Days Oper	Production Volume	Gas (MSCF)	Water (BBL)
API Number	Entity	Location	Oil (BBL)		
REMINGTON 14-15	SWSW WHRM	—	Sow U-21037		
4301730086	09645 31S 15E 15				
WINFIELD 21-15	NENW WHRM	11015	Sow U-21037		
4301730087	09645 31S 15E 15				
MONROE 22-20	SENEW WHRM	11016	Sow U-21477		
4301730088	09645 31S 15E 20				9-29-89 per Theresa / P.A.
MAGNUM 23-8	NESW WHRM	11017	Sow U-21478		
4301730089	09645 31S 15E 8				oper. has a bond, they are
CRMWELL 33-29	SWSE WHRM	11018	Sow U-21476		
4301730090	09645 31S 15E 29				we. to PA 4, Fed. Lease
WHITE RIM 44-4	SESE WHRM	11019	Sow U-21083		
4301730091	09645 31S 15E 4				we. will probably never
WINFIELD 44-15	SESE WHRM	11020	Sow U-21037		
4301730092	09645 31S 15E 15				produce.
STATE 34-16	SWSE WHRM	11021	Sow ML-27138		
4301730096	09645 31S 15E 16				
STATE 34-16A	SWSE WHRM	11022	Sow ML-27138		
4301730098	09645 31S 15E 16				St. Leases
HATCH CANYON U 34-16B	SWSE WHRM	11023	Sow ML-27138		
4301730107	09645 31S 15E 16				
TECHNOLOGY 14-36	WHRM	—	Sow (not in unit)		
4301730085	10929 31S 14E 36				
TOTAL					

Comments (attach separate sheet if necessary)

Entity 9645 ok. No P.A.'s in unit!

9-25-89 All wells currently "Sow" status's for

42-07-3000 is the only well that will retain entity 9645.

I have reviewed this report and certify the information to be accurate and complete.

Date _____

Authorized signature _____

Telephone _____

ENTITY ACTION FORM - FORM 6

ADDRESS P. O. BOX 3439

CASPER, WYOMING 82602

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	9645	11015	43-017-30087	WINFIELD 21-15	NENW	15	31S	15E	GARFIELD		9-18-89
WELL 1 COMMENTS: <p style="text-align: center;">** HATCH CANYON UNIT TERMINATED EFFECTIVE 9-18-89. ALL WELLS WITHIN UNIT BOUNDRY ARE SOW AND NOW HAVE INDIVIDUAL ENTITY NUMBERS. ONLY WELL WITH ORIGINAL # IS 43-017-30086, REMINGTON 14-15.</p>											
D	9645	11016	43-017-30088	MONROE 22-20	SENW	20	31S	15E	GARFIELD		9-18-89
WELL 2 COMMENTS:											
D	9645	11017	43-017-30089	MAGNUM 23-8	NESW	8	31S	15E	GARFIELD		9-18-89
WELL 3 COMMENTS:											
D	9645	11018	43-017-30090	CRMWELL 33-29	SWSE	29	31S	15E	GARFIELD		9-18-89
WELL 4 COMMENTS:											
D	9645	11019	43-017-30091	WHITE RIM 44-4	SESE	4	31S	15E	GARFIELD		9-18-89
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

LISHA ROMERO

Signature

ADMIN. ANALYST

Title

9-29-89

Date

Phone No. (801) 538-5340

Bureau of Land Management
Branch of Fluid Minerals (U-922)
324 South State Street
Salt Lake City, Utah 84111-2303

3170
(U-922)

September 20, 1989

CERTIFIED MAIL - Return Receipt Requested

William C. Kirkwood
P.O. Drawer 3439
Casper, Wyoming 82402

Gentlemen:

Pursuant to our letter of August 8, 1989, the indefinite suspension of Section 9 drilling obligations within the Hatch Canyon Unit Area was lifted September 11, 1989. A copy of our August 8, 1989, correspondence and the Certified Return Receipt is enclosed for your records.

As a result of the indefinite suspension being lifted, the Hatch Canyon Unit Agreement, Garfield County, Utah, automatically terminated, effective September 16, 1989, pursuant to the last paragraph of Section 9 of the Unit Agreement.

Copies of this letter are being distributed to the appropriate Federal agencies. It is requested that you furnish notice of this termination to each working interest owner, lessee, and lessor.

In accordance with 43 CFR 3169.2, you may request a State Director Review of this decision. Any party adversely affected by a State Director Review may appeal to the Interior Board of Land Appeals as stated in 43 CFR 3169.4.

Sincerely,

Orig. Sgd: J.A. Fouts

ACTING

Robert A. Harricks
Chief, Branch of Fluid Minerals

bcc: DM Cedar City
Hatch Canyon Unit File
Agr. Sec. Chron.
Fluid Chron.
U-942
Utah State Land Board
MMS-RFP
DOEM

NGoulthard:jwr/12/89
0128V

TATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS		5. Lease Designation and Serial Number: U-21083
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.		6. If Indian, Allottee or Tribe Name:
1. Type of Well: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER:		7. Unit Agreement Name: HATCH CANYON UNIT
2. Name of Operator: WILLIAM C. KIRKWOOD		8. Well Name and Number: White Rim 44-4
3. Address and Telephone Number: P. O. BOX 3439 CASPER, WY 82602-3439		9. API Well Number: 4301730091
4. Location of Well Footages: 401' FEL, 1498' FSL Co. Sec., T., R., M.: NESE SEC 4, T31S, R15E		10. Field and Pool, or Wildcat: County: Garfield State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit In Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other _____	<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Other _____
<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recompletion <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
Approximate date work will start _____	Date of work completion _____
	Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

ANNUAL STATUS REPORT

The above referenced well was drilled and completed as an exploratory well in a heavy oil project. Although substantial oil reserves were found, low oil prices suspended further development and this well was put in a temporarily abandoned status.

13. Name & Signature: *Arthur W. Kirkwood* Title: Engineer Date: 12/18/92

(This space for State use only)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No.
U-21083

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA, Agreement Designation
Hatch Canyon

8. Well Name and No.
White Rim 44-4

9. API Well No.
43-017-30091

10. Field and Pool, or Exploratory Area
Wildcat

11. County or Parish, State
Garfield Co., UT

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

William C. Kirkwood

3. Address and Telephone No.

P. O. Box 3439, Casper, WY 82602 307 265-5178

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

401' FEL, 1498' FSL
Sec. 4, T31S, R15E

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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

13. 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.)*

Kirkwood proposes to abandon this well as follows:

- 1) Circulate well with 9 PPG fresh water bentonite gel
- 2) Set 5 sack surface plug
- 3) Install dry hole marker
- 4) Restore location as necessary

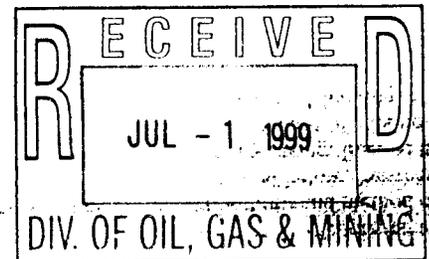
Accepted by the
Utah Division of
Oil, Gas and Mining

Date: 7-13-99

By: RJK

COPY SENT TO OPERATOR

Date: 7-20-99
Initials: CHP



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

Signed

[Signature]

Title

Engineer

Date

6/29/99

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

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

*See Instruction on Reverse Side

UNITED STATES
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U-21083

6. If Indian, Allottee or Tribe Name

NA

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Hatch Canyon Unit

8. Well Name and No.

White Rim 44-4

9. API Well No.

43-017-30091

10. Field and Pool, or Exploratory Area

Wildcat

11. County or Parish, State

Garfield, UT

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well Gas Well Other

2. Name of Operator

William C. Kirkwood

3. Address and Telephone No.

P. O. Box 3439, Casper, WY 82602 307 265-5178

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

401' FEL, 1498' FSL
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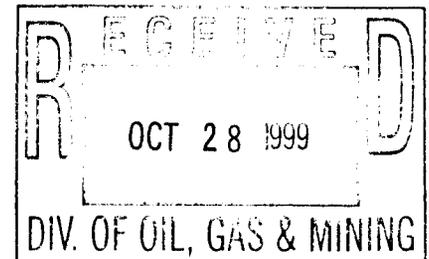
12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment
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(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

Please be advise that the above referenced well has been plugged in accordance with the approved plan and is ready for final inspection.



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

Signed

Robert D. [Signature]

Title

Engineer

Date

10/25/99

(This space for Federal or State office use)

Approved by _____

Title _____

Date _____

Conditions of approval, if any:

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

*See Instruction on Reverse Side

KIRKWOOD OIL & GAS

Fax Cover This is a confidential message, intended solely for the person to whom it is addressed. If you receive this message in error, please forward it to the correct person, or mail it back to us. Thank you.

To Carol Daniels
Fax No. 801-359-3940
From Robert Kirkwood
Date/Time 11/4/1999 at 9:22AM
Subject Utah well P & A dates
Pages 1, including this one

Carol:

The P&A dates you requested are as follows:

Monroe 22-20	10/7/99	
Magnum 23-8	10/8/99	
Cromwell 33-29	10/9/99	
White Rim 44- 21 ⁴	10/5/99	(TA Start)
Technology 14-36	10/8/99	
Garfield 44-15	8/19/92	
Remington 14-15	8/19/92	
Winfield 21-15	8/18/92	

If you need more information please let me know.

307 265-5178

Fax 307 265-1791