

UTAH DIVISION OF OIL GAS AND MINING

73

REMARKS: WELL LOG _____ ELECTRIC LOGS _____ FILE X WATER SANDS _____ LOCATION INSPECTED _____ SUB. REPORT/ABD. _____

DATE FILED 6-13-78

LAND: FEE & PATENTED

STATE LEASE NO.

PUBLIC LEASE NO.

INDIAN ~~I-190184~~

DRILLING APPROVED: 6-12-78

AL-3027

SPUDED IN:

COMPLETED:

PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 3-11-80 LOCATION ABANDONED DUE TO FAILURE TO SPUD IN REASONABLE AMOUNT OF TIME

FIELD: Natural Buttes 3/86

UNIT:

COUNTY: Uintah

WELL NO. Conoco-McCook et al 1-4

API NO: 43-047-30439

LOCATION 1586'

FT. FROM (N) ~~XX~~ LINE.

1382'

FT. FROM ~~XX~~ (W) LINE.

SE NW

1/4-1/4 SEC. 1

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
<u>9S</u>	<u>21E</u>	<u>1</u>	<u>CONTINENTAL OIL COMPANY</u>				

FILE NOTATIONS

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

Checked by Chief
Approval Letter
Disapproval Letter

COMPLETION DATA:

Date Well Completed
OW..... WW..... TA.....
GW..... OS..... PA.....

Location Inspected
Bond released
State or Fee Land

LOGS FILED

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

6-23-92 JAR

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
 Continental Oil Company

3. ADDRESS OF OPERATOR
 152 North Durbin Street, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
 1586' FNL, 1382' FWL (SE NW) *dl c nw*
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

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

16. NO. OF ACRES IN LEASE
 160

17. NO. OF ACRES ASSIGNED TO THIS WELL
 320

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

19. PROPOSED DEPTH
 10,807'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4693' Ungraded Ground

22. APPROX. DATE WORK WILL START*
 Sept. 20, 1978

5. LEASE DESIGNATION AND SERIAL NO.
 L-190184

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 Ute Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 Conoco-McCook et al 1

9. WELL NO.
 4

10. FIELD AND POOL, OR WILDCAT
 Wasatch Mesaverde

11. SEC., T., R., M., OR BLEK. AND SURVEY OR AREA
 Sec. 1, T9S, R21E

12. COUNTY OR PARISH
 Uintah

13. STATE
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	150'	150 sacks <i>ok</i>
12 1/4"	9 5/8"	36#	2500'	775 sacks
7 7/8"	5 1/2"	15.5#, 17#	10,807'	*see below

It is proposed to drill the McCook 1 No. 4 as a Wasatch Mesaverde gas well. No cores are planned. We may conduct a drill stem test. All appropriate logs will be run. It is anticipated to air drill this well until fluid entry into the wellbore becomes such a problem as to require a mud system.

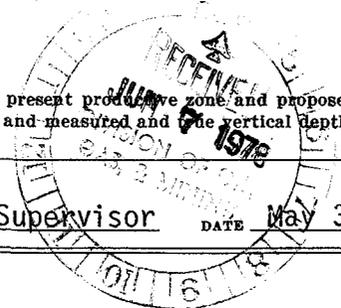
The BOP will be tested daily.

*Cement volume and placement of cement will depend upon which zones are commercial. Cement volumes will be determined from the caliper log.

USGS(3) UDOG(2) FILE

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 T. C. Thompson TITLE Administrative Supervisor DATE May 31, 1978



(This space for Federal or State office use)

PERMIT NO. 43-047-30439 APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Attachment to Form 9-331C
Conoco-McCook et al 1 No. 4
Uintah County, Utah
June 1, 1978

1. The geologic name of surface formation: Uintah
2. The estimated tops of important geologic markers:

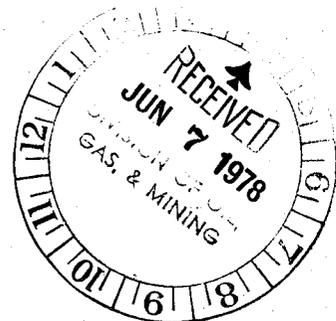
<u>Formation</u>	<u>Drilled Depth</u>	<u>Subsea Depth</u>
Green River	1957'	2750'
Wasatch	5237'	-530'
Mesaverde	7747'	-3040'
Mancos	10757'	-6050'
T. D.	10807'	-6100'

3. It is anticipated to encounter a water bearing zone in the Green River formation. A gas and water bearing zone is anticipated in the Wasatch and in the Mesaverde formations. The depths of these formations are listed in (2) above.
4. Proposed casing pattern:

0-150' 13 3/8", 54.5#, K-55, ST&C
0-2500' 9 5/8", 36#, K-55, ST&C
0-1000' 5 1/2", 17#, N-80, LT&C
1000-2000' 5 1/2", 17#, K-55, ST&C
2000-6800' 5 1/2", 15.5#, K-55, ST&C
6800-9000' 5 1/2", 17#, K-55, ST&C
9000-10807' 5 1/2", 17#, N-80, ST&C

All casing mentioned above will be new.

5. Specifications for pressure control:
Our minimum specification for pressure equipment will be 5000 lbs. See attached BOP diagram.
6. Proposed circulating medium:
Well will be drilled with air. If fluid entry into wellbore becomes such a problem as to require drilling fluid to lift cuttings, aerated water inhibited with 2% KCl will be used. It is anticipated that a salt saturated system will be needed at $\pm 6500'$. Mud weights will be maintained between 9.0-10.7 lbs. per gallon to T.D. (Sufficient mud will be mixed on location to fill hole volume plus excess of 200 bbls. and sufficient weight to control bottom hole pressures.)
7. Auxiliary equipment:
We will use kelly cocks, floats at the bit, monitoring equipment on the mud system (if needed) a sub on the floor with a full opening valve and a blooie line.
8. Testing, logging, and coring:
As mentioned in the permit to drill, no cores, but possibly a drill stem test is planned. A flare will be ignited under the blooie line when drilling below 3000' with air to detect combustible quantities of gas. The following logs will be run over the specified intervals:



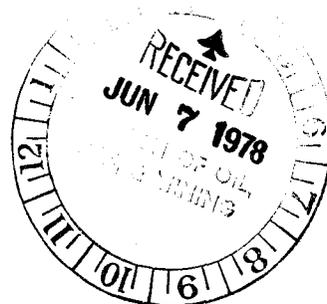
8. Testing, logging, and coring, Contin'd:
 - A. Dual Induction with SP from surface pipe to T.D.
 - B. Formation Density and Compensated Neutron Log with Caliper over selected zones in the Green River, Wasatch, and Mesaverde formations. The Caliper will be run from T.D. to surface pipe.
9. Formation and completion interval:

Sand lens of the Mesaverde and Wasatch completion method: Perforate the casing.
Sand Fracturing: 450,000 gallons gelled water, 800,000 pounds of sand, and 50 tons CO₂.
10. Abnormal pressures and temperatures:

We do not anticipate any abnormal pressures or temperatures. Rotating head will be used while drilling with air for control. BOP's will be used for control while drilling with mud. Mud weight will be increased if necessary to insure adequate control.
11. Starting date and duration:

We plan to spud the well on September 20, 1978, and expect drilling operations to last 45 days.

CONTINENTAL OIL COMPANY
13 Point Surface Use Plan
for
Well Location
Conoco - McCook et. al. 1 #4
Located In
Section 1, T9S, R21E, S.L.B. & M.
Uintah County, Utah



1. EXISTING ROAD

See attached Topographic Map "A".

To reach Continental Oil Company, well location Conoco - McCook et. al. 1 #4, located in the SE 1/4 NW 1/4 Section 1, T9S, R21E, S.L.B. & M., Uintah County, Utah; proceed Westerly out of Vernal, Utah along U.S. Highway 40, 14 miles to the junction of this road and Utah State Highway 209; proceed South along Utah State Highway 209, 7 miles more or less to the junction of this Highway and Utah State Highway 88; proceed South along Utah State Highway 88-10 miles to Ouray, Utah; proceed South out of Ouray approximately 0.35 miles across the Green River, to the junction of this road and an existing dirt oil field service road, known as the Watson Road, to the West; proceed Westerly along this main service road approximately 4 miles to the point that an existing dirt service road exits to the East; proceed Easterly along this main service road approximately 8.7 miles to the junction of this road and an existing dirt service road to the South; proceed Southerly along this service road 3.6 miles to the Mountain Fuel Bridge; proceed along on the same road to the Southwest, across the Mountain Fuel Bridge, 1.8 miles to the junction of this road and an existing service road to the Northwest; proceed Northwesterly along this road 1 mile to the junction of this road and an existing service road to the North; proceed Northerly along this road 1.7 miles to the junction of this road and an existing service road to the West; proceed Westerly along this road 800' to the point that the Proposed Access Road (to be discussed in Item #2) leaves the existing road and proceeds in a Northerly direction.

The Highways mentioned in the foregoing paragraph are bituminous surfaced roads to Ouray, Utah at which point the road is surfaced with native asphalt for approximately the first 4.4 miles of road used to reach the proposed location, and then is a gravel surface to the aforementioned service roads.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing areas they are located in and range from clays to a sandy-clay shale material.

There is no anticipated construction on any portion of the above described roads. They will meet the necessary standards required to facilitate an orderly flow of traffic during the drilling phase, completion phase, and the production phase of this well at such time that production is established.

The roads that are required for access during the drilling phase, completion phase, and production phase of this well, will be maintained at the standards required by the B.I.A. or other controlling agencies.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The proposed access road leaves the existing service road in the SW 1/4 Section 1, T9S, R21E, S.L.B. & M. and proceeds in a Northerly direction 0.4 miles to the proposed location site.

In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met:

The proposed access road will be an 18' crown road (9' either side of the center-line) with drain ditches along either side of the proposed road where it is determined necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area.

2. PLANNED ACCESS ROAD - continued

The road will be centerline flagged prior to the commencement of construction.

The grade of this road will vary from flat to 8%, but will not exceed this amount. This road will be constructed from native borrow accumulated during construction.

If deemed necessary by the local governmental agencies or their representatives, turnouts will be installed for safety purposes every 0.25 miles or on top of ridges that will provide the greatest sight distance. These turnouts will be 200' in length and 12' in width and will be tapered from the shoulder of the road for a distance of 50' in length at both the access and the outlet end.

Any fences that are encountered along this access road will be cut and replaced with a cattleguard with a minimum width of 18' and a loading factor large enough to facilitate the heavy trucks required in the drilling and production of this well.

If cattleguards are to be located at existing gates, they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.

The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate, either leaving or entering the proposed access road.

The terrain that is traversed by this road is relatively flat and is vegetated with sparse amounts of sagebrush and grasses.

3. LOCATION OF EXISTING WELLS

As shown on Topographic Map "B", there are no other wells within a one-mile radius of the proposed well site. (See location plat for exact placement of Continental Oil Company, well location within the section.)

4. LOCATION OF TANK BATTERIES, PRODUCTION FACILITIES, AND PRODUCTION GATHERING AND SERVICE LINES

All petroleum production facilities are to be contained within the proposed location site. There are no other Continental Oil Company flow, gathering, injection, or disposal lines within a one-mile radius of this location.

In the event production is established, plans for a gas flow line from this location to existing gathering lines or a main production line shall be submitted to the appropriate agencies for approval.

The rehabilitation of the disturbed area that is not required for the production of this well, will meet the requirements of Items #7 and #10, and these requirements and standards will be adhered to.

5. LOCATION AND TYPE OF WATER SUPPLY

(See Topographic Map "B".)

Water for this well will come from the White River at a point located in the NE 1/4 of Section 1, T9S, R21E, S.L.B. & M., approximately 500' Northwest of the location site.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction materials for the location site and access road shall be borrow materials accumulated during construction of the location site and access road. No additional road gravels or pit lining material from other sources are anticipated at this time, but if they are required, the appropriate actions will be taken to acquire them from private sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

See Location Layout Sheet.

A reserve and burn pit will be constructed.

The reserve pit will be approximately 8' deep and at least one half of this depth shall be below the surface of the existing ground.

One half of the reserve pit will be used as a fresh water storage area during the drilling of this well and the other one half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluid, etc.

If deemed necessary by the agencies concerned, to prevent contamination to surrounding areas, the reserve pits will be lined with a gel.

The pits will have wire and overhead flagging installed at such time as deemed necessary to protect the water fowl, wildlife, and domestic animals.

At the onset of drilling, the reserve pit will be fenced on three sides and at the time the drilling activities are completed, it will be fenced on the fourth side and allowed to dry completely prior to the time that backfilling and reclamation activities are attempted.

When the reserve pit dries and the reclamation activities commence, the pits will be covered with a minimum of four feet of soil and all requirements in Item #10 will be followed.

The burn pit will be constructed and fenced on all four sides with a small mesh wire to prevent any flammable materials from escaping and creating a fire hazard.

All flammable materials will be burned and then buried upon completion of the well.

A portable chemical toilet will be supplied for human waste.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. WELL SITE LAYOUT

See Location Layout Sheet.

The B.I.A. Representative shall be notified before any construction begins on the proposed location site.

9. WELL WITE LAYOUT - continued

As mentioned in Item #7, the pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area; then the pits will be lined with a gel and any other type of material necessary to make them safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly sequence.

10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. (See Location Layout Sheet and Item #9.) When all drilling and production activities have been completed, the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area.

Any drainages re-routed during the construction activities shall be restored to their original line of flow as near as possible. Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash pit shall be buried with a minimum of 5' of cover.

As mentioned in Item #7, the reserve pit will be completely fenced and wired and overhead wire and flagging installed, if there is oil in the pits, and then allowed to dry completely before covering.

Restoration activities shall begin within 90 days after completion of the well. Once completion activities have begun, they shall be completed within 30 days.

When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommended by the B.I.A. Representative when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said clean-up and restoration activities shall be done and performed in a diligent and most workman-like manner, and in strict conformity with the above mentioned Items #7 and #10.

11. OTHER INFORMATION

The Topography of the General Area (See Topographic Map "A".)

The area is a large basin formed by the Uinta Mountains to the North and the Book Cliff Mountains to the South. The White River is located approximately 500' to the Northwest of the location site.

The basin floor is interlaced with numerous canyons and ridges formed by the non-perennial streams of the area. The sides of these canyons are steep and ledges formed in sandstones, conglomerates, and shale deposits are extremely common to the area.

The geologic structures of the area that are visible are of the Uinta formation (Eocene Epoch) Tertiary Period in the upper elevations and the cobblestone and younger alluvial deposits from the Quaternary Period.

Outcrops of sandstone ledges, conglomerate deposits, and shale are common in this area.

Continental Oil Company
Conoco - McCook et. al. 1 #4
Section 1, T9S, R21E, S.L.M. & B.

11. OTHER INFORMATION - continued

The topsoils in the area range from a light brownish-gray sandy-clay (SM-ML) type soil with poorly graded gravels to a clayey (OL) type soil.

The majority of the numerous washes and streams in the area are of a non-perennial nature flowing during the early spring run-off and extremely heavy rain storms of long duration which are extremely rare as the normal annual rainfall in the area is only 8".

The White River to the North of this location is the only perennial stream that is affected by this location site.

Due to the low precipitation average, climate conditions, and the marginal types of soils, the vegetation that is found in the area is common of the semi-arid region we are located in; it consists of areas of sagebrush, rabbitbrush, some grasses, and cacti as the primary flora. This is also true of the lower elevations.

The fauna of the area consists predominantly of the mule deer, pronghorn antelope, coyotes, rabbits, and varieties of small ground squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle.

The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

The Topography of the Immediate Area (See Topographic Map "B".)

Conoco - McCook et. al. 1 #4, is located on a flat area approximately 500' South of the White River.

The terrain in the vicinity of the location slopes from the Southeast through the location site to the Northwest at approximately a 0.5% grade toward the White River.

The vegetation in the immediate area surrounding the location site consists of grasses and sparse amounts of sagebrush.

There are no occupied dwellings or other facilities of this nature in the general area.

There are no visible archaeological, historical, or cultural sites within any reasonable proximity of the proposed location site. (See Topographic Map "B".)

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Homer Smith
Box 536
Grand Junction, Colorado 81501

Continental Oil Company
Conoco - McCook et. al.
Section 1, T9S, R21E, S.L.B. & M.

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site 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 Continental Oil Company and its contractors and sub-contractors in conformity with this plan and terms and conditions under which it is approved.

6-1-78

Date

Joe M. Galovich

JOE M. GALOVICH

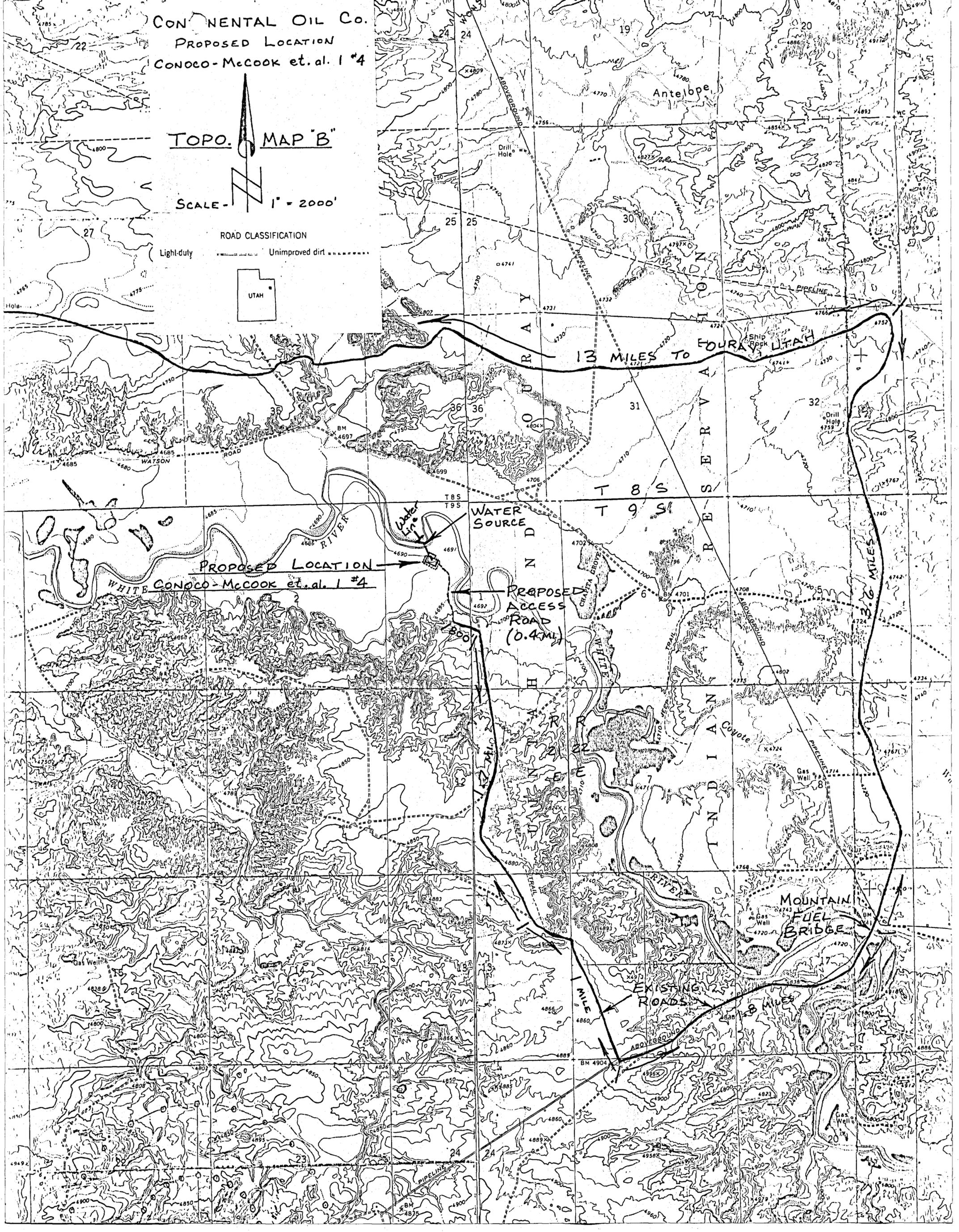
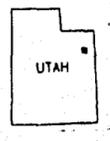
CONVENTAL OIL Co.
PROPOSED LOCATION
CONOCO-McCOOK et. al. 1 #4

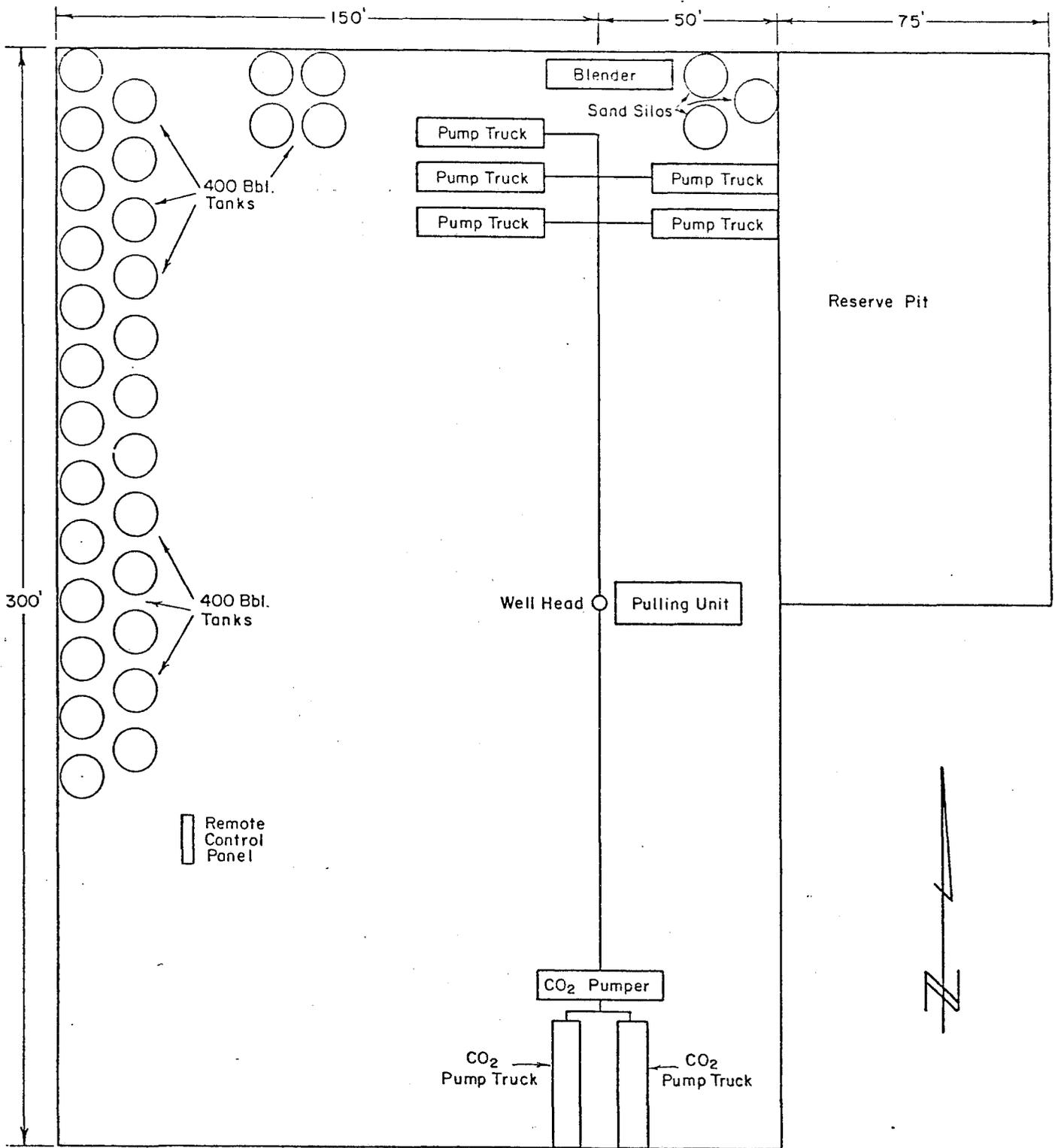
TOPO. MAP "B"

SCALE - 1" = 2000'

ROAD CLASSIFICATION

Light-duty Unimproved dirt





FRACTURING EQUIPMENT LAYOUT

OURAY WELLS

Scale: 1" = 40'

Date: 5-9-78

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

** FILE NOTATIONS **

Date: June 8 c n w Mesavada
Operator: Continental Oil
Well No: Onco-McCook et al #1-4
Location: Sec. 1 T. 9S R. 21E County: Uintah

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

API NUMBER: 13-047-30439

CHECKED BY:

Administrative Assistant [Signature]

Remarks:

Petroleum Engineer [Signature]

Remarks:

Director [Signature]

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: Survey Plat Required:

Order No. 173-1 Surface Casing Change
to _____

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

O.K. Rule C-3 O.K. In _____ Unit

Other:

Letter Written/Approved

SCOTT M. MATHESON
Governor

GORDON E. HARMON
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
June 12, 1978

OIL, GAS, AND MINING BOARD

I. DANIEL STEWART
Chairman

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

Continental Oil Company
152 North Durbin Street
Casper, Wyoming 82601

Re: Well No's:
Conoco-Ignacio #2-5
Sec. 2, T. 9 S, R. 20 E,
Conoco-Ute Tribal #35-8
Sec. 35, T. 8 S, R. 20 E,
Conoco-Ute Tribal #35-6
Sec. 35, T. 8 S, R. 21 E,
Conoco-MeCook et al #1-4
Sec. 1, T. 9 S, R. 21 E,
Uintah County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to wells is hereby granted in accordance with the Order issued in Cause No. 173-1.

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

PATRICK L. DRISCOLL - Chief Petroleum Engineer
HOME: 582-7247
OFFICE: 533-5771

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

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.

Continental Oil Company
June 12, 1978
Page Two

The API numbers assigned to these wells are:

#2-5: 43-047-30436
#35-6: 43-047-30438

#35-8: 43-047-30437
#1-4: 43-047-30439

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

/sw
cc: U.S. Geological Survey

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

6

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
Continental Oil Company

3. ADDRESS OF OPERATOR
152 North Durbin Street, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
1586' FNL, 1382' FWL (SE NW)
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

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16. NO. OF ACRES IN LEASE
160

17. NO. OF ACRES ASSIGNED TO THIS WELL
320

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

19. PROPOSED DEPTH
10,807'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
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22. APPROX. DATE WORK WILL START*
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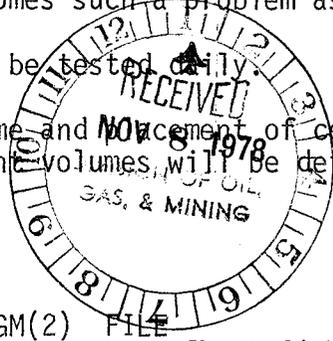
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USGS(3) UDOGM(2) FILE

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24. SIGNED T.C. Thompson TITLE Administrative Supervisor DATE May 31, 1978

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY H.B. Hamer TITLE ENGINEER DATE NOV 7 1978

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

*See Instructions On Reverse Side

NOTICE OF APPROVAL

NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION APPROVED SUBJECT TO ROYALTY (NTL-4)

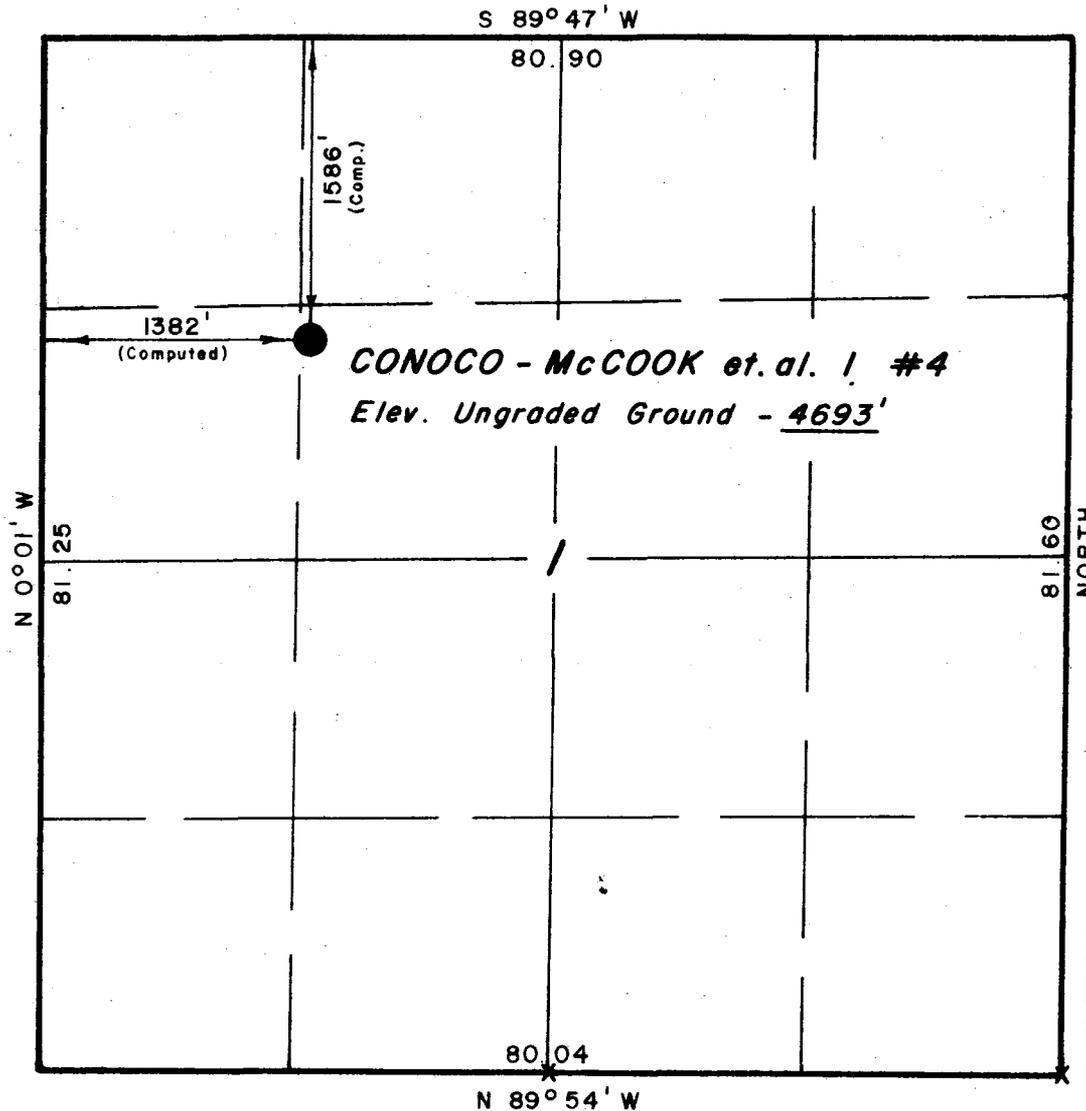
State O&G

PROJECT

CONTINENTAL OIL CO.

T 9 S, R 21 E, S.L.B. & M.

Well location, *CONOCO-McCOOK et. al. 1 #4*, located as shown in the SE 1/4 NW 1/4 Section 1, T 9 S, R 21 E, S.L.B. & M. Uintah 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.

Robert J. ...
REGISTERED LAND SURVEYOR
REGISTRATION No 2454
STATE OF UTAH

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

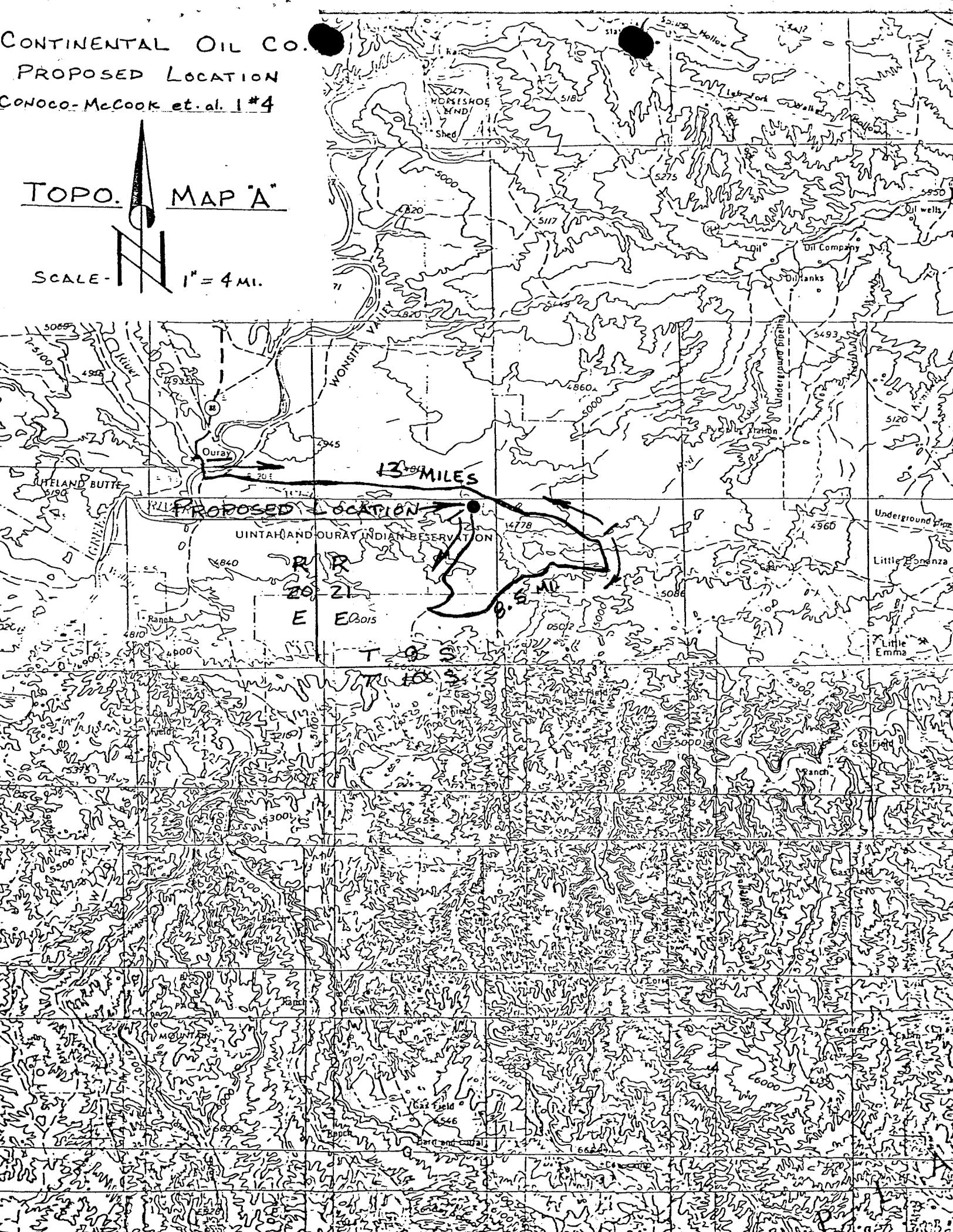
SCALE	1" = 1000'	DATE	4/12/78
PARTY	DA DS	DJ	REFERENCES GLO Plat
WEATHER		FILE	CONTINENTAL OIL

X = Section Corners Located

CONTINENTAL OIL CO.
PROPOSED LOCATION
CONOCO-McCOOK et. al. 1#4

TOPO. MAP "A"

SCALE - 1" = 4 MI.



PROPOSED LOCATION

13.99 MILES

UINTAH AND OURAY INDIAN RESERVATION

R R
20 21
E E
20 21

B.S. 111

Gas field

Hot and cold

Underground
Little Bonanza
Little Emma

Proposed Action:

On May 31, 1978, Continental Oil Company filed an Application for Permit to Drill the No. 4 development well a 10,807-foot gas test of the Wasatch/Mesa Verde Formation; located at an elevation of 4,693 ft in the Wasatch/Mesa Verde Field on Tribal mineral lands and BIA surface; Lease No. AL-3027. There was no objection raised to the wellsite nor to the access road. *1586' FNL & 1382' FWL Sec 1-95-21E Uintah Co., Utah*

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Fresh-water sands and other mineral bearing formations would be protected. A Blowout Preventer would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface and 13-Point Surface Protection Plans are on file in the U.S.G.S. District Office in Salt Lake City, Utah, and the U.S.G.S. Northern Rocky Mountain Area Office in Casper, Wyoming.

A working agreement has been reached with the Bureau of Indian Affairs the controlling surface agency. Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 200 ft wide x 300 ft and a reserve pit 125 ft x 200 ft. A new access road will be constructed 18 ft wide x .4 mi long and upgrade 18 ft wide by 1.7 mi access road from an existing and improved road. The operator proposes to construct production facilities on a disturbed area of the proposed drill pad. If production is established, plans for a gas flow line have been submitted to the appropriate agencies for approval. The anticipated starting date is September 20, 1978, and duration of drilling activities would be about 45 days.

Location and Natural Setting:

The proposed drillsite is approximately 21 mi southeast of Ouray, Utah, the nearest town. A fair road runs to within 2.1 mi of the location. This well is in the Wasatch/Mesa Verde Field.

Topography:

Located on a relatively flat flood plain on Green River.

Geology:

The surface geology is Uintah. The soil is sand and clay. No geologic hazards are known near the drillsite. Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs will be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist and is possible in the sandstone units of the Green River. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formation to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep into the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation.

A geologic review of the proposed action has been furnished by the Area Geologist, U.S. Geological Survey, Salt Lake City, Utah. The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

Soils:

No detailed soil survey has been made of the project area. The top soils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community. The pinon, juniper association is also present.

Top soil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposed to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately three acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, resseding of slope-cut area would minimize this impact.

Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated.

Precipitation:

Annual rainfall should range from about 8 to 11 inches at the proposed location. The majority of the numerous drainages in the surrounding area are of a nonperennial nature flowing only during early spring runoff and during extremely heavy rain storms. This type of storm is rather uncommon as the normal annual precipitation is around 8 inches.

Winds are medium and gusty, occurring predominately from west to east. Air mass inversions are rare.

The climate is semi-arid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

Drainage to Green River to the north which empties into White River to the west.

Some ^{minor} additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems.

The potentials for pollution would be present from leaks or spills. The operator is required to report and clean up all spills or leaks.

Ground Water Hydrology:

Some minor pollution of ground water systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination and commingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basis information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirement of NLT-2B.

The depths of fresh water formations are listed in the 10-Point Sub-surface Protection Plan. There would be no tangible effect on water migration in fresh-water aquifers. The pits would be lined. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

Vegetation:

Plants in the area are of the salt-desert-shrub types grading to the pinon-juniper association.

Proposed action would remove about three acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

Wildlife:

Animal and plant inventory has been made by the BLM. No endangered plants or animals are known to habitat on the project area. The fauna of the area consists predominately of the mule deer, coyotes, rabbits, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows and jays.

Social-Economic Effect:

An on the ground surface archaeological reconnaissance would be required prior to approval of the proposed action. Appropriate clearances would then be obtained from the surface managing agency. If an historic

artifact, an archeological feature or site is discovered during construction operations, activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings and other facilities of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project and are judged to be minor. All permanent facilities placed on the location should be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to predrilling levels.

The site is not visible from any major roads. After drilling operations, completion equipment would be visible to passersby of the area but would not present a major intrusion.

The economic effect of one well would be difficult to determine. The overall effect of oil and gas drilling and production activity are significant in Uintah County. But should this well discover a significant new hydrocarbon source, local, state and possibly national economies might be improved. In this instance, other development wells would be anticipated, with substantially greater environmental and economic impacts.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and U.S. Geological Survey's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

Land Use:

There are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

Waste Disposal:

The mud and reserve pits would contain all fluids used during the operations. A trash pit would be utilized for any solid wastes generated at the site and would be buried at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

Alternatives to the Proposed Action:

(1) Not approving the proposed permit -- The oil and gas lease grants the Lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits.

Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under the U.S. Geological Survey and other controlling agencies supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration. Therefore, the alternative of not proceeding with the proposed action at this time is rejected.

(2) Minor relocation of the wellsite access road or any special, restrictive stipulations or modifications to the proposed program would not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately two acres of land surface from the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, leaks, spills of gas, oil or water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for subsurface damage to fresh water aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in the White River. The potential for pollution to the Green River would exist through leaks and spills.

Determination:

This requested action does not constitute a Federal action significantly affecting the environment in the sense of NEPA, sec. 102(2)(c).

A handwritten signature in cursive script, appearing to read "E. W. Seymour", is written above a horizontal line.

District Engineer
U. S. Geological Survey
Conservation Division
Oil and Gas Operations
Salt Lake City District

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

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. AL-3027OPERATOR: Continental Oil Company WELL NO. 4LOCATION: ¼ SE ¼ SW ¼ sec. 1, T. 9S, R. 21E, S14M
Uintah County, Utah

1. Operator predicted stratigraphy and predicted hydrocarbon zones are adequate? yes
If not, USGS predictions are:
2. Fresh water aquifers probable below surface casing? yes. Useable and/or saline water may be present in the Green River fm.
3. Other probable leasable minerals? yes. Gilsonite veins run through this area & may be encountered. Oil shale will be found in the Mahogany zone of the Parachute Creek Mb. of the Green River fm. Mahogany zone will be encountered at
4. Are hazardous fluids or gases likely? unknown | a depth of about 2700'.
Saline minerals may be present from a depth of 1900' - 2700'.
5. Are abnormal conditions of pressure or temperature likely? unknown, but operator does not anticipate any.
6. Will any strata penetrated need special mud, casing, or cementing beyond that proposed in the APD? unknown
7. Is additional logging or sampling needed? no. Run logs through oil shale zone & overlying saline mineral bearing strata.
8. References - remarks: USGS Files, Salt Lake City, Utah
- Is location within 2 miles of a KGS? yes. Near Bitter Creek KGS

Signature: Candace C. Clark Date: 6/15/78



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

CLEON B. FEIGHT
Director

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple

Salt Lake City, Utah 84116

(801) 533-5771

November 19, 1979

CHARLES R. HENDERSON
Chairman

JOHN L. BELL
C. RAY JUVELIN
THADIS W. BOX
CONSTANCE K. LUNDBERG
EDWARD T. BECK
E. STEELE McINTYRE

Conoco
~~Continental Oil Co.~~
152 No. Durbin St.
Casper, Wyoming 82601

Conoco Inc
907 Rancho Road
Casper, WY 82601

RE: SEE ATTACHMENT SHEET FOR
WELLS INVOLVED.

Gentlemen:

In reference to above mentioned well(s), 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 this well (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 this well, and action will be taken to terminate the application. If you plan on drilling this well 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

Debbie Beauregard
DEBBIE BEAUREGARD
CLERK-TYPIST

ATTACHMENT, WELLS INVOLVED.

- 1) Well No. Conoco-McCook et al 1-4
Sec. 1, T. 9S, R. 21E,
Uintah County, Utah
- 2) Well No. Conoco-Ignacio #2-5
Sec. 2, T. 9S, R. 20E,
Uintah County, Utah
- 3) Well No. Ute Tribal #6
Sec. 6, T. 9S, R. 22E,
Uintah County, Utah
- 4) Well No. Chapita Federal #13
Sec. 13, T. 9S, R. 23E,
Uintah County, Utah
- 5) Well No. Chapita Federal # 13-3
Sec. 13, T. 9S, R. 23E,
Uintah County, Utah
- 6) Well No. Chapita Federal # 14-4
Sec. 14, T. 9S, R. 23E,
Uintah County, Utah
- 7) Well No., Chapita Federal # 14-5
Sec. 14, T. 9S, R. 23E,
Uintah County, Utah

March 7, 1980

Conoco, Inc.
907 Rancho Road
Casper, Wyoming 82601

Re: Well No. Conoco McCook 1-4
Sec. 1, T. 9S, R. 21E,
Uintah County, Utah

Gentlemen:

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

This office has not received any notification of spudding. If you do not intend to drill this well, 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 this well and action will be taken to terminate the application. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to teh above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

Janice Tabish

JANICE TABISH
CLERK TYPIST

March 11, 1980

Conoco Inc.
907 Rancho Road
Casper, Wyoming 82601

Re: Well No. Conoco McCook 1-4
Sec. 1, T. 9S, R. 21E.
Uintah County, Utah

Gentlemen:

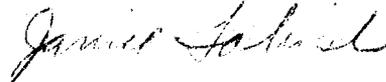
In reference to a telephone conversation on 3-11-80, we have not received new application on the above mentioned well.

Approval to drill this well, which was granted in our letter of 6-12-73, is hereby terminated for failure to spud it within a reasonable period of time.

If and when you should decide to drill this well, it will be necessary for you to again obtain the approval of this Division.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING



JANICE TABISH
CLERK TYPIST