

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE  WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ GAS \_\_\_\_\_ SUB. REPORT/abd. \_\_\_\_\_

**\* Location Abanded - Application Rescinded - 1-5-83**

DATE FILED **1-20-82**

LAND: FEE & PATENTED \_\_\_\_\_ STATE LEASE NO. \_\_\_\_\_ PUBLIC LEASE NO. **U-43614** INDIAN \_\_\_\_\_

DRILLING APPROVED: **1-29-82**

SPUDED IN: \_\_\_\_\_

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION: \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR: \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: **5596' GR**

DATE ABANDONED: **LA 1-5-83**

FIELD: **WILDCAT 3/86 Undesignated**

UNIT: \_\_\_\_\_

COUNTY: **DUCHESNE**

WELL NO. **WILKINS RIDGE UNIT #1-4**

LOCATION **2170** FT. FROM  (S) LINE. **2020** FT. FROM  (W) LINE. **API NO .43-013-30635**

**NE SW 1/4 - 1/4 SEC. 4**

| TWP. | RGE. | SEC. | OPERATOR         | TWP. | RGE. | SEC. | OPERATOR |
|------|------|------|------------------|------|------|------|----------|
| 10S  | 17E  | 4    | COTTON PETROLEUM |      |      |      |          |

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  
 COTTON PETROLEUM CORPORATION      303-873-2233

3. ADDRESS OF OPERATOR  
 717 17th St. Suite 2200, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with applicable requirements)  
 At surface: 2170' FSL & 2020' FWL      Section 4  
 At proposed prod. zone

**RECEIVED**  
DEC 17 1981

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)  
 1997.56

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.      NA      9200'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5596' GR

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT       |
|--------------|----------------|-----------------|---------------|--------------------------|
| 17 1/2"      | 13 3/8"        | 48#             | 200'          | 150 sxs, circ to surface |
| 12 1/4"      | 8 5/8"         | 24#             | 3000'         | 900 sxs                  |
| 7 7/8"       | 4 1/2"         | 11.6# & 10.5#   | 9200'         | 2000 sxs in 2 stages     |

Drill 9200' Mesaverde test. Drill 17-1/2" surface hole to 200' w/native wtr to clean hole, set 200' of 13-3/8" surface casing and cement to surface. WOC 12 hrs. Pressure test casing & BOP to 70% of casing yield, 1211 psig, before drilling out cement. Test BOP operation daily & record. Drill 12-1/4" intermediate hole to 3000', w/native wtr to clean hole, set 3000' of 8-5/8" intermediate casing & cement w/900 sxs of cement, (calculate on 2800' of fill). WOC 12 hrs. Drill out w/7-7/8" bit to 9200', using brine wtr from 3000'-4500', & a polymer brine wtr from 4500'-9200'. MW will be 8.5 to 9.5 ppg. Evaluate well by sample analysis & electric logs. Run 4-1/2" csg if a commercial well is expected.  
 Cotton Petroleum is also requesting by this application, right-of-way to use existing road shown on Attachment 2.

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: [Signature]      TITLE Division Production Manager      DATE 9-8-81

PERMIT NO. \_\_\_\_\_      APPROVAL DATE \_\_\_\_\_  
 APPROVED BY: [Signature]      TITLE E. W. Guynn      DATE DEC 15 1981  
 CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL  
 CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY  
 FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

Identification CER/EA No. 055-82

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

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Cotton Petroleum Corporation  
Project Type Gas Well  
Project Location 2170' FSL & 2020' FWL - Sec. 4, T. 10S, R. 17E  
Well No. 1-4 Lease No. U-43614  
Date Project Submitted November 16, 1981

FIELD INSPECTION

Date December 1, 1981

Field Inspection  
Participants

Greg Darlington - USGS, Vernal  
Gary Slagel - BLM, Vernal  
Dusty Mecham - Cotton Petroleum  
Floyd Murray and Allen Lee - D. E. Casada  
Jim Hacking - Skewes Construction  
Daniel Stubbs - Stubbs Construction

Related Environmental Documents: Unit Resource Analysis, Duchesne Planning  
Unit, BLM, Vernal

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

December 4, 1981

Date Prepared

Gregory Darlington

Environmental Scientist

I concur

DEC 10 1981

Date

W.P. Mantua

District Supervisor

FOR E. W. GUYNN  
DISTRICT OIL & GAS SUPERVISOR

PROPOSED ACTIONS:

Cotton Petroleum Corporation plans to drill the Wilkin Ridge Unit Well #1-4, a 9200' gas and oil test of various formations. About 1300' of new access road including a low water crossing of a large wash will be required. About one mile of existing jeep road will also be upgraded to reach regularly maintained existing roads. An area of operations 320' x 350' is requested for the location.

RECOMMENDED APPROVAL CONDITIONS:

The operator agrees to accept and adhere to the following conditions in addition to the plans outlined in the APD:

1. BLM stipulations;
2. lease stipulations; and
3. provide adequate logs for the identification of other minerals as requested in the Mineral Evaluation Report and Mining Report.



Cotton #1-4  
Wilkin Ridge Unit  
Northeast View



Cotton #1-4  
Wilkin Ridge Unit  
South View

FIELD NOTES SHEET

Date of Field Inspection: December 1, 1981

Well No.: Wilkin Ridge Unit #1-4

Lease No.: U-43614

Approve Location: ✓

Approve Access Road: Modified pad entrance and a low water crossing place.

Modify Location or Access Road: <sup>New</sup> Access road to go directly along ridge to pad to avoid putting a bend in it. 1 Large low water crossing. Road to enter pad near the middle of the West side rather than at NW corner. Second low water crossing preferable to bend at the existing low water crossing.

Evaluation of Criteria for Categorical Exclusion

1. Public Health and Safety
2. Unique Characteristics
3. Environmentally Controversial Items
4. Uncertain and Unknown Risks
5. Establishes Precedents
6. Cumulatively Significant
7. National Register Historic Places
8. Endangered/Threatened Species
9. Violate Federal, State, Local, or Tribal Laws

If this project is not eligible for Categorical Exclusion circle the numbers of the above criteria requiring the preparation of an EA.

Comments and special conditions of approval discussed at onsite: (include local topography) 9200' possibly 11000' eventual depth thru the pad size is very close

to what would be optimum best for drilling requirements. Reserve pit should be adequate. Water hauling could be expensive. Lessor may apply for the right to drill a water well or one of their leases soon, but probably not soon enough for this well.

Topsoil will be placed on the uphill side of the pad.

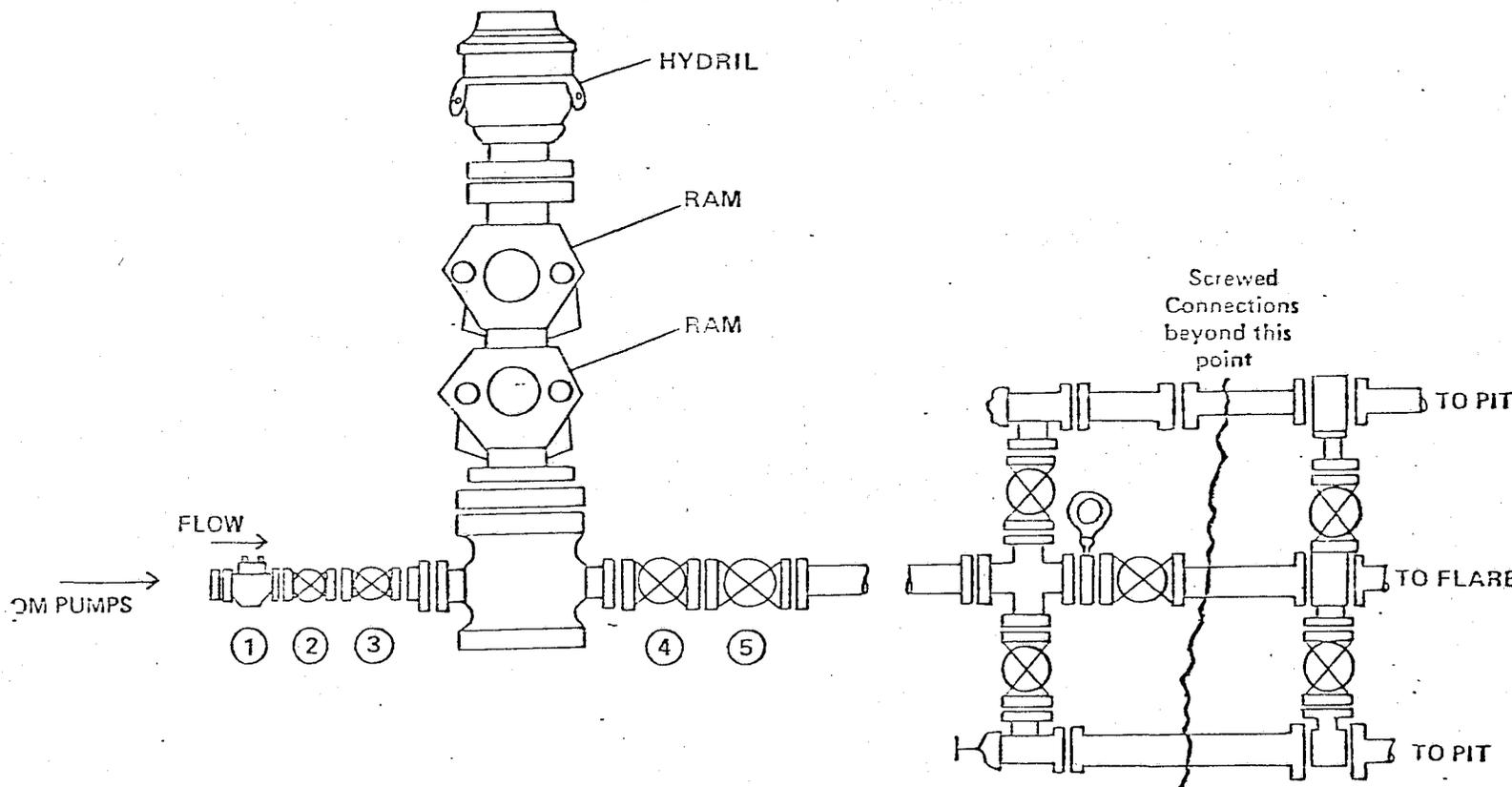
CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

| Criteria                                  | Federal/State Agency  |                    |                | Local and private correspondence (date) | Previous NEPA | Other studies and reports | Staff expertise | Onsite inspection (date) | Other |
|---|-----------------------|--------------------|----------------|---|---------------|---------------------------|-----------------|--------------------------|-------|
|   | Correspondence (date) | Phone check (date) | Meeting (date) |   |               |                           |                 |                          |       |
| 516 DM 2.3.A                              |                       |                    |                |   |               |                           |                 |                          |       |
| Public health and safety                  |                       |                    |                |   |               |                           | 1, 2, 4, 6      | 12-1-1981                |       |
| Unique characteristics                    |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |
| Environmentally controversial             |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |
| Uncertain and unknown risks               |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |
| Establishes precedents                    |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |
| Cumulatively significant                  |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |
| National Register historic places         |                       |                    |                |   |               |                           | 1, 6            |                          |       |
| Endangered/ threatened species            |                       |                    |                |   |               |                           | 1, 6            |                          |       |
| Violate Federal, State, local, tribal law |                       |                    |                |   |               |                           | 1, 2, 4, 6      |                          |       |

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey  
(Conservation Division, Geological Division, Water Resource Division,  
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement
8. *Onsite Requirements other than the items 1-7.*

# MINIMUM BOP Requirements



## KILL LINE

- Valve #1 — Flanged check valve  
Full working pressure  
of BOP
- Valves #2 & 3 — Flanged, minimum 2" bore  
Full working pressure of BOP

## CHOKE LINE

- Valve #4 & 5 — Flanged minimum 2" bore full  
working pressure of BOP  
(Note: An HCR can be used  
instead of Valve #5)

## GENERAL RULES AND RECOMMENDATIONS

1. Test Rams to full working pressure, Hydril to 50% of working pressure.
2. All lines to manifold are to be at right angles (90°). No 45° angles are to be used. Blind flanges are to be used for blanking.
3. ALL studs and nuts are to be installed on all flanges.
4. Choke manifold may be screwed connections behind chokes.

**ATTACHMENT 1**

WILKEN RIDGE UNIT 1-4  
MULTI-POINT REQUIREMENTS  
13 POINT PLAN

1. Existing Roads:

- a. The locations of the proposed well site is shown on attachment 2. The details of the staked location are shown on attachment 5.
- b. The route to the proposed location is shown on attachment 2, with a written description on attachment 3.
- c. The access road is highlighted on attachment 2.
- d. This is a wildcat well, therefore, to the best of our knowledge, all existing roads within 3 miles of the location, are shown on attachment 2.
- e. This is a wildcat well, therefore "e" is not applicable.
- f. The existing roads are graded and capable of full load capacity, and will not require any additional preparation for drilling operations. Road maintenance (grading) will be performed as required.

2. Planned access roads:

- a. The proposed access road will be centerline flagged, approximately 6900' in length, single lane, and 16' in width.
- b. Maximum grade will be less than 10%.
- c. Six turnouts will be constructed at locations shown on attachment 2, with less than 1000' between turnouts.
- d. A drainage ditch will be constructed on the uphill side with a 4:1 slope; with diversions away from the road or as required on the downhill side, where the slope exceeds 2%.
- e. Culverts will not be required.
- f. All surface material will be local soil and rock.
- g. Gates, cattleguards, and fence cuts are not required.

3. Location of existing wells:

Attachment 4 shows the location and type of wells located within 2 miles of the proposed location.

4. Location of existing and/or proposed facilities:

- a. There are not any batteries, production facilities, oil or gas gathering lines, injection lines or disposal lines owned or controlled by the lessee/operator within 1 mile of this proposed location.

- b. The proposed facilities for this proposed well consist of two (2) 400 bbl tanks, and a production unit with meter run, as shown on attachment 5.
- c. The disturbed areas, no longer needed for operations after construction is completed, will be rehabilitated consistent with BLM requirements.

5. Location and Type of Water Supply:

- a. Water for drilling this proposed well, will be supplied by a private water well in the town of Myton.
- b. The water will be hauled to location by truck, over the access roads shown on attachment 2.

6. Source of Construction Materials:

All roads or location material will be found on location, which is on BLM land.

7. Methods for Handling Waste Disposal:

- a. Well cutting will be disposed in the reserve pit.
- b. Drilling fluids will be contained in the reserve pit, and allowed to dry, if the pit has not dried out in 6 months, the remaining fluid will be trucked away.
- c. Produced water will be disposed of in accordance with the NTL-2B regulations.
- d. Sewage will be collected in sanitary toilet facilities, with human wastes being buried in a pit with a minimum coverage of 4'.
- e. Garbage and other waste material will be collected in metal trash bins and hauled away to an approved landfill.
- f. If the well is productive, maintenance waste will be collected in trash cans and hauled away periodically. The well site will be properly cleaned up after the drilling rig has moved out.

8. Ancillary Facilities:

Temporary living trailers will be located on the east edge of the well pad. This will include trailers for the rig tool pusher, consulting engineer, and the mud logging trailer.

9. Well Site Layout:

- a. Attachment 6 shows the cross section of the drill pad showing cuts and fills. The mat size is 350 x 320.
- b. Attachment 5 shows the proposed locations of the reserve and burn pits, and soil stockpiles. Also shown is the approximate proposed locations for the mud tanks, pipe racks and trash bins. Reserve pit is 120 x 120, joining pad on the west.

- c. The rig orientation, parking areas and access road is also shown on attachment 5.
- d. The pits will be unlined, unless required by the U.S.G.S.

10. Restoration of Surface:

- a. The pits will be back filled and re-contoured as soon as drying permits. All waste that was no previously disposed of, will be removed. Liquid waste will be trucked away.
- b. The surface will be rehabilitated and re-vegetated according to BLM regulations.
- c. The mud pit will be fenced on 3 sides during drilling operations, and on the 4th side after the rig is released. All other pits will be fenced with small mesh wire on 4 sides.
- d. Overhead flagging will be installed on the mud pit if the pit gets covered with oil.
- e. Rehabilitation operations will start after production is established, or the well is P & A'd, and will be completed within 6 months.

11. Other Information:

- a. Topography - Land is gently sloping to the north as shown by the topographic map in Attachment.
- b. Soil - The soil is very shallow, rocky top soil.
- c. Vegetation - The vegetation is generally sparse and consists primarily of native grasses. Wildlife in the area is that typical of semi-arid land, which includes coyotes, rabbits, rodents, reptiles, and quail. The area will be re-seeded after drilling is completed.
- d. Ponds and Streams - There are not any ponds or streams near the location.
- e. Residences and Other Structures - There are no buildings of any type within a radius of 2 miles of the proposed well.
- f. Effective on Environment - Drillsite is located in low environmental risk area. A total effect in drilling and producing this and other wells in this area would be minimal.
- g. Surface Use - Grazing and Hunting.
- h. Surface Ownership - The proposed drillsite is on BLM controlled Federal surface. All proposed roads are on BLM controlled Federal surface.
- i. Open Pits - All pits containing mud or other liquids will be fenced. Reserve pits will be fenced on 3 sides during drilling and the 4th side afterwards.

- j. Well Signs - Signs identifying and locating the well will be maintained at drillsite commencing with the spudding of the well.

12. Operator's Representatives:

Field personnel who can be contacted concerning compliance with the Multi-Point Requirements, 13 Point Plan are as follows:

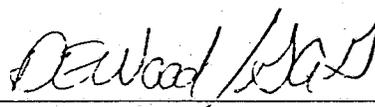
Dusty Mecham  
Vernal, Utah  
Home Phone: (801) 789-0489  
Office Phone: (801) 789-4728

D.E. Wood  
Denver, Colorado  
Home Phone: (303) 773-2722  
Office Phone: (303) 893-2233

Glenn Garvey  
Denver, Colorado  
Home Phone: (303) 979-3714  
Office Phone: (303) 893-2233

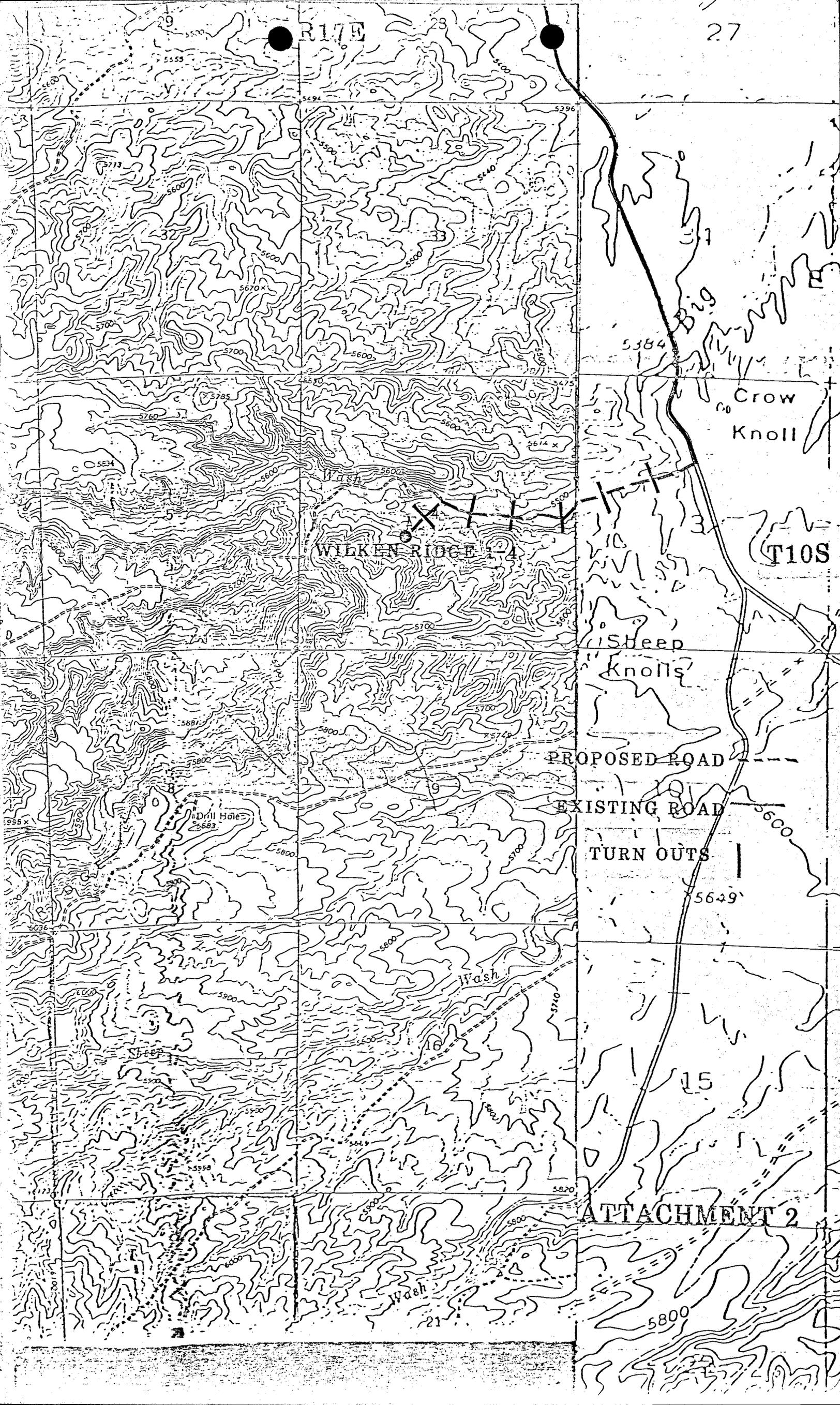
13. Certification:

I hereby certify that I, or persons under by direct supervision, have inspected the 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 Cotton Petroleum Corporation, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.



D.E. Wood  
Division Production Manager

DEW/vl



WILKEN RIDGE

Crow Knoll

Sheep Knolls

PROPOSED ROAD

EXISTING ROAD

TURN OUTS

Drill Hole  
5683

ATTACHMENT 2

ATTACHMENT No.3

ROUTE TO WILKEN RIDGE UNIT 1-4

Take Highway 216, 13 miles Southeast of Myton, Utah, to the Castle Peak Mine Area, located in Section 4, Township 9 South, Range 17 East. Turn to the right, this road travels towards Snyder Reservoir in Crow Knoll. Continue on this road 6.3 miles to the top of Crow Knoll, turn right which is to the west, and travel approximately 6900' to the location.

**ATTACHMENT 3**

DST Tgr, rec B  
319' mud, DST Tgrde, rec 250'  
DST Km, rec  
10+6 mud, rec  
1170' GCM

R17E

Pointe  
6000' Tgr

Phillips 10-65

TD 5712 TW, T/Tw 5590  
DST Tgrgg, rec 105' O & GCM  
319' mud, DST Tgrde, rec 250'  
SWCM, 100' GCSW, 400' SWCM  
215' WCM, 150' MSW

WILKEN RIDGE 1-4

T10S

MFS 6-62  
709

TD 5627 Tw, ran 6 DSTs  
in GR w/ no sig shows  
MFS 3-62  
790

TD 8200 Tw, IPPI 155 BOPD Tgrt  
DST Bgr, rec 120' H blk oil  
DST grt, GTS at 63 MCF, rec  
425' SM & GC Hbrn oil

MFS 10-64

TD 5467 Tw  
Ran 8 DSTs in Tgr  
several w/ GTS and  
rec free oil

CO.  
CO.

153/ Miami 7-67  
TD 5350 Tw, 2 DSTs Tgr  
rec 180' SO & GCMW,  
90' SOCSW

Exxon 2-75  
SI 1294  
TD 12,390 Km  
IPF 290 MCF Km  
No lts in Tgr  
Cum: 28, 621 MCF

Sinc 7-52  
1187

TD 5489 Tw  
Ran 6 LSTs in Tgr  
Rec GCM, sulf wtc

Phillips 10-60  
TD 6320  
Strat. lst

DUCHESNE  
UNTAH

ATTACHMENT 4

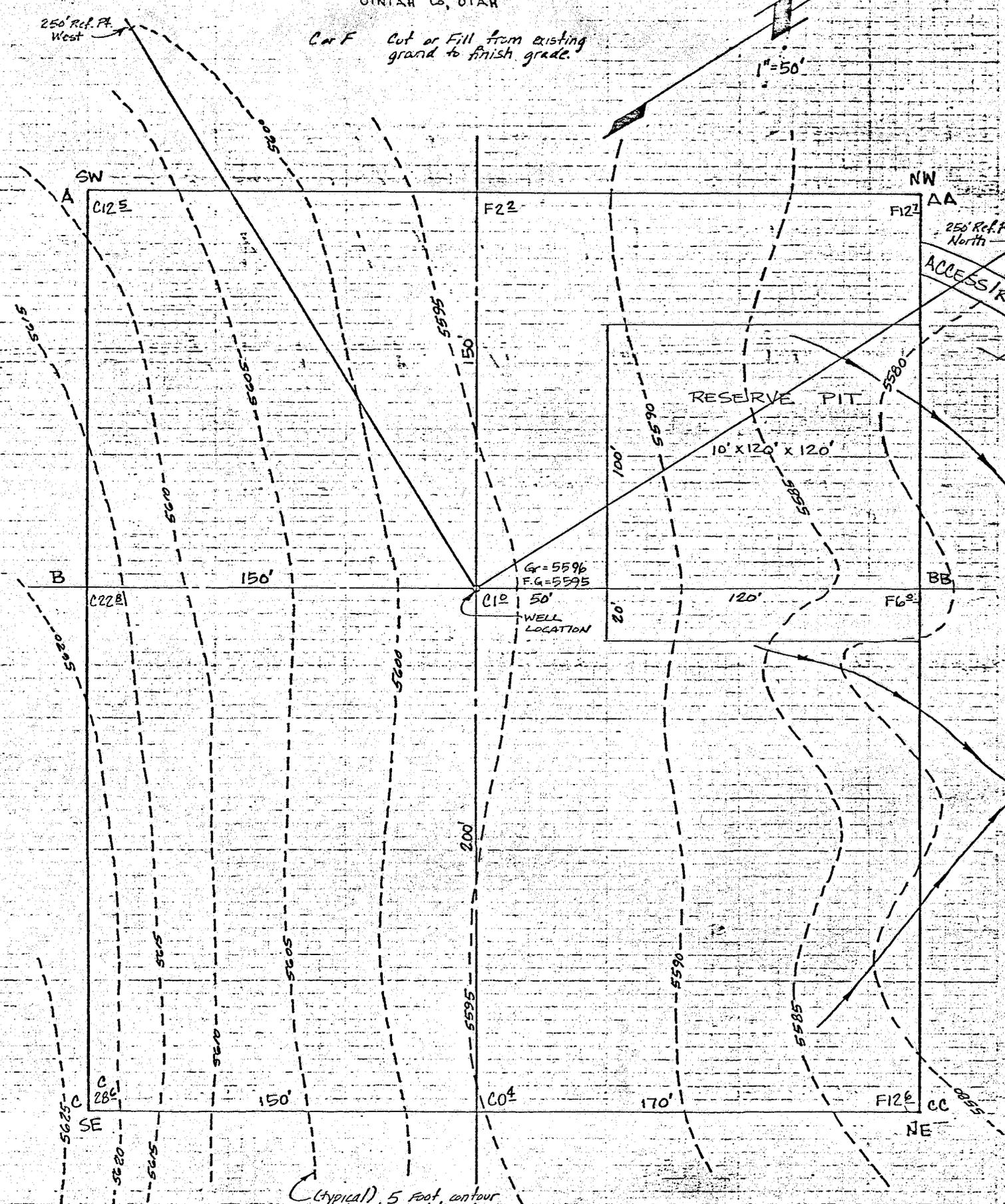
TOPOGRAPHIC MAP

Ground Elevation @ Location = 5596  
 @ 250' R.P. North = 5580  
 @ 250' R.P. West = 5601

COTTON PETROLEUM CORP.  
 FEDERAL 1-4  
 2170 FSL } Sec 4-10S-17E  
 2020 FWL }  
 Uintah Co, UTAH

Car F Cut or Fill from existing  
 ground to finish grade.

1" = 50'



Gr = 5596  
 F.G. = 5595  
 50'  
 WELL  
 LOCATION

RESERVE PIT  
 10' x 120' x 120'

ACCESS ROAD

(typical) 5 foot contour  
 intervals relative to  
 location

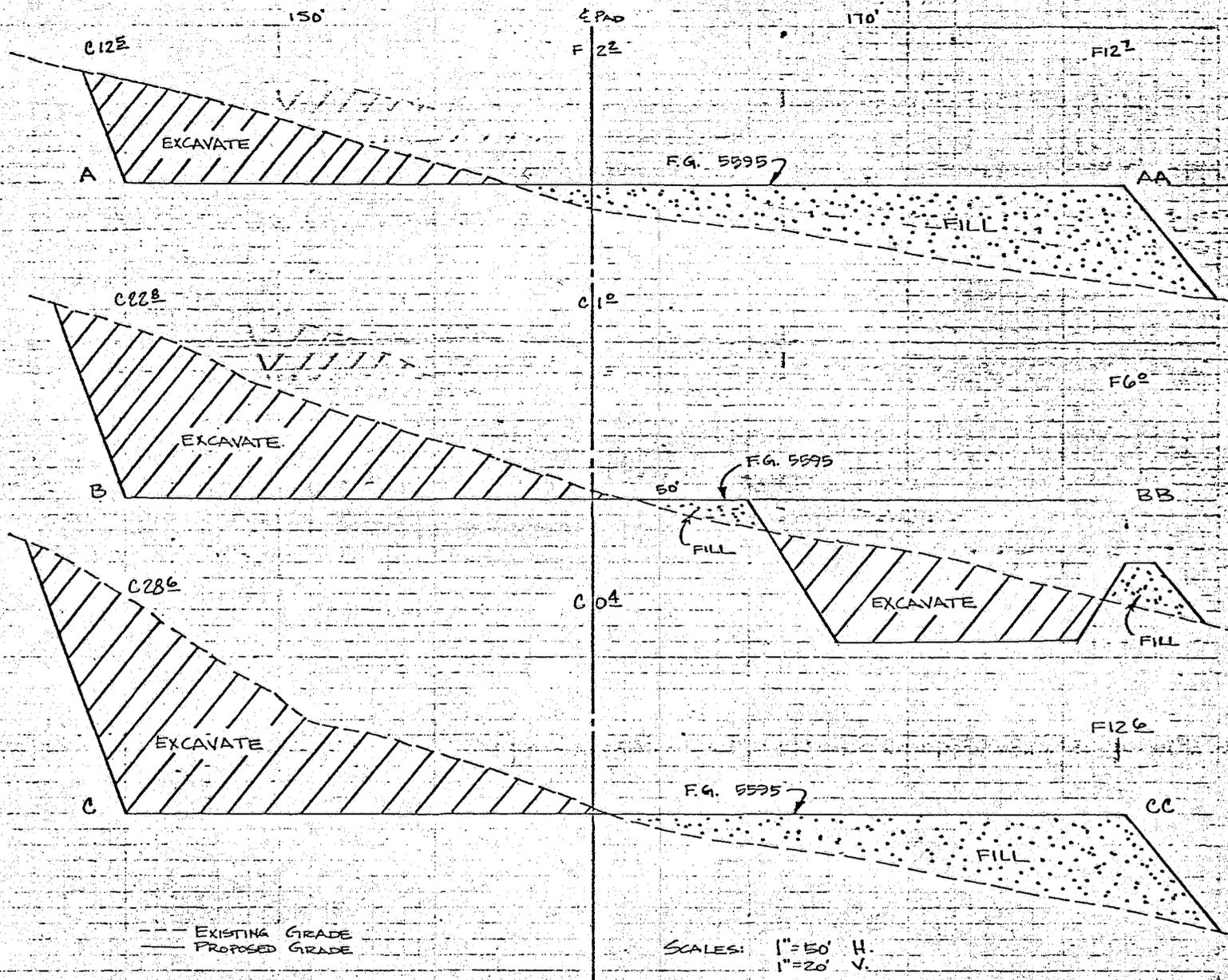
E.S.S.  
 July 1981

POWERS ELEVATION CO.  
 RICHFIELD, UTAH

ATTACHMENT 5

CUT-FILL & CROSS SECTIONS

COTTON PETROLEUM CORP.  
 1-4 FEDERAL  
 SEC 4-105-17E  
 DUCHESNE CO., UTAH



± 31,000 yd<sup>3</sup> CUT  
 ± 9,800 yd<sup>3</sup> FILL

ATTACHMENT 6

E.S.S.  
 July 1981

POWERS ELEVATION CO.  
 RICHFIELD, UTAH



United States Department of the Interior

IN REPLY REFER TO

T 3 R  
U-501

BUREAU OF LAND MANAGEMENT  
VERNAL DISTRICT OFFICE  
170 South 500 East  
Vernal, Utah 84078

POOR COPY

December 1, 1981

Ed Guynn, District Engineer  
USGS, Conservation Division  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

4  
Re: Joint Onsite Inspection  
Cotton Petroleum Corporation  
T10S, R17E, Sec 4,  
Wilkin Ridge #1-4

Dear Mr. Guynn:

On December 1, 1981, a joint onsite inspection was made of the above referenced well site locations and proposed access roads by people representing Cotton Petroleum, Casada Construction, Skewes and Hamilton Construction, USGS, and the BLM. We feel that the surface use and operating plans are adequate with the following stipulations:

1. Construction and maintenance of roads, rehabilitation of disturbed areas, and construction of pipeline routes shall be in accordance with surface use standards as set forth in the booklet, "Surface Operating Standards for Oil and Gas Exploration and Development."
2. The maximum width of access roads will be 30 feet total disturbed area. Turnouts will not be required and traveling off the right-of-way will not be allowed.
3. Topsoil will be stockpiled as addressed in the applicants 13 point plan. Our office recommends the top 6-10 inches of soil materials be stockpiled.
4. The BLM will be notified at least 24 hours prior to any construction.
5. The BLM will be notified at least 24 hours prior to any rehabilitation.
6. A burn pit will not be constructed. There will be no burying of garbage or trash at the location. All trash must be contained and hauled to an approved disposal site.
7. All permanent (on site for six (6) months duration or longer) structures constructed or installed shall be painted a flat (non-reflective) earth tone color to match Tnemec 23-08351 Mesa Brown Enduratone or an approved equal. Facilities that are required to comply with O.S.H.A. (Occupational Safety and Health Act) standards are excluded.
8. Excess cut material will be placed at corner A and at corner C. The topsoil will be stockpiled behind the excess cut material.

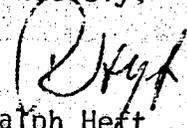
**POOR COPY**

9 The access road will enter the location between corner A and corner AA.

An archaeological clearance has been conducted by Powers Elevation of the proposed drill sites and access roads. No cultural materials were located on the surface of the survey areas.

The proposed activities do not jeopardize listed, threatened, or endangered flora/fauna and their habitats.

Sincerely,



Ralph Heft  
Area Manager  
Diamond Mountain Resource Area

cc: USGS, Vernal

September 8, 1981

District Engineer  
USGS  
1745 W. 1700 S.  
Suite 2000  
Salt Lake City, Utah 84104

Re: Wilken Ridge Unit Federal 1-4  
NESW Sec 4-T10S-R17E  
Duchesne County, Utah  
NTL-6 Information for APD

Dear Sir:

1. Surface Formation: Tertiary/Uintah

|                    |                        |               |
|--------------------|------------------------|---------------|
| 2. Estimated Tops: | Uintah                 | Surface       |
|                    | Green River            | 1100'         |
|                    | Garden Gulch           | 3100'         |
|                    | Douglas Creek Mbr.     | 3910'         |
|                    | Lower Green River Mbr. | (+ 450) 5170' |
|                    | Wasatch                | 5370'         |
|                    | Mesaverde              | 8600'         |
|                    | TD                     | 9200'         |

3. Estimated Depth of Fluids or Hydrocarbons:

- a. Surface Waters: Above 500'
- b. Green River: Oil & Gas
- c. Wasatch: Gas & Condensate
- d. Mesaverde: Gas & Condensate

4. Surface Casing: Approximately 200' of 13-3/8", H-40, 48#, new, cemented with 150 sacks regular cement plus lost circulation material and calcium chloride, circulated to surface.

Intermediate Casing: Approximately 3000' of 8-5/8", H-40, 24#, new cemented with 900 sacks of regular cement plus lost circulation material and CaCl, run cement from 3000', back to bottom of surface pipe.

Long String of Casing: 4-1/2", 10.5#, and 11.6#, K55, new, cemented with 2000 sacks Poz mix cement with thinner/retarder, fluid loss and lost circulation additives, in two stages: stage 1 will cover from TD to 5000' with 1200 sx, stage two will cover the entire Green River from 5000 to 3000' with 800 sx, DV tool at 5000'.

5. Blow out preventer ( see attachment #1 ):

- a. 3000# W.P., 6000# test series, 900 casing head and ram blowout preventer.
- b. Nominal 10" casing head and blow-out preventer with 10" flanges.
- c. See Attachment #1 for 2" fill-up flare line hookup.
- d. Pressure test wellhead, blow-out preventer, and surface casing to 70% of casing yield, 1211 psig, for 30 minutes, with maximum 100 psig loss of pressure prior to drilling out from under surface casing.
- e. Test operated pipe rams once each twenty-four hours and both pipe rams and blind rams each trip out of hole, and record on driller's tour report.

6. Drilling Fluid:

- a. Surface hole: Native brine water, wt 8.5-8.6, vis 30-35
- b. Under surface to 4500': Brine water, wt 9.0-9.5, vis 32-38
- c. 4500'-9800': Brine water with additives to obtain the following properties; wt 9.0-9.4, vis 32-38, wl 5-15 cc
- d. 400 barrel steel surface pits
- e. No formation gradient higher than 0.45 psi per foot is expected

7. Auxiliary Equipment: At top of Wasatch, the following equipment will be installed:

- a. Rotating Head
- b. Stabbing sub and full opening valve on the floor

8. Test Logging:

All potential reservoirs listed in "3" above will have drill cuttings and mud examined by a wellsite geologist for shows of oil and gas. An electric logging program of GR, DLL w/linear correlation, GR, CNL-FDC will be run for depth control of all formation, porosity, and saturation determinations. Completion attempt will be made in the Wasatch with a fracture stimulation.

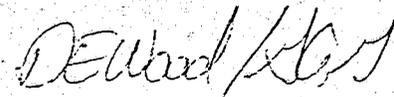
9. Pressures and Temperatures:

No abnormal pressures or temperatures have been encountered in nearby wells. No hydrogen sulfide has been found in daily mud checks or produced fluids.

10. The well will be started on approximately 01-01-82, and will require six weeks for drilling plus required time for evaluation of potential reservoirs (testing, logging) and any difficulties encountered by the drilling rig.

Sincerely,

COTTON PETROLEUM CORPORATION



D.E. Wood  
Division Production Manager

DEW/v1  
Attachments

file 11

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  
 COTTON PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR  
 717 17th St. Suite 2200; Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 2170' FSL & 2020' FWL Section 4  
 At proposed prod. zone NE SW

5. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 NA

6. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest Grig. unit line, if any)  
 NA

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

8. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5596' GR

5. FIELD DESIGNATION AND SERIAL NO.  
 U-43614

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 NA

7. UNIT AGREEMENT NAME  
 Wilkin Ridge Unit

8. FARM OR LEASE NAME  
 NA

9. WELL NO.  
 1-4

10. FIELD AND POOL, OR WILDCAT  
 Undesignated Wildcat

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
 Section 4-T10S-R17E NESW

12. COUNTY OR PARISH  
 Duchesne

13. STATE  
 Utah

16. NO. OF ACRES ASSIGNED TO THIS WELL  
 1997.56

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 640

19. PROPOSED DEPTH  
 9200' Mesaverde

20. ROTARY OR CABLE TOOLS  
 Rotary

22. APPROX. DATE WORK WILL START\*

RECEIVED  
JAN 20 1982

DIVISION OF OIL, GAS & MINING

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT       |
|--------------|----------------|-----------------|---------------|--------------------------|
| 17 1/2"      | 13 3/8"        | 48#             | 200'          | 150 sxs, circ to surface |
| 12 1/4"      | 8 5/8"         | 24#             | 3000'         | 900 sxs                  |
| 7 7/8"       | 4 1/2"         | 11.6# & 10.5#   | 9200'         | 2000 sxs in 2 stages     |

Drill 9200' Mesaverde test. Drill 17-1/2" surface hole to 200' w/native wtr to clean hole, set 200' of 13-3/8" surface casing and cement to surface. WOC 12 hrs. Pressure test casing & BOP to 70% of casing yield, 1211 psig, before drilling out cement. Test BOP operation daily & record. Drill 12-1/4" intermediate hole to 3000', w/native wtr to clean hole, set 3000' of 8-5/8" intermediate casing & cement w/900 sxs of cement, (calculate on 2800' of fill). WOC 12 hrs. Drill out w/7-7/8" bit to 9200', using brine wtr from 3000'-4500', & a polymer brine wtr from 4500'-9200'. MW will be 8.5 to 9.5 ppg. Evaluate well by sample analysis & electric logs. Run 4-1/2" csg if a commercial well is expected.

Cotton Petroleum is also requesting by this application, right-of-way to use existing road shown on Attachment 2.

APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS AND MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on meso-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 depths. Give blowout preventer program, if any.

24. SIGNED: [Signature] DATE: 1/25/82  
 BY: [Signature] TITLE: Division Production Manager DATE: 1 28 81

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

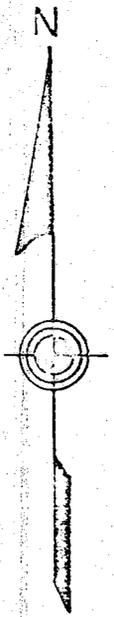
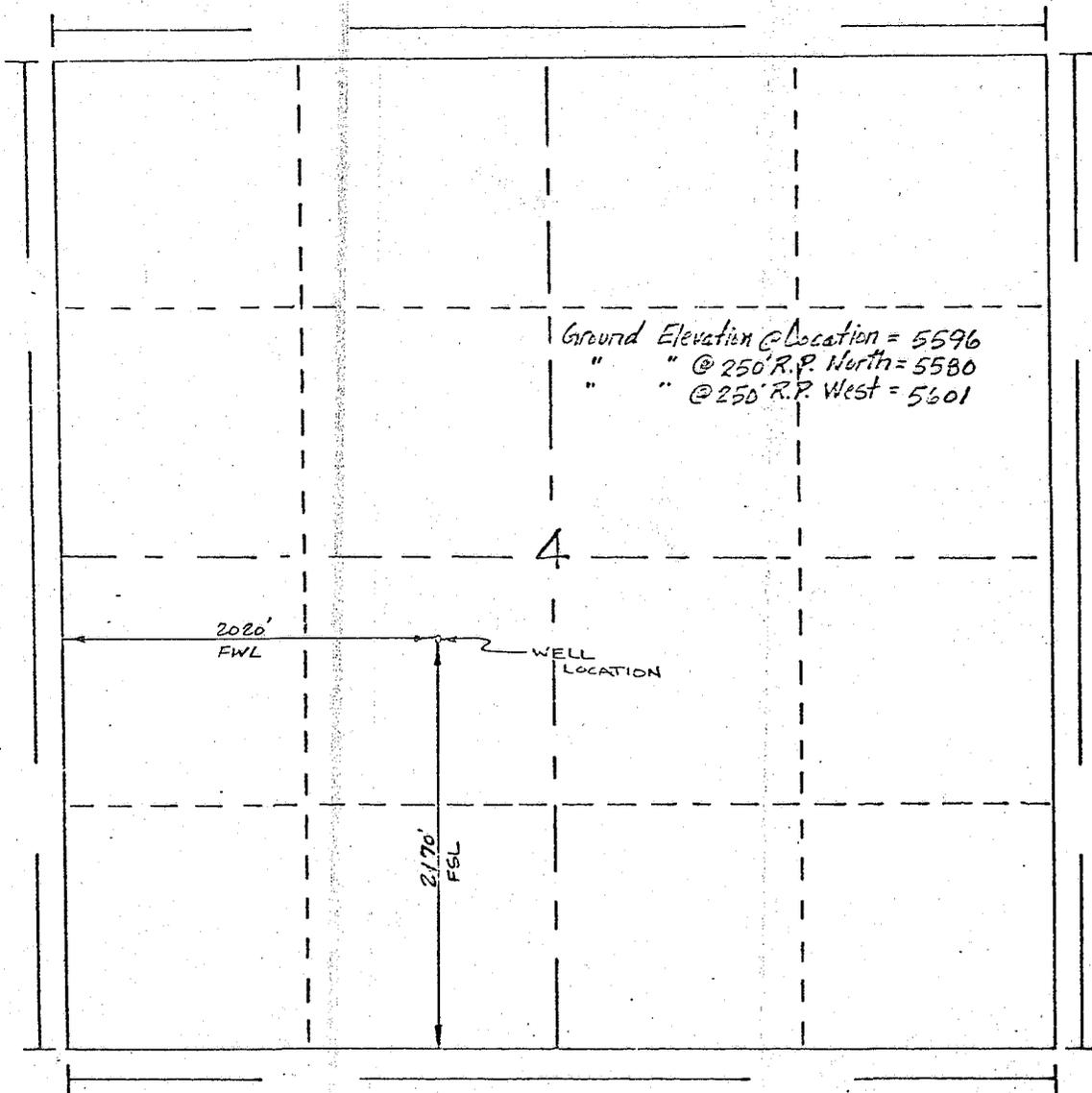
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_



R. 17E



T. 10S

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado has in accordance with a request from GLEN GARVEY for COTTON PETROLEUM CORPORATION determined the location of 1-4 FEDERAL to be 2170' FSL & 2020' FWL of Section 4 Township 10 South Range 17 East of the SALT LAKE Meridian DUCHESNE County, UTAH

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

Date: July 28, 1981

Edward C. Lewis  
 Licensed Land Surveyor No. 5443  
 State of UTAH

\*\* FILE NOTATIONS \*\*

DATE: 1-26-82  
OPERATOR: Cotton Petroleum  
WELL NO: Wilken Ridge Unit 1-4  
Location: Sec. 4 T. 10S R. 17E County: Washburn

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

API Number 43-013-30 ~~435~~

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_  
Director: VW  
Administrative Aide: Unit Well.

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  Plotted on Map   
Approval Letter Written   
Hot Line  P.I.

January 29, 1982

Cotton Petroleum Corporation  
717 17th Street Suite 2200  
Denver, Colorado 80202

RE: Well No. Wilken Ridge Unit #1-4  
Sec. 4, T. 10S, R. 17E  
Duchesne County, Utah

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

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

CLEON B. FEIGHT - Director  
Office: 533-5771  
Home: 466-4455

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

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

The API number assigned to this well is 43-013-30735.

Sincerely,

DIVISION OF OIL, GAS AND MINING



Cleon B. Feight  
Director

CBF/as  
Encl.  
cc: USGS

Oil and Gas Operations  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

January 3, 1983

Cotton Petroleum Corporation  
717-17th Street, Suite 2200  
Denver, Colorado 80202

Re: Rescind Application for Permit to  
Drill  
Well No. 1-4  
Section 4, T.10S., R.17E.  
Duchesne County, Utah  
Lease U-43614

Gentlemen:

The Application for Permit to Drill the referenced well was approved on December 15, 1981. Since that date no known activity has transpired at the approved location. Under District policy, applications for permit to drill are effective for a period of one year. In view of the foregoing this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of the well will be rehabilitated. A schedule for this rehabilitation must then be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,  
(ORIG. SGD.) W. P. MARTENS  
Drilling Unit Supervisor

*for*  
E. W. Guynn  
District Oil and Gas Supervisor

bcc: SMA  
State O&G ✓  
State BLM  
Vernal  
Well File  
APD Control

WPM/kr

January 5, 1983

Cotton Petroleum Corporation  
717 - 17th Street, Suite 3200  
Denver, Colorado 80202

RE: Application for Permit to Drill  
Well No. 1-4  
Sec. 4, T.10S, R.17E  
Duchesne County, Utah

Gentlemen:

Approval of Application for Permit to Drill the above referenced well is rescinded without prejudice as of the above date in concert with action taken by Minerals Management Service.

If you intend to drill this location at a future date, a new application for permit to drill may be submitted for State approval.

Sincerely,

  
Norm Stout  
Administrative Assistant

NS/as