

**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
 E. M. Davis d/b/a Tiger Oil Company

3. ADDRESS OF OPERATOR
 P. O. Box 113 or 1875 Kipling St.
 Wheat Ridge, Colo. 80033 Lakewood, Colo. 80215

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 505' FNL 670' FWL (NW NW)
 At proposed prod. zone
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 19.5 miles from Cainsville, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 505'

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 5600'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 5750' ground

5. LEASE DESIGNATION AND SERIAL NO.
 U-11376
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 7. UNIT AGREEMENT NAME
 8. FARM OR LEASE NAME
 Federal
 9. WELL NO.
 #11-4
 10. FIELD AND POOL, OR WILDCAT
 Wildcat
 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 4-T27S-R7E
 12. COUNTY OR PARISH
 Wayne
 13. STATE
 Utah

16. NO. OF ACRES IN LEASE
 2040.00

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40-acres

20. ROTARY OR CABLE TOOLS
 Rotary

22. APPROX. DATE WORK WILL START*
 January 10, 1980

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8" K-55	36#	250'	250 sacks
8 3/4"	5 1/2" K-55	14#	5600'	350 sacks

1. Drill 12 1/4" hole to 250' and set surface casing.
2. To log BOP's daily while drilling 8 3/4" hole.
3. Run electric logs, test as needed, and run production casing.
4. To perforate and stimulate as cited in Exhibit "B".

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat.
 - "B" Ten-Point Compliance Program.
 - "C" The B.O.P. Diagram
 - "D" Multipoint Requirements.
 - "E" Access Route From Cainville, and from I-70 Fremont Junction.
 - "F" Drilling Rig Layout.
 - "G" The Production Facilities Layout.
 - "H" Drill Pad Contours, Cut-Fill
- Letter of Agency, copy of Designation Operations, etc.

RECEIVED
 JAN 9 1980

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 depth. Give blowout preventer program, if any.

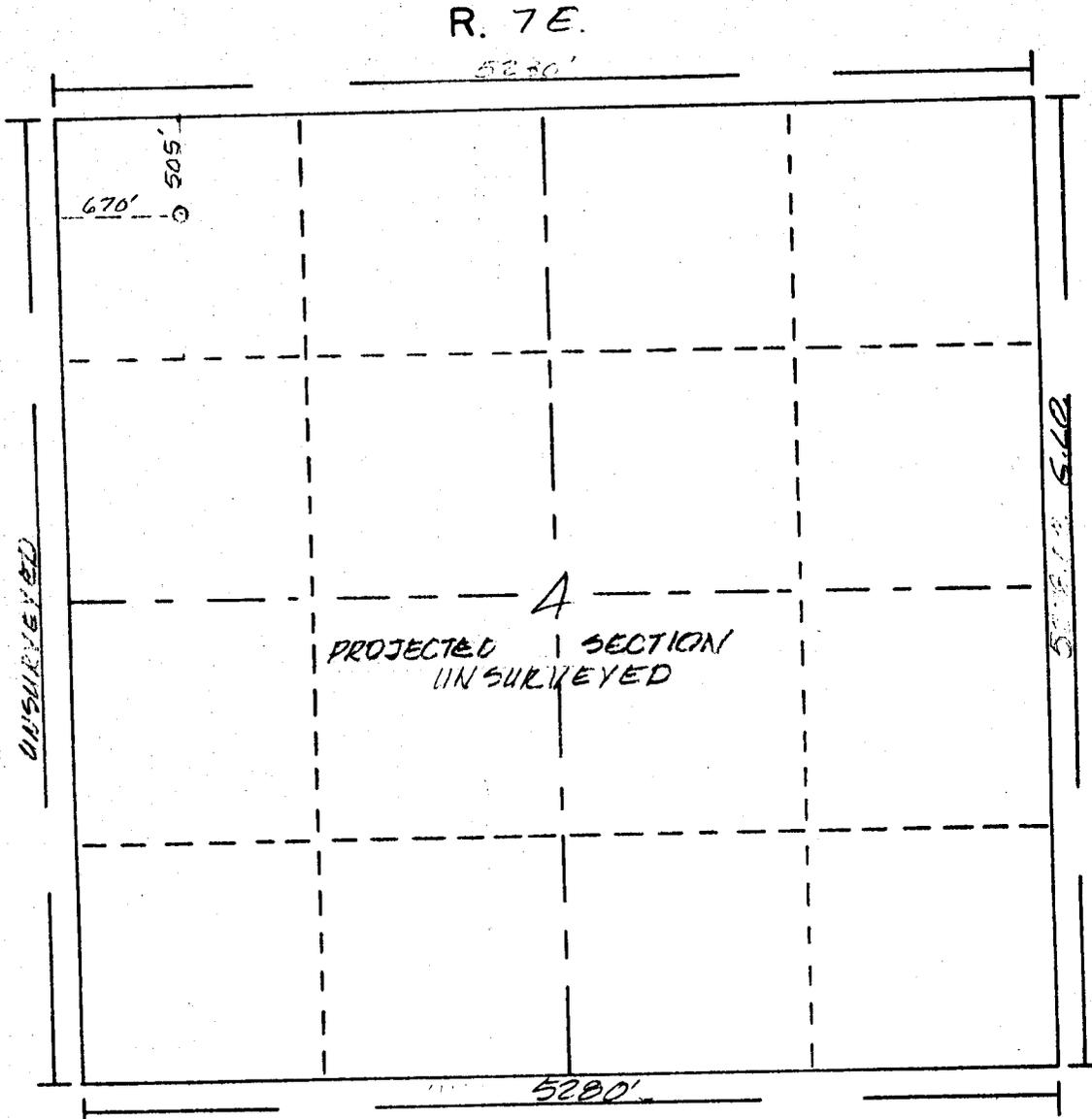
24. SIGNED S. J. White TITLE Ass't Chief Engineer DATE December 17, 1979

(This space for Federal or State office use)

PERMIT NO. 43-055-30027 APPROVAL DATE January 15, 1980

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:



T.
27
S.

640 ac.

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado
 has in accordance with a request from **GEO. FENTRESS**
 for **E.M. DAVIS dba TIGER OIL CO.**
 determined the location of **11-4 FEDERAL**
 to be **505' ENL, & 670' FWL** Section 4 Township 27S.
 Range 7 EAST OF THE SALT LAKE BASE 2 Meridian
 WAYNE County, UTAH

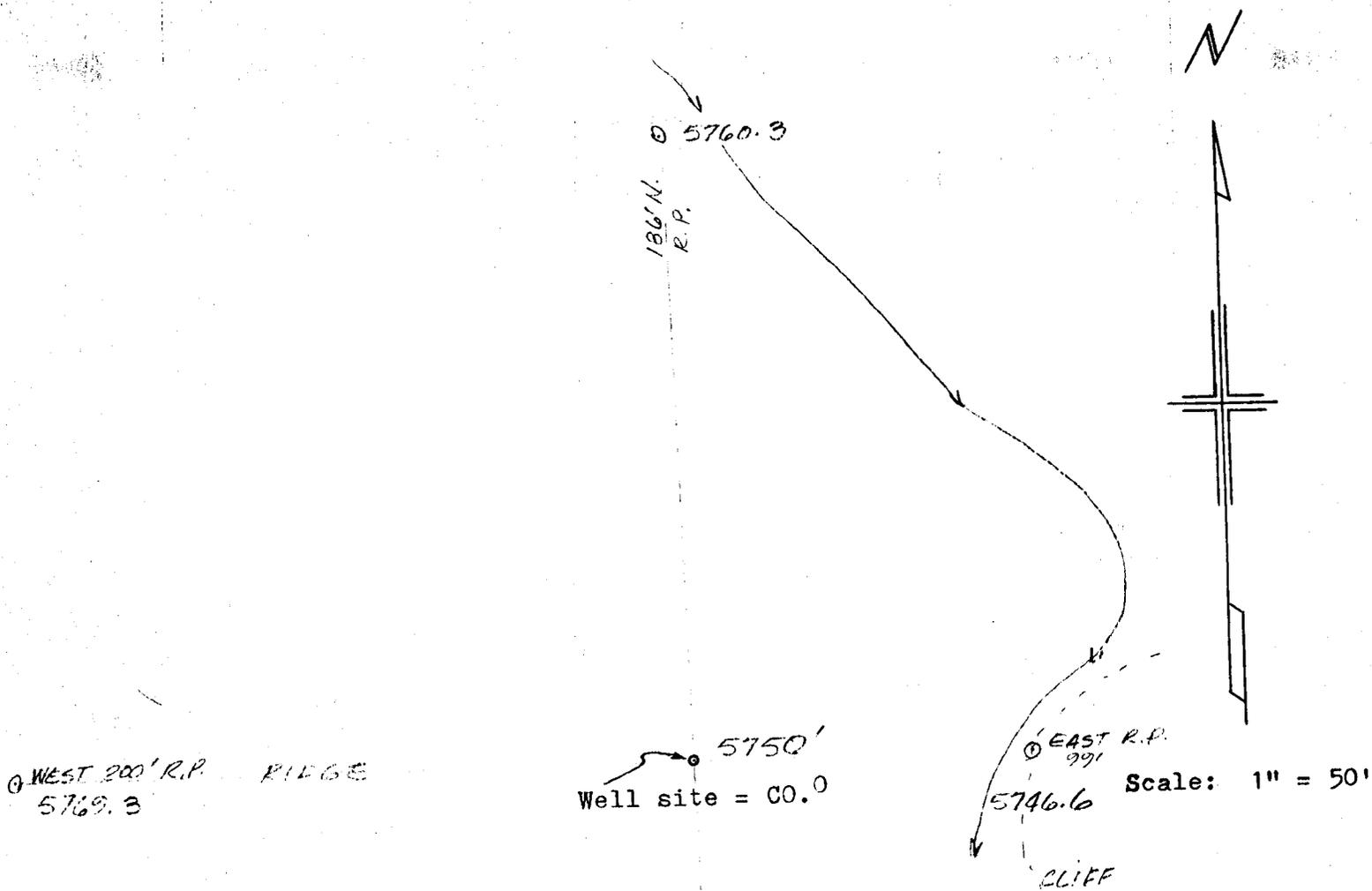
I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of

Date: 12-6-79

Harry M. Secker

Licensed Land Surveyor No. 4189
State of UTAH

TOPOGRAPHIC MAP



WEST 200' R.P. RIDGE
5769.3

5750'
Well site = CO.0

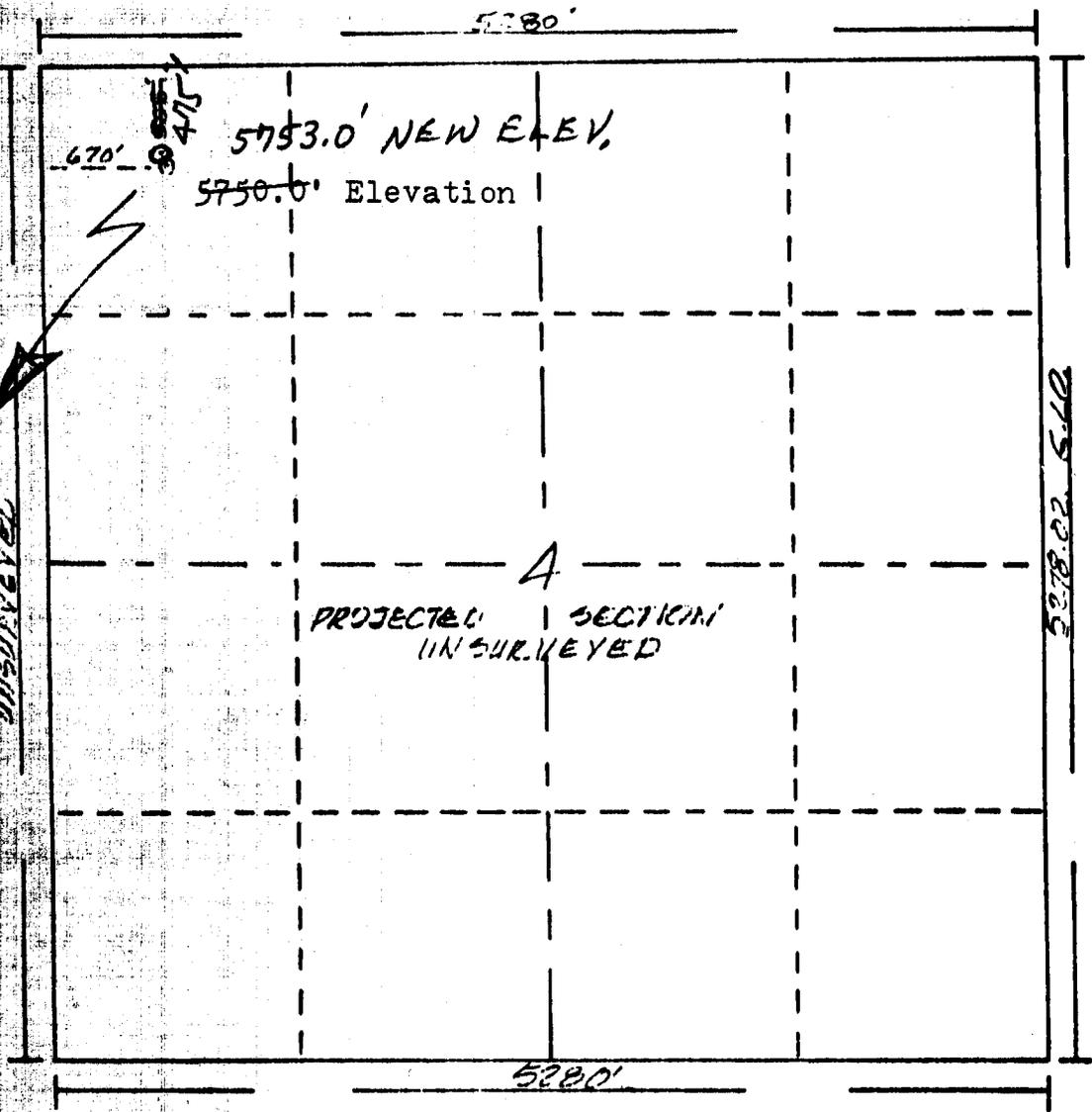
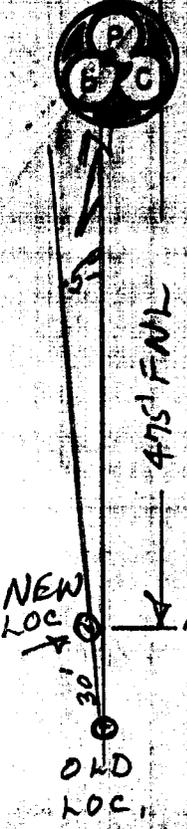
EAST R.P.
5746.6
CLIFF
Scale: 1" = 50'

WELL NO. 11-4 FEDERAL
NW1/4NW1/4, SEC. 4, T29S, R7E.
WAYNE COUNTY, UTAH

200' S.
R.P.
5738.8

by: Garry O. Beeler
Powers Elevation Company, Inc.

LOCATION AND ELEVATION PLAT
Tiger Oil Co., #11-4 Federal
R. 7 E



T.
27
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Scale... 1" = 1000'

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Range *7 EAST* OF THE *SALT LAKE BASE & Meridian*
WAYNE County, *UTAH*

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

Date: 12-6-79

Harry H. Decker

Licensed Land Surveyor No. *9189*
State of *UTAH*

**** FILE NOTATIONS ****

DATE: January 9, 1980

OPERATOR: Tiger Oil Company

WELL No. Federal 11-4

LOCATION: SEC. 4 T. 27S R. 7E COUNTY Wayne

FILE PREPARED:

ENTERED ON NID:

CARD INDEXED:

COMPLETION SHEET:

API NUMBER: 43-055-30027

CHECKED BY:

GEOLOGICAL ENGINEER: M. H. Minder 1-15-90

PETROLEUM ENGINEER: _____

DIRECTOR: _____

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 Fed

PLOTTED ON MAP

APPROVAL LETTER WRITTEN

Wm

#1
NE
PE

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUPLICATE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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b. TYPE OF WELL
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 SINGLE ZONE MULTIPLE ZONE

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 470' At proposed prod. zone 667'
 Same

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

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24. SIGNED [Signature] TITLE Ass't Chief Engineer DATE December 17, 1979

DIVISION OF
OIL, GAS & MINING

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY [Signature] TITLE ACTING DISTRICT ENGINEER DATE JAN 25 1980

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

*See Instructions On Reverse Side

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

NOTICE OF APPROVAL

Ut. State O+G

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH
TO: DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH
SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-11376

OPERATOR: Tiger Oil Company (E.M. Davis) WELL NO. Fed # 11-4

LOCATION: 1/4 NW 1/4 NW 1/4 sec. 4, T. 27S, R. 7, SLM
Wayne County, Utah

1. Stratigraphy:

		surface
Carmel		
Navajo	400	+5350
Chinle	1980	+3770
Moenkopi	2450	+3300
Sinbad	3000	+2750
Kaibab	3150	+2650
Toroweap	3350	+2400
Wolfcamp	4300	+1450

2. Fresh Water:
see attached WRD report.
(Casing program through Carmel)

3. Leasable Minerals: None

4. Additional Logs Needed: None

5. Potential Geologic Hazards: None anticipated

6. References and Remarks: Outside KGS
U.S.G.S. Files SLC, Utah

Signature: J. Paul Matheny Date: 1 - 17 - 80

REQUEST INFORMATION FROM WATER RESOURCES DIVISION

Date 1-17-80

Person and Division making request Paul Matheny - Mineral Eval.

AREA: County and State Wayne Co., Utah

Township 27 ^N _S Range 7 ^E _W Section 4 $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SL BLM

Altitude of surface at site 5750 Formation at surface (if known) Carmel

PURPOSE:

Protection of useful ground water (casing program); check
 Other (describe):

For WRD use

Date in: Jan. 17, 1980
Jan. 7, 1980

Person assigned: J.W. Hood

Date out: _____

Evaluation: This location is near the axis of the Last Chance anticline. Carmel Formation at the surface; the Navajo Sandstone is 450 to 550 ft deep. Water level in the Carmel is unknown, but that in the Navajo may be 550 to 650 deep; thus leakage from the Carmel to the Navajo is possible. Both formation may be substantially fractured and lost circulation is possible. Also, igneous dikes and sills may be encountered. Other aquifers to be encountered at greater depths include the Wingate Sandstone and the Coconino Sandstone. Either or both of the latter may flow(?). Water in either or both of the later may be fresh to moderately saline, and thus useful, at least for stock.

Northwest of the site, on the Oilwell Bench, at least one previous oil test was converted to a water well in the Navajo SS and the well reportedly yields fresh water.

The problem here, is the reverse of the usual occurrence of shallow fresh water vs deeper, saline water. The Navajo, except for ~~xxx~~ a nearby anomaly, is a source of useful water. The overlying Carmel Fm is a source of saline water that can ~~xxxxx~~ contaminate (or further contaminate) the Navajo.

Therefore, The surface casing should extend to the top of the Navajo.

Note: The operator may find that he will produce a large amount of water from the Navajo- particularly if he is drilling with air mist- and he may find it ~~xxx~~ necessary to case off the Navajo. The Navajo here is about 1,000 ft thick.

Lastly, please note that on abandonment or completion, plugs ~~or~~ or seals should be placed across 1) Coconino-Kaibab-~~Mxx~~ Moenkopi contacts, 2) Wingate-Chinle, 3) Wingate-Kayenaa, 4) ~~Kayenx~~ Kayenta- Navajo, and 5) Navajo-Carmel contacts. Of course, if this test goes below the Coconino, the bottom of that unit also should receive a plug.

continue over

Signed by evaluator J Math

Time used _____

Evaluator: Send copy to coordinator - original direct to originator of request

January 18, 1980

Tiger Oil Company
P.O. Box 113
Wheat Ridge, Colorado 80033

Re: Well No. Federal 11-4, Sec. 4, T. 27S, R. 7E., Wayne County, Utah
Well No. Federal 12-27, Sec. 27, T. 26S, R. 7E., Emery County, Utah
Well No. Federal 14-9, Sec. 9, T. 26S, R. 7E., Emery County, Utah
Well No. Federal 14-21, Sec. 21, T. 26S, R. 7E., Emery County, Utah
Well No. Federal 41-8, Sec. 8, T. 27S, R. 7E., Wayne County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil wells is hereby granted in accordance with Rule C-3, G 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
Geological 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 number assigned to this well is #11-4 - 43-055-30027; #12-27 - 43-015-30072; #14-9 - 43-015-30073; #14-21 - 43-015-30074; #41-8 - 43-055-30028.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Geological Engineer

/b:tm
cc: USGS

GEORGE H. FENTRESS

GEOLOGICAL ENGINEER

mail all correspondence to:
P.O. Box 113
Wheat Ridge, Colorado 80033
Phone (303) 423-0835

Residence
14600 Foothill Road
Golden, Colorado 80401
Phone (303) 279-4880

January 18, 1980

Cleon B. Feight, Dir.
Oil, Gas & Mining Div.
1588 West, North Temple
Salt Lake City, Utah 84116

Re: **Tiger Oil #11-4 Federal**
NW NW Sec. 4-27S-7E
Wayne Co., Utah

Dear Cleon:

On January 7, 1980 I mailed five locations to you for permits to drill. All but one of those have early expiring leases. Because of this, it is our desire to get on the above location first just as soon as possible, hopefully by January 24 to do dirt work.

A ground inspection was held at the site location of the well above on January 16 with the U.S.G.S., B.L.M. and the Capitol Reef Park personnel.

Although I had the location staked, according to the surveyor's plat previously sent to you to be "no less than 500' from 40-acre drill site," the ground inspection by the federal personnel required that the location be drilled 30-feet to the north and 5-degrees west, as marked on the enclosed revised surveyors plat. This was due to the steep erosional cliffs in the dry stream bed on the east and southeast, and the very high and steep hills to the west.

Therefore, because of topography, I request your approval for this change in location.

* Would you kindly advise Mr. Ed Guynn with the U.S.G.S. in Salt Lake of your approval, by both phone and letter so that he can proceed with his approval to commence operations this week.

Should you have any questions regard the necessity to change the location, I refer you to Glen Doyle, U.S.G.S. in Grand Junction, Colorado, Phone: (303) 245-6700.

Best wishes

George H. Fentress
George H. Fentress
Agent for Tiger Oil

cc. Tiger Oil Co.
Glen Doyle
Ed Guynn

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING

DATE: 1-21-80

BY: *M. J. Minder*

~~approval not necessary~~

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

USUAL ENVIRONMENTAL ASSESSMENT

Date January 22, 1980

Operator E. M. Davis, d/b/a Tiger Oil Co. Well No. 11-4
Location 470 505' FNL 667 670' FWL Section 4 Township 27S Range 7E
County Wayne State Utah Field/Unit Wildcat
Status: Surface Ownership Public Minerals Federal
Lease No. U-11376 Permit No. _____

Joint Field Inspection Date: January 16, 1980

Field Inspection Participants, Titles, and Organizations:

<u>George Fentress, Gene Lawson</u>	<u>Operator's Representatives</u>
<u>Bill Hauze</u>	<u>National Park Service</u>
<u>Bill Grossi, Larry Gearhart</u>	<u>Bureau of Land Management, Utah</u>
<u>Glenn Doyle</u>	<u>U. S. Geological Survey</u>
_____	_____
_____	_____
_____	_____

Related Environmental Documents:

Henry Mountain Planning Unit Resource Analysis, Bureau of Land Management, Hanksville.

Prepared by: Glenn M. Doyle
Environmental Scientist
Grand Junction, Colorado

Handwritten notes:
 → Need NPS input on use of
 → Loc moved
 → access road
 Part of access - Capitol Reef
 Existing road
 Noted - G. Diwachak
 300

Proposed Action:

On December 20, 1979, E. M. Davis, d/b/a Tiger Oil Co., filed an Application for Permit to Drill the No. 11-4 exploratory well, a 5600' oil test of the Sinbad, Kaibab, Toroweap, Wolfcamp, and Mississippian Formations, located at an elevation of 5750' in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, T27S, R7E on federal mineral lands and public surface, lease No. U-11376.

The wellsite lies within a canyon bottom partially on a sloping bench and partially in the wash. An objection to this location was raised. The reserve pit would be placed in a considerable amount of fill material in the main drainage channel. In order to reduce the amount of fill material blocking the wash and to locate the reserve pit in at least one-half native material, the operator agreed to move the wellsite 35' 5" west of north. This moves the location within the State of Utah's 500' minimum spacing requirement. Operator will submit approval from the State for this action.

An objection was raised to two stretches of the access road. These portions were reflagged at the onsite in order to reduce grades and minimize impacts to the area drainage systems. BLM recommended site-specific drainage designs and close coordination with their agency during road and wellsite construction. Additionally, a short stretch of the proposed access (approximately 3.7 miles) is within Capitol Reef National Park in Sections 27, 34 and 35, T26S, R6E. The Park Service indicated that access across this section of road was permissible provided no construction or upgrading occurred. The operator agreed that this would be acceptable and that movement of the rig and equipment would not be impaired by this stipulation.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Freshwater sands and other mineral-bearing formations would be protected. A Blowout Preventor 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 Plan 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. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City, Utah.

A working agreement has been reached with the Bureau of Land Management, 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 300' wide x 400' long and a reserve pit 110' x 150'. A new access road would be constructed 16' wide x 3.0 miles long from an existing and improved road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad. If production is established, plans for a gas flowline would be submitted to the appropriate agencies for approval. The anticipated starting date is January 1980 and duration of drilling activities would be about 14 days.

Location and Natural Setting:

The proposed drillsite is approximately 19.5 miles north of Cainsville, Utah, the nearest town. A fair road runs to within 3.0 miles of the location. This is a wildcat well.

Topography:

The wellsite lies on a deeply eroded bench which slopes to the south and east. Steep cliffs border a major drainage on the north and east sides which, in turn, borders the wellsite.

Geology:

The surface geology is Navajo sandstone. The soil is a sandy, gypsum-rich marlstone. 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 would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. 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 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.

No appreciable amounts of topsoil are present at the site. Therefore, no topsoil would be removed from the surface and stockpiled. However, rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately 3 acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding 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. However, if H₂S or any other toxic substances are encountered, the USGS is to be notified immediately.

Precipitation:

Annual rainfall should range from about 6 to 10" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rainstorms. This type of storm is rather uncommon as the annual precipitation is around 8".

Winds are medium and gusty, occurring predominantly from southwest to northeast. Air mass inversions are rare. The climate is semiarid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

Steep cliffs and steeply sloping benches are drained by several intermittent channels which feed the major drainage that borders the location on the

south and east. Some 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.

Groundwater Hydrology:

Some minor pollution of groundwater 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 basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of freshwater formations are listed in the 10-Point Subsurface Protection Plan. The pits would be unlined. If fresh water should be available from the well, the surface agency may request completion as a water well if given approval.

Vegetation:

Shadscale, fourwing saltbrush, sand dropseed and Indian ricegrass are the predominant plant species in the area.

Proposed action would remove about 3 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. Rehabilitation would be conducted in accordance with BLM recommendations.

Wildlife:

Animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area. The fauna of the area consists predominantly of mule deer, coyotes, rabbits, foxes, 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 a historic artifact, an archaeological 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 or other facilities of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project. All permanent facilities placed on the location would 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 pre-drilling levels.

The site is not visible from any major roads.

The overall effect of oil and gas drilling and production activity is significant in Wayne County but it is difficult to assess the environmental impact of a single well on state and/or national levels. However, if said well was to produce in sufficient quantity, additional development wells might be anticipated. This additional development, in turn, would lead to greater environmental and socioeconomic consequences.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS'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.

The Capitol Reef National Park boundary is about 3.5 miles southwest of the wellsite. A portion of the access crosses 3.7 miles of Park land. The areas both in and around the Park and wellsite are popular for desert recreation. 

The proposed location is within the Henry Mountain Planning Unit. This Environmental Assessment Record was compiled by the Bureau of Land Management, the surface managing agency of the Federal surface in the area. The study includes additional information on the environmental impact of oil and gas operations in this area and gives land use recommendations. The E.A.R. is on file in the agency's State offices and is incorporated herein by reference.

Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A covered 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 U.S.G.S. 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.
- 2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since a minor impact on the environment would be expected, the alternative of moving the location is *recommended*. 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.
- 3) Drilling should be permitted, provided the following mitigative measures are incorporated into the APD and adhered to by the operator:
 - a) Operator will move location approximately 35' 5° west of north to avoid constructing the reserve pit in fill material in the drainage.
 - b) Operator will construct reserve pit in at least one-half native soil (cut).
 - c) Operator will insure that, during pad construction, a minimum amount of fill material will be allowed in the drainage on the south and east sides. Blockage of the drainage is not permitted.
 - d) If operator drills with air, then he will maintain the blooie line at least 125' from the wellhead and direct it into a blooie pit located on the NW corner of the pad.
 - e) Operator will utilize a chemical toilet onsite.
 - f) Operator will provide State of Utah approval (written) granting a variance from the 500' spacing requirement.

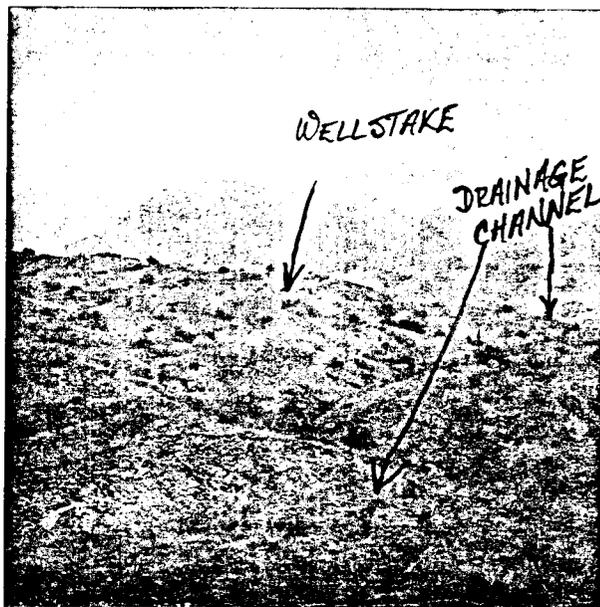
NPS denied this route!

- g) ~~Operator will not conduct either construction or upgrading of the 3.7 mile stretch of road which crosses Capitol Reef National Park.~~

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately 3 acres of land surface for 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 freshwater 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 Fremont River. The potential for pollution would exist through leaks and spills.

If well is a producer, other development wells would be anticipated with substantially greater environmental and economic impacts.



*TIGER OIL # 11-4, SEC. 4, T27S, R7E,
WAYNE Co., UTAH VIEW TOWARDS
NORTH*

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.

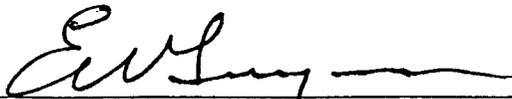
Determination:

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, Sec. 102(2)(C).

Date

1/25/80

*NPS input
on use of 3 7/8 mi
of existing road
in Capital Reef?*



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

Oil and Gas Drilling

EA #178-80A

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

Addendum to Usual Environmental Assessment 178-80
Date: January 25, 1979

Operator: E. M. Davis, d/b/a Tiger Oil Company

Location: 470' FNL & 667' FWL Sec. 4, T. 27S., R. 7E.
well no. 11-4

Wayne County, Utah

Lease No. U-11376

Related Environmental Documents:

(1) EA NO. 178-80

Prepared by: George Diwachak
Environmental Scientist
Salt Lake City, Utah

RECEIVED

FEB 19 1980

**DIVISION OF
OIL, GAS & MINING**

Noted - G. Diwachak

Utah O & G

Proposed Action:

On January 25, 1980, E. M. Davis, d/b/a Tiger Oil Company filed an adjustment to the surface use plan for the 11-4 well in Wayne County, Utah. Originally, the operator proposed to reduce travel miles to the location by traversing a 1.5 mile section of Capitol Reef National Park, using a county road. However, permission to cross through the park was denied by the Superintendent per 36 CFR Sec. 5.6, which expressly forbids commercial access through a national park.

The access route was changed to enter from the east through Cainsville, Utah, completely avoiding the park. No changes in the proposed new road construction would be made. The route would traverse county roads to the point of necessary road construction. Any alterations or improvements made on the county road would be performed with the approval of county road personnel.

Environmental Effects of the proposed Action:

Please refer to EA NO. 178-80 for descriptions. Other than the elimination of traffic through Capitol Reef National Park and the increased distance for travel, no other changes would be expected.

Alternatives to the Proposed Action:

1. Deny Approval

If the proposed road adjustment is denied, the operator would be forced to investigate additional alternative access routes. The proposed road change is the only practicable route other than through Capitol Reef National Park.

2. Approve the proposed action:

Approval of the proposed road change would allow access to the location and also comply with 36 CFR 5.6. No additional adverse or irreversible environmental effects would be expected, therefore, the alternative of approving the access route adjustment is recommended.

Finding of No Significant Impact:

We have considered the proposed access route change 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).



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

1/25/80

Date

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Tiger Oil Company

WELL NAME: Federal #11-4

SECTION 4 NW NW TOWNSHIP 27S RANGE 7E COUNTY Wayne

DRILLING CONTRACTOR _____

RIG # _____

SPUDDED: DATE 2/20/80

TIME 9:00 a.m.

How rotary

DRILLING WILL COMMENCE ASAP

REPORTED BY Gilbert Noland

TELEPHONE # (713) 629-9550

DATE February 21, 1980

SIGNED Original Signed By M. T. Minder

cc: USGS

March 12, 1980

MEMORANDUM

TO: File

FROM: Cleon B. Feight
Director
Division of Oil, Gas
and Mining

Re: Tiger Oil Company
Well No. Federal #11-4
Sec. 4, T. 27S, R. 7E.,
Wayne County, Utah

On March 12, 1980, Colorado well Service rig #111 was drilling at a depth of 1000'. Due to a crooked hole problem, the driller has been stuck at this depth for approximately one week.

Since the BOP stack has not yet been connected, I would suggest a new hole might be less expensive.

cc: USGS

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

5. LEASE DESIGNATION AND SERIAL NO. U-11376
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME Federal
9. WELL NO. 11-4
10. FIELD AND POOL, OR WILDCAT Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 4-T27S-R7E

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL [] GAS WELL [] DRY [X] Other
b. TYPE OF COMPLETION: NEW WELL [] WORK OVER [] DEEP-EN [] PLUG BACK [] DIFF. RESVR. [] Other

2. NAME OF OPERATOR Edward Mike Davis d/b/a Tiger Oil Company

3. ADDRESS OF OPERATOR P. O. Box 113 1875 Kipling Street Wheat Ridge, Colorado 80033 or Lakewood, Colorado 80215

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 470' FNL, 667' FWL (NW1/4NW1/4) At top prod. interval reported below At total depth

12. COUNTY OR PARISH Wayne 13. STATE Utah

14. PERMIT NO. 43-055-30027 DATE ISSUED 1-18-80

15. DATE SPUDDED 2/20/80 16. DATE T.D. REACHED 5/2/80 17. DATE COMPL. (Ready to prod.) Dry Hole 18. ELEVATIONS (DF, REB, RT, GR, ETC.)* GR-5750 19. ELEV. CASINGHEAD 5750

20. TOTAL DEPTH, MD & TVD 4865 21. PLUG, BACK T.D., MD & TVD n/a 22. IF MULTIPLE COMPL., HOW MANY* n/a 23. INTERVALS DRILLED BY -> ROTARY TOOLS X CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)* Dry Hole 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Welex Dual Ind., Guard Log & Compensated Neutron Density 27. WAS WELL CORED Yes

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Row 1: 9-5/8", 36 & 40, 1205, 12 1/4, 500 sx Lt Wt + 120 sx Reg, None

Table with 8 columns: SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT*, SCREEN (MD), SIZE, DEPTH SET (MD), PACKER SET (MD). Row 1: n/a, n/a, n/a, n/a, n/a, n/a, n/a, n/a

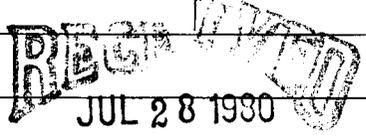
Table with 2 columns: 31. PERFORATION RECORD (Interval, size and number) Dry Hole; 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD), AMOUNT AND KIND OF MATERIAL USED

Table with 8 columns: DATE FIRST PRODUCTION, PRODUCTION METHOD, WELL STATUS, DATE OF TEST, HOURS TESTED, CHOKER SIZE, PROD'N. FOR TEST PERIOD, OIL-BBL., GAS-MCF., WATER-BBL., GAS-OIL RATIO

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: Engineer DATE 7/21/80



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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 38, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

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

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Core #1 (Sinbad) shly w/chrt	3123-3138	Cut 15;	recov. 15' dolo. gy & brn, v/fn - Kn n,
Core #2 (Kaibab) shly w/chrt	3289-3335	Cut 46';	recov. 42' dolo, brn & wh, v/fn - Kn n,
DST #1 (Sinbad) Rec. 25' mud	3076-3123	Open 60/135 min.; IFF 54# ISIP 769#	SI 60/120 min., very weak blow. FFP 57# FSIP 756#
DST #2 (Kaibab) Rec. 97' wtr cut mud;	3275-3289	Open 60/35 min.; IFF 54#	SI 60/60 min., very weak blow, 836#; FFP 67#, FSIP 836#
DST #3 (Kaibab) Rec. 791' MC Sulphur Wtr	3277-3335	Open 60 min/4 hrs., IFF 151#	SI 60 min/2 hrs., fair blow, ISIP 876#, FFP 370#, FSIP 876#
DST #4 (White Rim Sand) Rec. 224' wtr cut mud;	3409-3437	Open 60/60 min., IFF 81#	SI 60/90 min., fair blow, ISIP 918#, FFP 121#, FSIP 918#
DST #5 (Toro Weep) mud, IFF 27# SIP 54#	3631-3680	Open 60 min.;	SI 15 min., no blow, Rec. 8'

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Carmel	Surface	
Navajo	439	
Kayenta	1456	
Wingate	1662	
Chinle	1988	
Shinarump	2344	
Moenkopi	2402	
Sinbad	3052	
Kaibab	3274	
White Rim	3412	
Toroweep	3637	
Cedar Mesa	3802	
Elephant Canyon	4446	



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

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EDWARD T. BECK
E. STEELE McINTYRE

August 26, 1980

Tiger Oil Company
P.O. Box 113
Wheat Ridge, Colorado 80033

RE: Well No. Federal 11-4
Sec. 4, T. 27S, R. 7E.,
Wayne County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office July 21, 1980, from above referred to well(s) indicates the following electric logs were run: Welex Dual Ind., Guard Log and Compensated Neutron Density. As of today's date this office has not received these logs.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs,

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Barbara Hill
CLERK-TYPIST