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APR 27 1973

BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO COMM.

IN THE MATTER OF THE APPLICATION OF SKELLY OIL COMPANY
FOR AN ORDER PERMITTING IT TO DISPOSE OF SALT WATER
INTO THE FIRST DAKOTA "D" SAND IN ITS G. A. HENDERSON
WELL NO. 2 LOCATED NW NW NW SECTION 18 AND ITS
G. A. HENDERSON WELL NO. 4 LOCATED NE SE NW SECTION 18,
TOWNSHIP 1 NORTH, RANGE 53 WEST, CEDAR CREEK FIELD,
LOGAN COUNTY, COLORADO

APPLICATION

Comes now Skelly Oil Company and alleges and states:

1. That it is the owner and operator of wells in the Cedar Creek Field in and about Section 18, Township 9 North, Range 53 West, Logan County, Colorado.
2. That it desires to dispose of produced salt water from its G. A. Henderson, J. H. Montague and C. F. Green leases by disposing of same into the First Dakota "D" Sand of its G. A. Henderson Well No. 2 located NW NW NW Section 18 and its G. A. Henderson Well No. 4 located NE SE NW Section 18, Township 1 North, Range 53 West, Logan County, Colorado.
3. That attached hereto and made a part hereof is Exhibit 1, a plat showing the location of the disposal wells and the location of all oil and gas wells, including abandoned wells and dry holes, and names of the owners of record including surface owners within one-half mile of the proposed disposal wells. Also shown is the usage of the surface lands along with the location and depth of domestic wells within a two mile radius of the proposed disposal wells.
4. That the name of the formation into which water is to be injected is First Dakota "D" Sand at a depth of 4971' to 5022', which is at a subsea datum of -703' to -754' in its G. A. Henderson Well No. 2 and at a depth of 4946' to 4982', which is at a subsea datum of -673' to -709' in its G. A. Henderson Well No. 4 and that injection will be through casings perforations at the interval 4971'-4984' in G. A. Henderson Well No. 2 and at the interval 4948'-4955' in its G. A. Henderson Well No. 4.
5. That attached hereto and made a part hereof is a log of each proposed disposal well.
6. That both the G. A. Henderson Well Nos. 2 and 4 are essentially depleted producers and that G. A. Henderson Well No. 2 during completion had 8 5/8" 22.7# SWSJ surface casing set at 132' and cemented with 100 sacks 60-40 Pozmix cement, cement was circulated and 5 1/2" 14# J-55 casing set at 5151' and cemented with 200 sacks of 50-50 Pozmix cement with 2% gel and G. A. Henderson Well No. 4 had 8 5/8" 22.7# SWSJ casing set at 135' and cemented with 125 sacks regular cement, cement was circulated and 5 1/2" 14# J-55 casing set at 5117' and cemented with 200 sacks of 50-50 Pozmix cement with 2% gel. A hookwall packer will be set on tubing above the perforations and the annular space between the 2" tubing and 5 1/2" casing will be pressured to 1000 pounds per square inch to test for leaks and communication, and that the actual disposal will be accomplished through tubing set on the hookwall packer.
7. That the water to be injected will be water currently being produced from the Dakota Sand wells in the Cedar Creek Field, all wells being owned and operated by the applicant, together with water being produced from applicant's C. F. Green lease located in the Walker Field approximately one and one-half miles to the east. The C. F. Green lease water to be injected will exclude produced water in sufficient quantities to fulfill stock watering needs as is presently being accomplished. Analyses of all waters are attached.

8. That the volumes of water to be injected will range between a minimum of 200 barrels per day to a maximum of 1500 barrels per day at an anticipated injection pressure of 825 pounds per square inch at the wellhead. The known fracture pressure of the disposal formation is 4000 pounds per square inch at the sand face.

9. That the names of the owners of record including each surface owner within one-half mile of the proposed disposal wells are as shown on the attached Exhibit 3.

WHEREFORE, PREMISES CONSIDERED, applicant prays that this Commission issue its administrative order granting Skelly Oil Company permission to dispose of salt water into the First Dakota "D" Sand in its G. A. Henderson Well Nos. 2 and 4, above described, and for such other orders, rules and regulations as may be necessary in the premises.

Respectfully submitted,

SKELLY OIL COMPANY

BY *F. L. Franz*
F. L. FRANZ

1860 Lincoln Street
Denver, Colorado 80203

A F F I D A V I T

STATE OF COLORADO)
) ss
COUNTY OF DENVER)

Comes now F. L. Franz of lawful age, being first duly sworn, deposes and says:

That he is District Production Manager for the applicant, Skelly Oil Company, and that he has read the foregoing application and that the matters contained therein are to his best knowledge and belief true and correct.

That he has mailed a copy of this application via certified mail, return receipt requested to all owners within one-half mile of the proposed disposal wells, other than the applicant, by posting same postage prepaid in the United States mail at Denver, Colorado, the 27th day of April, 1973, which owners and their addresses are shown on attached Exhibit 3 of the foregoing application.

Further, affiant saith not.

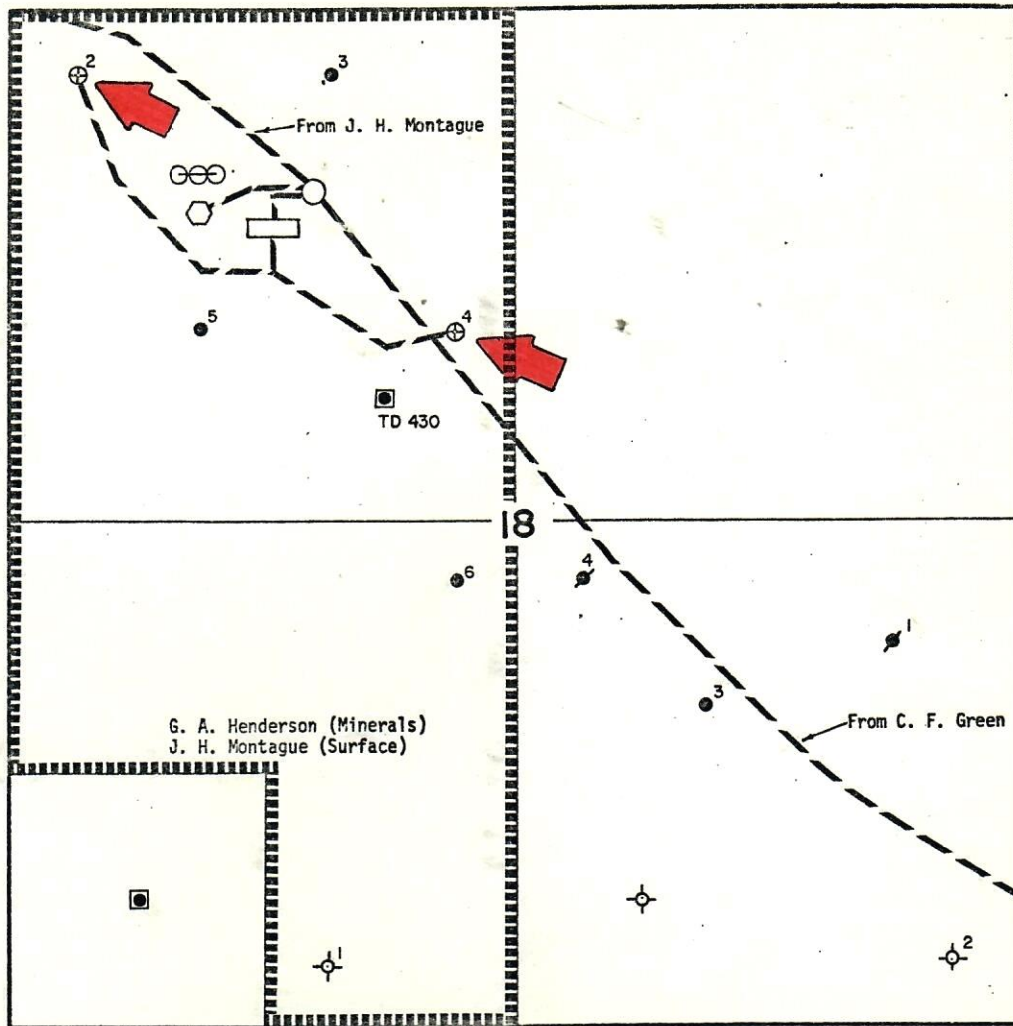
F. L. Franz
F. L. FRANZ

Subscribed and sworn to before me this 27th day of April, 1973.

Geraldine Gate
Notary Public.

My Commission Expires November 4, 1973.





Sec. 18, T9N, R53W
Logan County, Colorado

- SKELLY LEASE
- ⊗ ABANDONED WELL
- OIL WELL (DAKOTA "D")
- ☼ GAS WELL
- ⊕ DRY HOLE
- ⊕ SWD WELLS (DAKOTA "D")
- TSD TEMPORARY SHUT DOWN WELL
- △ INJECTION WELL
- WATER SUPPLY WELL
- FLOW LINES
- GAS LINES
- INJECTION LINES
- - - - SWD LINES
- - - - POWER LINES
- - - - LEASE ROADS
- ▨ VALLEY OR DRAW
- TANK BATTERY
- INJECTION PLANT
- SALT WATER TANK OR CONCRETE PIT
- OPEN DIRT PIT
- ▨ BUILDINGS
- SEPARATORS
- TREATERS

Exhibit 2

SKELLY OIL COMPANY
ALASKA-RKY MTN DISTRICT

APPLICATION FOR
SALT WATER DISPOSAL WELLS
G. A. HENDERSON LEASE NO. 2 and NO. 4

Scale: 1"=1000'

April, 1973

NAMES AND ADDRESS OF OWNERS OF RECORD
INCLUDING SURFACE OWNERS WITHIN
ONE-HALF MILE RADIUS OF SKELLY OIL COMPANY'S
G. A. HENDERSON WELL NOS. 2 AND 4
SECTION 18, TOWNSHIP 1 NORTH, RANGE 53 WEST
LOGAN COUNTY, COLORADO

April 27, 1973

North Star Petroleum Co.,
2202 Alamo National Building,
San Antonio, Texas. 78200.

Vaughey & Vaughey,
1650 Denver Club Building,
Denver, Colorado. 80202.

Gulf Oil Corporation,
P. O. Box 2619,
Casper, Wyoming. 82601.

Shell Oil Company,
1700 Broadway,
Denver, Colorado. 80202.

Dean L. Cummins,
1923 26th Avenue,
Greeley, Colorado. 80631.

Frank W. Turner,
New Raymer, Colorado. 80742.

Charles W. and Helen M. Erickson,
Rt. No. 2,
Sterling, Colorado. 80751.

Gilbert P. and Evelyn Schuman,
Rt. No. 3,
Sterling, Colorado. 80751.

Theodore and Ann Ruf,
Rt. No. 3,
Sterling, Colorado. 80751.



DIVISION LABORATORY
Box 2400 Casper, Wyoming 82601

Date October 24, 1971

To Mr. Bud Hurley
Skelly Oil Company
Denver, Colorado

Report No. 7537

Submitted By Skelly Oil Company Date Received October 19, 1971

Well No. J. H. Montague Lease SW SE 12-9N-54W

Location Logan County, Colorado Formation -

Specific Gravity	<u>1.004</u>
pH	<u>8.1</u>
IRON (FE)	<u>-</u>
Calcium (CA)	<u>18</u>
Magnesium (Mg)	<u>13</u>
Chlorides (Cl)	<u>5,463</u>
Sulfates (SO ⁴)	<u>Less than 10</u>
Carbonates (CO ³)	<u>Nil</u>
Bicarbonates (HCO ³)	<u>1,585</u>
Rw	<u>0.594</u>

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MILLIGRAMS PER LITER

Ohms / m² / m at 73 °F

Remarks:

Sodium, calculated 4,092 mpl
Total dissolved solids, calculated 11,171 mpl

cc Mr. J. B. Casey
Mr. G. R. Sickendick
Mr. W. C. Maddox

Respectfully submitted,

HALLIBURTON SERVICES

By P. W. McLean
fk

NOTICE:

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DIVISION LABORATORY
Box 2400 Casper, Wyoming 82601

Date October 24, 1971

To Mr. Bud Hurley
Skelly Oil Company
Denver, Colorado

Report No. 7540

Submitted By Skelly Oil Company Date Received October 19, 1971

Well No. C. F. Green Lease N/2 NE 20-9N-53W

Location Logan County, Colorado Formation ---

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Specific Gravity 1.001

pH 8.3

IRON (FE) ---

MILLIGRAMS PER LITER

Calcium (CA) 5

"

Magnesium (Mg) 2

"

Chlorides (Cl) 1,223

"

Sulfates (SO⁴) 173

"

Carbonates (CO³) N11

"

Bicarbonates (HCO³) 3,028

"

Rw 1.55

Ohms / m² / m at 76 °F

Remarks:

Sodium, calculated 2,007 mp1

Total dissolved solids, calculated 6,438 mp1

cc Mr. J. B. Casey
Mr. G. R. Sickendick
Mr. W. C. Maddox

Respectfully submitted,

HALLIBURTON SERVICES

By P. W. McLean
fk

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DIVISION LABORATORY
Box 2400 Casper, Wyoming 82601

Date October 24, 1971

To Mr. Bud Hurley

Report No. 7543

Skelly Oil Company

Denver, Colorado

Submitted By Skelly Oil Company Date Received October 19, 1971

Well No. G. A. Henderson Lease E/2 SW 18-9N-53W

Location Logan County, Colorado Formation -

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Specific Gravity 1.002

pH 7.7

IRON (FE) -

MILLIGRAMS PER LITER

Calcium (CA) 14

"

Magnesium (Mg) 5

"

Chlorides (Cl) 5,001

"

Sulfates (SO⁴) Less than 10

"

Carbonates (CO³) Nil

"

Bicarbonates (HCO³) 1,247

"

Rw 0.626

Ohms / m² / m at 76 °F

Remarks:

Sodium, calculated 3,685 mpl

Total dissolved solids, calculated 9,952 mpl

cc Mr. J. B. Casey
Mr. G. R. Sickendick
Mr. W. C. Maddox

Respectfully submitted,

HALLIBURTON SERVICES

By P. W. McLean
fk

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