

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

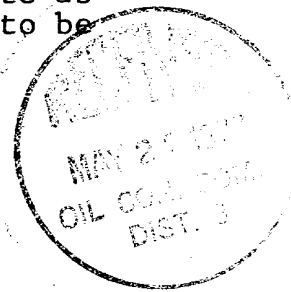
## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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  
Chace Oil Company, Inc.3. ADDRESS OF OPERATOR  
313 Washington, SE, Albuquerque, NM 871084. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
Unit 'M' 1150' SL & 890 WL  
At proposed prod. zone  
Same14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
13 miles SW of Counselors, NM15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any) 890'16. NO. OF ACRES IN LEASE  
16017. NO. OF ACRES ASSIGNED  
TO THIS WELL  
16018. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT. 1600'19. PROPOSED DEPTH  
2100'20. ROTARY OR CABLE TOOLS  
Rotary21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
7033' GR22. APPROX. DATE WORK WILL START\*  
July 15, 1977

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 3/4	8 5/8"	24#	80'	80 SXS

Drill 12 3/4" hole to 103' Set 8 5/8" csg. to approx. 100'  
Cement to surface. Using adequate mud system and BOP drill  
a 7 7/8" hole to 2100' Log with Induction and Density logs  
and if productive run 4 1/2" - 9.5# csg to TD and complete as  
gas well. BOP to be a Scheaffer Doublegate Hydraulic to be  
tested to 3000#'s

*Gas not dedicated*

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 Laurence J. McCarty TITLE President DATE 5-12-77

(This space for Federal or State office use)

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

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:*OK*

\*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACERAGE DEDICATION PLAT**

All distances must be from the outer boundaries of the Section

Operator <b>CHACE OIL COMPANY</b>			Lease <b>GULF NAVAJO</b>		Well No <b>2</b>
Unit Letter <b>M</b>	Section <b>12</b>	Township <b>22 NORTH</b>	Range <b>7 WEST</b>	County <b>SANDOVAL</b>	
Actual Footage Location of Well: <b>1150</b> feet from the <b>SOUTH</b> line and <b>890</b> feet from the <b>WEST</b> line					
Ground Level Elev. <b>7033</b>	Producing Formation <b>chacra</b>	Pool <b>Rusty ext</b>	Dedicated Acreage <b>160</b> Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty),
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?  
 ( ) Yes ( ) No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.

**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Royce McCary*  
Name

**Royce McCary**

Position  
**President**

Company  
**Chace Oil Company**

Date  
**5-10-77**

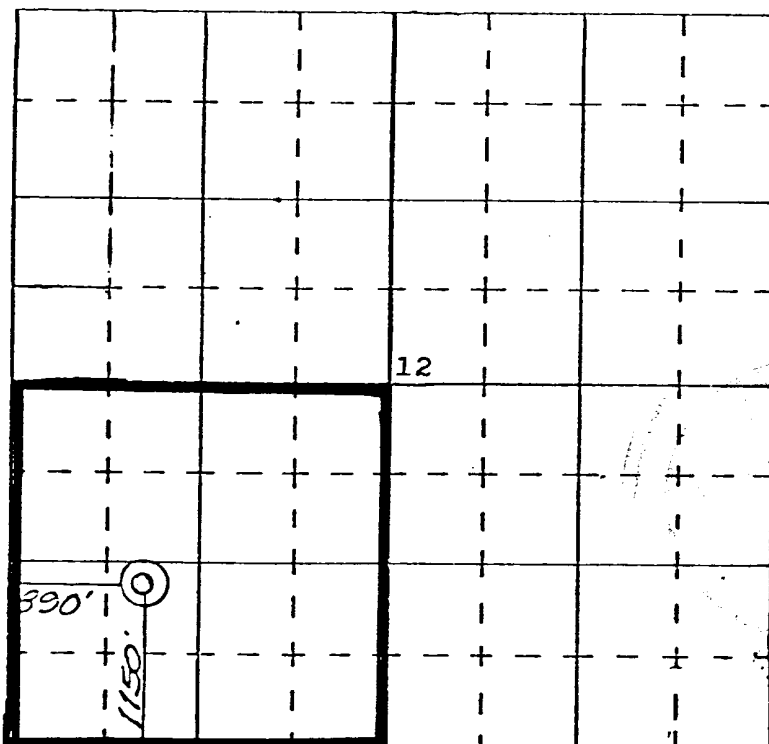
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

**3 March 1977**

Date Surveyed

*James P. Leese*  
Registered Professional Engineer  
and/or Land Surveyor **James P. Leese**

*[Signature]* **1463**  
Certificate No.



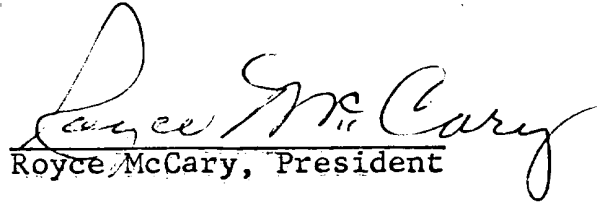
SCALE—4 INCHES EQUALS 1 MILE

**SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Chace Oil Company, Inc.

and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

May 12, 1977  
Date

  
Royce McCary, President

Article II - B Paragraph 3

Blowout Preventor to be the standard rental 10"  
Scheaffer Doublegate Hydraulic BOP tested to 3000 psia.  
BOP tested when leaving rental warehouse and checked  
for efficient operation daily.

## DEVELOPMENT PLAN FOR SURFACE RESUME

Chace Oil Company #2 Gulf Navajo  
Unit M 890' WL & 1150' SL Sec. 12  
T22N-R7W Sandoval County, New Mexico

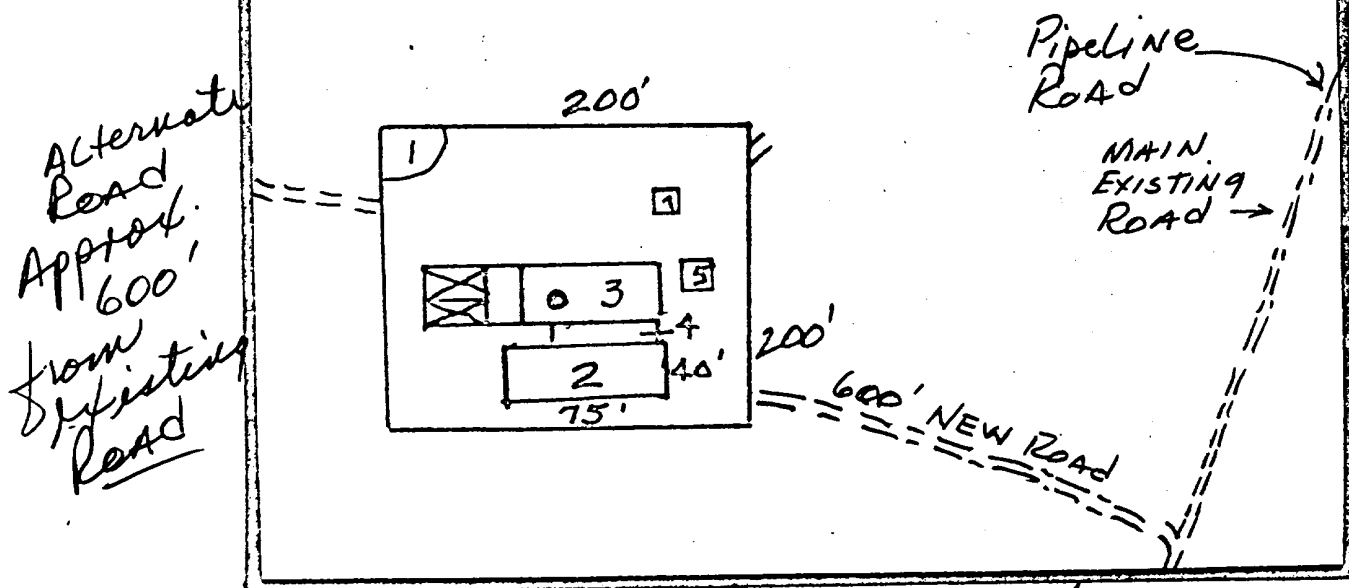
1. Location and vicinity map, San Juan Engineering Company Exit Hwy 44 at Counselors, N.M.
2. 600' of new road to be compacted to connect drill site with existing area roads. New road to be 20' in width.
3. Well site is approximately 1800' Northwest of the Gulf Federal #1 in Unit C, Section 13, T22N-R7W.
4. Roads shown on vicinity plat and location plat.
5. In case of production (gas) well will be tied into a gathering line, but market has not been established. No tank batteries or separators are anticipated at this time.
6. Water to come from private source at Lybrook, New Mexico.
7. All trash and waste material will be placed in the mud pit and covered. No additional surface to be used, such as air strips or campsites.
8. NONE
9. NONE
10. Rig layout shown on plat attached
11. The topography is rolling, covered with sagebrush, sand, broom snakeweed.
12. Drilling pad to be compacted.
13. After well completion, location to be restored to original condition less a few sagebrush and sodded with required seeds.
14. Field representative to contact is Royce McCary, telephone 266-5562 at 313 Washington S.E., Albuquerque, New Mexico 87108

1. Location 200' x 200'
2. Reserve pit 40' x 75'
3. Rig & Location
4. Mud system
5. Electrical system
6. New road
7. Trailer House

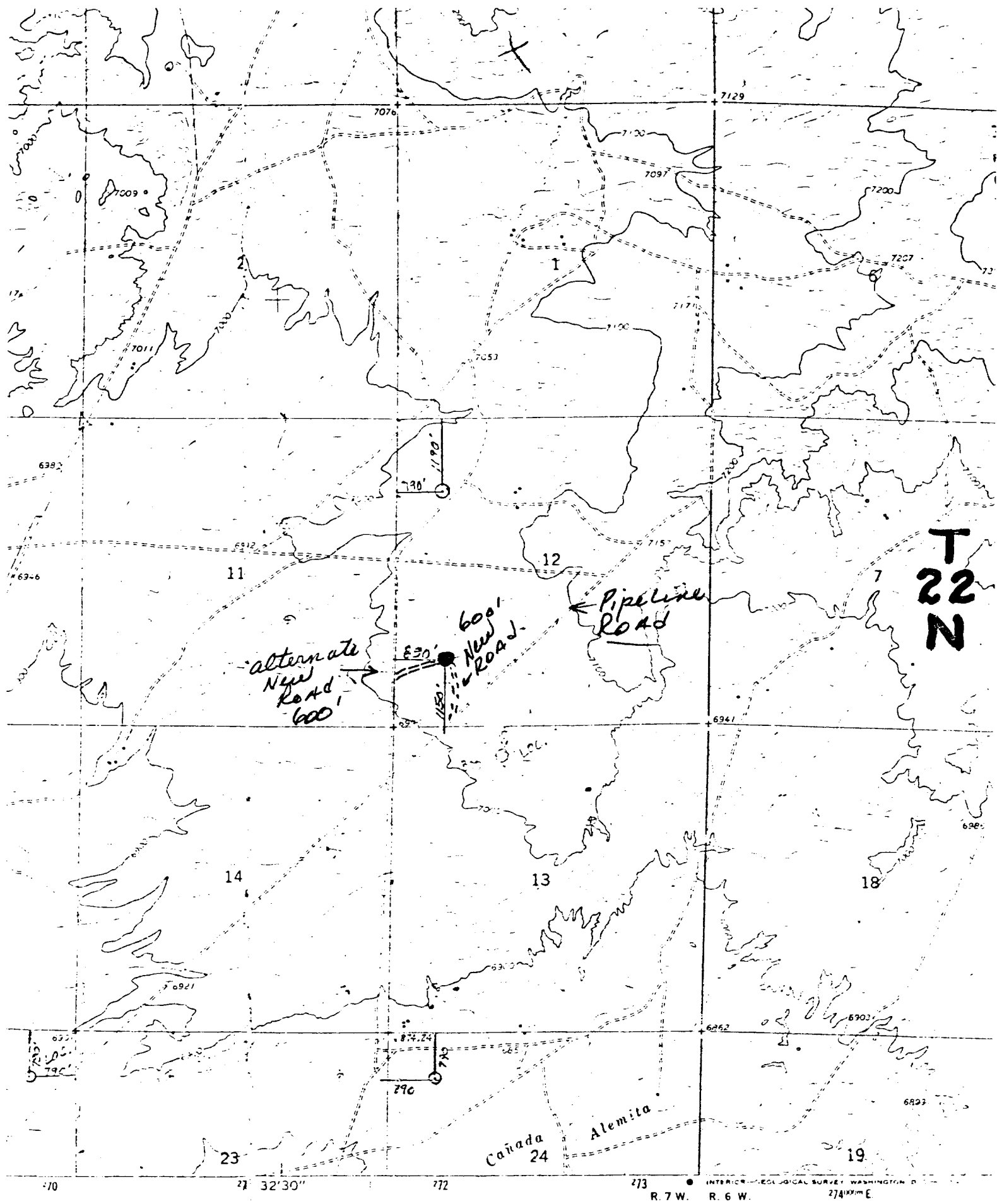
SE 1/4 SEC. 12

T22N-R7W

Sandoval County, New Mexico



GULF NAVAJOS #2



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

N00-C-14-20-5569

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Gulf Navajo

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Rusty Chacra

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

Sec. 12 T22N, R7W

12. COUNTY OR PARISH  
Sandoval13. STATE  
NM1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

Chace Development Company, Inc.

3. ADDRESS OF OPERATOR

313 Washington SE Albuquerque, NM 87108

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

Unit "M" 1150' SL &amp; 890' WL

14. PERMIT NO.

15. ELEVATIONS (Show whether DP, RT, GR, etc.)

7033' GR

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other) SPUD

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

X

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

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

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

Preparing to spud on or about June 1, 1980. Lee Wilson Drilling to be  
Contractor.

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

SIGNED

TITLE

President

DATE

5/12/80

(This space for Federal or State office use)

ACCEPTED FOR RECORD

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

MAY 22 1980

aL Fork

NMOCQI

\*See Instructions on Reverse Side

FARMINGTON DISTRICT

BY

M.L. Kuchera



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

N00-C-14-20-5569

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Gulf Navajo

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Rusty Chacra

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

Sec. 12, T22N-R7W

12. COUNTY OR PARISH 13. STATE

Sandoval NM

SUNDRY NOTICES AND REPORTS ON WELLS

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

1.

OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Chace Oil Company, Inc.

3. ADDRESS OF OPERATOR

313 Washington S.E. Albuquerque, NM 87108

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

1150/S 890/W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

7033' GR

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON\* ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) Progress Report ☒

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT\* ☐

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

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

See Attached Well History

ACCEPTED FOR RECORD

JUN 13 1980

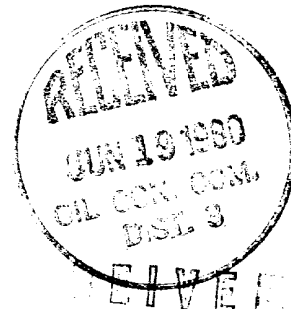
FARMINGTON DISTRICT

BY GM

RECEIVED

JUN 11 1980

U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.



RECEIVED

JUN 11 1980

U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.

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

SIGNED President

TITLE

President

DATE 6-4-80

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side



# CHACE OIL COMPANY, INC.

313 Washington S.E.

Albuquerque, New Mexico 87108

(505) 266-5562

Well: Gulf Navajo #2

Location: Unit "M" 1150' SL & 890' WL Sec. 12 T22N - R7W  
Sandoval County, NM; Navajo Indian Lease N00-C-14-20-5569

Elevation: 7033' GR

5-6-79 Location Approved

5-6-80 Prepared Location

5-22-80 Lee Wilson Drilling Contractor moved in  
Spudded well drilled 85'-9 5/8 hole. Set 83.56' of 8 5/8  
24# csg. cemented with 65 sxs Class B cement with 3% calcium  
chloride. Plug down 9:35

5-23-80 7:30 AM WORC to drill out.  
Est. Tops - P.C. 1550'  
Chacra A 1930"  
Chacra B 2305'  
Cliffhouse 3010'  
Menefee (1st oil show) 3405'  
Menefee (2nd oil show) 3535'  
Point Lookout 3880'

5-24-80 8:00 AM Drilling at 1100'  
Mud Wt. 8.7  
Vis. 38  
WL 8 cc's

5-25-80 8:00 AM Drilling at 2200'- Changed bit  
Mud Wt. 8.9  
Vis. 39  
WL 7 cc's

5-26-80 8:00 AM Drilling at 2600'-Bit locked up, came out replaced bit  
back on bottom 5:00 AM  
Mud 9.1  
Vis. 40  
WL 8 cc's

5-27-80 8:00 AM Drilling at 3100'  
Mud. Wt. 9.3  
Vic. 42  
WL 9 cc's

5-28-80 8:00 AM Drilling at 3500'  
Mud Wt. 8.9  
Vis. 40  
WL 8 cc's

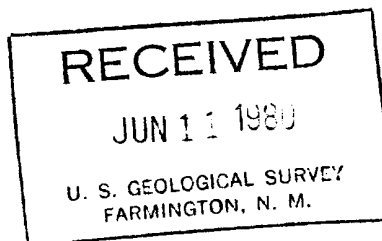
5-29-80      8:00 AM Drilling at 3680' - Lost three collars in hole, fishing  
Mud Wt. 8.9  
Vis. 40  
WL 8cc's

3-30-80      8:00 AM Drilling at 4010' Total depth at 2PM, Logging at 7PM  
Mud Wt. 9  
Vis. 65  
WL 6cc's

5-30-80      Reached TD of 4105' at 1:30 PM. Circulated 2 hours came out hole.  
Mud Wt. 9.3  
Vis 65  
Started to log--Ran into Bridge at 230', went in hole with pipe  
pushed out Bridge at 400' - came out of hole - went in with log  
tool - stopped at 400' - Came out of hole with log tool. Went  
in hole with pipe punched out bridge at 400' ran into another  
bridge at 600' - had to drill out - went to bottom.

5-31-80      Built up mud to 9.5# and 85 Vis- drilled 20 additional feet.  
Tallied pipe out - found total depth at 3986' Ran IES and formation  
Density log - with wellsite computation completed logging at 4PM  
Went back in hole with pipe - came out of hole laying down pipe.  
Ran 99 joints 9.50# of 4½" csg plus 3' float collar. Derrick floor 6'  
from ground shoe set at 3987.52 with float at 3947.30'. Ran 4 cement  
baskets and 9 centralizers.

6-1-80      Flushed hole with 1000 gallons of mud acid. Cemented with 675 sxs  
50-50 posmix w/CFR Z Friction Reducer and 3/4 of 1% flow seal per  
sack followed by 100 sxs Class B neat circulated 20 barrels past  
surface, plug down at 2:45 AM. Waiting on Completion tools.



# L. E. WILSON DRILLING COMPANY

EXPLORATION DRILLING  
POST OFFICE BOX 325  
BLOOMFIELD, NEW MEXICO 87413  
AREA CODE 505 632-2063

✓  
M-12-22N-7W

July 7, 1980



Chace Oil Company, Inc.  
313 Washington S. E.  
Albuquerque, New Mexico 87108

Dear Sir:

Enclosed find Deviation Records for well drilled in May 1980.  
I hope this is what you were asking about in regards to the  
well drilled GULF NAVAJO # 2.

Very truly yours,

L. E. Wilson,  
L. E. (Lee) Wilson Drilling Co.

Deviation as shown below:

2010'	-	1 <sup>0</sup>
2605'	-	1 <sup>1</sup> / <sub>2</sub> <sup>0</sup>
3095'	-	1 <sup>1</sup> / <sub>2</sub> <sup>0</sup>
4000'	-	2 <sup>0</sup>

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 12-1-55

Pool <b>Rusty Chacra</b>			Formation <b>Chacra</b>			County <b>Sandoval</b>		
Initial <b>X</b>		Annual		Special		Date of Test <b>6-28-80</b>		
Company <b>Chace Development Company, Inc.</b>			Lease <b>Gulf Navajo</b>			Well No. <b>2</b>		
Unit <b>"M"</b>	Sec. <b>12</b>	Twp. <b>22N</b>	Range <b>7W</b>		Purchaser <b>El Paso Natural Gas Company</b>			
Casing <b>4-1/2"</b>	Wt. <b>9.5</b>	I.D. <b>4.000</b>	Set at <b>3986</b>		Perf. <b>1967</b>		To <b>1977</b>	
Tubing <b>2-3/8"</b>	Wt. <b>6#</b>	I.D. <b>2.000</b>	Set at <b>1979</b>		Perf. <b>1981</b>		To <b>1991</b>	
Gas Pay: From <b>1967</b>		To <b>1991</b>		L		G		GL Bar. Press. <b>15.025</b>
Producing Through:		Casing		Tubing <b>X</b>		Type Well - Single - Braden head - G.G. or G.O. Dual <b>Single Completion</b>		
Date of Completion <b>6/23/80</b>		Packer <b>None</b>			Reservoir Temp. <b>71°</b>			

**OBSERVED DATA**

Tested Through: Prover <input type="checkbox"/> Choke <input type="checkbox"/> Meter <input type="checkbox"/>								Type of Taps		
FLOW DATA						TUBING DATA		CASING DATA		DURATION OF FLOW HR.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig.	Diff. h <sub>w</sub>	Temp. °F.	Press. psig.	Temp. °F.	Press. psig.	Temp. °F.	
Sl	<b>2"</b>	<b>3/4"</b>	<b>8</b>		<b>60</b>	<b>50</b>	<b>60</b>	<b>181</b>	<b>60</b>	<b>24</b>
1.										
2.										
3.										
4.										
5.										

**FLOW CALCULATIONS**

No.	Coefficient (24 Hour)	$\sqrt{h_w P_t}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCF PD @ 15.025 psia
1.							
2.							
3.							
4.							
5.							

MEASURED -- SEE ATTACHED CHART

**PRESSURE CALCULATIONS**

Gas Liquid Hydrocarbon Ratio <u>None</u> cf/bbl.	Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg.	Specific Gravity Flowing Fluid _____
F <sub>c</sub> _____ (1-e <sup>-S</sup> )	P <sub>c</sub> _____ P <sub>c</sub> <sup>2</sup> _____

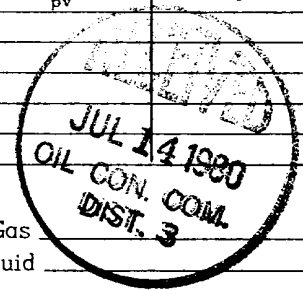
No.	$\frac{P_w}{P_t}$ psia	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	Gd P <sub>w</sub>	$\frac{P_w}{P_c}$
1.									
2.									
3.									
4.									
5.									

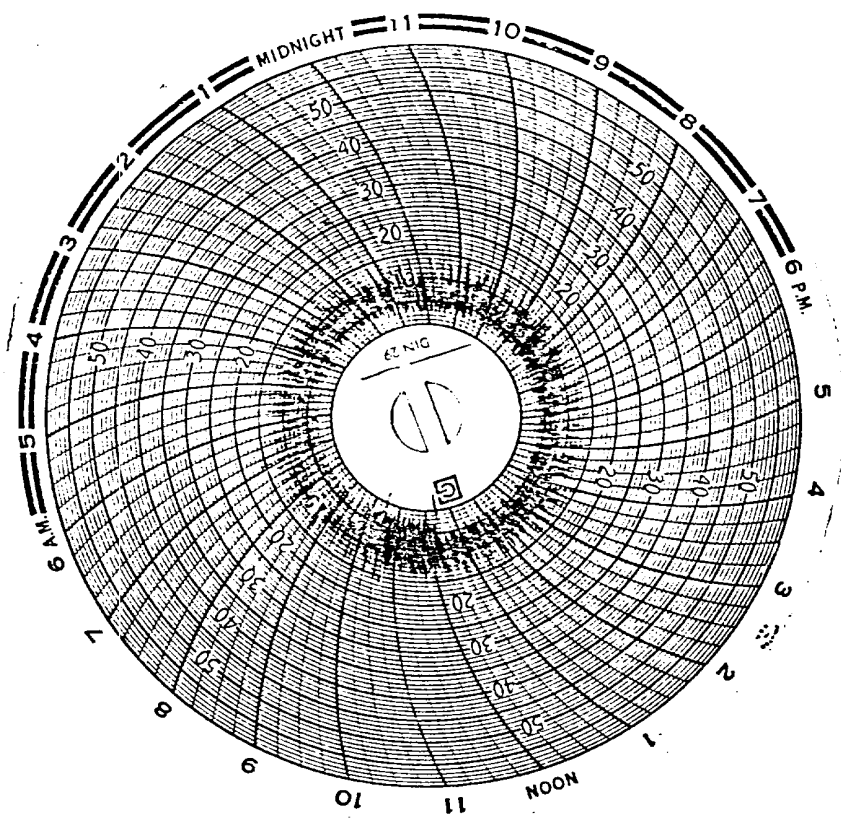
ABSOLUTE POTENTIAL: 227 MCFPD; n \_\_\_\_\_

COMPANY Chace Development Company, Inc. WITNESSED Andy Birdsell

ADDRESS 313 Washington SE Albuquerque, NM COMPANY \_\_\_\_\_

AGENT AND TITLE Royce McCary, President





~~20-01-3-2076~~ 6-28-80  
 GULF N.W. # 2  
 1750 Plate-  
 50 Tbs 181 CSS

8P37-227 MCEPD

