

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised June 10, 2003

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|---|---|---|
| ¹ Operator Name and Address SDG Resources L. P. P. O. Box 1390 Montrose, CO 81401 | | ² OGRID Number 193003 |
| | | ³ API Number 30 - 025-11140 |
| ³ Property Code 10917 29159 | ⁵ Property Name Cooper Jal Unit | ⁶ Well No. 117 |

⁷ Surface Location

| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| N | 18 | 24-S | 37-E | | 660 | SOUTH | 1980 | WEST | Lea |

⁸ Proposed Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|--|---------|----------|-------|---------|---|------------------|---------------|----------------|--------|
| ⁹ Proposed Pool 1 JALMAT - 2,970'-3,400' | | | | | ¹⁰ Proposed Pool 2 LANGLIE MATTIX - 3,400'-3,750' | | | | |

| | | | | |
|-----------------------------------|--|---|--|--|
| ¹¹ Work Type Code A | ¹² Well Type Code O | ¹³ Cable/Rotary R | ¹⁴ Lease Type Code FEDERAL | ¹⁵ Ground Level Elevation 3,320' K. B. |
| ¹⁶ Multiple No | ¹⁷ Proposed Depth 3,750' | ¹⁸ Formation TNSL-YTS-7RV-QUN | ¹⁹ Contractor GREAT BASIN WELL SERVICE | ²⁰ Spud Date Orig 11/04/48 |

²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|---|-------------|--------------------|---------------|-----------------|---------------|
| <p><i>Conditions of approval: Approval to do Remedial work to the Langlie Mattix, but CANNOT produce Downhole commingled until DHC is approved from Santa Fe.</i></p> | | | | | |

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Objectives: Drill CIBP, Deepen Jalmat producer and complete as a DHC (Jalmat/Langlie Mattix) producer. Acidize and Fracture Stimulate.

1. Use Sentinel Manual BOP rated at 5,000 psig.

2. Drill CIBP at 3,3,18'. Deepen well from 3,341' to 3,750'.

3. Acidize Tansill, Yates, 7-Rivers, and Queen zones with 4,000 gallons and Fracture Stimulate with 120,000# 12/20 mesh sand.

4. Down hole commingle Jalmat and Langlie Mattix zones.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway
Adding

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Domingo Carrizales

Printed name: Domingo Carrizales

Title: Sr. Petroleum Engineer

E-mail Address: domingo@sdgresources.com

Date: 04/21/05

Phone: 432-580-8500

OIL CONSERVATION DIVISION

Approved by:

[Signature]

Title:

Approval Date:

Expiration Date:

MAY 03 2005

Conditions of Approval:

Attached ☒

WELLBORE SCHEMATIC AND HISTORY

CURRENT COMPLETION SCHEMATIC

Surface Csg

Hole Size: 11 in
Csg. Size: 8 5/8 in
Set @: 320 ft
Sxs Cmt: 150
Circ: Yes
TOC @: surf
TOC by: circ

TOC @ 1201'
By TS

Production Csg.

Hole Size: 7 7/8 in
Csg. Size: 5 1/2 in

Set @: 3341 ft
Sxs Cmt: 500
Circ: No
TOC @: 705 f / surf.
TOC by: calc

PBTD: 3268 ft
TD: 3648 ft

OH ID: 4 3/4 in

TOC @ 3268'
CIBP @ 3318'

OH Interval
3341 - 3648'

Cooper Jal Unit

WELL NO. 117

STATUS: Active

Oil

API# 30-025-11140

LOCATION: 660 FSL & 1980 FWL, Sec 18, T - 24S, R - 37E; Lee County, New Mexico

SPUD DATE: TD 3648 KB 3,320' DF

INT. COMP. DATE: 11/24/48 PBTD 3268 GL 3,308'

ELECTRIC LOGS:

GR -N from 0 -3649' (11-18-48 Lane Wells)
Csg Inspection Log from 335 - 1500' (1-16-74 McCullough)
GR-CCL from 3255 - 2800' (4-27-92 Halliburton)

HYDROCARBON BEARING ZONE DEPTH TOPS:

Yates @ 2944'
Seven Rivers @ 3187'
Queen @ 3575'

CORES, DST'S or MUD LOGS:

GEOLOGICAL DATA

CASING PROFILE

SURF. 8 5/8" - 24#, J-55 set@ 320' Cmt'd w/150 sxs - circ cmt to surf.
PROD. 5 1/2" - 14#, J-55 set@ 3341' Cmt'd w/500 sxs - TOC @ 705' from surf by calculation
LINER None

CURRENT PERFORATION DATA

CSG. PERFS: 3058 - 3078' w/8 spf (160 holes)
OPEN HOLE: 3341 - 3648'

TUBING DETAIL 9/15/2000

| Length (ft) | Detail |
|-------------|------------------------------------|
| 2980 | 97 2 3/8" 4.7#, J-55, 8rd EUE tbq. |
| 5 | 1 5 1/2" x 2 3/8" TAC |
| 105 | 1 2 3/8" 4.7#, J-55, 8rd EUE tbq. |
| 1 | 1 2 3/8" SN |
| 28 | 1 3 1/2" MA |
| 3119 | blm |

ROD DETAIL 06/20/02

| Length (ft) | Detail |
|-------------|---|
| 15 | 1 20' x 1 1/4" polish rod w/ 1 1/2" liner |
| 10 | 3 3/4" rod subs |
| 3025 | 121 3/4" steel rods |
| 1 | 1 1' x 3/4" lift rod |
| 18 | 1 2" x 1 1/4" X 18' RHBC brass-chrome pmp |
| 6 | 1 1" Gas Anchor |
| 3075 | blm |

WELL HISTORY SUMMARY

24-Nov-48 Initial completion interval: 3341'-3648' (7 RVRs/Queen OH). Shot w/290 qts nitro (3,341'-3,620').
IP = 65 bopd, 0 bwpd & 72 Mcfgpd (flowing)

17-Jan-74 Ran csg inspection log. Found holes from 535 - 878'. Sqz'd csg leak @ 535 - 878' w/ 250 sxs cmt @ 700 psi. Did out & tst. OK.

6-Aug-74 C/O to 3626' (Hole continue to fill) Before WO: 1 bopd & 3 bwpd, After WO: 4 bopd & 7 bwpd

24-Oct-74 C/O to 3621'. Frac'd OH w/60,000 gals gel tr'd fresh water w/ 45,000#s 20/40 sand & 38,000#s 12/20 sand. AIR=25 bpm @ 2800 psi. ISIP=850 psi, P10min=400 psi.

2-Jan-75 Producing 8 bopd & 67 bwpd. Checked for fill - none.

Note: Performed seven (7) rod or tubing jobs in 1977 @ cost of \$4,038

Note: Performed twelve (12) rod or tubing jobs in 1978 @ cost of \$7,277

Note: Performed eleven (11) rod or tubing jobs in 1979 @ cost = \$8,235

21-May-92 Set CIBP @ 3318' & dump 7 sxs (50') cmt on top. Ran GR - CCL from 3255 - 2800'. Perf'd w/4" csg gun w/ 120 deg phasing from 3058'-78' w/ 8 spf (160 - 0.47" dia holes). Frac'd w/70,000 gals/220,000#s 12/20 sand & 21,000#s 12/20 resin coated sand PM=4700 - 1660 psi, AIR=30 bpm. ISIP=352 psi. C/O and ran prod equip. After WO: pmp 0 bopd, 17 bwpd & 545 MCFGPD.

15-Mar-95 Acq'd perfs 3058 - 78' w/ 2,000 gals 15% NEFE acid. Atmpt to swab load back. No fluid entry. Performed scale sqz using 110 gals TH793 scale inhibitor mixed w/ 15 bbls water. Flushed w/2% KCL water. RIH w/ production equipment. SWI 24 hrs. IP=0 bopd, 0 bwpd, & 128 Mcfgpd.

15-Sep-00 C/O using foam unit from 3140 - 3268' (PBTD). Ran sonic hammer and acidized perfs 3058 - 78' w/ 1,000 gals 15% NEFE HCL. PM=1648 - 850 psi. AIR=4.4 bpm. ISIP= vacuum. Scale sqz'd perfs w/ 165 gals TH-756 mixed w/ 55 gals 2% KCL @ 4 bpm & 1200 psi. Ran production equipment. C/O iron sulfide from surface filter. After WO: 0 bopd, 46 bwpd, & 96 Mcfgpd. Well on compression.

20-Jun-02 Rod part (body break) at 22 ft. Changed out pump.

PREPARED BY: Larry S. Adams D. Carrizales

UPDATED: 12-Jun-03

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|---|---|--|
| ¹ API Number 30-025-11140 | ² Pool Code Jalmat: 33020 Langlie Mattix: 37240 | ³ Pool Name JALMAT: Tansill, YATES, 7RVRS <i>Langlie Mattix SR 16N-6E</i> |
| ⁴ Property Code 40917 <i>29158</i> | ⁵ Property Name Cooper Jal Unit | ⁶ Well Number 117 |
| ⁷ OGRID No. 193003 | ⁸ Operator Name SDG Resources L. P. P. O. Box 1390 Montrose, CO 81402 | ⁹ Elevation 3,320' K. B. |

¹⁰ Surface Location

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| | | | | | | | | | |

| | | | |
|--|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres <i>40</i> | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|--|-------------------------------|----------------------------------|-------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | | |
|---------------|--|--|
| ¹⁸ | ¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Domingo Carrizales</i> Signature Domingo Carrizales Printed Name Sr. Petroleum Engineer domingo@sdgresources.com Title and E-mail Address <i>04/12/05</i> <i>05/21/05</i> Date | |
| | ¹⁸ SURVEYOR CERTIFICATION 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 belief. | |
| | Date of Survey Signature and Seal of Professional Surveyor: | |
| | Certificate Number | |