

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

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

APPLICATION TYPE  
Yes Single Well  
Yes Establish Pre-Approved Pools  
EXISTING WELLBORE  
X Yes    No

APPLICATION FOR DOWNHOLE COMMINGLING

SDG Resources

P. O. Box 1390

Montrose, CO 81402

Operator Cooper Jal Unit # 227 Oil D Address 24 24-S 37-E Lea

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 193003 Property Code 10917 API No. 30-025-11291 Lease Type: X Federal    State    Fee   

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	JALMAT <u>Oil</u>		LANGLIE MATTIX <u>Oil</u>
Pool Code	<u>33820</u>		<u>37240</u>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3,046'-3,330'		3,330'-3,790'
Method of Production (Flowing or Artificial Lift)	Pumping		
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.7 Degree API		35.7 Degree API
Producing, Shut-In or New Zone	Producing		Shut In
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 11/15/04 Rates: 6/5/40	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 94 % 71 %	Oil Gas % %	Oil Gas 6% 29 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X No     
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes    No   

Are all produced fluids from all commingled zones compatible with each other? Yes X No   

Will commingling decrease the value of production? Yes    No X

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes    No X

NMOCD Reference Case No. applicable to this well:   

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Domingo Carrizales TITLE Sr. Petroleum Engineer DATE 05/12/2005

TYPE OR PRINT NAME Domingo Carrizales TELEPHONE NO. ( 432 ) 580-8500

E-MAIL ADDRESS domingo@sdgresources.com

2005 MAY 20 PM 1 15

## WELLBORE SCHEMATIC AND HISTORY

## CURRENT COMPLETION SCHEMATIC

**Surface Csg**  
 Hole Size: 12 1/4 in  
 Csg. Size: 9 5/8 in  
 Set @: 1139 ft  
 Sxs Cmt: 600  
 Circ: Yes  
 TOC @: surf  
 TOC by: circ

**Production Csg.**  
 Hole Size: 8 3/4 in  
 Csg. Size: 7 in  
 Set @: 3148 ft  
 Sxs Cmt: 400  
 Circ: No  
 TOC @: 1480 f / surf  
 TOC by: TS

PBTD: 3144 ft  
 TD: 3150 ft

OH ID: in

TOC@ 1480'  
 By Calc.

2964 - 94'  
 3000 - 26'  
 3040 - 3140'

## Cooper Jal Unit

WELL NO. **227**

STATUS: Active Oil  
 API# 30-025-11291  
 LOCATION: 660' FNL & 660' FWL, Sec 30, T - 24S, R - 37E; Lee County, New Mexico  
 SPUD DATE: TD 3150 KB 3,285' DF 3282'  
 INT. COMP. DATE: 06/26/50 PBTD 3144 GL 3,274'

## GEOLOGICAL DATA

## ELECTRIC LOGS:

GR-N from surface - 3150' (6-25-50)  
 Temperature Log from 500 - 3060' (5-26-50 Halliburton)  
 GR - CCL (6-3-99 Schlumberger)  
 Trac III (9-27-76 Cardinal Surveys Co.)

## CORES, DST'S or MUD LOGS:

## HYDROCARBON BEARING ZONE DEPTH TOPS:

Yates @ 2975'

## CASING PROFILE

SURF. 9 5/8" - 32#, J-55 set@ 1139' Cmt'd w/600 sxs - circ cmt to surf.  
 PROD. 7" - 20#, J-55 set@ 3148' Cmt'd w/400 sxs - TOC @ 1480' from surface by Temperature Survey.  
 LINER None

## CURRENT PERFORATION DATA

CSG. PERFS: 3040 - 3140' w/ 6 spf  
 2964 - 2994' & 3000 - 3026' w/ 2 spf (116 holes total)  
 OPEN HOLE:

## TUBING DETAIL 6/9/1999

Length (ft)	Detail
8	KB
2896	92 2 7/8" 6.5#, J-55, 8rd EUE tbg.
3	1 5 1/2" x 2 7/8" TAC
187	6 2 7/8" 6.5#, J-55, 8rd EUE tbg.
32	1 2 7/8" 6.5#, Ceramic coated, J-55, 8rd EUE tbg.
1	1 2 7/8" SN
27	1 3 1/2" Mud Anchor w/OPMA purge valve
3144	

## ROD DETAIL 6/9/1999

Length (ft)	Detail
22	1 22" x 1 1/4" polish rod
0	1 2" x 1 1/2" liner
20	4 2" 4", 6", 8" - 3/4" D pony rods
2875	115 3/4" D steel rods
175	7 1 1/4" sinker bars
14	1 2 1/2" x 1 1/4" X 14' RHBC rod pump
0	1 1 1/4" gas anchor
3106	

SN@ 3115' TAC@ 2894'

## WELL HISTORY SUMMARY

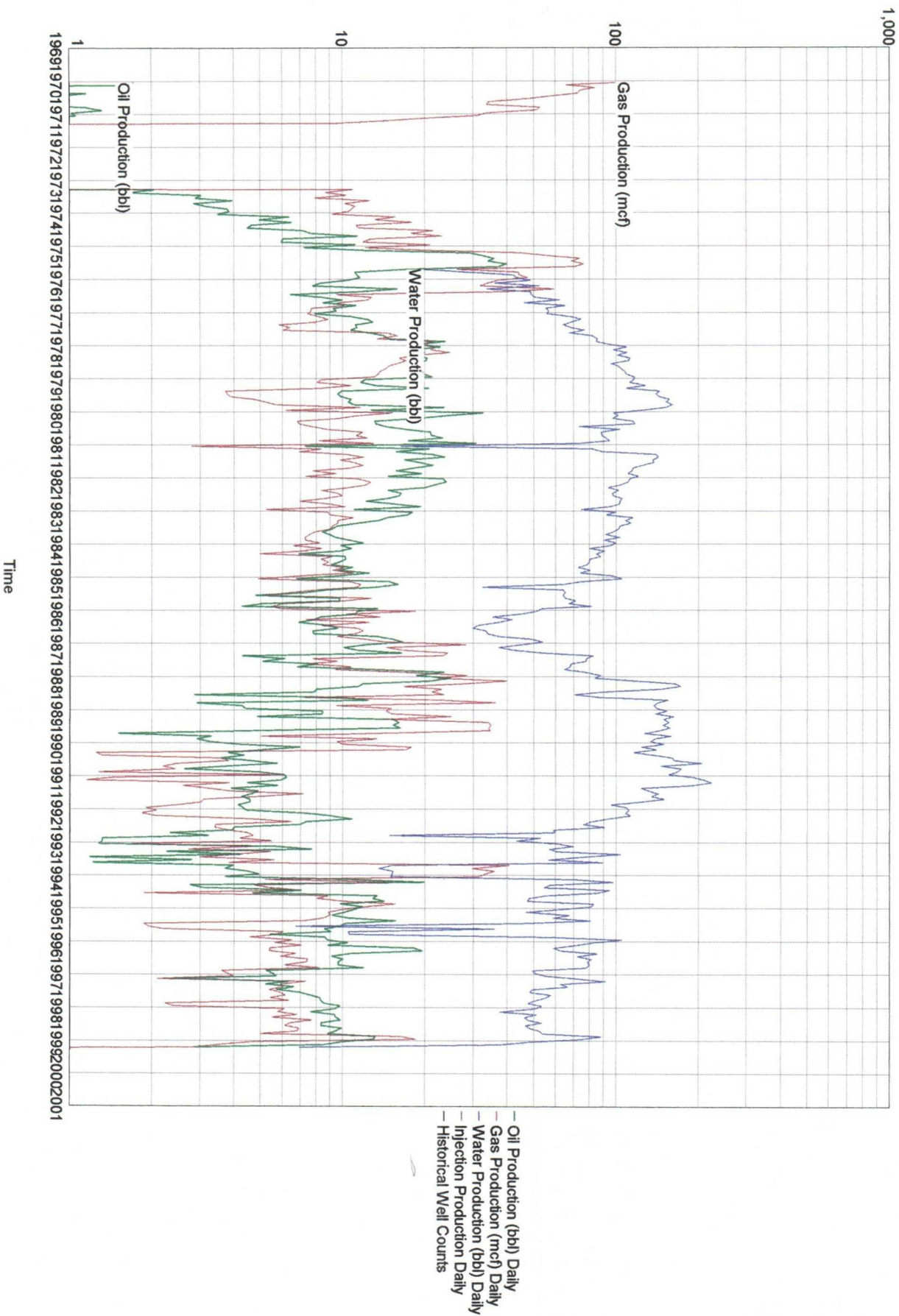
26-May-50 Initial completion interval: (Yates) 3040 - 3140' w/ 6 spf: treated w/ 500 gals acid. IP = 59 bopd, 0 bwopd, & GOR=1170, (flowing) API Grvty = 35.4  
 1-Jul-74 Tagged fill @ 3140'. Did not C/O.  
 31-Jul-75 Producing 40 bopd & 0 bwopd (pumping)  
 17-Sep-75 Producing 19 bopd & 8 bwopd (pumping)  
 6-Oct-75 C/O fill from 3128 - 45' (17')  
 19-Dec-75 Producing 12 bopd & 45 bwopd (pumping)  
 12-Jun-76 Producing 8 bopd & 61 bwopd (pumping)  
 14-Sep-94 C/O fill from 3124 - 48' (24'). Acid'd perfs(3040 - 3140') w/ 4,000 gals 20% NEFE HCL & 700#s rock salt in 3 stages. AIR= 1 bpm @ 875 psig. ISIP=770 psi, P10min=vacuum. Swab back 10 bbls of load. Swabbed dry. Ris pkr & circ out rock salt from 3117'-3148'. Ran production equipment. After WO: 20 bopd, 74 bwopd, & 8 Mcf/gpd.  
 2-Jun-99 Tagged TD w/ 6 1/4" bit & 7" scraper. Ran GR-CCL from 3148 - 2000'. Perf'd: 2964 - 2994' & 3000 - 3026' w/ 2 jpl @ 120 deg phasing. (116 holes total - .42" dia.). Acid'd perfs 2964 - 3140' w/3,500 gals 15% NEFE HCL thru sonic hammer tool. AIR= 3 bpm @ 1,000 psig. Isolated perfs 2964 - 3026'. Acid'd perfs (2964 - 3026') w/ 3,000 gals 15% NEFE HCL dropping 1250#s rock salt in 3 block stages. AIR=4 bpm @ 1300 psi. ISIP=vacuum. Return well to production. After WO: 9 bopd, 57 bwopd, & 31 Mcf/gpd.

PREPARED BY: Larry S. Adams

UPDATED: 12-Dec-02

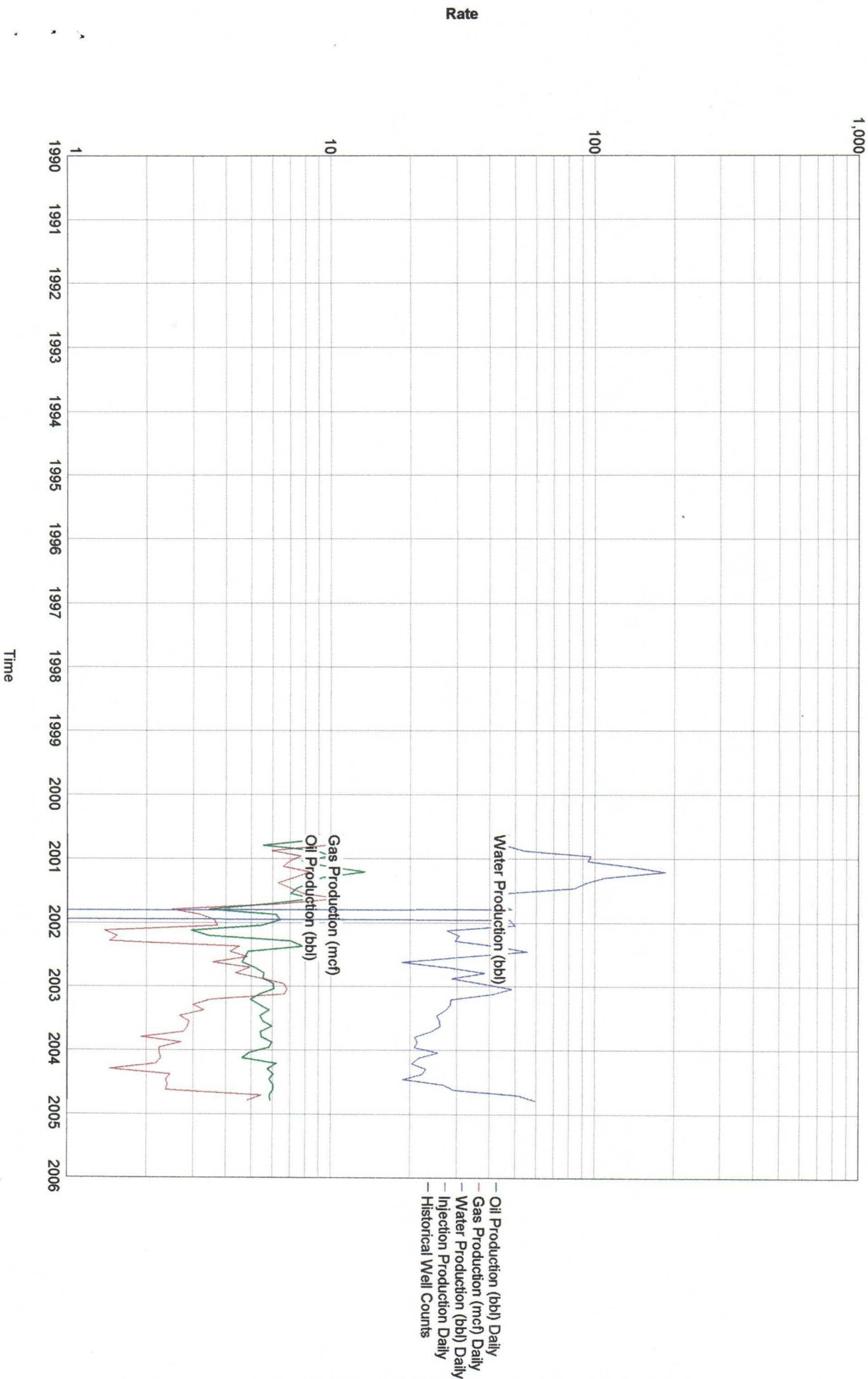
Lease Name: COOPER JAL UNIT #227  
 County, State: LEA, NM  
 Operator: SDG RESOURCES LIMITED PARTNERSHIP  
 Field: JALMAT  
 Reservoir: TANSILL-YATES-SEVEN  
 Location: 30 24S 37E

COOPER JAL UNIT - JALMAT



Lease Name: COOPER JAL UNIT # 227  
County, State: LEA, NM  
Operator: SDG RESOURCES LIMITED PARTNERSHIP  
Field: JALMAT  
Reservoir: TANSILL-YATES-SEVEN  
Location: 30 24S 37E

COOPER JAL UNIT - JALMAT



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State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies  
☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-11291	<sup>2</sup> Pool Code Jalmat: <del>33025</del> <b>33820</b>	<sup>3</sup> Pool Name JALMAT: Tansill, YATES, 7RVRS
<sup>4</sup> Property Code 10917	<sup>5</sup> Property Name Cooper Jal Unit	<sup>6</sup> Well Number 227
<sup>7</sup> OGRID No. 193003	<sup>8</sup> Operator Name SDG Resources L. P. P. O. Box 1390 Montrose, CO 81402	<sup>9</sup> Elevation 3,285' G. L..

<sup>10</sup> Surface Location

UL or lot no. D	Section 30	Township 24S	Range 37E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 660	East/West line WEST	County Lea
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<sup>11</sup> 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
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>30</sup> 				<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Domingo Carrizales Printed Name Sr. Petroleum Engineer    domingo@sdgresources.com Title and E-mail Address 05/13/05 Date
				<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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

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Revised June 10, 2003  
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**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-11291	<sup>2</sup> Pool Code Langlie Mattix: 37240	<sup>3</sup> Pool Name LANGLIE MATTIX:, 7RVRs, Queen, Grbrg
<sup>4</sup> Property Code 10917	<sup>5</sup> Property Name Cooper Jal Unit	<sup>6</sup> Well Number 227
<sup>7</sup> OGRID No. 193003	<sup>8</sup> Operator Name SDG Resources L. P. P. O. Box 1390 Montrose, CO 81402	<sup>9</sup> Elevation 3,285' G. L..

<sup>10</sup> Surface Location

UL or lot no. D	Section 30	Township 24S	Range 37E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 660	East/West line WEST	County Lea
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<sup>11</sup> 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
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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<sup>30</sup> 				<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Domingo Carrizales Printed Name Sr. Petroleum Engineer domingo@sdgresources.com Title and E-mail Address 05/13/05 Date
				<sup>18</sup> 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

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Oil Conservation Division  
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copy

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

<sup>1</sup> Operator Name and Address SDG Resources L. P. P. O. Box 1390 Montrose, CO 81402		<sup>2</sup> OGRID Number 193003
		<sup>3</sup> API Number 30 - 025-11291
<sup>3</sup> Property Code 10917	<sup>5</sup> Property Name Cooper Jal Unit	<sup>6</sup> Well No. 227

#### <sup>7</sup> Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	30	24-S	37-E		660	NORTH	660	WEST	Lea

#### <sup>8</sup> 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
<sup>9</sup> Proposed Pool 1 JALMAT - 2,963' - 3,350'						<sup>10</sup> Proposed Pool 2 LANGLIE MATTIX - 3,350' - 3,790'			

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code FEE	<sup>15</sup> Ground Level Elevation 3,314' K. B.
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 3,790'	<sup>18</sup> Formation TNSL-YTS-7RV-QUN GRBRG	<sup>19</sup> Contractor GREAT BASIN WELL SERVICE	<sup>20</sup> Spud Date Orig 6/15/50

#### <sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC

<sup>22</sup> 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: Deepen Jalmat producer, run 5 1/2" liner and complete as a DHC (Jalmat/Langlie Mattix) producer. Acidize and Fracture Stimulate.

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

2. Deepen well from 3,150' to 3,790'.

3. Acidize Tansill, Yates, 7-Rivers, and Queen zones with 3,000 gallons and Fracture Stimulate with 90,000# 12/20 mesh sand.

4. Down hole commingle Jalmat and Langlie Mattix zones.

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

Signature:



Printed name: Domingo Carrizales

Title: Sr. Petroleum Engineer

E-mail Address: domingo@sdgresources.com

Date: 5/13/05

Phone: 432-580-8500

#### OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐



Submit 3 Copies To Appropriate District Office  
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State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-103  
May 27, 2004

COPY

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-11291
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Injector <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/> <b>FED</b> <input checked="" type="checkbox"/>
2. Name of Operator SDG Resources L. P.		6. State Oil & Gas Lease No. NM 12612
3. Address of Operator P. O. Box 1390 Montrose, CO 81402		7. Lease Name or Unit Agreement Name LC0325928
4. Well Location Unit Letter <u>D</u> ; 660 feet from the <u>NORTH</u> line and <u>660</u> feet from the <u>WEST</u> line Section <u>30</u> Township <u>24S</u> Range <u>37E</u> NMPM LEA County		8. Well Number Cooper Jal Unit 227
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,285' GL		9. OGRID Number 193003
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		
Pit type <u>DIRT</u> Depth to Groundwater <u>130</u> feet Distance from nearest fresh water well <u>&gt;1000</u> feet Distance from nearest surface water <u>&gt;1000</u> feet		
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u>200</u> bbls; Construction Material <u>Synthetic</u>		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
OTHER: Deepen, Acidize and Fracture Stimulate. Pit Permit. ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Objective: Deepen producer to 3,790', run 5 1/2" liner, acidize, and fracture stimulate. Complete as DHC producer.

- MIRU Pulling Unit. POOH with rods, pump and tubing string.
- RIH w/ 6 1/8" bit & 12 - 3 1/2" drill collars on 2 7/8" work string. Deepen well to new TD at 3,790'.
- Lay down bit & drill collars. RU Wireline Company. Run Compensated Neutron Log from TD to 2,790'.
- RIH w/ 5 1/2" liner from 3,790' to 3,120'.
- RIH with 7" packers on 3 1/2" work string to 2,860'. Set packer.
- Acidize open hole (3,148'-3,790'); perfs: Yates (2,964'-3,140'), with 4,000 gallons 15% NEFE HCl acid diverting with rock salt.
- Fracture stimulate open hole (3,148'-3,790') & Yates Perfs (2,964'-3,140') with 100,000# 12/20 mesh sand in 4 stages, diverting with rock salt.
- Flow well back until surface pressure depletes. POOH and lay down 3 1/2" work string and packer.
- Clean out well to new TD with sand bailer on 2 7/8" work string. Lay down bailer and 2 7/8" work string.
- RIH 2 7/8" production string, pump and rods. Place well on production. Turn over to operations.
- Fold Pit Liner inward, cover with 20 mil liner and cover with top soil. File Form C144 with NMOCD.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Domingo Carrizales TITLE Senior Petroleum Engineer DATE 05/13/05

Type or print name  
**For State Use Only**

E-mail address: Domingo@sdgresources.com Telephone No. 432-580-8500

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Conditions of Approval (if any): \_\_\_\_\_