

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 **HOBBS OCD**

Form C-101  
May 27, 2004

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

Submit to appropriate District Office  
**AUG 05 2011**  
☐ AMENDED REPORT

**RECEIVED**

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

<sup>1</sup> Operator Name and Address Cimarex Energy Co. of Colorado 600 N. Marienfeld, Ste. 600 Midland, TX 79701		<sup>2</sup> OGRID Number 162683
		<sup>3</sup> API Number 30-025- <b>40224</b>
<sup>4</sup> Property Code <b>38726</b>	<sup>5</sup> Property Name JG SWD	<sup>6</sup> Well No. 001
<sup>9</sup> Proposed Pool 1 <b>SWD, Devonian-Silurian &lt;97869&gt;</b>		<sup>10</sup> Proposed Pool 2

**Surface Location**

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	16	17S	32E		1695	North	1343	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

**Additional Well Information**

<sup>11</sup> Work Type Code New Well	<sup>12</sup> Well Type Code SWD	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 4055 GL
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 14100	<sup>18</sup> Formation Devonian	<sup>19</sup> Contractor N/A	<sup>20</sup> Spud Date When Approved
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
<input type="checkbox"/> Pit <input type="checkbox"/> Liner <input type="checkbox"/> Synthetic <input type="checkbox"/> ___mils thick <input type="checkbox"/> Clay <input type="checkbox"/> Pit Volume: ___ bbls <input type="checkbox"/> Drilling Method				
<input type="checkbox"/> Closed-Loop System <input checked="" type="checkbox"/> Flowback Tanks <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

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

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½	13¾	48	800	600	Circ
12¼	9¾	40	4600	1450	Circ
8¾	5½	20 & 17	13700*	2300	Circ
			*13700-14100 open hole		

<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

Drill Devonian SWD well. Wells disposing into the SWD will be Cimarex operated Paddock/Blaine wells in the area.

Injection interval will be 13730-13900. Acidize perms with 20000 gal 20% HCl acid. Packer to be set @ 13700 with 3½" 9.3# N80 or 2½" 8.7# N80 tubing from 0-13700. See attached proposed WBD.

C-108 approved: SWD-1294. **A**

**Permit Expires 2 Years From Approval  
Date Unless Drilling Underway**

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: *Natalie Krueger*  
Printed name: Natalie Krueger

Title: Regulatory

E-mail Address: [nkrueger@cimarex.com](mailto:nkrueger@cimarex.com)

Date: August 4, 2011

Phone: 432-620-1936

**OIL CONSERVATION DIVISION**

Approved by:

*[Signature]*

Title

**PETROLEUM ENGINEER**

Approval Date: **AUG 10 2011**

Expiration Date.

Conditions of Approval Attached ☐

**AUG 10 2011**

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State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 15, 2009

Submit one copy to appropriate  
District Office

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

☐ AMENDED REPORT

API Number <b>30-025-40224</b>	Pool Code <b>97869</b>	Pool Name <b>Silurian</b> Devonian SWD-Wildcat
Property Code <b>38726</b>	Property Name <b>JG STATE SWD</b>	Well Number <b>1</b>
OGRID No. <b>162683</b>	Operator Name <b>CIMAREX ENERGY CO. OF COLORADO</b>	Elevation <b>4055'</b>

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>F</b>	<b>16</b>	<b>17 S</b>	<b>32 E</b>		<b>1695</b>	<b>NORTH</b>	<b>1343</b>	<b>WEST</b>	<b>LEA</b>

**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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.	<b>SWD-1294-A</b>					

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

<p><b>SURFACE LOCATION</b> Lat - N 32°50'14.07" Long - W 103°46'32.43" NMSPCE - N 668773.5 E 712617.2 (NAD-83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Natalie Krueger</i> 8/4/2011 Signature Date</p> <p><b>Natalie Krueger</b> Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p>
	<p>MAY 10 2011 NEW MEXICO Professional Surveyor 7977</p>
	<p>W.O. Jones Certificate No. Gary L. Jones 7977 BASIN SURVEYS</p>



DRILLING PROGNOSIS  
Cimarex Energy Company

4/25/2011

Well: JG SWD  
Location: Sec 16, T17S, R32E  
County, State: Lea County, NM  
Surface Location: 1800 FNL, 1400 FWL  
Bottomhole Loc:  
E-Mail:  
Wellhead: SEC A: 11" 5M x 9-5/8" SOW  
SEC B: 11" 5M X 7-1/16" 10M  
  
Xmas Tree: 2 9/16 3M  
Tubing: 2-7/8"  
Superintendent: Jim Evans  
Engineer: Ryan Braxton

Lse Serial #  
Field: Loco Hills  
Objective: Wolfcamp/Cisco  
TVD/MD: 14100  
Cementing: Halliburton  
Mud: Baroid  
Motors:  
OH Logs: Halliburton  
Rig: Cactus  
Offset Wells:

Hole Size	Formation Tops	Other	Logs	Bit IADC	Cement	Mud Weight
17-1/2"					20 bbl FW spacer Lead: 350 sx Econocem + 4% Bentonite + 2% CaCl <sub>2</sub> , Mixed at 13.5 ppg, 1.75 cuft/sx, 9.16 gal/sx fresh water Tail: 250 sx Class C + 1% CaCl <sub>2</sub> + 0.125 pps LCM Mixed at 14.8 ppg, 1.34 cuft/sx, 6.33 gal/sx TOT @ 500 TOC @ surface 50% excess	8.4 - 8.6 PPG fresh water spud mud
12-1/4"	13-3/8", 48#, H40, ST&C @ 800'	Yates @ 2080 Seven Rivers @ 2420' Queen @ 3020' San Andres @ 3770'			10 bbl FW spacer Lead: 1100 sks 12.9 ppg Econocem w/ 5% salt, 5 lb gilsonite, 9.32 gal/sk water, 1.85 yield Tail: 350 sks C w/ 1% CaCl <sub>2</sub> , 6.36 gal/sk, 1.34 yield TOC @ surface, TOT @ 3800' (75% excess)	Drill with 10.0 ppg brine water to eliminate leeching of salt sections
8-3/4"	9-5/8", 40#, N80, LTC @ 4600'	Glorieta @ 5260' Paddock @ 5310' Blinberry @ 6015' Tubb @ 6800' DVT tool @ 7700' or where needed  Abo @ 7500' Wolfcamp @ 9350' Cisco @ 10050' Strawn @ 11500' Atoka @ 11890' Morrow @ 12274' Mississippian @ 12550' Woodford @ 13600' Devonian @ 13730'  -1800' 5-1/2", 20#, L80, BTC 8200' 5-1/2", 17# L80, BTC 3700' 5-1/2", 20# L80, BTC (on bottom)			Spacer: 10 bbls FW + 24 bbls superflush 101 + 10 bbls FW. STAGE ONE: Lead: 400 SKS EconoCem - H + 0.2 % HR-601 2.44 11.9 ppg 2.44 yield Tail: 1000 SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbm/sk salt + 0.1% HR-601 14.5 ppg 1.22 yield STAGE TWO: 900 SKS EconoCem - H + 0.2 % HR-601 2.44 11.9 ppg 2.44 yield TOC @ surface, TOT @ 10000' (25% excess)	9-10 ppg brine
	14100					

NOTES:  
Cement volumes for surface csg include a 50% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes.  
Cement volumes for intermediate csg include a 50% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes.  
Cement volumes for production csg include a 25% excess in the open hole section. Adjust volumes after caliper + 25% excess.  
ALL INVOICES ARE TO SHOW **CIMAREX ENERGY** AS OPERATOR AND USE CIMAREX ACCOUNTING CODES.  
Directions: