

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  
June 16, 2008



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

Operator Name and Address Blue Dolphin Production LLC, C/O Walsh Engineering & Production Corp 7415 E. Main St., Farmington, NM 87402		OGRID Number 2706-63821790
Property Code 38455		API Number 30 - 039-31012
Property Name Theis Greenhorn Test		Well No. #1
Proposed Pool 1 WC 2730N1E Mancos (O) #97881		Proposed Pool 2

<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
G	27	30N	1E		1796	North	1469	East	Rio Arriba

<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
H	27	30N	1E		1796	North	1069	East	Rio Arriba

Additional Well Information

<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 P	<sup>15</sup> Ground Level Elevation 7668
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 2,400'	<sup>18</sup> Formation Dakota	<sup>19</sup> Contractor TBD	<sup>20</sup> Spud Date 09-15-2011

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

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	8 5/8"	24#/J-55	500'	330	0
7 7/8"	5 1/2"	15.5#/J-55	2400'/2480'	300 Lead/170 Tail	0

<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.

See attached drilling program

*notify Aztec OCO 24 hours before spud*

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

Signature:

*S. Max Libby*

Printed name:

S. Max Libby

Title:

Agent for Blue Dolphin Production LLC

E-mail Address:

maxlibby@donellis-associates.com

Date:

09-14-2011

Phone: 505-402-3848 (cell)

505-326-1730 (office)

OIL CONSERVATION DIVISION

Approved by:

*Charles R. ...* 9-22-11

Title:

**SUPERVISOR DISTRICT # 3**

Approval Date:

SEP 22 2011

Expiration Date:

SEP 22 2013

Conditions of Approval Attached ☐

Hold C104

for Directional Survey  
and "As Drilled" plat

SEP 22 2011 *W*

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State of New Mexico  
Energy, Minerals & Natural Resources Department

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



Form C-102

Revised July 16, 2010

Submit one copy to appropriate

District Office

AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-039-31012</b>	<sup>2</sup> Pool Code <b>97881</b>	<sup>3</sup> Pool Name <b>WC 2730N01E MANCOS (O)</b>
<sup>4</sup> Property Code <b>38455</b>	<sup>5</sup> Property Name <b>THEIS GREENHORN TEST</b>	<sup>6</sup> Well Number <b>#1</b>
<sup>7</sup> GRID No. <b>226829</b>	<sup>8</sup> Operator Name <b>BLUE DOLPHIN PRODUCTION, LLC</b>	<sup>9</sup> Elevation <b>7668</b>

### <sup>10</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
<b>G</b>	<b>27</b>	<b>30 N</b>	<b>1 E</b>		<b>1796</b>	<b>NORTH</b>	<b>1469</b>	<b>EAST</b>	<b>RIO ARRIBA</b>

### <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
<b>H</b>	<b>27</b>	<b>30 N</b>	<b>1 E</b>		<b>1796</b>	<b>NORTH</b>	<b>1119</b>	<b>EAST</b>	<b>RIO ARRIBA</b>

<sup>12</sup> Dedicated Acres <b>40 AC. SE/4 NE/4</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>NSL-6462</b>
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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.

<div>16 N 89°38' W 2630.1' (R) S 25°27' E-1061.94' 5170.44' (R) 290.4' (R) LOT 7 (14.76) LOT 8 (22.39) LOT 9 (22.04) LOT 10 (21.70) EAST 721.07'</div>	<div>SURFACE LOCATION LAT: 36.7857743° N LONG: 106.8105583° W NAD 83 LAT: 36.7857612° N LONG: 106.8099634° W NAD 27 SECTION 27 FORMER JICARILLA APACHE RESERVATION BOUNDARY TIERRA AMARILLA GRANT S 0°08' W 4385.70' (R) WEST 1918.02'</div>	<div>2362.82' (R) 1796' 1796' 1469' 1119' 5323.64' (R) 1796' 1469' 1119' 1918.02'</div>	<div><b>17 OPERATOR CERTIFICATION</b> 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.  Signature Date Printed Name E-mail Address</div>
<div>NOTES: 1. BEARINGS &amp; DISTANCES SHOWN ARE RECORD, BASED UPON "TRUE NORTH" AND SURFACE DISTANCES. 2. THIS PLAT REPRESENTS SECTION LINES PROJECTED INTO THE TIERRA AMARILLA GRANT FOR MAPPING PURPOSES. LEGEND: ○ = SURFACE LOCATION ● = BOTTOM HOLE LOCATION x = PP MANCOS 1219' FEL ⊕ = FOUND 1988 B.L.M. BRASS CAP (C.C.) ⊙ = FOUND 1914 U.S.G.L.O. BRASS CAP (W.C.) N 88°56' W 2653.2' (R)</div>	<div>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. 6/08 Date of Survey Signature and Seal of Professional Surveyor NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 14831 NMPS# 14831 Certificate Number</div>		

Blue Dolphin Production LLC

Operating Plan

Theis Greenhorn Test #1

I. Location:

SHL- 1796' FNL & 1469' FEL	BHL- 1796' FNL & 1069' FEL
G Sec 27, T30N, R1E	H Sec 27, T30N, R1E
Rio Arriba County, NM	Rio Arriba County, NM

The well will be drilled directionally in an "S" type configuration.

II. Geology: Surface Formation- Mancos Shale

<u>Formation Tops</u>	<u>Depth (TVD/TMD)</u>
Mancos A	1411'/1480'
Sanostee	1919'/1999'
Greenhorn	2219' /2299'
Graneros	2267' / 2347'
Dakota	2390' /2470'
Total Depth	2400' / 2480'

Estimated depths (TVD) of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered: water, oil, and gas – 1411', 2219', 2390'.

B. Logging Program: Neutron/Density & Induction/GR @ TD

C. No over pressured zones are expected in this well. No H2S zones will be penetrated in this well.

III. Drilling

A. Contractor: TBD

B. Mud Program:

The surface and production holes will be drilled with an air/mist closed loop system. The hole will be loaded with water based drilling mud at TD for logging purposes.

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP w/ rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after and after any use under pressure to 1000 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time the pipe is pulled out of the hole. All checks of the BOP stack will be noted on

the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

#### IV. Materials

##### A. Casing Program:

Hole Size	Depth TMD/TVD	Casing Size	Wt. & Grade
12 1/4"	500'/500'	8 5/8"	24# J-55
7 7/8"	2400'/2480'	5 1/2"	15.5# J-55

##### B. Float Equipment and centralization:

1. Surface Casing- Texas pattern guide shoe, self filling float collar, bow type centralizer on every csg collar.
2. Production Casing- 4 1/2" cement guide shoe and self fill float collar one joint above shoe. 7 centralizers spaced every other joint above the shoe jt.

#### V. Cementing :

1. Surface casing: 8 5/8" csg, use 330 sxs (445 cuft.) of type III with 2% CaCL, and 1/4 lb/sx celloflake (yield – 1.35 cuft/sx, Density- 14.8 ppg), 100% excess to circulate cement to surface. WOC 12 hours. Will pressure test surface csg to 1000 psi for 30 min.
2. Production casing: 5 1/2", before cementing circulate hole at least 1 1/2 times hole volumes of mud, ahead of cement slurry 20 bbls of fresh water will be pumped, followed a lead slurry of 300 sx (600 cuft.) of Type III with 2% sodium metasilicate, 5#/sx gilsonite, and 1/4#/sxs celloflake, (yield- 2.06 cuft/sx, slurry density-12.5 ppg), 170 sxs (230 cuft) type III w/ 1/4#/sx celloflake, (yield 1.35 cuft/sx, slurry density-14.8 ppg)