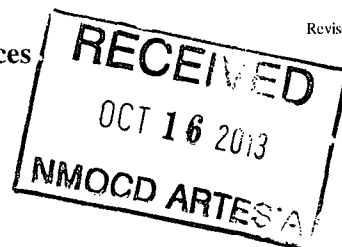


**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone: (575) 393-6161 Fax: (575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone: (575) 748-1283 Fax: (575) 748-9720  
**District III**  
 1000 Rio Brazos Road, Aztec, NM 87410  
 Phone: (505) 334-6178 Fax: (505) 334-6170  
**District IV**  
 1220 S. St. Francis Dr., Santa Fe, NM 87505  
 Phone: (505) 476-3460 Fax: (505) 476-3462

**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 July 18, 2013



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

<sup>1</sup> Operator Name and Address COG Operating LLC 2208 West Main Street Artesia, NM 88210		<sup>2</sup> OGRID Number 229137
<sup>3</sup> Property Code 40112		<sup>4</sup> APL Number 30-015-41739
<sup>5</sup> Property Name SRO State Com		<sup>6</sup> Well No 41H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
7/p	3	26S	28E	2	190	North	2310	East	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	10	26S	28E	O	330	South	2100	East	Eddy

**9. Pool Information**

<sup>9</sup> Pool Name RED Bluff Hay Hollow Bone Spring ; South	<sup>10</sup> Pool Code 30215
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**Additional Well Information**

<sup>11</sup> Work Type New Well	<sup>12</sup> Well Type Oil	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type State	<sup>15</sup> Ground Level Elevation 2938.9
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 17994	<sup>18</sup> Formation Bone Spring	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 10/29/2013
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5	13.375	48	350	365	
Intrmd	12.25	9.625	36	2520	850	
Production	7.875	5.5	17	17994	3010	2220

**Casing/Cement Program: Additional Comments**

Drill 17-1/2" hole to ~350' w/ fresh water spud mud. Run 13-3/8" 48# H40 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl<sub>2</sub> to cement to surface, if necessary.  
 Drill 12-1/4" hole to ~2520' with saturated brine water. Run 9-5/8" 36# J55 LTC casing to TD and cement to surface in one stage.  
 Drill 7-7/8" vertical hole, curve and lateral to 17994' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD and cement in one stage bringing TOC to 2220' (300' overlap).

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

<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 I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature: <i>Mayte Reyes</i>		OIL CONSERVATION DIVISION	
Printed name: Mayte Reyes		Approved By: <i>T. C. Shepard</i>	
Title: Regulatory Analyst		Title: "Geologist"	
E-mail Address: mreyes1@concho.com		Approved Date: 10/17/2013 Expiration Date: 10/17/2015	
Date: 10/15/2013	Phone: 575-748-6945	Conditions of Approval Attached	

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
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DISTRICT III  
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Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505  
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
11885 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-015- <b>41739</b>	Pool Code <b>30215</b>	Pool Name <b>Red Bluff</b>
Property Code <b>40112</b>	Property Name <b>51010 SRO STATE COM</b>	Well Number <b>41H</b>
GRID No. <b>229137</b>	Operator Name <b>COG OPERATING, LLC</b>	Elevation <b>2938.9</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>2H</b>	<b>3</b>	<b>26-S</b>	<b>28-E</b>		<b>190</b>	<b>NORTH</b>	<b>2310</b>	<b>EAST</b>	<b>EDDY</b>

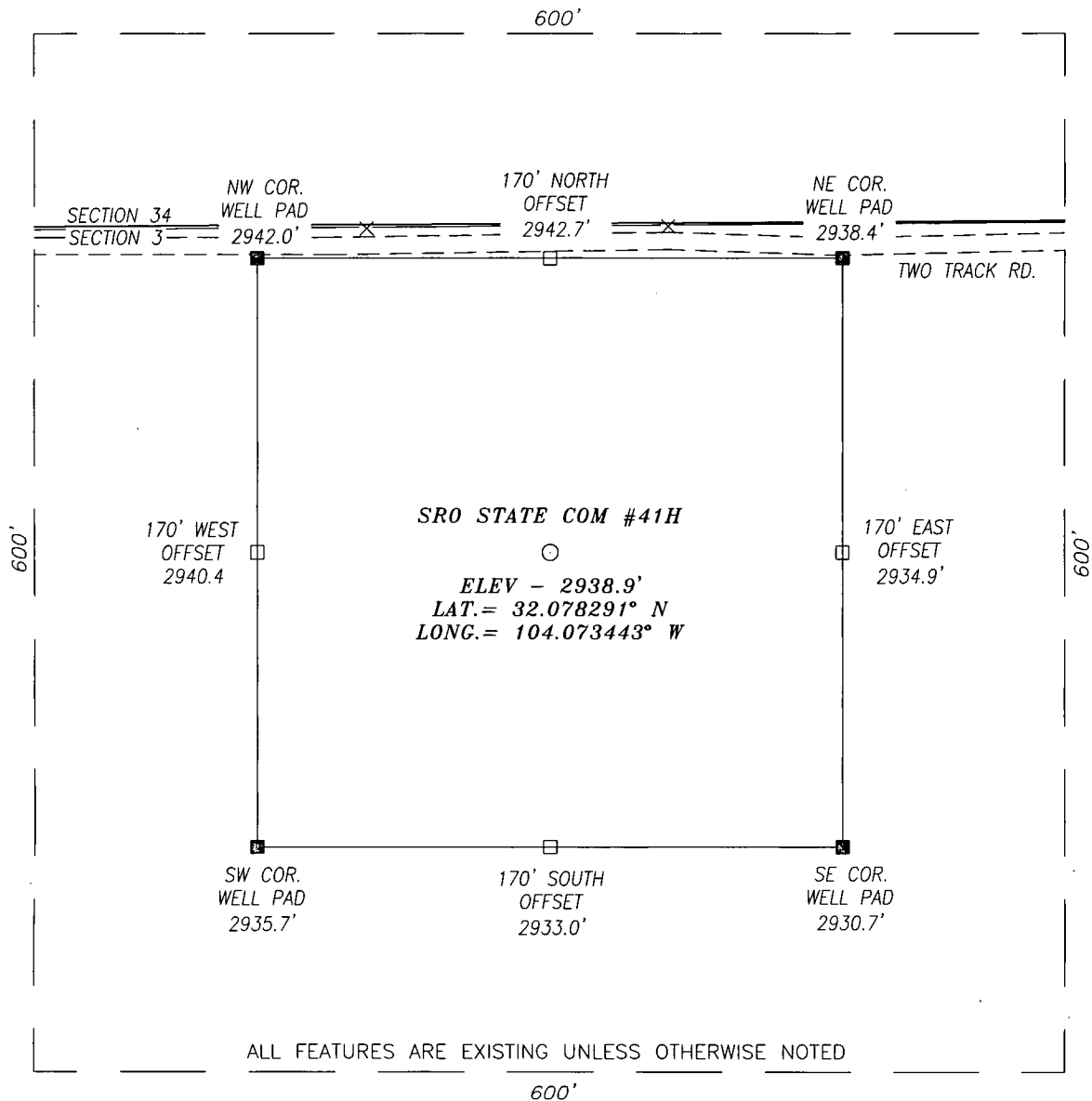
**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>0</b>	<b>10</b>	<b>26-S</b>	<b>28-E</b>		<b>330</b>	<b>SOUTH</b>	<b>2100</b>	<b>EAST</b>	<b>EDDY</b>
Dedicated Acres <b>320</b>	Joint or Infill	Consolidation Code	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

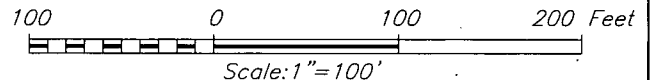
<p>LOT 4 40.81 Ac.</p> <p>LOT 3 40.56 Ac.</p> <p>LOT 2 40.39 Ac.</p> <p>LOT 1 40.13 Ac.</p> <p>Y=392491.5 N X=580146.2 E</p> <p>Y=392499.1 N X=581476.2 E</p> <p>As per SLO 40.00 Ac</p> <p>SECTION 3</p> <p>SECTION 10</p> <p>GRID AZ. 178°50'15"</p> <p>HORIZ. DIST. 10,058.9</p> <p>Y=381914.0 N X=580110.6 E</p> <p>Y=381920.2 N X=581454.1 E</p> <p>B.H. 330'</p> <p>2100'</p>	<p>NAD 27 <u>SURFACE LOCATION</u> Y=392303.5 N X=580496.3 E LAT.=32.078291° N LONG.=104.073443° W</p> <p>NAD 27 <u>PROPOSED BOTTOM HOLE LOCATION</u> Y=382246.7 N X=580700.4 E LAT.=32.050644° N LONG.=104.072862° W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature <i>Melanie Parker</i> Date <b>10/15/13</b></p> <p>Printed Name <b>Melanie Parker</b></p> <p>E-mail Address <b>mparker@concho.com</b></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><b>JULY 8, 2013</b></p> <p>Date of Survey</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><b>CHAD L. HARCROW</b> NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR</p> <p><i>Chad Harcrow</i> <b>7/29/13</b></p> <p>Certificate No. <b>CHAD HARCROW 17777</b></p> <p>W.O. # <b>13-413</b> DRAWN BY: <b>VD</b></p>
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SECTION 3, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

HEADING SOUTH ON HWY 285 APPROX. 0.7 MILE PAST MILE MARKER 6 TURN RIGHT (WEST) ONTO A CALICHE RD. AND STAY ON ROAD FOR APPROX 0.8 MILE; ARRIVING AT EXISTING SRO ST UNIT #20H WELLPAD; GO TO NORTHWEST PAD CORNER AND FOLLOW TWO TRACK WEST FOR APPROX. 0.2 MILE; THEN PROPOSED WELL IS APPROX. 180 FEET SOUTH.



HARCROW SURVEYING, LLC

1107 WATSON, ARTESIA, N.M. 88210  
PH: (575) 513-2570 FAX: (575) 746-2158  
chad\_harcrow77@yahoo.com



COG OPERATING, LLC

SRO STATE COM #41H WELL  
LOCATED 190 FEET FROM THE NORTH LINE  
AND 2310 FEET FROM THE EAST LINE OF SECTION 3,  
TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO

SURVEY DATE: 07/08/2013

PAGE: 1 OF 1

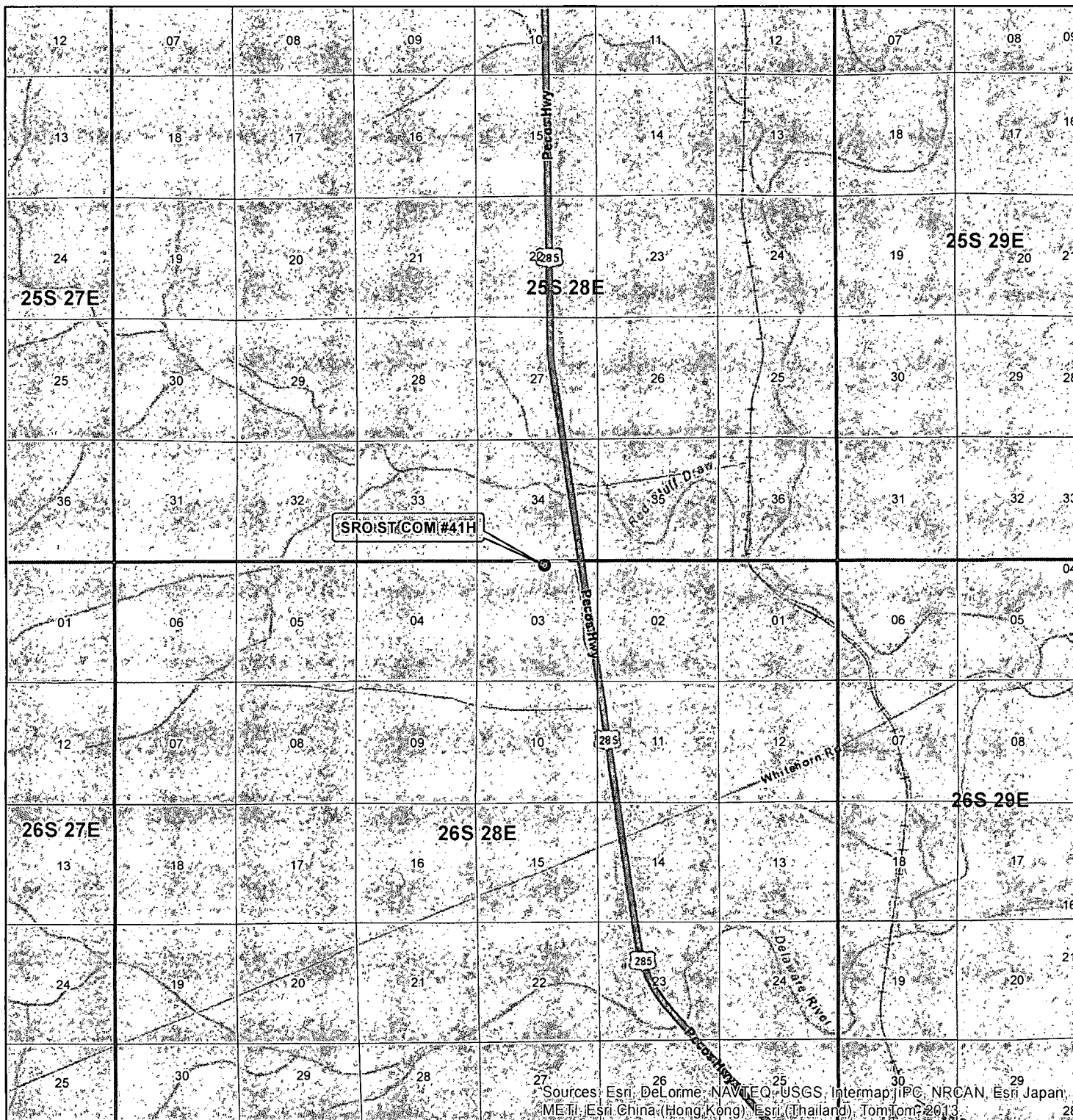
DRAFTING DATE: 07/10/2013

APPROVED BY: CH

DRAWN BY: VD

FILE: 13-413

# VICINITY MAP



SEC. 3, TWP. 26 S, RGE. 28E  
 SURVEY: N.M.P.M  
 COUNTY: EDDY STATE: NEW MEXICO  
 DESCRIPTION: SRO ST COM #41H  
 190' FNL, 2310' FEL

ELEVATION: 2938.9'  
 OPERATOR: COG OPERATING LLC  
 LEASE: SRO ST COM

W.O. # 13-413



1 IN = 6,000 FT

0 0.5 MILES

WELL

TOWNSHIP  
 SECTION

HARCROW SURVEYING, LLC  
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 PH: (575) 513-2570 FAX: (575) 746-2158  
 chad\_harcrow77@yahoo.com



MAP DATE: 7/17/2013

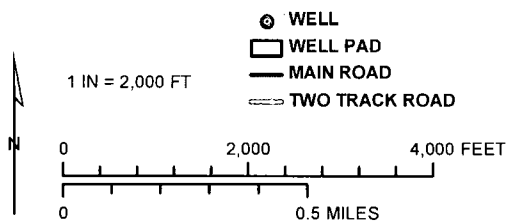
# LOCATION VERIFICATION MAP



SEC. 3, TWP. 26 S. RGE. 28 E  
 SURVEY: N.M.P.M  
 COUNTY: EDDY STATE: NEW MEXICO  
 DESCRIPTION: SRO ST COM #41H  
 190' FNL, 2310' FEL

ELEVATION: 2938.9'  
 OPERATOR: COG OPERATING LLC  
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MAP DATE: 7/17/2013



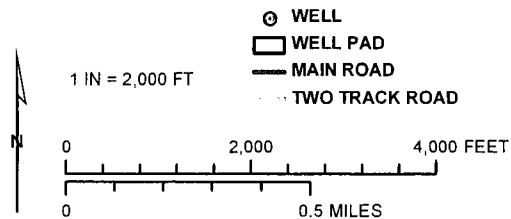
# LOCATION VERIFICATION MAP



SEC. 3, TWP. 26 S, RGE. 28E  
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 chad\_harcrow77@yahoo.com



MAP DATE: 7/17/2013

## Permit Conditions of Approval

API: 30-015-40112

OCD Reviewer	Condition
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string