





Glow Worm ALX Federal #15H – P&A

SECT 4, T23S, R31E

API # 30-015-36368

1. Set 5.5" CIBP w/ WS at 7,500'.
2. TIH, tag CIBP, circulate plugging mud & spot 25 sx class C cement on top of CIBP.
3. Pick up, spot a 25 sx class C cement plug from ~~6,150~~<sup>453</sup> – 5,900'.
4. Pick up, spot a ~~25~~ sx class C cement plug from 4,250' – ~~4,000~~<sup>4,000</sup>; WOC & Tag. ~~4,3890~~ *SOLID*
5. Pick up, spot a ~~25~~ sx class C cement plug from ~~1,000~~<sup>1,000</sup> – 750'. *Plug to 750*
6. Pick up, spot a 25 sx class C cement plug from 615' – 365'.
7. *Per Fe @ 100'* ~~Spot 35~~<sup>502</sup> sx class C cement from 100' to surface. Ensure all annuluses are cemented to surface.
8. Cut off WH 3' below surface; verify cement to surface.
9. Weld on P&A marker. Cut off anchors 3' below surface and clean location.

*Solid Plug from 4250-750. Tag  
R-111-A Requirement.*

R-111-P



# Glow Worm ALX Federal #15H Current Wellbore Diagram

API: 30-015-36368  
 LOCATION: Sec. 4-23S-31E 200' FNL & 1830' FEL  
 COUNTY: Eddy County, New Mexico  
 LAT/LONG: 32.3401108, -103.7802048 NAD83

SPUD DATE: 6/13/2008  
 COMP DATE: 11/1/2008  
 KB: 3,403'  
 GL: 3,385'

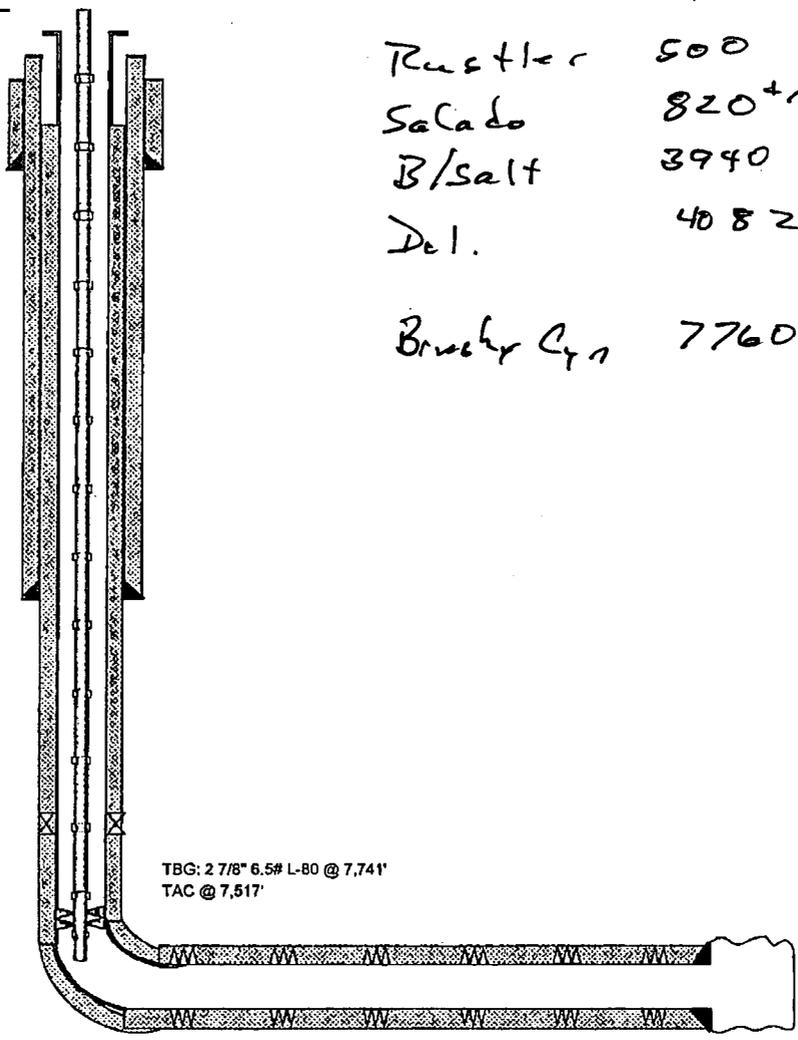
17-1/2" Hole ✓  
 13-3/8" 48# H-40 @ 563' ✓  
 Cmt w/ 465 sx (circ) ✓  
 12-1/4" Hole ✓

9-5/8" 36 & 40# J-55 @ 4,068' ✓  
 Cmt w/ 1,275 sx (circ) ✓  
 8-3/4" Hole ✓

DV Tool @ 6,103' ✓  
 KOP @ 7,511'

5-1/2" 17 & 20# HCP-110 @ 12,188' ✓  
 OH from 12,188' to 12,402'  
 Cmt Stage 1 w/ 875 sx  
 Cmt Stage 2 w/ 825 sx  
 TOC @ 290' (Iso Scanner Bond Log)

175 4020



Rustler 500  
 Salado 820 +/-  
 B/salt 3940  
 Del. 4082 +/-  
 Brushy Cyn 7760

Formation Tops	
Rustler	500'
B Salt	3,940'
Lamar Limestone	4,200'
Brushy Canyon	7,760'

PBTD @ 12,143'  
 TMD @ 12,402'  
 TVD @ 7,896'

12188

Delaware Perfs: 8,391 - 12,058'

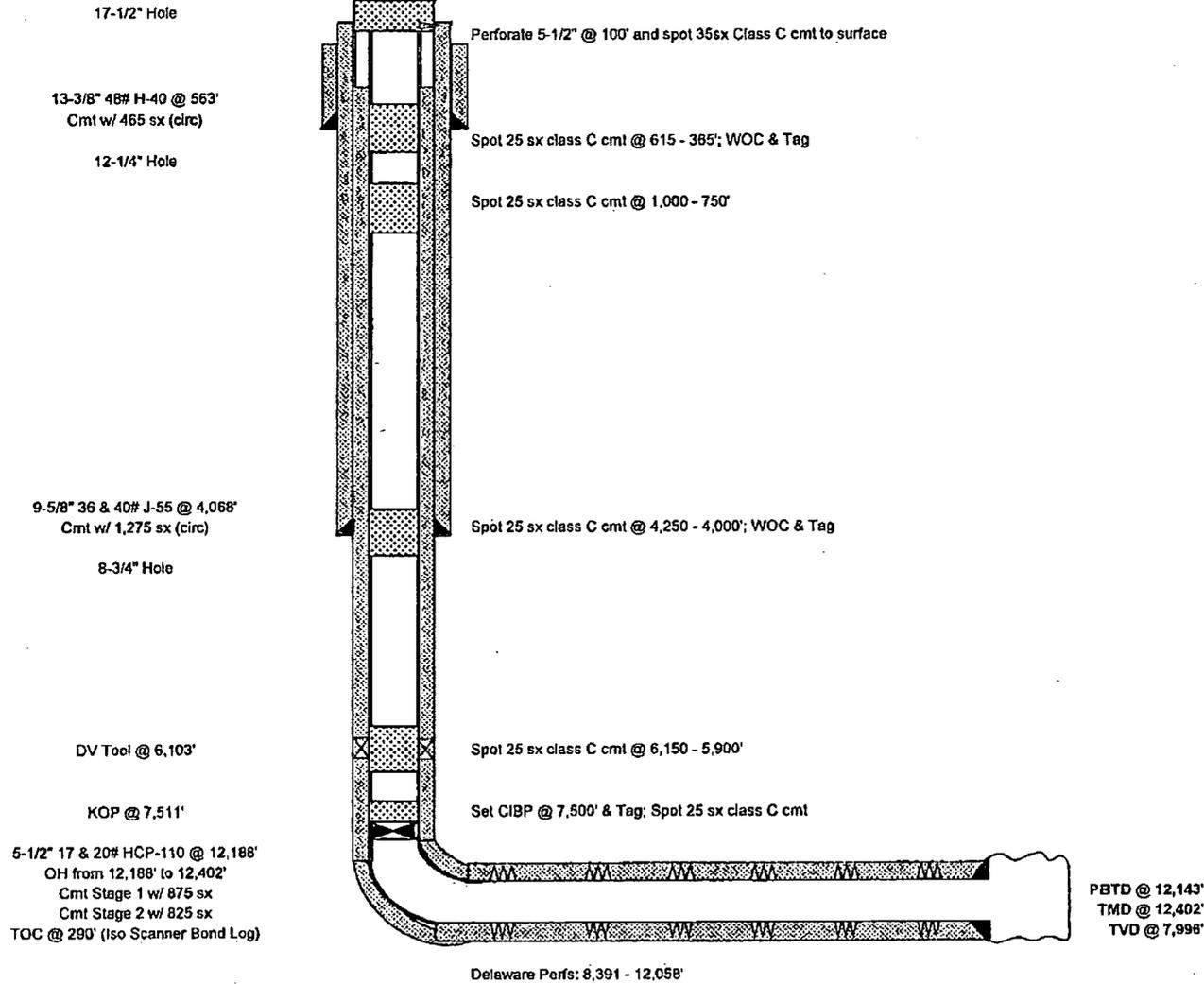


# Glow Worm ALX Federal #15H Proposed Wellbore Diagram

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Formation Tops	
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BUREAU OF LAND MANAGEMENT  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972

**Permanent Abandonment of Federal Wells  
Conditions of Approval (LPC Habitat)**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

**If you are unable to plug the well by the 90<sup>th</sup> day provide this office, prior to the 90<sup>th</sup> day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.**

**The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.**

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of brine water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. Below Ground Level Cap (Lesser Prairie-Chicken Habitat): All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10<sup>th</sup> day, the BLM is to be contacted with justification to receive an extension for completing the cut off.** Upon the plugging and subsequent abandonment of wells that are located in lesser prairie-chicken habitat, the casings shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. A weep hole shall be left in the plate and/or casing.

NMOCD also requires the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a below ground cap was installed as required in the COA's from the BLM.

7. Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file one original and three copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation objectives.

**Timing Limitation Stipulation/ Condition of Approval for Lesser Prairie-Chicken:**

From March 1<sup>st</sup> through June 15<sup>th</sup> annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted.