

Orphan Wells Spotlight

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

June 2025

**Figure 12. Plugged Wellbore
Diagram: Barkneht #001
\$219,834**

Notes:
This plug held according to plan.

This plug had to be pumped in **2 stages** due to casing issues

This plug had to be pumped in **2 stages** due to casing issues

This plug had to be pumped in **4 stages** due to casing issues.



Proposed -155' -surface
Actual 155-surf

Proposed 1108-858
Actual 1108-850

Proposed 1642-1392
Actual 1642-1400

Proposed 2668-1966
Actual 2670-1950

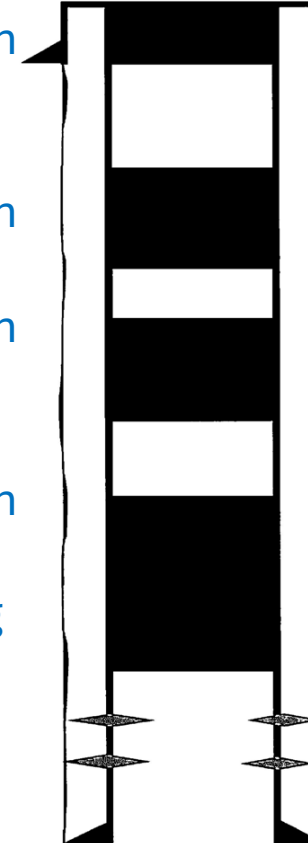
**Figure 13. Plugged Wellbore Diagram:
O'Brien Lightcap 7 #001
\$73,473**

Notes:
Pumped in 1 stage

Pumped in 1 stage

Pumped in 1 stage

Pumped in 2 stages according to plan



Proposed -179' -surface
Actual 179-surf

Proposed 1120-870
Actual 1130-813

Proposed 1650-1400
Actual 1654-1390

Proposed 2651-1972
Actual 2665-1946

OCD Key Points on Comparisons and difficult well issues.

- Additional stages and cement must be pumped to provide that isolation and protection as required by 70-2-12.B(1) NMSA.
 - The plug depths and footages are very similar. Due to casing integrity issues the Barkneht took considerably more cement (and time and labor) to get to the same isolation.
 - OCD's engineering and field inspection staff are in daily contact with the plugging vendors discussing issues that arise onsite such as integrity issues that require additional cement.
 - It is difficult to make direct comparisons from one well to the other when looking at cost as downhole integrity issues can vastly change cost structure. These issues can be justified by experienced personnel reading the plugging report to see where and why the cement was placed.

- Buckskin Federal #2 (page 28)
 - This well observed pressures of up to 1450psi and had considerable well integrity issues. One of the riskiest, most degraded wells OCD staff have ever seen. OCD acted quickly on this well because it posed a significant and imminent threat to the local environment and public health.

OCD Plugging Price Controls & Oversight



P & A Daily Report

Company: Cano Petro/NMOCD OWP
 Well Name: Cato San Andres Unit #10
 API #: 30-005-20161
 Date: 4/7/2022

WORK SUMMARY

Checked well pressures(see pressures below). Bled down well. P/U 4 1/2" CR, TIH and set at 3,042'. Stung out of CR. R/U cementing services. Circulated wellbore clean with 40 bbls of fresh water. Pumped plug #1 from 3,042'-2,674' to cover the San Andres perforations and formation top. TOOH with work string. WOC 4 hours. R/U wireline services. Ran CBL from top of plug #1 at approximately 2,674' to surface. CBL results were sent to NMOCD office for review. TIH and tagged plug #1 top at 2,696'. R/U cementing services. Attempted to pressure test production casing to 500 psi in which it failed to hold pressure. Spotted 9.5 ppg mud spacer from 2,696'-1,595'. L/D tubing up to next plug depth. TOOH with remaining tubing. R/U wireline services. RIH and perforated squeeze holes at 1,590'. P/U packer, TIH and set at 1,072'. Attempted to establish injection rate into perforations at 1,595' but was unsuccessful. Un-set packer and TOOH. TIH to 1,650'. R/U cementing services. Pumped plug #2 from 1,650'-1,200' to cover the Yates formation top. TOOH with tubing. WOC overnight. Secured and shut-in well for the day.

PLUG SUMMARY

Plug No	Plug Depth	Sacks of Cement Used
Plug 1	3,042' To 2,696'	25 sx Type III
Plug 2	1,650' To 1,200'	30 sx Type III
Plug 3	To	
Plug 4	To	
Plug 5	To	
Plug 6	To	
Plug 7	To	

BRIDGE PLUG/CEMENT RETAINER SUMMARY

Depth Set
 3,042'

WELL PRESSURES

Tubing _____ 0 psi
 Casing _____ 150 psi
 Bradenhead _____ 0 psi



J.A. Drake Well Service Inc
 P.O. Box 538 Farmington, NM 87499

Bill To:
 NM Energy, Minerals & Resources
 1220 South St Francis Drive
 Santa Fe, NM 87505

Invoice

Invoice #: 23180
 Invoice Date: 1/10/2025
 Terms: Net 30
 Vendor #: 0000147191
 PO #: 52100-0000078827
 OGRID #: 164557
 API #: 30-041-10630

Location: Jennifer Chaverro SAU #005

Date	Item #	Item Description	Qty	U/M	Rate	Amount
	7	Double derrick rig - double drum unit, crew and equipment	11	hr	350.00	3,850.00T
	9	Drilling Package, mud pump and power swivel or power sub	1	day	1,000.00	1,000.00T
	11	Overnight per diem allowance, per person per day	5	Person/...	190.00	950.00T
	11 Cem	Overnight per diem allowance, per person per day - Cement	3	Person/...	190.00	570.00T
	66	Workstring, 2 3/8" EUE, suitable, first 5 days, per foot	1,086	ft	0.75	814.50T
	79	Rental of bit sub, per well	1	Well	250.00	250.00T
	82	Certified base beam for rig support, per day	1	day	150.00	150.00T
	101	Fresh Water - Cost to purchase fresh water, suitable for mixing cement and circulating the well	90	cubic yard	1.00	90.00T
	129	Greater than 80 bbl water truck w/pump or vacuum system	10	hr	150.00	1,500.00T
		Daily Total: \$11,904.50				
12/8/2024	1	Supervisor/Cementer	1	day	750.00	750.00T
	2	Supervisor Vehicle travel to and from work site	130	mi	2.00	260.00T
	3	Crew Travel time to and from work site	3	hr	200.00	600.00T
	3 Cem	Crew Travel time to and from work site - Cement	3	hr	200.00	600.00T
	4	Crew vehicle travel to and from work site	130	mi	2.00	260.00T
	4 Cem	Crew vehicle travel to and from work site - Cement	130	mi	2.00	260.00T
	7	Double derrick rig - double drum unit, crew and equipment	8	hr	350.00	2,800.00T
	9	Drilling Package, mud pump and power swivel or power sub	1	day	1,000.00	1,000.00T
	11	Overnight per diem allowance, per person per day	5	Person/...	190.00	950.00T
	11 Cem	Overnight per diem allowance, per person per day - Cement	3	Person/...	190.00	570.00T
	66	Workstring, 2 3/8" EUE, suitable, first 5 days, per foot	1,150	ft	0.75	862.50T

Tax Location
 Rsvt

EMNRD Proposed Action

- Promulgate rules specifying that wells producing less than 750 barrels of oil equivalent (b.o.e.) annually require individual well financial assurance, posted within two months of notice, and clarifying that their transfer is contingent on regulatory approval;
 - This is in process as part of the OCD response to the WELC petition on financial assurance changes.
- Publish a list of orphaned wells monthly, including both wells the state has already plugged and those it is planning to plug, including the costs associated with plugging and reclamation, to ensure transparent tracking of state expenditures on orphaned wells;
 - In the absence of a considerable capacity expansion, this would slow down our rate of plugging significantly.
- Develop internal estimates for the cost of plugging and reclaiming individual wells and associated infrastructure;
 - This is currently done via the purchase order process under the Price Agreements.
- Develop individual contracts for plugging projects, in addition to the statewide purchase price agreement, that specify the scope of work, the estimated cost, the procedures for obtaining a change order and the circumstances under which OCD will pull a contractor's performance bond;
 - This would currently be both slower and duplicative of our current purchase order/dispatch process.

EMNRD Proposed Action (cont.)

- Re-open its statewide purchase agreement for plugging and remediation work to solicit additional bids from plugging contractors by September of 2025;
 - This effort was initiated in March 2025 and is ongoing.
- Ensure the presence of a 'company man' for all statecontracted well plugging who is responsible for filing daily reports on the activities undertaken by the contractor, the materials used and the estimated plugging cost;
 - May be redundant based on existing submission of that information.
- Develop a risk-based monitoring system to track leaks from wells awaiting plugging as well as plugged and abandoned wells and provide annual reports on the number of previously plugged wells that are leaking, what they are leaking and how much; and
 - Great proposal. Would require additional capacity for OCD/NMED.
- Complete the prioritization scoring of all currently orphaned wells and complete assessments for new orphaned wells within 90 days of the state assuming plugging authority.
 - OCD will work towards this goal.