

Revisions to Orphaned Well Program Costs for Financial Assurance Rulemaking

Colorado Oil and Gas Conservation Commission
Orphaned Well Program

July 23, 2021

Background from Staff's May 5, 2021 Hearing Presentation

- The Orphan Well Program team reviewed data through May 4, 2021 to select a total of 23 orphaned sites that would generally represent bond-claim sites
- Extreme high and low cost outliers were excluded from the analysis
- The analysis included only projects that were complete or near enough completion to estimate final costs
- Sites selected for the analysis represent a broad look across the state (ten sites in Denver-Julesburg Basin, five sites in San Juan Basin, four sites in Piceance Basin, two sites in Sand Wash Basin, and one site each in the CañonCity Embayment and Paradox Basin).
- All sites had “plugging and decommissioning” work, including well plugging, flowline abandonment, and/or production equipment decommissioning.

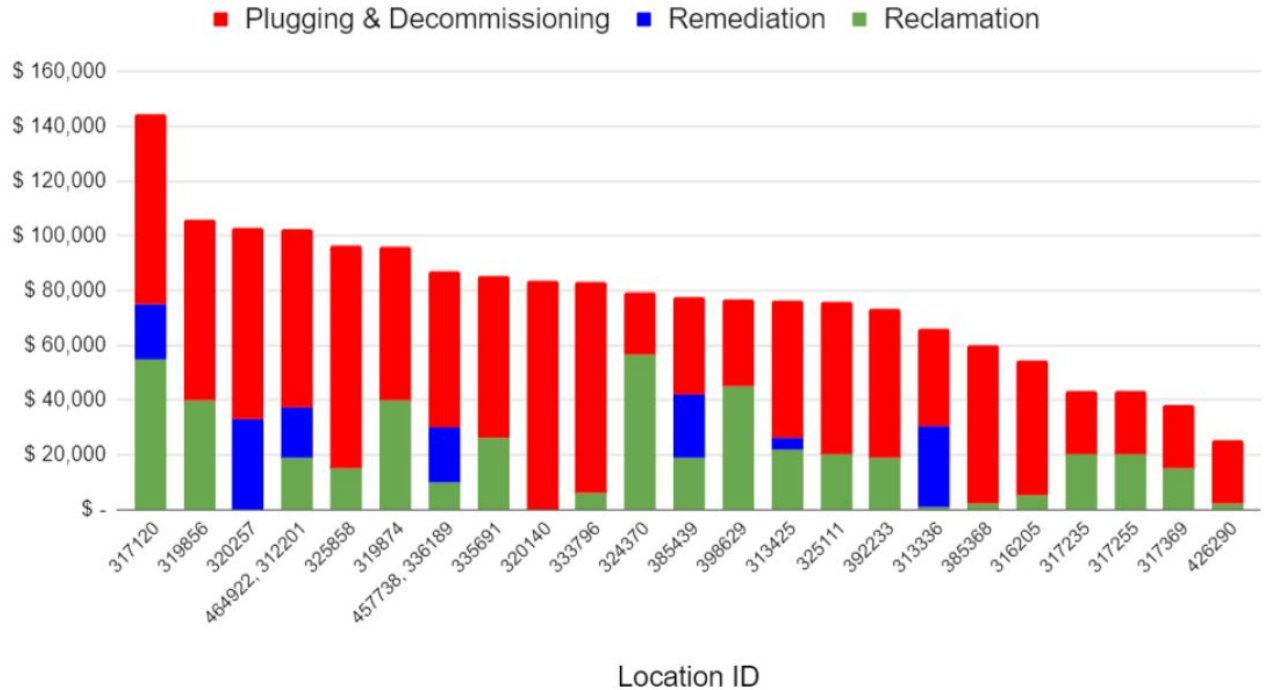
Purpose of this Revision

- Recent information requests from Financial Assurance stakeholders resulted in additional review of the information for the 23 sites.
- Costs have been added for work being performed or contemplated by Oil and Gas Operators on Public Projects related to enforcement. The costs will not affect the OWP Bond or Appropriation budgets because they are paid by the operator for the Public Project. The costs are added here to provide a more complete picture of the costs that the program would face without the assistance of a Public Project.
- Estimated environmental costs have been added for 5 sites and updated for 1 site.
- OWP work since May 5 has allowed us to replace estimated costs with actual costs for 3 sites.

For Reference:
May 5, 2021
COGCC
Hearing
Presentation
Slide 15

Data: Plugging

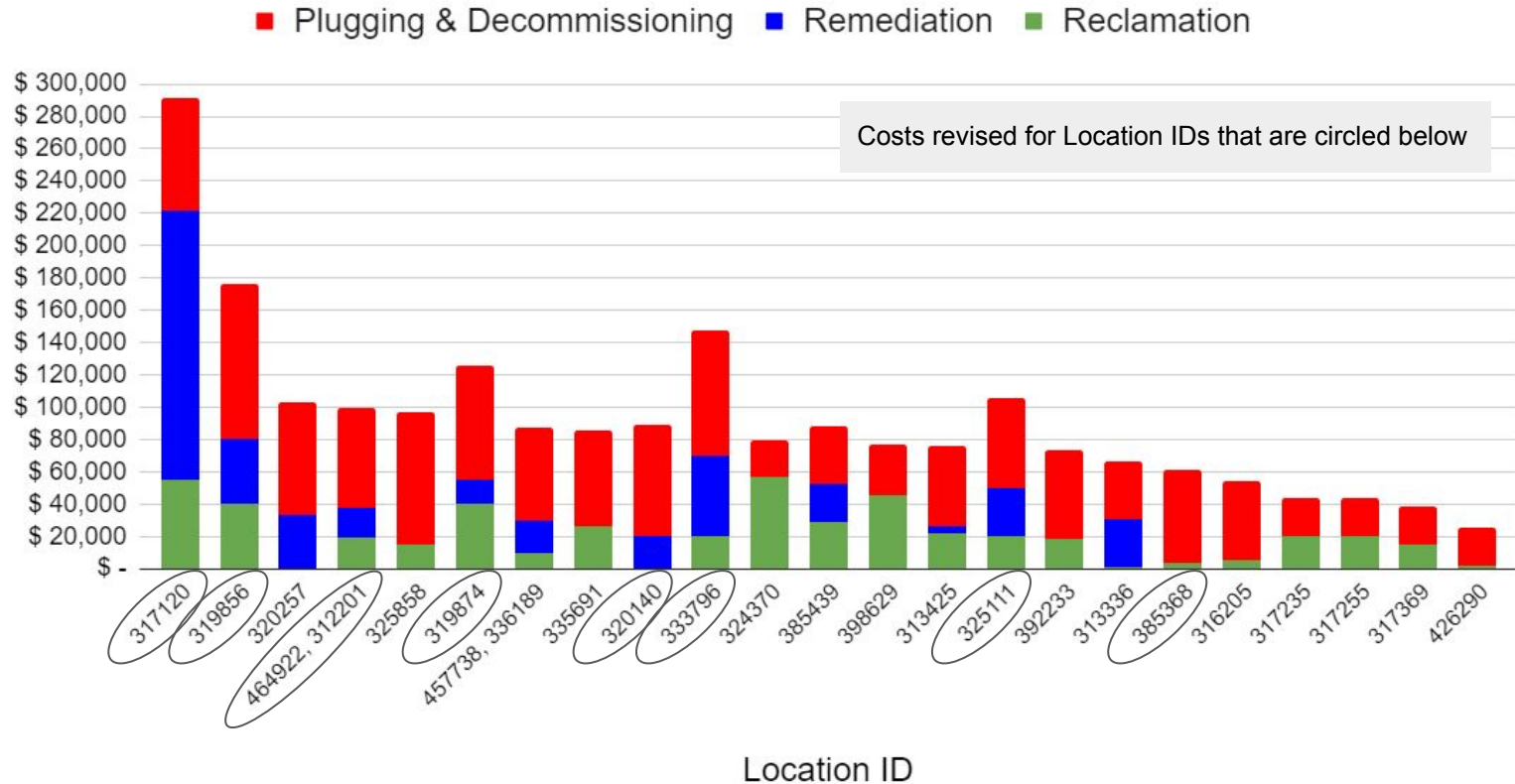
Orphaned Well Program Sample Data Set: Costs by Work Type



Location IDs in the same order, after revising costs

Orphaned Well Program Sample Data Set: Costs by Work Type

Date range of work: FY2012-13 through FY2020-21



How do these revisions affect the May 5 statistics?

Total site costs ranged from \$25,485 to ~~\$144,290~~ \$291,068

Average cost and median cost of ~~\$77,278~~ \$92,710 and ~~\$77,759~~ \$85,438, [per site] respectively.

Plugging and Decommissioning costs ranged from \$22,567 to ~~\$83,600~~ \$95,922, with an average cost of ~~\$50,925~~ \$52,141.

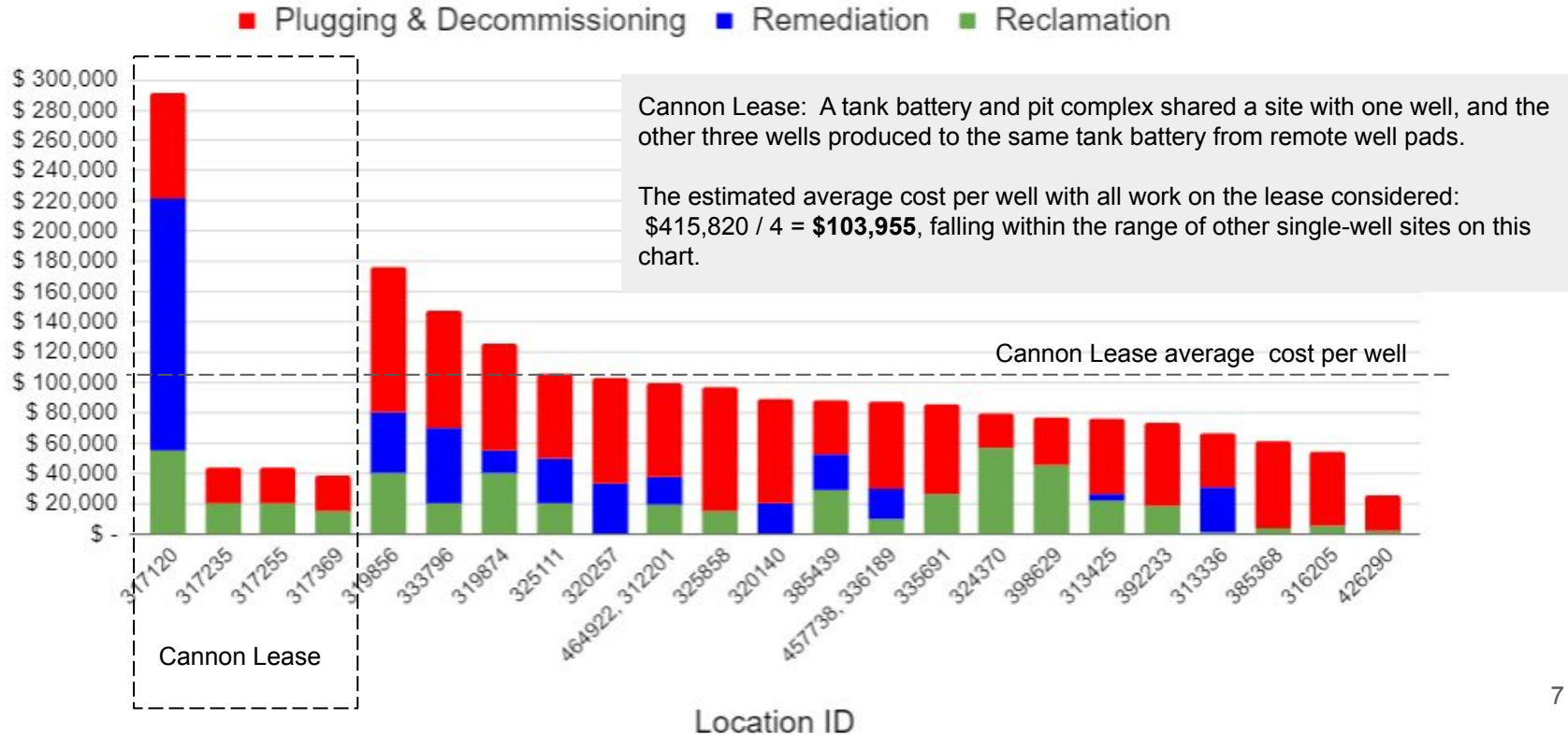
Environmental costs ranged from \$0 to ~~\$33,240~~ \$166,698.

Reclamation costs ranged from \$0 to \$56,768.

New sort with Cannon Lease sites grouped together

Orphaned Well Program Sample Data Set: Costs by Work Type

Date range of work: FY2012-13 through FY2020-21



Sorted in Descending Order by Site Total Cost

Location ID(s)	SiteTotal	Site Name	County	Site Description	Changes with this Revision
317120	\$ 291,068	CANNON 1-24	Washington	Single-well pad with a tank battery and production pits (also served three other remote wells on the Cannon Lease)	Omission: Added costs for environmental remediation at the pit complex. Site Total increased from \$144,290 to \$291,068
317235	\$ 43,285	CANNON 2-24	Washington	Single well pad with a pump jack (produced to a remote tank battery)	None
317255	\$ 43,230	CANNON 3-24	Washington	Single well pad with a pump jack (produced to a remote tank battery)	None
317369	\$ 38,237	CANNON 33-24	Washington	Single well pad with a pump jack (produced to a remote tank battery)	None
319856	\$ 175,922	NORTH COLORADO BLVD 1	Adams	Single-well pad with a tank battery and storage yard	Work part of a planned Public Project not previously included in the estimate: Added tank battery and storage yard decommissioning estimate and environmental remediation estimate. Site Total increased from \$105,922 to \$175,922

Sorted in Descending Order by Site Total Cost

Location ID(s)	SiteTotal	Site Name	County	Site Description	Changes with this Revision
333796	\$ 147,134	TAYLOR 1 and TAYLOR 3	La Plata	Two-well pad with erosion and soil impact from a produced water spill	Omission: Added estimated costs for produced water spill environmental remediation, and increased estimated reclamation costs Site Total increased from \$83,134 to \$147,134
319874	\$ 126,000	KORTUM 3	Adams	Single-well pad with a remote tank battery (same Location ID for both facilities)	Work part of a planned Public Project not previously included in the estimate: Added tank battery decommissioning estimate and environmental remediation estimate. Site Total increased from \$96,000 to \$126,000
325111	\$ 105,726	SANCHEZ 4	La Plata	Single-well pad with a tank battery	Omission: Added estimated costs for environmental remediation at the tank battery Site Total increased from \$75,726 to \$105,726

Sorted in Descending Order by Site Total Cost

Location ID(s)	SiteTotal	Site Name	County	Site Description	Changes with this Revision
320257	\$ 103,057	BIOW-MOORE 3-1	Adams	Single-well pad with a tank battery on surface that was subsequently developed after the work was done (no reclamation costs)	None
464922, 312201	\$ 99,626	MOUNT HOPE-GREEN 31	Logan	Single-well pad with a remote tank battery	Update from estimated costs to actual costs for plugging and decommissioning Site Total decreased from \$102,310 to \$99,626
325858	\$ 96,485	TALBOT-WIDEMAN 13-1	La Plata	Single-well pad with a tank battery	None
320140	\$ 89,265	SCHMIDT 1-B	Adams	Single-well pad with a tank battery in crops (no reclamation costs planned)	Update from estimated costs to actual costs for plugging and decommissioning, and added costs for remediation based on soil impact observed during tank battery decommissioning. Site Total increased from \$83,600 to \$89,265

Sorted in Descending Order by Site Total Cost

Location ID(s)	SiteTotal	Site Name	County	Site Description	Changes with this Revision
385439	\$ 87,759	DAVIE 1-22	La Plata	Single-well pad with domestic gas production equipment, a produced water pit, and soil impact from pit overflow	None
457738, 336189	\$ 86,997	FREEMAN 13-2	Weld	Single-well pad with a remote tank battery	None
335691	\$ 85,438	MULVIHILL 15-32D	Garfield	Single-well pad (no flowlines or production equipment - drilled but did not produce)	None
324370	\$ 79,335	BISCUIT RANCH BRO3-03B	Garfield	Single-well pad (no flowlines or production equipment - drilled but did not produce)	None
398629	\$ 76,740	BUCKSKIN MESA UNIT 2572	Rio Blanco	Single-well pad with a tank battery	None
313425	\$ 76,310	CACHE UNIT 8	Montezuma	Single disposal well pad with a pit and flowline (no other facilities on the pad)	None
392233	\$ 73,497	SILVER ET AL 1	Moffat	Single-well pad (no flowlines or production equipment - drilled but did not produce)	None
313336	\$ 66,214	ELDON GERBER 07-24-07-92	Moffat	Single-well pad (no flowlines or production equipment - drilled but did not produce)	None

Sorted in Descending Order by Site Total Cost

Location ID(s)	SiteTotal	Site Name	County	Site Description	Changes with this Revision
385368	\$ 61,253	TOUCHSTONE-WEBER HEIRS 1	La Plata	Single-well pad (no flowlines or production equipment)	Update from estimated costs to actual costs for reclamation Site Total increased from \$60,088 to \$61,253
316205	\$ 54,263	BMU 2570	Rio Blanco	Single-well pad with a tank battery	
426290	\$ 25,485	JAVERNICK 1 DM	Fremont	Single well pad with a domestic flowline (no production equipment)	

Other Considerations

- Costs are based on work performed during fiscal years 2012-13 through 2020-21 and costs are estimated for remaining work at each site.
- Field work is completed for the Biow-Moore 3-1 site (Location ID 320257) and the Eldon Gerber #07-24-07-92 site (Location ID 313336).
- Costs include estimates for remaining work that is planned or in progress for 21 of the 23 sites.
- As a result of the Mission Change rules, costs have increased in 2021 for preparation of Form 27s and new environmental sampling requirements that were not otherwise required during well plugging prior to January 2021. For this sample data set, all wells except for the Schmidt #1-B well were plugged prior to January 2021.