

Hess Sites with Inactive Wells for Cleanup

Executive Summary

This report provides a comprehensive analysis of Hess Corporation's oil well sites in North Dakota, with a focus on inactive and legacy wells that require environmental reclamation. Using advanced digital tools—including artificial intelligence, drone imagery, historical aerial photography, and well data from the North Dakota Industrial Commission (NDIC)—a total of **3,762 wells** were reviewed and grouped into **1,739 unique sites**.

Of these, approximately **1,028 single-well sites** and **447 inactive wells on multi-well sites** are identified as needing cleanup. Based on field experience and cost modeling, the estimated reclamation cost ranges from **\$2.61 billion to \$5.2 billion**, depending on site complexity and inflation-adjusted future costs.

Given the recent **\$53 billion Chevron-Hess merger**, this report recommends that **\$2.61 to \$5.2 billion** be allocated to the **Bank of North Dakota** as a dedicated reclamation reserve. These funds would accrue interest and be used to:

Restore surface lands impacted by oil development

Properly plug aging vertical and horizontal wells

Mitigate long-term environmental and financial liabilities

This proactive funding strategy aligns with North Dakota's legacy of responsible resource management and ensures that future generations are not burdened with unfunded reclamation obligations. By acting now, the State can safeguard its land, water, and fiscal health while setting a national example in energy transition planning.

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Background & Methodology



My Background

I have volunteered with the **Salt Contaminated Land and Water Council**, a 501(c)(3) nonprofit organization, for approximately five years, driven by shared values and a commitment to biblical stewardship. My professional background is in data science; I am the founder and former owner of **Swick Technologies**, a technology management company dedicated to helping small businesses thrive through strategic use of technology.

Leveraging my expertise, I applied a suite of digital tools—including **Google Maps, drone imagery, historical aerial photographs, Excel-based analysis, and well file data from the North Dakota Industrial Commission (NDIC)**—to identify trends and create detailed maps of oil well sites for review. Special attention was given to the legacy of **conventional vertical wells** and **unconventional frack wells** drilled by Hess Corporation and its predecessors.

North Dakota is once again demonstrating leadership in environmental education and stewardship. Findings presented in this report suggest that **\$2.61 to \$5.2 billion** of the **\$53 billion** valuation from the Chevron-Hess merger should be allocated to the **Bank of North Dakota**. These funds would accrue interest and be reserved for future use—specifically, to restore surface lands and properly plug deep vertical and increasingly long horizontal boreholes as Bakken-Madison frack wells reach the end of their productive lives.

To reach these conclusions, I employed modern technologies such as **artificial intelligence, drone surveillance, and big data analytics**, integrating them with historical imagery and advanced mapping systems. These tools enabled a thorough analysis of NDIC oil well files related to Hess, its affiliates, and its predecessor, Texaco. The evidence indicates that reclamation costs will only rise over time. By setting aside funds now, the State of North Dakota can ensure sufficient resources are available for responsible well plugging and land restoration.

In developing these estimates, I also drew upon the expertise of **Donald Nelson**, founder of the Salt Contaminated Land and Water Council. Mr. Nelson has led restoration efforts on multiple Hess sites located on his family's three-generation ranch and farming operation. His work has been recognized by Hess reclamation staff and subcontractors. Together, we have toured numerous vertical wells in the

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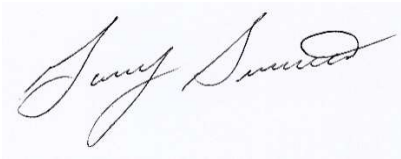
Madison pool and horizontal frack wells in the Bakken pool, documenting and locating unrestored vertical wells on Nelson family lands.

Purpose of This Document

The purpose of this document is to identify oil well sites associated with Hess Corporation and its related entities that appear to require environmental cleanup or reclamation. Site images included are sourced from Google Maps and may not reflect current conditions, as they are likely based on satellite imagery captured in 2024. For the most accurate assessment, an on-site visit is recommended.

For detailed visual documentation of these locations, please refer to the companion file titled **“Hess Inactive Sites for Cleanup Photo Gallery.”**

Gary Swick

A handwritten signature in black ink, appearing to read "Gary Swick", written on a light blue background.

Hess Sites with Inactive Wells for Cleanup

Site Classification

Hess Corporation is comprised of the following companies:

Current Operator	Count of FileNo
AMERADA HESS CORPORATION	723
HESS BAKKEN INVESTMENTS II, LLC	2,843
HESS CORPORATION	91
HESS TIOGA GAS PLANT LLC	2
HESS WATER SERVICES LLC	13
Grand Total	3,672

Of the 3,762 wells, only 1,982 are active:

Well Bore	Count of wells	% of Total
Confidential	79	3.99%
DIRECTIONAL		
Oil & Gas		
Active – Well is producing or capable of production.	5	
Oil & Gas Total	5	
Stratigraphic Test		
Active – Well is producing or capable of production.	1	
Stratigraphic Test Total	1	
DIRECTIONAL Total	6	0.30%
HORIZONTAL		
Gas Injection		
Active – Well is producing or capable of production.	4	
Gas Injection Total	4	
Oil & Gas		
Active – Well is producing or capable of production.	1,725	
Drilling – Drilling operations have begun.	55	
Location – Permit issued, but drilling has not started.	98	
Oil & Gas Total	1,878	
HORIZONTAL Total	1,882	94.95%
VERTICAL		
Salt Water Disposal		
Active – Well is producing or capable of production.	15	
Salt Water Disposal Total	15	
VERTICAL Total	15	0.76%
Grand Total	1,982	

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For purposes of the Active / Inactive well sites, these statuses are considered **Active**.

Well Status	Description
A	Active – Well is producing or capable of production.
Confidential	Well data is temporarily withheld from public release
DRL	Drilling – Drilling operations have begun.
LOC	Location – Permit issued, but drilling has not started.
LOCR	Location Renewed – Permit renewed, drilling not yet started.
NC	Not Completed – Drilled to total depth, awaiting completion.

These statuses are considered **Inactive**.

Well Status	Description
AB	Abandoned – Shut-in for more than 12 months.
DRY	Dry Hole – Well did not encounter producible hydrocarbons.
IA	Inactive – Shut-in for 3+ months with no production.
PA	Plugged and Abandoned – Well has been plugged and site reclaimed.
PANF	Plugged and Abandoned Not Finalized – Plugging complete, not finalized.
PNC	Permit Now Cancelled – Permit was cancelled before drilling.
TA	Temporarily Abandoned – Well is shut-in but may be reactivated.
TAO	Temporarily Abandoned - Observation – Shut-in for monitoring purposes.

Summary of the statuses between Active and Inactive.

Status	No Wells	% of Total	Status Description
A	1,750	47.7%	Active – Well is producing or capable of production.
Confidential	79	2.2%	Well data is temporarily withheld from public release
DRL	55	1.5%	Drilling – Drilling operations have begun.
LOC	98	2.7%	Location – Permit issued, but drilling has not started.
AB	39	1.1%	Abandoned – Shut-in for more than 12 months.
DRY	229	6.2%	Dry Hole – Well did not encounter producible hydrocarbons.
IA	103	2.8%	Inactive – Shut-in for 3+ months with no production.
PA	1,093	29.8%	Plugged and Abandoned – Well has been plugged and site reclaimed.
PANF	14	0.4%	Plugged and Abandoned Not Finalized – Plugging complete, not finalized.
PNC	202	5.5%	Permit Now Cancelled – Permit was cancelled before drilling.
TA	1	0.0%	Temporarily Abandoned – Well is shut-in but may be reactivated.
TAO	9	0.2%	Temporarily Abandoned - Observation – Shut-in for monitoring purposes.
Grand Total	3,672	100.0%	
Active %	1,982	54.0%	
Inactive %	1,690	46.0%	

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The 3,672 wells when then categorized by Well Bore, Well Type, and Well Status, the totals are:

Using AI, the 3,762 Hess related wells were grouped into sites based on a proximity of 10 acres to each other. A total of 1,739 unique sites were identified. The sites fall into 3 categories:

- 1) A single well site, mostly vertical wells with a basic pad 2 – 5 acres in size. 127 **active** and 1,143 **inactive**.
- 2) Multiple single well sites within 10 acres of each other, typically 2 – 4 wells nearby
- 3) A Mega-site containing 5 to 20 wells. These have considerably more equipment and much thicker pads, almost to the point of concrete. These sites require considerably more effort to reclaim them. Plus, sites with 5 – 9 wells tend to be **10 acres in size** and sites with 10 – 20 wells tend to be **20 acres in size**.

593 sites were identified with **Active** wells broken down as follows:

53 sites have 10 – 20 wells in the area for a total of 560 **active** wells and 96 **inactive** wells.

167 sites with 5 - 9 wells in the area for a total of 904 **active** wells and 158 **inactive** wells.

248 sites with 2 – 4 wells in the area for a total of 391 **active** wells and 293 **inactive** wells.

127 single **active** well sites. All vertical, 114 Oil & Gas, 1 Stratigraphic Test, 12 Salt Water Disposal

NOTE: 3 Salt Water Disposal wells are located on sites with 2 or more wells. Information available upon request.

Active Well Breakdown

Count of Wells with Status

Well Bore - Active	A	Confidential	DRL	LOC	Active Total
Confidential		79			79
DIRECTIONAL					
Oil & Gas	5				5
Stratigraphic Test	1				1
DIRECTIONAL Total	6				6
HORIZONTAL					
Gas Injection	4				4
Oil & Gas	1,725		55	98	1,878
HORIZONTAL Total	1,729		55	98	1,882
HORIZONTAL RE-ENTRY					
VERTICAL					
Salt Water Disposal	15				15
VERTICAL Total	15				15
Grand Total	1,750	79	55	98	1,982

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Inactive Well Breakdown

Well Bore - Inactive	AB	DRY	IA	PA	PANF	PNC	TA	TAO	Inactive Total	Grand Total
Confidential										79
DIRECTIONAL										
Gas Condensate				2					2	2
Gas Injection								1	1	1
Oil & Gas		3		1		2			6	11
Stratigraphic Test				2				2	4	5
Water Injection				1					1	1
DIRECTIONAL Total		3		6		2		3	14	20
HORIZONTAL										
Gas Injection										4
Oil & Gas	39	21	103	84	14	156	1	2	420	2,298
HORIZONTAL Total	39	21	103	84	14	156	1	2	420	2,302
HORIZONTAL RE-ENTRY										
Gas Condensate				3					3	3
Oil & Gas				42					42	42
Salt Water Disposal				1					1	1
HORIZONTAL RE-ENTRY Total				46					46	46
VERTICAL										
Air Injection				1					1	1
Gas Condensate				36					36	36
Nitrogen Gas Well				3					3	3
Oil & Gas		192		790		33			1,015	1,015
Stratigraphic Test		2		2		1		4	9	9
Salt Water Disposal				39		9			48	63
Water Injection		11		79		1			91	91
Water Source				7					7	7
VERTICAL Total		205		957		44		4	1,210	1,225
Grand Total	39	229	103	1,093	14	202	1	9	1,690	3,672

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A total of 1,982 active wells on 593 sites included 447 inactive wells on same. Inactive well get reclaimed with the active wells on the site.

During investigation of the map locations, it appears the status PNC, “Permit Now Cancelled – Permit was cancelled before drilling” wells will not require any cleanup, 73 wells are considered a single well site. Also, I estimate 15% of the remaining single well sites are reclaimed, or 257 wells leaving a balance of 1,028 well sites requiring some reclamation.

Site Type	Site Type	Sites	Active	Inactive	Total Wells
1	Sites 1 active well	127	127	0	
1	Sites 1 inactive well	1,144	0	1,143	
2	Sites 2 - 4 wells	248	391	293	684
3	Sites 5 - 9 wells	167	904	158	1,062
3	Sites 10 - 20 wells	53	560	96	656
	Totals	1,739	1,982	1,690	3,672
	PNC Sites / Wells	-73	0	-73	-73
	Reclaim Total	1,666	1,982	1,617	3,599
	Single well Sites to Reclaim		1,271		
	15% Already Completed		(191)		
	Remaining to Reclaim		1,080		

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Reclamation Cost Estimates

Donnald Nelson, based on his experience, calculated the estimated cost to clean up a vertical well site and a newer horizontal style mega-site.

His estimate is based on file no. 9737 which involved old storage tanks and contaminated soil on about 5 acres of land. The cost of reclamation for this site is \$627,480. The site is in Township 150N 95W, Section 4, the SW quarter. For estimating future costs, I used \$\$650,000 per multi-well site.

He reviewed a mega-site located on 16.5 acres of land in Township 151N 95W, Section 20. The site still has active wells and when the oil is gone, its estimate is about 3.5 times that of a vertical well site, or \$2,196,180. For estimates of future reclamation, I used \$3 million as a round number.

To summarize;

Any site with 1 well is estimated to average \$650,000 **per well** to reclaim.

An inactive site with 2 – 4 vertical wells is estimated to average \$650,000 **per well** to reclaim.

Active sites with 5 – 9 horizontal wells is estimated to average \$3,000,000 **per site** to reclaim.

Active sites with 10 – 20 horizontal wells is estimated to average \$4,500,000 **per site** to reclaim.

Estimated Cleanup Costs	Sites	Wells	Cost per site	Total estimated Costs	Per Well
Sites with 1 Well, Active or Inactive	1,080	1,080	\$650,000	\$702,000,000	\$650,000
Sites with 2 - 4 Wells	248	684	\$650,000	\$444,600,000	\$650,000
Mega-sites with 5 - 9 Wells	167	1,062	\$3,000,000	\$501,000,000	\$471,751
Mega-sites with 10 - 20 wells	53	656	\$4,500,000	\$238,500,000	\$363,567
Total	1,548	3,482		\$1,886,100,000	\$533,829.62
	10%	190			
	Total	3,672			

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Currently there are approximately 1,080 inactive single well sites ready to be reclaimed. \$702,000,000 is required to reclaim the wells already plugged. The remaining 2,402 are divided into 1,855 active and 547 inactive on 593 sites. By looking at the age of current PA wells, the age of the active wells can be estimated. Using that with estimated inflation, the future reclamation costs can be calculated.

Well Bore, Type, and Status	Average of Well Age Years
HORIZONTAL	
Plugged and Abandoned – Well has been plugged and site reclaimed.	
Oil & Gas	12.94
Plugged and Abandoned Not Finalized – Plugging complete, not finalized.	
Oil & Gas	8.79
Grand Average	12.35

All the active wells on the multi-well sites are Horizontal 1,611 or Directional 5. Only the horizontal wells have an average age for plugged and abandoned. “Not finalized” is a new status and there is not enough history to estimate the age of currently active wells. This is important because the dollar amounts are based on 2024 pricing performed by Donny Nelson. Looking at inflation for the last 10 years, additional funds should be put aside to cover future reclamation costs.

Financial Recommendations

At a **5% annual inflation rate**, the future value of **\$1,184,100,000**, the balance of estimated reclamation costs, would grow as follows.

Current	\$1,184,100,000
Year	Future Cost (USD)
1	\$1,243,305,000.00
2	\$1,305,470,250.00
3	\$1,370,743,762.50
4	\$1,439,280,950.63
5	\$1,511,244,998.16
6	\$1,586,807,248.06
7	\$1,666,147,610.47
8	\$1,749,454,990.99
9	\$1,836,927,740.54
10	\$1,928,774,127.57

We recommend that the State of North Dakota allocate a minimum of \$2.61 billion to a dedicated reclamation fund, with provisions for inflation and cost overruns. \$702M for **cleanup now** plus \$1.929B **for future mega site cleanup** or \$2.631B could be set aside.

Ted Auch from Fracktracker.org has demonstrated the difficulty of being able to provide reliable estimates for the cost of clean-up and remediation. In several studies of well remediation, actual costs for clean-up almost always ran over the estimate, many times by as much as 100%. For that reason, we would have to provide a range of actual costs from \$2.61 Billion to \$5.2 Billion for remediation costs.

Note that we have not included plugging costs.

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Hess Bakken Investments II, LLC is the second largest producer responsible for 8.83% of North Dakota oil production in the month of April 2025.

April 2025 Production			
Operating Company	Sum of Oil Sold	% of State	Accum.
CONTINENTAL RESOURCES, INC.	4,871,048	15.32%	15.32%
HESS BAKKEN INVESTMENTS II, LLC	2,807,192	8.83%	24.15%
BURLINGTON RESOURCES OIL & GAS COMPANY LP	2,717,892	8.55%	32.70%
MARATHON OIL COMPANY	2,512,201	7.90%	40.61%
OASIS PETROLEUM NORTH AMERICA LLC	2,241,441	7.05%	47.66%
GRAYSON MILL OPERATING, LLC	2,225,722	7.00%	54.66%
XTO ENERGY INC	1,683,471	5.30%	59.96%
ENERPLUS RESOURCES USA CORPORATION	1,660,383	5.22%	65.18%
WHITING OIL AND GAS CORPORATION	1,645,079	5.18%	70.36%
WPX ENERGY WILLISTON, LLC	1,398,850	4.40%	74.76%
Remaining 78 Companies	8,024,374	25.24%	100.00%
Grand Total	31,787,653	100.00%	

Summary

The data presented in this report underscores a critical and time-sensitive challenge: the need to responsibly reclaim and restore thousands of inactive oil well sites associated with Hess Corporation and its affiliates. With an estimated cost ranging from **\$2.61 billion to \$5.2 billion**, and inflation steadily increasing future liabilities, the time to act is now. By allocating a portion of the Chevron-Hess merger value to a dedicated reclamation fund managed by the **Bank of North Dakota**, the State can ensure that these environmental and financial responsibilities are met without burdening future generations. This is not only a matter of fiscal prudence, it's also a commitment to land stewardship, public trust, and North Dakota's leadership in responsible energy transition. We urge state leaders, regulators, and financial planners to take decisive action and secure the resources necessary to protect our land, water, and communities for decades to come.