

**Submit In Quadruplicate To:**  
**MONTANA BOARD OF OIL AND GAS CONSERVATION**  
**2535 ST. JOHNS AVENUE**  
**BILLINGS, MONTANA 59102**

**RECEIVED**

**DEC 11 2023**

**SUNDRY NOTICES AND REPORT OF WELLS**

**MONTANA BOARD OF OIL &  
GAS CONSERVATION - BILLINGS**

Operator **NorthWestern Corporation**

Address **11 E. Park St.**

City **Butte** State **MT** Zip Code **59701**

Telephone **406-497-3521** Fax

Lease Name:  
**Corsair Dry Creek**

Type (Private/State/Federal/Tribal/Allotted):  
**Private**

Well Number:  
**2-3**

Location of well (1/4-1/4 section and footage measurements):  
**NW 1/4 of NE 1/4 of Section 3  
359' FNL and 2322' FEL**

Unit Agreement Name:  
**Dry Creek Storage**

Field Name or Wildcat:  
**Dry Creek Storage**

Township, Range, and Section:  
**T7S R21E Section 3\***

API Number:  
**25 | 009 | 21304**  
State County Well

Well Type (oil, gas, injection, other):  
**Storage**

County:  
**Carbon**

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans	<input type="checkbox"/>	Subsequent Report of Mechanical Integrity Test	<input type="checkbox"/>
Notice of Intention to Run Mechanical Integrity Test	<input type="checkbox"/>	Subsequent Report of Stimulation or Treatment	<input type="checkbox"/>
Notice of Intention to Stimulate or to Chemically Treat	<input checked="" type="checkbox"/>	Subsequent Report of Perforation or Cementing	<input type="checkbox"/>
Notice of Intention to Perforate or to Cement	<input type="checkbox"/>	Subsequent Report of Well Abandonment	<input type="checkbox"/>
Notice of Intention to Abandon Well	<input type="checkbox"/>	Subsequent Report of Pulled or Altered Casing	<input type="checkbox"/>
Notice of Intention to Pull or Alter Casing	<input type="checkbox"/>	Subsequent Report of Drilling Waste Disposal	<input type="checkbox"/>
Notice of Intention to Change Well Status	<input type="checkbox"/>	Subsequent Report of Production Waste Disposal	<input type="checkbox"/>
Supplemental Well History	<input type="checkbox"/>	Subsequent Report of Change in Well Status	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	Subsequent Report of Gas Analysis (ARM 36.22.1222)	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>

**Describe Proposed or Completed Operations:**

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.  
**Hydarulically fracture stimulate in the 3rd Frontier stroage zone. See attached. Begin work 18**

**BOARD USE ONLY**

Approved **DEC 13 2023**  
Date

**Technical  
Program  
Coordinator**

*Benjamin J Davis*  
Name

Title

The undersigned hereby certifies that the information contained on this application is true and correct:

12/5/2023



Date Signed (Agent)

**Aaron Olson - Manager Gas Growth and Storage**

Print Name and Title

Telephone: **406-497-3521**



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12/1/23 CAS INFORMATION: Northwestern Corsair 2-3

Additive	Max Loading: 1000 Gal	Specific Gravity
Water (Customer Supplied)	1,000.00	1.00
WG-1SLR, GUAR SLURRY	5.00	1.04
BIO-2L, BIOCID	0.30	1.00
SURF PLUS, CNF	2.00	0.94
KCI-2SUB, KCI SUBSTITUTE	2.00	1.08
XLB-1, CROSSLINKER	1.50	1.35
B-4LE, ENZYME BREAKER	0.30	1.03
B-1, BREAKER	2.00	2.55
NORTHERN WHITE SAND	4,000.00	2.65
DA-1000 (DissolVert+)	750.00	1.25

Name	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass) <sup>1,2</sup>
Water (Customer Supplied)	Water	7732-18-5	100.00%
NORTHERN WHITE SAND	Silica Quartz	14808-60-7	100.00%
WG-1SLR, GUAR SLURRY	Solvent Naptha (pet ) heavy aliphatic	64742-47-8	53.00%
	Guar Gum	9000-30-0	45.00%
SURF PLUS, CNF	Dipentene; Limonene	138-86-3	30.00%
	Ethoxylated Alcohol	68439-46-3	30.00%
	Nonyl Phenol Ethoxylated	127087-87-0	30.00%
	Isopropanol	67-63-0	15.00%
KCI-2SUB, KCI SUBSTITUTE	Choline Chloride	67-48-1	70.00%
	Water	7732-18-5	30.00%
XLB-1, CROSSLINKER	Water	7732-18-5	60.00%
	Potassium Hydroxide	1310-58-3	30.00%
	Boric Acid	10043-35-3	30.00%
B-1, BREAKER	Ammonium persulfate	7727-54-0	100.00%
B-4LE, ENZYME BREAKER	Water	7732-18-5	84.99%
	Sodium chloride	7647-14-5	15.00%
	Sodium hydroxide	1310-73-2	0.01%
	beta-D-Mannanase	37288-54-3	0.001%
BIO-2L, BIOCID	Tetrakis(hydroxymethyl) Phosphonium Sulfate	55566-30-8	20.00%
DA-1000 (DissolVert+)	Water	7732-18-5	80.00%
	Polyactide Resin	9051-89-2	100.00%

100.00%