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October 15, 2020

Colorado Department of Public Health and Environment  
Air Pollution Control Division  
APCD-SS-B1  
4300 Cherry Creek Drive South  
Denver, Co 80246 - 1530

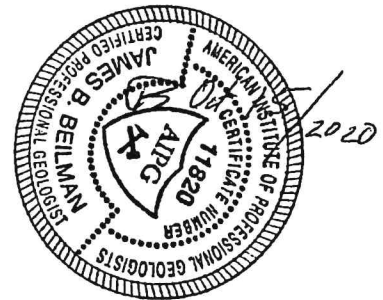
**RE: NWAU #2 Tank Battery & MUSF #3 TB**  
**AIRS ID # 017-0253-001, 017-0251-001**  
**APEN Updates – Crude Oil Storage Tank Form APCD-210 rev 07/20**

To whom it may concern:

Enclosed you will find an APEN updates for Mull Drilling Company's (Mull) NWAU #2 and MUSF#3 Tank Batteries and associated equipment. The APEN updates utilized site specific analysis for VOC's and Non-Criteria Pollutants; AP-42 Defaults for the combustion elements. There are ECD's in both locations. For calculations we utilized the APCD workbook and have supplied a copy of those calculations.

Should there be any questions or concerns feel free to contact us,

James Beilman, PG, CPG  
Environmental / Safety Manager  
Tel: +1 316.264.6366 (128)  
Cell: +1 316.807.8880  
JBeilman@Mulldrilling.com





# Crude Oil Storage Tank(s) APEN Form APCD-210

Air Pollutant Emission Notice (APEN) and  
Application for Construction Permit

**COPY**

All sections of this APEN and application must be completed for both new and existing facilities, including APEN updates. Incomplete APENs will be rejected and will require re-submittal. *Your APEN will be rejected if it is filled out incorrectly, is missing information, or lacks payment for the filing fee. The re-submittal will require payment for a new filing fee.*

This APEN is to be used for tanks that store crude oil associated with oil and gas industry operations. If your emission source does not fall into this category, there may be a more specific APEN available for your source (e.g. condensate storage tanks, produced water storage tanks, hydrocarbon liquid loading, etc.). In addition, the General APEN (Form APCD-200) is available if the specialty APEN options will not satisfy your reporting needs. A list of all available APEN forms and associated addendum forms can be found on the Air Pollution Control Division (APCD) website.

This emission notice is valid for five (5) years. Submission of a revised APEN is required 30 days prior to expiration of the five-year term, or when a reportable change is made (significant emissions increase, increase production, new equipment, change in fuel type, etc.). See Regulation No. 3, Part A, II.C. for revised APEN requirements.

Permit Number: 09CY1449

AIRS ID Number: 017 / 0251 / 001

[Leave blank unless APCD has already assigned a permit # and AIRS ID]

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## Section 1 - Administrative Information

Company Name<sup>1</sup>: Mull Drilling Company

Site Name: MUSF #3 Crude Oil Tank Battery

Site Location: S9 T14S R49W

Site Location  
County: Cheyenne

NAICS or SIC Code: 1311

Mailing Address:  
(Include Zip Code) 1700 N. Waterfront Parkway, Building 1200

Contact Person: James Beilman

Phone Number: 316-807-8880

E-Mail Address<sup>2</sup>: jbeilman@mulldrilg.com

<sup>1</sup> Use the full, legal company name registered with the Colorado Secretary of State. This is the company name that will appear on all documents issued by the APCD. Any changes will require additional paperwork.

<sup>2</sup> Permits, exemption letters, and any processing invoices will be issued by the APCD via e-mail to the address provided.

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[Leave blank unless APCD has already assigned a permit # and AIRS ID]

**Section 2 - Requested Action**

- NEW permit OR newly-reported emission source
  - Request coverage under traditional construction permit
  - Request coverage under General Permit GP08

If General Permit coverage is requested, the General Permit registration fee of \$353.13 must be submitted along with the APEN filing fee.

- OR -

- MODIFICATION to existing permit (check each box below that applies)
  - Change in equipment
  - Change company name<sup>3</sup>
  - Change permit limit
  - Transfer of ownership<sup>4</sup>
  - Other (describe below)

- OR -

- APEN submittal for update only (Note blank APENs will not be accepted)

- ADDITIONAL PERMIT ACTIONS -

- APEN submittal for permit exempt/grandfathered source
- Limit Hazardous Air Pollutants (HAPs) with a federally-enforceable limit on Potential To Emit (PTE)

Additional Info & Notes: Permit Update for Grandfathered Source

<sup>3</sup> For company name change, a completed Company Name Change Certification Form (Form APCD-106) must be submitted.

<sup>4</sup> For transfer of ownership, a completed Transfer of Ownership Certification Form (Form APCD-104) must be submitted.

**Section 3 - General Information**

General description of equipment and purpose: Crude Oil Storage

Company equipment Identification No. (optional): 001

For existing sources, operation began on: 8/3/83

For new or reconstructed sources, the projected start-up date is: \_\_\_\_\_

Normal Hours of Source Operation: 24 hours/day 7 days/week 52 weeks/year

Storage tank(s) located at:  Exploration & Production (E&P) site  Midstream or Downstream (non E&P) site

Will this equipment be operated in any NAAQS nonattainment area?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are Flash Emissions anticipated from these storage tanks?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are these storage tanks subject to Colorado Oil and Gas Conservation Commission (COGCC) 805 series rules? If so, submit Form APCD-105.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are you requesting ≥ 6 ton/yr VOC emissions (per storage tank), or are uncontrolled actual emissions ≥ 6 ton/yr (per storage tank)?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

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**Section 4 - Storage Tank(s) Information**

	Actual Annual Amount (bbl/year)	Requested Annual Permit Limit <sup>5</sup> (bbl/year)
Crude Oil Throughput:	25511.85	30000

From what year is the *actual annual* amount? Aug 19 - Aug 20

Average API gravity of sales oil: 38.9 degrees RVP of sales oil: 7.0

Tank design:  Fixed roof  Internal floating roof  External floating roof

Storage Tank ID	# of Liquid Manifold Storage Vessels in Storage Tank	Total Volume of Storage Tank (bbl)	Installation Date of Most Recent Storage Vessel in Storage Tank (month/year)	Date of First Production (month/year)
001	2	800	8/83	8/83

Wells Serviced by this Storage Tank or Tank Battery <sup>6</sup> (E&P Sites Only)		
API Number	Name of Well	Newly Reported Well
05 - 017 - 06272	MUSF #17	<input type="checkbox"/>
05 - 017 - 06269	MUSF #18	<input type="checkbox"/>
05 - 017 - 06284	MUSF #19	<input type="checkbox"/>
- -		<input type="checkbox"/>
- -		<input type="checkbox"/>

<sup>5</sup> Requested values will become permit limitations or will be evaluated for exempt status, as applicable, and should consider future process growth. Requested values are required on all APENs, including APEN updates.

<sup>6</sup> The E&P Storage Tank APEN Addendum (Form APCD-212) should be completed and attached when additional space is needed to report all wells that are serviced by the equipment reported on this APEN form.

**Section 5 - Geographical/Stack Information**

Geographical Coordinates (Latitude/Longitude or UTM)
38.84902; 102.89450

Check box if the following information is not applicable to the source because emissions will not be emitted from a stack. If this is the case, the rest of this section may remain blank.

Operator Stack ID No.	Discharge Height Above Ground Level (Feet)	Temp. (°F)	Flow Rate (ACFM)	Velocity (ft/sec)
01	20			

Indicate the direction of the stack outlet: (check one)

- Upward  Downward  Upward with obstructing raincap  
 Horizontal  Other (describe): \_\_\_\_\_

Indicate the stack opening and size: (check one)

- Circular Interior stack diameter (inches): 24"  
 Square/rectangle Interior stack width (inches): \_\_\_\_\_ Interior stack depth (inches): \_\_\_\_\_  
 Other (describe): \_\_\_\_\_

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[Leave blank unless APCD has already assigned a permit # and AIRS ID]

**Section 6 - Control Device Information**

Check this box if no emission control equipment or practices are used to reduce emissions, and skip to the next section.

<input type="checkbox"/>	Pollutants Controlled: _____	
	Vapor Recovery Unit (VRU):	Size: _____ Make/Model: _____
		Requested Control Efficiency: _____ %
		VRU Downtime or Bypassed (emissions vented): _____ %

<input checked="" type="checkbox"/>	Pollutants Controlled: <u>VOC's, HAP's</u>	
	Rating: _____	MMBtu/hr
	Type: <u>Cimarron</u>	Make/Model: <u>ECD-2-24-64</u>
	Requested Control Efficiency: <u>95</u>	%
	Manufacturer Guaranteed Control Efficiency: <u>98</u>	%
	Minimum Temperature: <u>543</u>	Waste Gas Heat Content: <u>2371</u> Btu/scf
	Constant Pilot Light: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pilot Burner Rating: <u>0.03</u> MMBtu/hr

<input type="checkbox"/>	Description of the closed loop system: _____	
	_____	
	_____	
	_____	
	_____	

<input type="checkbox"/>	Pollutants Controlled: _____	
	Other: _____	Description: _____
	Control Efficiency Requested: _____	%

**Section 7 - Gas/Liquids Separation Technology Information (E&P Sites Only)**

What is the pressure of the final separator vessel prior to discharge to the storage tank(s)? 26 psig

Describe the separation process between the well and the storage tanks: \_\_\_\_\_

3-Phase Separator

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**Section 8 - Criteria Pollutant Emissions Information**

Attach all emissions calculations and emission factor documentation to this APEN form<sup>7</sup>.

Is any emission control equipment or practice used to reduce emissions?  Yes  No

If yes, describe the control equipment AND state the requested control efficiencies (report the overall, or combined, values if multiple emission control methods were identified in Section 6):

Pollutant	Control Equipment Description	Overall Requested Control Efficiency (% reduction in emissions)
VOC	ECD	95%
NO <sub>x</sub>		
CO		
HAPs	ECD	95%
Other:		

From what year is the following reported actual annual emissions data? Aug 19 - Aug 20

Use the following table to report the criteria pollutant emissions from source:

Pollutant	Emission Factor <sup>7</sup>			Actual Annual Emissions		Requested Annual Permit Emission Limit(s) <sup>5</sup>	
	Uncontrolled Basis	Units	Source (AP-42, Mfg., etc.)	Uncontrolled Emissions (tons/year)	Controlled Emissions <sup>8</sup> (tons/year)	Uncontrolled Emissions (tons/year)	Controlled Emissions (tons/year)
VOC	0.35	lb/bbl	Site Specific	4.5	0.2	5.3	0.3
NO <sub>x</sub>	0.0980	lb/MMBtu	AP-42	0.1	0.1	0.1	0.1
CO	0.0824	lb/MMBtu	AP-42	0.1	0.1	0.1	0.1

<sup>5</sup> Requested values will become permit limitations or will be evaluated for exempt status, as applicable, and should consider future process growth. Requested values are required on all APENs, including APEN updates.

<sup>7</sup> Attach crude oil laboratory analysis, stack test results, and associated emissions calculations if you are requesting site specific emissions factors according to the guidance in PS Memo 14-03.

<sup>8</sup> Annual emission fees will be based on actual controlled emissions reported. If source has not yet started operating, provide projected emissions.

**Section 9 - Non-Criteria Pollutant Emissions Information**

Does the emissions source have any uncontrolled actual emissions of non-criteria pollutants (e.g. HAP - hazardous air pollutant) equal to or greater than 250 lbs/year?  Yes  No

If yes, use the following table to report the non-criteria pollutant (HAP) emissions from source:

Chemical Name	Chemical Abstract Service (CAS) Number	Emission Factor <sup>7</sup>			Actual Annual Emissions	
		Uncontrolled Basis	Units	Source (AP-42, Mfg., etc.)	Uncontrolled Emissions (lbs/year)	Controlled Emissions <sup>8</sup> (lbs/year)
Benzene	71432	0.0016	lb/bbl	Site Specific	42.0	2.1
Toluene	108883	0.0013	lb/bbl	Site Specific	34.0	1.7
Ethylbenzene	100414	0.0002	lb/bbl	Site Specific	4.0	0.2
Xylene	1330207	0.0003	lb/bbl	Site Specific	8.0	0.4
n-Hexane	110543	0.0173	lb/bbl	Site Specific	442.0	22.1
2,2,4-Trimethylpentane	540841	0.0016	lb/bbl	Site Specific	42	2.1

<sup>7</sup> Attach crude oil laboratory analysis, stack test results, and associated emissions calculations if you are requesting site specific emissions factors according to the guidance in PS Memo 14-03.

<sup>8</sup> Annual emission fees will be based on actual controlled emissions reported. If source has not yet started operating, provide projected emissions.

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**Section 10 - Applicant Certification**

I hereby certify that all information contained herein and information submitted with this application is complete, true, and correct. If this is a registration for coverage under General Permit GP08, I further certify that this source is and will be operated in full compliance with each condition of General Permit GP08.

*Jennifer Mull*  
*[Signature]*

*10/15/20*

Signature of Legally Authorized Person (not a vendor or consultant)

Date

*Jennifer Mull*  
*James Bilman*

*CEO*  
*Environmental Manager*

Name (print)

Title

Check the appropriate box to request a copy of the:

- Draft permit prior to issuance
- Draft permit prior to public notice

(Checking any of these boxes may result in an increased fee and/or processing time)

This emission notice is valid for five (5) years. Submission of a revised APEN is required 30 days prior to expiration of the five-year term, or when a reportable change is made (significant emissions increase, increase production, new equipment, change in fuel type, etc.). See Regulation No. 3, Part A, II.C. for revised APEN requirements.

Send this form along with \$216.00 and the General Permit registration fee of \$353.13, if applicable, to:

Colorado Department of Public Health and Environment  
Air Pollution Control Division  
APCD-SS-B1  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

For more information or assistance call:

Small Business Assistance Program  
(303) 692-3175  
OR  
(303) 692-3148

APCD Main Phone Number  
(303) 692-3150

Make check payable to:

Colorado Department of Public Health and Environment