

\*\*\*\*\* LIQUID SPILLS - VOLUME CALCULATIONS \*\*\*\*\*

Location of Spill: SEMU Permian 015 Flowline Release Date of Spill: 1/9/2024

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here:

OIL:

13.0000 BBL

WATER:

2.0000 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations					Standing Liquid Calculations				
Total Surface Area	width	length	wet soil depth	oil (%)	Standing Liquid Area	width	length	liquid depth	oil (%)
Rectangle Area #1	20.00 ft	X 30.00 ft	X 6.00 in	86.00%	Rectangle Area #1	15.00 ft	X 20.00 ft	X 0.75 in	86.00%
Rectangle Area #2	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #2	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #3	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #3	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #4	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #4	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #5	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #5	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #6	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #6	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #7	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #7	0.00 ft	X 0.00 ft	X 0.00 in	0.00%
Rectangle Area #8	0.00 ft	X 0.00 ft	X 0.00 in	0.00%	Rectangle Area #8	0.00 ft	X 0.00 ft	X 0.00 in	0.00%

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production:

Oil

Water

BBL

BBL

Did leak occur before the separator?: ☐ YES ☒ N/A (place an "X")

Amount of Free Liquid Recovered:

0 BBL

okay

Percentage of Oil in Free Liquid Recovered:

86.00%

(percentage)

Liquid holding factor \*:

0.14 gal per gal

Use the following when the spill wets the grains of the soil.

\* sand = .08 gallon liquid per gallon volume of soil.

\* gravelly (caliche) loam = .14 gallon liquid per gallon volume of soil.

\* sandy clay loam soil = .14 gallon liquid per gallon volume of soil.

\* clay loam = .16 gallon liquid per gallon volume of soil.

Use the following when the liquid completely fills the pore space of the soil.


Occurs when the spill soaked soil is contained by barriers, natural (or not).


\* gravelly (caliche) loam = .25 gallon liquid per gallon volume of soil.

\* sandy loam = .5 gallon liquid per gallon volume of soil.

Saturated Soil Volume Calculations:			Free Liquid Volume Calculations:				
	H2O	OIL		H2O	OIL		
Total Solid/Liquid Volume:	600 sq. ft.	42 cu. ft.	258 cu. ft.	Total Free Liquid Volume:	300 sq. ft.	3 cu. ft.	16 cu. ft.
Estimated Volumes Spilled			Estimated Production Volumes Lost				
Liquid in Soil:	1.0 BBL	6.4 BBL	Estimated Production Spilled:	2.0 BBL	13.0 BBL		
Free Liquid:	0.5 BBL	2.9 BBL	Estimated Surface Damage				
Totals:	1.5 BBL	9.3 BBL	Surface Area:	600 sq. ft.			
Total Spill Liquid:	2.0 BBL	13.0 BBL	Surface Area:	.0138 acre			
Recovered Volumes			Estimated Weights, and Volumes				
Estimated oil recovered:	0.0 BBL	check - okay	Saturated Soil =	33,600 lbs	300 cu.ft.	11 cu.yds.	
Estimated water recovered:	0.0 BBL	check - okay	Total Liquid =	15 BBL	630 gallon	5,242 lbs	

EVGSAU Sat 1 Trunkline Release - Spill Calculator.xlsx

								Sample Name: BH01 (L-15389)		Date: 9/27/2022					
								Site Name: SEMU Eumont #068							
								Incident Number: nAPP2228376108							
								Job Number: 03D2057017							
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: CS / JF		Method: Air Rotary					
Coordinates: 32.557188, -103.219966								Hole Diameter: 6"		Total Depth: 120'					
Comments: Soil boring was advanced to a total depth of 120' bgs. No water was observed within the soil boring after at least 72 hours. On 10/3/2022 the soil boring was plugged and abandoned using hydrated bentonite chips.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0	SP-SC	(0-30'), SAND, dry, grayish-tan, medium to fine grain, poorly graded with moderate amounts of clay.							
Dry	-	-	N	-	-	10									
Dry	-	-	N	-	-	20		@20' grayish-tan calcite, medium grain							
Dry	-	-	N	-	-	30	SP-SC	(30-120'), SAND, dry, tannish brown, medium to fine grain, poorly graded with clay, non-plastic, noncohesive, no stain, no odor.							
Dry	-	-	N	-	-	40									
Dry	-	-	N	-	-	50									
Dry	-	-	N	-	-	60		@60' trace amounts of chert nodules.							
Dry	-	-	N	-	-	70									
Dry	-	-	N	-	-	80		@80' trace amounts of clay.							
Dry	-	-	N	-	-	90									
Dry	-	-	N	-	-	100									
Dry	-	-	N	-	-	110									
Dry	-	-	N	-	-	120		NOTE: Total Depth @ 120 feet bgs							

								Sample Name: L-15414-POD1		Date: 11/10/2022					
								Site Name: SEMU Burger B 108							
								Incident Number: nAPP2228376108							
								Job Number: 03D2057013							
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: CS / PV		Method: Air Rotary					
Coordinates: 32.556516, -103.178207								Hole Diameter: 6"		Total Depth: 103'					
Comments: Soil boring was advanced to a total depth of 103' bgs. No water was observed within the soil boring after at least 72 hours. On 11/14/2022 the soil boring was plugged and abandoned using hydrated bentonite chips.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0	SP-SM	(0-30'), SAND, dry, tan to brown, medium to fine grain, poorly graded with silt, no stain, no odor.							
Dry	-	-	N	-	-	10									
Dry	-	-	N	-	-	20		@20' color change to tan.							
Dry	-	-	N	-	-	30	SP-SC	(30-50'), SAND, dry, tan, medium to fine grain, poorly graded with clay, non-plastic, noncohesive, some subround small gravel, no stain, no odor.							
Dry	-	-	N	-	-	40									
Dry	-	-	N	-	-	50	SP-SM	(50-103'), SAND, dry, reddish brown, medium to fine grain, poorly graded with silt, no stain, no odor.							
Dry	-	-	N	-	-	60		@60' color change to light green to brown, some reddish brown quartzite clasts.							
Dry	-	-	N	-	-	70		@70' color change to reddish brown, few caliche nodules,							
Dry	-	-	N	-	-	80		@80' no caliche nodules.							
Dry	-	-	N	-	-	90									
Dry	-	-	N	-	-	100									
Dry	-	-	N	-	-	103		NOTE: refusal @ 103' using air rotary drill rig due to abundant sand.							
Total Depth @ 103 feet bgs															

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State of New Mexico  
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QUESTIONS  
  
Action 292425

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 292425
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2401128986
Incident Name	NAPP2401128986 SEMU PERMIAN 015 FLOWLINE RELEASE @ 30-025-07810
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Well	[30-025-07810] SEMU PERMIAN #015

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	SEMU Permian 015 Flowline Release
Date Release Discovered	01/09/2024
Surface Owner	Private

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Crude Oil   Released: 13 BBL   Recovered: 0 BBL   Lost: 13 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 2 BBL   Recovered: 0 BBL   Lost: 2 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	On January 9, 2024, operations personnel identified a pinhole leak in a flowline associated with the SEMU Permian 015 well. Approximately 13 bbls of oil and 2 bbls of produced water were released into the adjacent pasture. Initial response stopped the leak, repaired the flowline, and initiated excavation of impacted soils.

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Action 292425

**QUESTIONS (continued)**

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
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**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Chuck Terhune Email: chuck.terhune@tetrattech.com Date: 02/27/2024
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Action 292425

**QUESTIONS (continued)**

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	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

**QUESTIONS****Site Characterization**

*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	No
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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CONDITIONS

Action 292425

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CONDITIONS

Created By	Condition	Condition Date
scwells	None	2/27/2024