



## Spill to Land Volume Estimation Calculator

First, answer the two questions to the right regarding site conditions. Then enter information in the calculator for the shape that best represents the spill.

Does the spill area have a high slope?

No

Is the spill area wet from rain?

No

### Circular Shape Spill

Enter Diameter (ft)	
Enter Average Depth of Liquid Pool (in)	
Enter the percentage of the circle that is covered by the spill	
Select Viscosity Dependent Parameter	
Is the Average Depth of Liquid Penetration known?	
If known, enter Average Depth of Liquid Penetration Into Soil (in)	
Select Surface Type	
Estimated Spill Volume (bbls)	
Estimated Spill Volume (gals)	

### Square or Rectangular Shape spill

Enter Length (ft)	800
Enter Width (ft)	2.75
Enter Average Depth of Liquid Pool (in)	2
Enter the percentage of the rectangle that is covered by the spill	99%
Select Viscosity Dependent Parameter	Low (Ex. gasoline, petrol)
Is the Average Depth of Liquid Penetration known?	No
If known, enter Average Depth of Liquid Penetration Into Soil (in)	
Select Surface Type	
Estimated Spill Volume (bbls)	68.0
Estimated Spill Volume (gals)	2800.0

### Oval Shape Spill

Enter Length of Short Side (ft)	
Enter Length of Long Side(ft)	
Enter Average Depth of Liquid Pool (in)	
Enter the percentage of the oval that is covered by the spill	
Select Viscosity Dependent Parameter	
Is the Average Depth of Liquid Penetration known?	
If known, enter Average Depth of Liquid Penetration Into Soil (in)	
Select Surface Type	
Estimated Spill Volume (bbls)	
Estimated Spill Volume (gals)	

### Irregular Shape Spill

Choose number of Rectangles	
<b>Rectangle 1</b>	
Enter Length (ft)	
Enter Width (ft)	
Enter the percentage of the rectangle that is covered by the spill	
Enter Average Depth of Liquid Pool (in)	
Select Viscosity Dependent Parameter	
Is the Average Depth of Liquid Penetration known?	
If known, enter Average Depth of Liquid Penetration Into Soil (in)	
Select Surface Type	
Estimated Spill Volume of Rectangle (bbls)	
Estimated Spill Volume of Rectangle (gals)	

Total Estimated Spill Volume (bbls)

Total Estimated Spill Volume (gals)

For Irregular shape spills, divide the shape into rectangles that roughly encompass the spill area. For more information see Notes Tab.

Sante Fe Main Office  
Phone: (505) 476-3441

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS

Action 438292

**QUESTIONS**

Operator: Targa Northern Delaware, LLC. 110 W. 7th Street, Suite 2300 Tulsa, OK 74119	OGRID: 331548
	Action Number: 438292
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2505860464
Incident Name	NAPP2505860464 CHECK VALVE ON ARENA ROJA 15 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Facility	[fAPP2123031392] TARGA NORTHERN DELAWARE, LLC.

**Location of Release Source**

Please answer all the questions in this group.

Site Name	Check valve on Arena Roja 15 CTB
Date Release Discovered	02/27/2025
Surface Owner	Federal

**Incident Details**

Please answer all the questions in this group.

Incident Type	Produced Water 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

**Nature and Volume of Release**

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.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Valve   Produced Water   Released: 68 BBL   Recovered: 0 BBL   Lost: 68 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	Not answered.

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**QUESTIONS (continued)**

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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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Joseph Austin Title: Environmental Sepcialist Email: jaustin@targaresources.com Date: 03/03/2025
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Action 438292

**QUESTIONS (continued)**

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**QUESTIONS**

<b>Site Characterization</b>	
<i>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.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
<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	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

<b>Remediation Plan</b>	
<i>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.</i>	
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

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CONDITIONS

Created By	Condition	Condition Date
scwells	None	3/3/2025