

From: [Billings, Bradford, EMNRD](#)
To: [Yu, Olivia, EMNRD](#)
Subject: FW: 1RP-4789 - EMSU B Produced Water Release, Lea County, New Mexico, December 12, 2017
Date: Monday, February 19, 2018 9:18:02 AM
Attachments: West to East - Geological Cross Section A to A" (2).pdf
Schematic - Proposed Recovery System.pdf
Recovery Trench and Well Layout.pdf
RW-4.pdf
Diagram for Spill Containment-Model.pdf

Hi,

Specific details requested for circumstance.

Thanks

Brad

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Thursday, February 15, 2018 4:36 PM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: 'Askin, David' <David_Askin@xtoenergy.com>; 'Lansdown, Scott' <Scott_Lansdown@xtoenergy.com>; 'Hutton, Nina' <Nina_Hutton@xtoenergy.com>; 'Keith_Underwood@xtoenergy.com' <Keith_Underwood@xtoenergy.com>; 'Meadows, Derrick' <Derrick_Meadows@xtoenergy.com>; 'Goodman, Ronald' <Ronald_Goodman@xtoenergy.com>; 'Patricia_Donald@xtoenergy.com' <Patricia_Donald@xtoenergy.com>
Subject: RE: 1RP-4789 - EMSU B Produced Water Release, Lea County, New Mexico, December 12, 2017

Bradford,

Please find attached exhibits as requested. The exhibits include:

- West (a) to east (A') geological cross section through recovery trench area;
- Overview map of proposed recovery trench, recover well and tank locations;
- Cross section for recovery trench and build out (typical) for recovery wells; and
- Schematic for recovery tank containment.

Please note that 3 alternate recovery well locations are presents on the layout based on field verification. The BLM was copied on the layout design and has requested a cultural survey for the area. Please contact me if you have questions.

Respectfully,

Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 205
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"Serving the Permian Basin Since 2000"

From: Billings, Bradford, EMNRD [<mailto:Bradford.Billings@state.nm.us>]

Sent: Friday, January 19, 2018 3:45 PM

To: Mark Larson

Subject: RE: 1RP-4789 - EMSU B Produced Water Release, Lea County, New Mexico, December 12, 2017

Hi Mark,

As follow-up to yesterday.

1. Would you please submit a schematic of your proposed trench for PW recovery. X-Section would be good as well. To scale.
2. Would like an uncluttered overview map, to scale, of the trench placement as well.
3. Also an overhead on google or like of the anticipated recovery wells, with cross-section of anticipated build-out for these wells.
4. And a drawing if possible to scale, of your likely holding tanks and berm construction.

When I get these I will review quickly and push on the approval letter.

Thanks again and good to see you.

Bradford Billings

Typical Recovery Well

GEOLOGIC UNIT	DEPTH	Start Finish DESCRIPTION LITHOLOGIC	DESCRIPTION SCS	GRAPHIC LOG	RECOVERY			REMARKS
					NUMBER	RECOVERY	DEPTH	
	0		Sand					BOREHOLE SOIL _____ PPM SOIL _____ PPM
	10		Sandy Clay					
	20		Caliche					
	30							
	40		Sand					
	50		Shale					
	60							
	70							
	80							

- ONE CONTINUOUS CORE SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)
- WATER TABLE (TIME OF BORING)

L

LABORATORY TEST LOCATION

+

PENETROMETER (TONS/ SQ. FT)

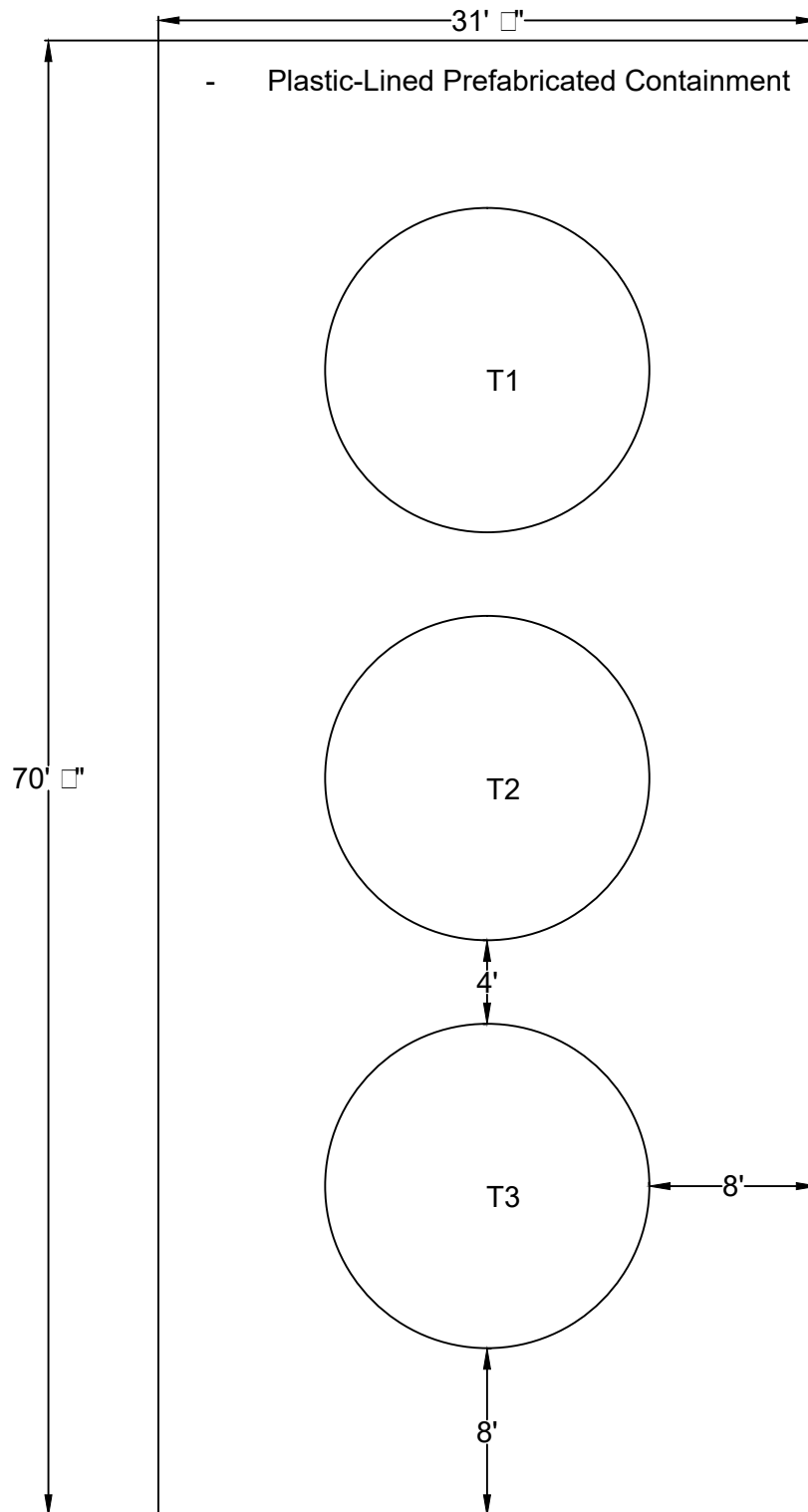
NR

NO RECOVERY

JOB NUMBER XTO EMS B / 17-017-01
 HOLE DIAMETER _____
 LOCATION Lea County, NM
 LEAD GEOLOGIST _____
 DRILLING CONTRACTOR _____
 DRILLING METHOD _____

Diagram for Spill Containment

EMS B Produced Water Recovery Station



Containment Dimensions¹

Containment Length 70' 0"

Containment Width 31' 0"

Containment Height 2' 0"

Minimum Containment Volume 703 bbl (1 Tan 25 Yr 24 Hr Rainfall)

Actual Containment Volume 821 bbl

BATTERY DETAILS

JOB NUMBER XTO EMS B / 17-017-01

TANK DIAMETER 15' 0"

TANK HEIGHT 1'

TANK VOLUME 500 bbl

LOCATION Lea County, NM

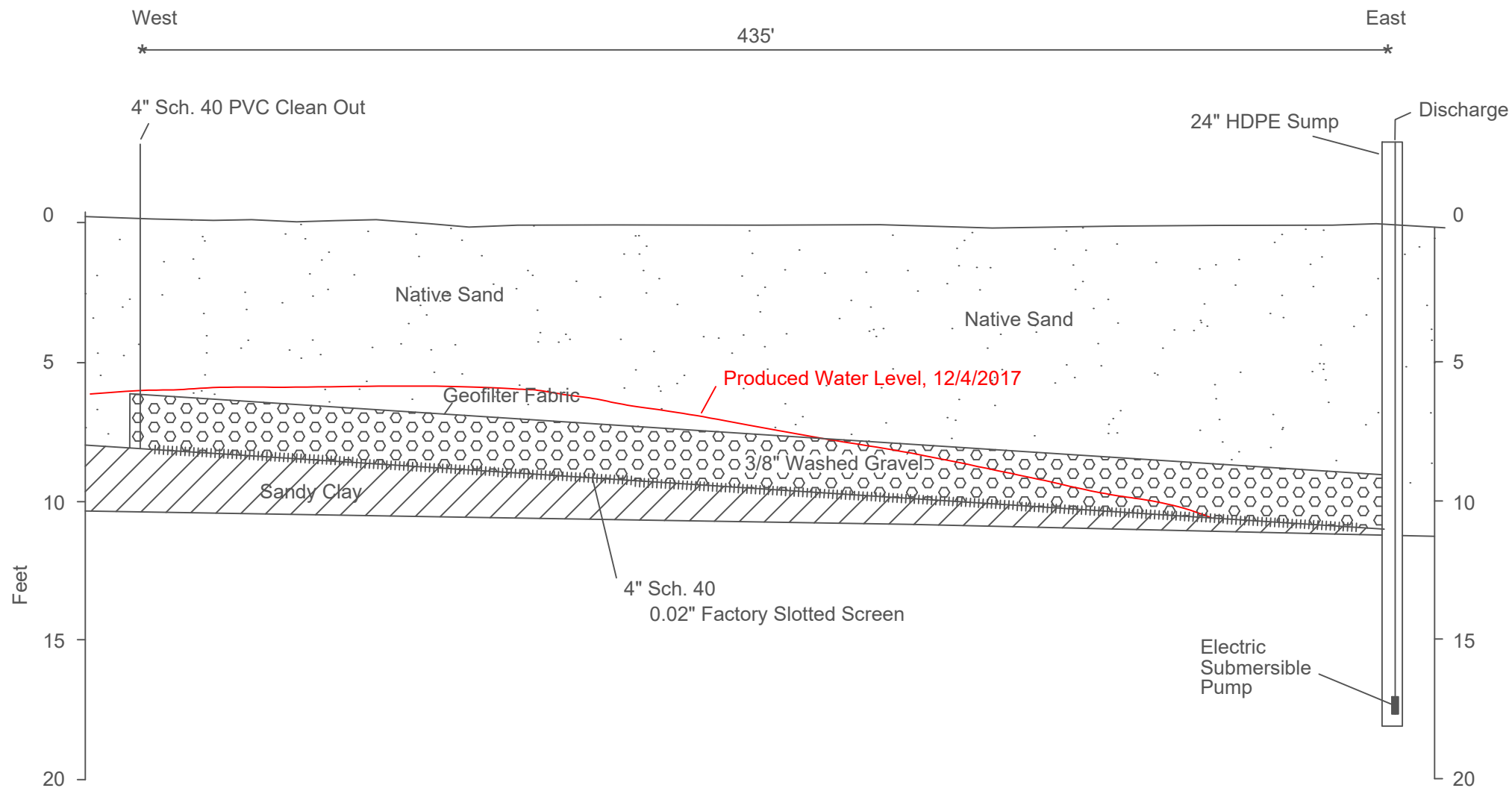
ENGINEER R. Basom

BATTERY VOLUME 1,500 bbl






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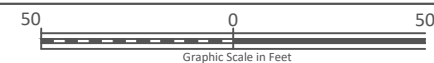
INSTALLATION DATE TBD

¹Dimensions Subject to Change Based on Field Pumping Test Results



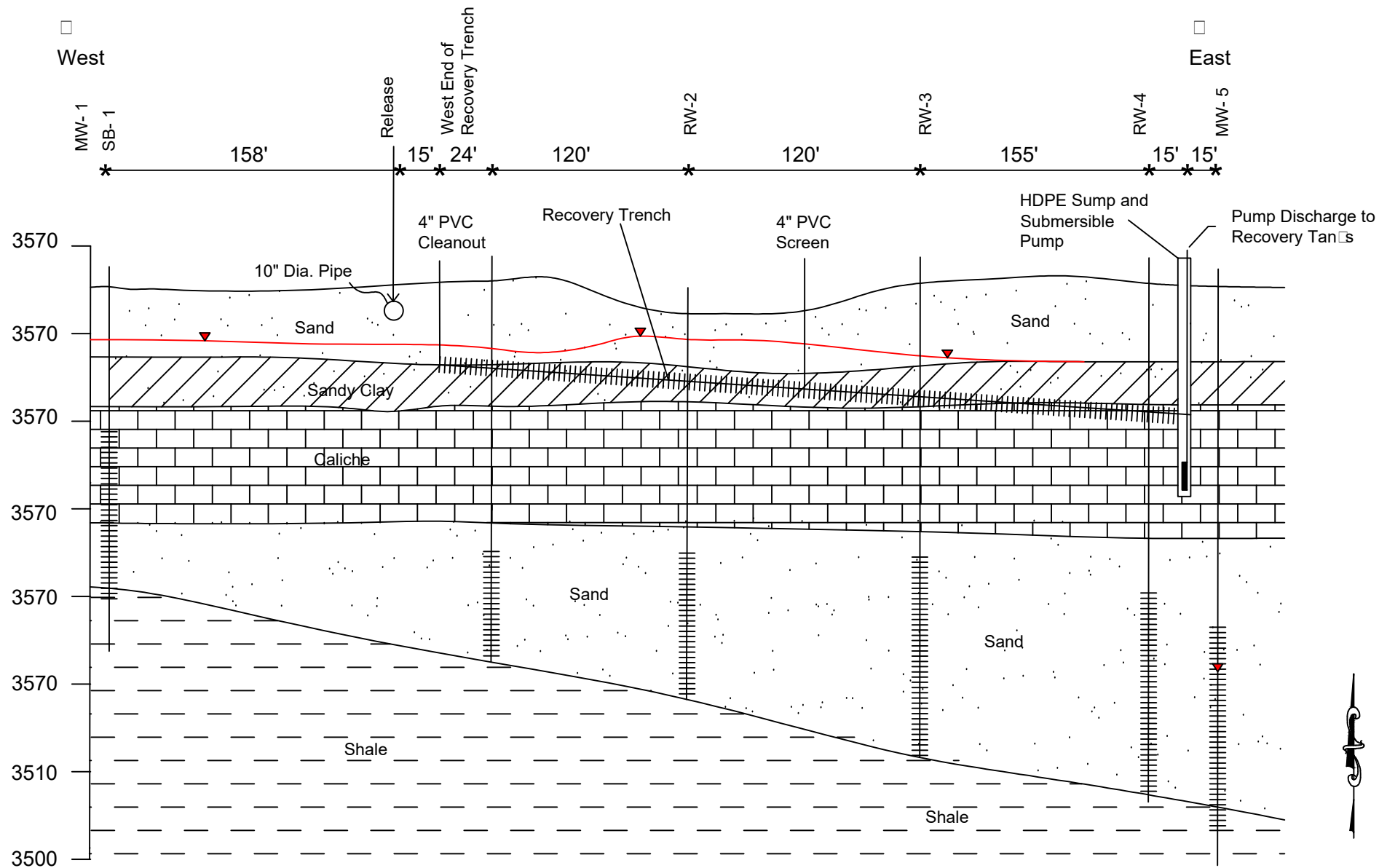
Legend

-  - Sandy Clay
 -  - Washed Gravel
 -  - Native Sand
 -  - Recovery Trench Screen
 -  - Fluid (Produced Water) Level, December 4, 2017
- Horizontal Scale 1" = 50'
- Vertical Scale 1" = 5'
- Vertical Exageration x5



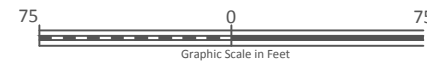
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 EMSU B Produced Water Release
 Lea County, New Mexico

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Legend

- Sandy Clay
 - Caliche
 - Sand
 - Shale
 - Recovery Well Screen
 - Recovery Trench Screen
 - Fluid (Produce Water) Level, December 4, 2017
- Horizontal Scale 1" = 50'
 Vertical Scale 1" = 10'
 Vertical Exaggeration x5



XTO Energy, Inc.
 EMSU B Produced Water Release
 Lea County, New Mexico

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