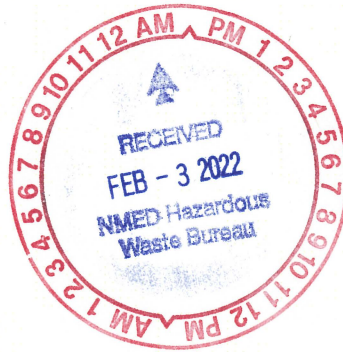
**DEPARTMENT OF ENERGY**

Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-2021-BF154-02-002

February 3, 2022

Mr. Rick Shean
Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313



Subject: Response to New Mexico Environment Department's Review, Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, May 7, 2021–August 6, 2021, Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, August 7, 2021–November 8, 2021

Dear Mr. Shean:

The U.S. Department of Energy Environmental Management Los Alamos Field Office (EM-LA) received the New Mexico Environment Department (NMED) letter titled "Review, Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, May 7, 2021–August 6, 2021, Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, August 7, 2021–November 8, 2021" (hereafter, the NMED letter) on January 3, 2022.

In the NMED letter, NMED requested "an updated downhole video for Well R-25 that shows a continuous run through the damaged well casing where accessible via downhole camera with a fully functioning and accurate depth meter indicator." NMED requested that the video log be provided by February 3, 2022. For the reasons below, EM-LA will not be performing the requested downhole video.

The plugging and abandonment (P&A) of R-25 was a fiscal year 2020 milestone under the 2016 Compliance Order on Consent (Consent Order). On March 18, 2020, because of technical difficulties encountered during the P&A of R-25, NMED granted an extension request for the milestone in the letter titled "Approval, Request for Extension of Fiscal Year 2020 Appendix B Milestone #6, Westbay Well Plugging and Abandonment Completion Report for R-25." As part of the R-25 extension approval, NMED required that EM-LA provide NMED with (1) monthly status updates via email, starting the week of March 23, 2020, and (2) quarterly status reports to NMED, starting May 29, 2020. EM-LA has provided 15 monthly updates and 7 quarterly reports detailing the status of R-25.

On March 10, 2021, EM-LA performed a downhole video of R-25. EM-LA notified NMED in both the status update via email on March 26, 2021, and during a meeting on March 15, 2021, of the need to revise the R-25 P&A plan because of downhole conditions. EM-LA stated that with screen 3 cased off, screen 4 covered by the blank casing, and some bentonite seal brought up from below, a retrievable packer would be installed at 972 ft to prevent comingling of contaminated groundwater from screen 2 with the regional aquifer (starting at screen 5), pending approval from the New Mexico Office of the State Engineer (NMOSE) to plug and abandon R-25. On March 17, 2021, the packer was installed.

On April 6, 2021, NMOSE was notified via email of the revision to the R-25 P&A plan. A detailed list of changes required to the R-25 P&A plan was provided in the email. On April 12, 2021, NMOSE responded via email that they understood a revision to the R-25 P&A plan was required and that NMOSE would be working with NMED before issuing a denial or approval of the revisions. On April 22, 2021, NMOSE sent an email requesting that EM-LA (1) clarify certain information previously provided and (2) provide the downhole video log. On May 12, 2021, EM-LA provided via email the requested clarification and a link to the portions of the downhole video showing (1) the top of the pulled up casing, (2) the bottom of the pulled up casing (which shows open borehole formation), and (3) open borehole formation to the top of the sloughed formation. See Enclosures 1 and 2 for additional information.

As stated in the NMED letter, NMED downloaded the three downhole videos of R-25 on May 13, 2021. It has been over 235 days since NMED downloaded these videos. In the NMED letter, NMED also states that the videos do not include the depth at which the well casing is damaged. Enclosures 3 and 4 contain a schematic of the R-25 status along with the well driller operational logs from March 10, 2021. The documents in these enclosures address the depths requested by NMED.

EM-LA notes the following:

1. P&A activities have had to be put on hold while waiting for NMOSE approval of the revised R-25 P&A plan.
2. The revised R-25 P&A plan was submitted to NMOSE on April 15, 2021—over 8 months ago.
3. EM-LA has provided all information requested by NMOSE regarding the revised R-25 P&A plan.
4. EM-LA received communication from NMOSE on January 25, 2022, stating that they are available to meet to discuss R-25. A meeting has been scheduled for February 8, 2022. This communication from NMOSE is over 9 months after submittal of the revised R-25 P&A plan. EM-LA requested numerous times before January 25, 2022, to have a meeting with NMOSE.

Given the downhole conditions of R-25, as shown in the original downhole video and detailed in the monthly email updates and quarterly reports, EM-LA does not understand what NMED hopes to gain from an updated downhole video to determine the path forward for the P&A of R-25. The method presented in the revised R-25 P&A plan is the most efficient, economical, and environmentally protective.

As stated above, EM-LA has been waiting for NMOSE approval to plug and abandon R-25 for over 8 months. A downhole video at this time, as requested in the NMED letter, will further delay P&A. For the foregoing reasons, EM-LA will not be performing a downhole video at this time. Instead, EM-LA intends to perform a downhole video after the driller has mobilized to plug and abandon R-25. EM-LA will provide NMED with a copy of the downhole video once completed.

EM-LA welcomes the opportunity to discuss the revised R-25 P&A plan with NMED and NMOSE. EM-LA looks forward to receiving prompt approval of the revised R-25 P&A plan so that it can commence P&A of R-25.

If you have any questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,

**ARTURO
DURAN**

Digitally signed by ARTURO
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Arturo Q. Duran
Compliance and Permitting Manager
Environmental Management
Los Alamos Field Office

Enclosure(s): Two hard copies with electronic files:

1. Well R-25 Diagram – Affected Area
2. Well R-25 Diagram – Detail of Issues over Time
3. Well R-25 Diagram – Well Status on March 10, 2021
4. Well R-25 – Log Book Pages

cc (letter and enclosures emailed):

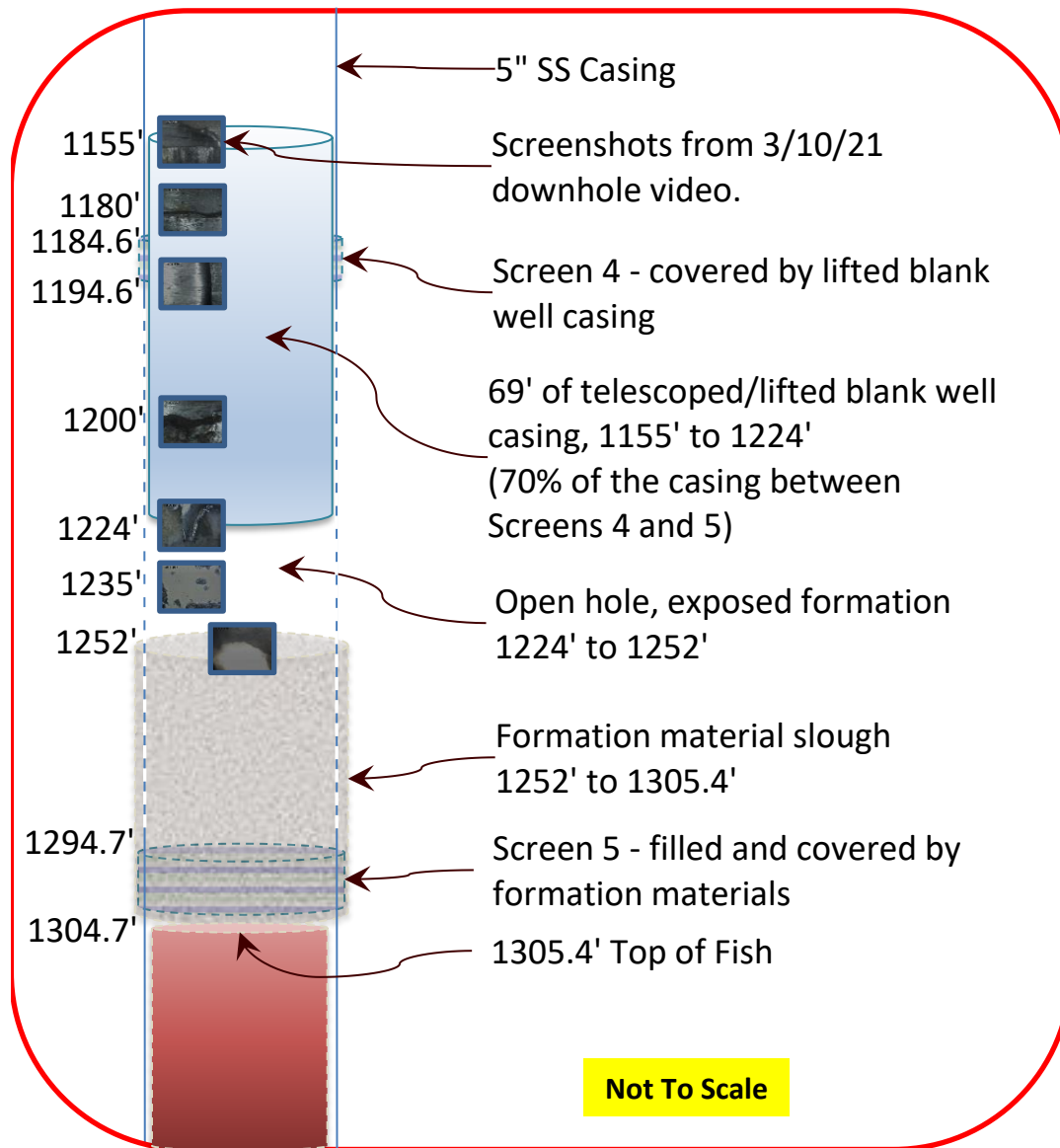
Laurie King, EPA Region 6, Dallas, TX
 Raymond Martinez, San Ildefonso Pueblo, NM
 Dino Chavarria, Santa Clara Pueblo, NM
 David Gomez, Los Alamos County, Los Alamos, NM
 Chris Catechis, NMED-DOE-OB/-RPD
 Steve Yanicak, NMED-DOE-OB
 Justin Ball, NMED-GWQB
 Jennifer Payne, LANL
 Stephen Hoffman, NA-LA
 William Alexander, N3B
 Emily Day, N3B
 Sherry Gaddy, N3B
 Danny Katzman, N3B
 Thomas Klepfer, N3B
 Kim Lebak, N3B
 Joseph Legare, N3B
 Pamela Maestas, N3B
 Christian Maupin, N3B
 Joseph Murdock, N3B
 Bruce Robinson, N3B
 Joseph Sena, N3B
 Troy Thomson, N3B

Steve Veenis, N3B
John Warren, N3B
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Cheryl Rodriguez, EM-LA
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emla.docs@em.doe.gov
n3brecords@em-la.doe.gov
Public Reading Room (EPRR)
PRS website

Enclosure 1

Well R-25 Diagram – Affected Area

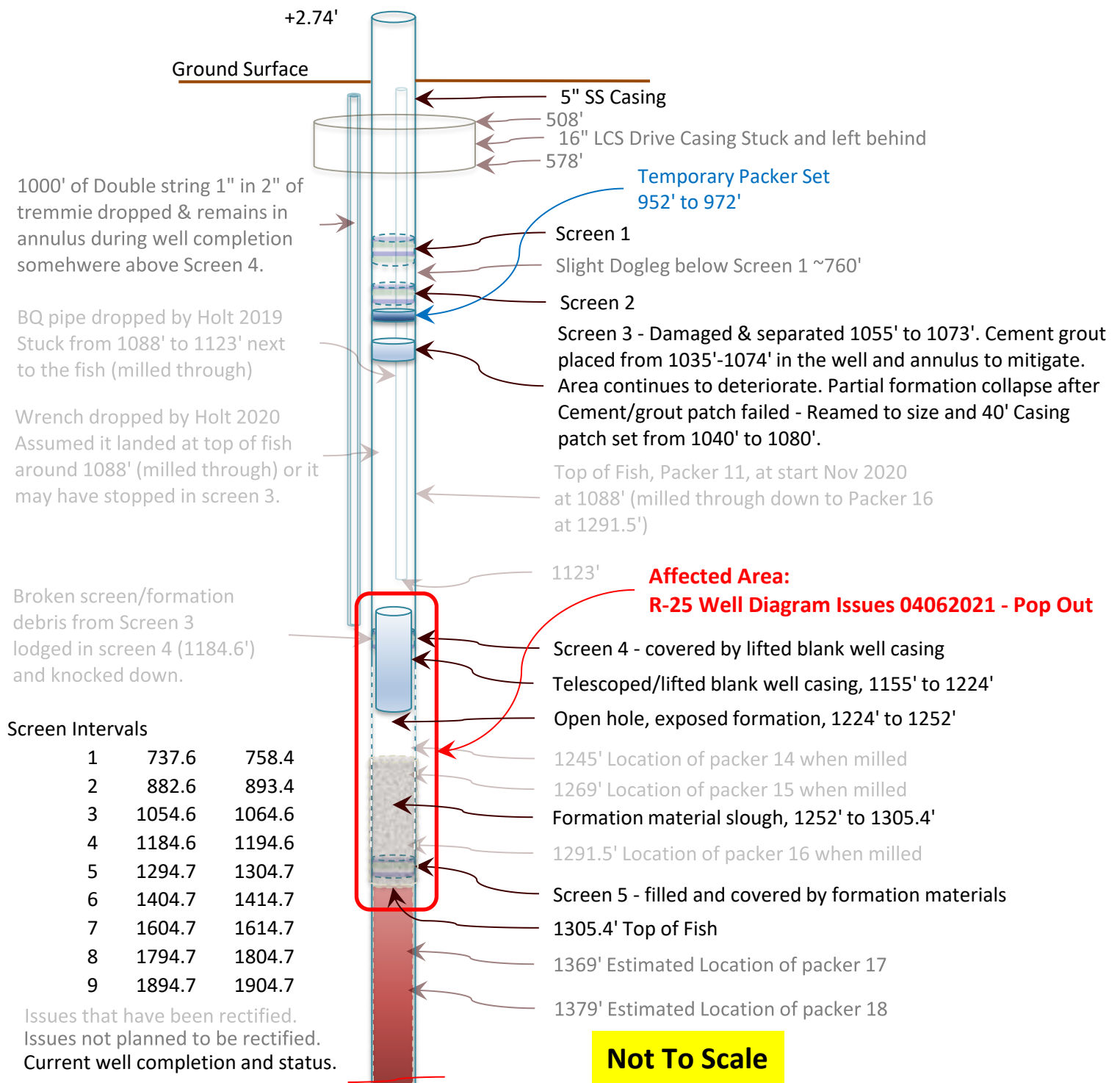
R-25, Affected Area - Pop Out



Enclosure 2

Well R-25 Diagram – Detail of Issues over Time

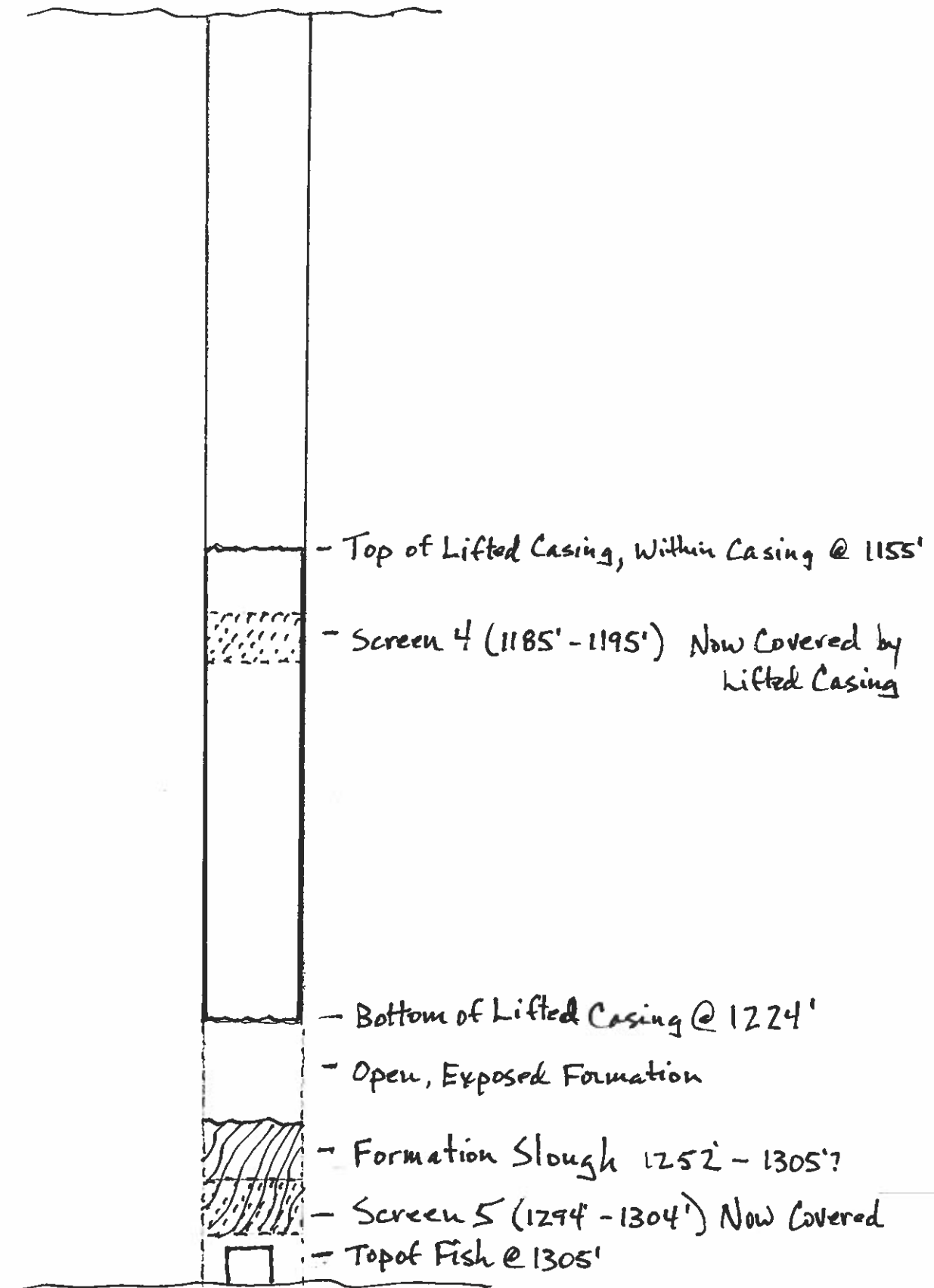
R-25 Well Diagram - Details of Issues Over Time



Enclosure 3

Well R-25 Diagram – Well Status on March 10, 2021

R-25 Status 3/10/21



Enclosure 4

Well R-25 – Log Book Pages

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Project / Client R-25 Expanded Scope CHWS

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crew: J. Richeson (TAS), John Wilcox & Lex Deines (N3B Escorts), E. Martinez (WRH), S. Elliott, A. Harrell, K. Daigle, E. Bergeron (CHWS),
weather: sunny High 50F, Low 32F
Equipment: 150k series Hwo unit, Forklift,
4 Light Plants, Air Compressor, N3B Logging Trailer
Activities:

06:45 onsite at pueblo. participate in daily R-25 team POD teleconference

07:00 Go to R-28 to pick up large borehole camera.

07:40 onsite at Gate 431. only 1 N3B escort onsite. Lex Deines is not here. Call Lex Deines, he thought he was working with groundwater today. Lex is on his way to the gate.

08:20 onsite at R-25

08:25 warm up equipment, make hose connections to run hydrant water down well while performing borehole camera survey.

08:45-09:00 A. Ullom onsite for swppp inspection.

09:20 Large 4" borehole camera is not

Return to the Rain

working. No camera image on laptop computer. Connect smaller borehole camera w/ centralizers.

09:45 Begin downhole camera survey

Triad Fuel Truck onsite until 10:25.

10:40 Shut down for burn. No damage observed from surface to 1000' bgs.

11:00 Depart Gate 439.

11:10 Burn cancelled (announced over radio).

11:20 Enter Gate 431

11:30 onsite at R-25

11:35 Resume downhole camera survey

12:15 casing w/ vertical & horizontal tears observed at 1155' bgs. Ripped up casing exists b/w 1155' - 1187' bgs. Casing is in fact b/w 1187' - 1224' bgs. Casing is completely separated below 1224' bgs. Open formation from 1224' to 1252' bgs. Formation has collapsed at 1252' bgs. It appears a section of casing below screen 4 dropped down to the top of screen 5. We got stuck on this separated casing when tripping back out of hole. We pulled section

Location R-25 Date 3/10/2021⁸⁷
Project / Client R-25 Expanded Scope CHWS

Page 3

of separated casing back up to 1155'
bgs. It has completely covered up
screen 4. section of separated
casing is now lodged inside casing
above.

13:30 completed camera survey

Burn DVD of camera survey.

13:45 CHWS crew replacing leg
packing seals on all 4 hydraulic
cylinders on rig.

15:25 Break out threaded connections
on concave mill BHA. Damage is
observed on jars (bulging on body)

15:50 secure site for the night

16:00 Depart R-25

16:10 out of WFO

16:25 Return to Pueblo to write
field report.

[Signature]

3/10/21

Return to Rain.

