



*Associate Director for ESH*  
Environment, Safety, and Health  
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Los Alamos, New Mexico 87545  
505-667-4218/Fax 505-665-3811

**RECEIVED**

FEB 19 2015

**NMED  
Hazardous Waste Bureau**

*National Nuclear Security Administration*  
Los Alamos Field Office, MS A316  
Environmental Projects Office  
Los Alamos, New Mexico 87544  
(505) 667-4255/FAX (505) 606-2132

Date: FEB 19 2015

Refer To: ADESH-15-031

LAUR: 15-20506

Locates Action No.: N/A

John Kieling, Bureau Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

**Subject: Submittal of the Fact Sheets for Chromium Corehole 2**

Dear Mr. Kieling:

Enclosed please find two hard copies with electronic files of the fact sheets for chromium corehole 2 (CrCH-2). This corehole is the third of six to be completed as part of the New Mexico Environment Department- (NMED-) approved Drilling Work Plan for Chromium Project Coreholes. The attached completion details reflect the corehole-specific NMED-approved work plan design.

If you have any questions, please contact Stephani Swickley at (505) 606-1628 (sfuller@lanl.gov) or Hai Shen at (505) 665-5046 (hai.shen@nnsa.doe.gov).

Sincerely,

Michael T. Brandt, DrPH, CIH, Associate Director  
Environment, Safety, and Health  
Los Alamos National Laboratory

Sincerely,

Peter Maggiore, Assistant Manager  
Environmental Projects Office  
Los Alamos Field Office

MB/PM/DM/SS:sm

Enclosures: Two hard copies with electronic files – Fact Sheets for CrCH-2

Cy: (w/enc.)

Cheryl Rodriguez, DOE-NA-LA, MS A316  
Stephani Swickley, ER Program, MS M992  
Public Reading Room (EPRR)  
ADESH Records

Cy: (Letter and CD and/or DVD)

Laurie King, EPA Region 6, Dallas, TX  
Steve Yanicak, NMED-DOE-OB, MS M894  
Vern Christensen, Yellow Jacket Drilling  
Ted Ball, ER Program, MS M992  
PRS Database

Cy: (w/o enc.)

lasomailbox@nnsa.doe.gov  
Annette Russell, DOE-NA-LA (date-stamped letter emailed)  
Hai Shen, DOE-NA-LA (date-stamped letter emailed)  
David Rhodes, DOE-NA-LA (date-stamped letter emailed)  
Kimberly Davis Lebak, DOE-NA-LA (date-stamped letter emailed)  
Dave McInroy, ER Program (date-stamped letter emailed)  
Randy Erickson, ADEP (date-stamped letter emailed)  
Tony Grieggs, ADESH-ENV-CP (date-stamped letter emailed)  
Alison Dorries, ADESH-ENV-CP (date-stamped letter emailed)  
Michael Brandt, ADESH (date-stamped letter emailed)  
Amy De Palma, PADOPS (date-stamped letter emailed)  
Michael Lansing, PADOPS (date-stamped letter emailed)

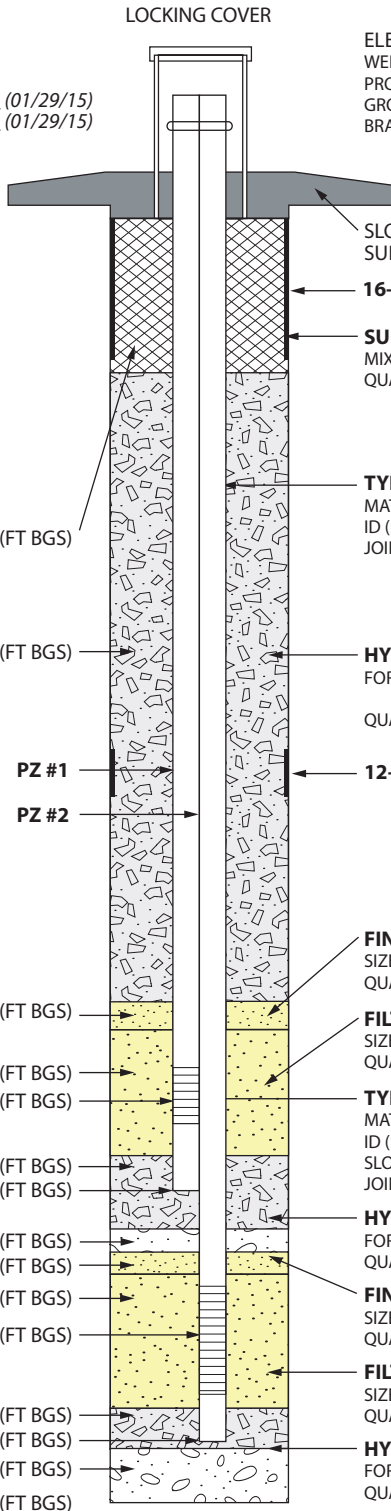
TOTAL LENGTH  
 OF PZ #1 CASING AND SCREEN (FT) 932.5  
 OF PZ #2 CASING AND SCREEN (FT) 976.7  
 DEPTH TO WATER  
 PZ #1 FOLLOWING INSTALLATION (FT BGS) 901.6 (01/29/15)  
 PZ #2 FOLLOWING INSTALLATION (FT BGS) 904.1 (01/29/15)

DIAMETER OF BOREHOLE  
 24.00 (IN) FROM 0.0 TO 57.0 (FT BGS)  
 12.00 (IN) FROM 57.0 TO 580.0 (FT BGS)  
 8.00 (IN) FROM 580.0 TO 987.2 (FT BGS)

**SURFACE COMPLETION** (proposed)  
 PROTECTIVE CASING  
 TYPE STEEL SIZE (IN) TBD  
 PROTECTIVE POSTS INSTALLED YES  
 SURFACE SEAL AND PAD  
 CHECK FOR SETTLEMENT YES  
 PAD MATERIAL CONCRETE  
 REINFORCED WIRE MESH  
 PAD DIMENSIONS (FT) 10 (L) 10 (W) 0.5 (H)

**SURFACE SEAL** 2.0 TO 60.0 (FT BGS)

**BENTONITE SEAL** 60.0 TO 902.0 (FT BGS)



ELEVATIONS (FT AMSL)  
 WELL CASING TBD  
 PROTECTIVE CASING TBD  
 GROUND SURFACE TBD  
 BRASS CAP (MARKER) TBD

SLOPED CONCRETE PAD/  
 SURFACE SEAL

16-IN CSG 0 TO 57 (FT BGS)

**SURFACE SEAL**  
 MIX (WT%) PORTLAND CEMENT 100  
 QUANTITY USED 67.2 FT<sup>3</sup> CALC 53.4 FT<sup>3</sup>

**TYPE OF CASING**  
 MATERIAL PASSIVATED A304 STAINLESS STEEL  
 ID (IN) 2.00 OD (IN) 2.375  
 JOINT TYPE THREADED

**HYDRATED BENTONITE SEAL**  
 FORM 3/8-IN BENTONITE CHIP (90%) PLUS  
10/20 SAND (10%)  
 QUANTITY USED 721.2 FT<sup>3</sup> CALC 927.6 FT<sup>3</sup>

12-IN CSG/SHOE 575.0 TO 580.0 (FT BGS)

**FINE SAND COLLAR**  
 SIZE/TYPE 20/40 SILICA  
 QUANTITY USED 0.50 FT<sup>3</sup> CALC 0.57 FT<sup>3</sup>

**FILTER PACK SAND**  
 SIZE/TYPE 10/20 SILICA  
 QUANTITY USED 8.5 FT<sup>3</sup> CALC 6.1 FT<sup>3</sup>

**TYPE OF SCREEN(S)**  
 MATERIAL A304 STAINLESS STEEL  
 ID (IN) 2.00 OD (IN) 2.375  
 SLOT SIZE (IN) 0.040  
 JOINT TYPE THREADED

**HYDRATED BENTONITE SEAL**  
 FORM 3/8-IN BENTONITE CHIP  
 QUANTITY USED 2.8 FT<sup>3</sup> CALC 3.0 FT<sup>3</sup>

**FINE SAND COLLAR**  
 SIZE/TYPE 20/40 SILICA  
 QUANTITY USED 0.50 FT<sup>3</sup> CALC 0.64 FT<sup>3</sup>

**FILTER PACK SAND**  
 SIZE/TYPE 10/20 SILICA  
 QUANTITY USED 12.5 FT<sup>3</sup> CALC 9.0 FT<sup>3</sup>

**HYDRATED BENTONITE SEAL**  
 FORM 3/8-IN BENTONITE CHIP  
 QUANTITY USED 1.4 FT<sup>3</sup> CALC 2.3 FT<sup>3</sup>

**FINE SAND COLLAR** 902.0 TO 904.0 (FT BGS)

**FILTER PACK** 904.0 TO 925.3 (FT BGS)

**SCREENED INTERVAL** 909.8 TO 919.8 (FT BGS)

**BENTONITE SEAL** 925.3 TO 935.3 (FT BGS)

**PZ #1 BOTTOM OF CASING** 930.0 (FT BGS)

**SLOUGH** 935.3 TO 938.0 (FT BGS)

**FINE SAND COLLAR** 938.0 TO 940.0 (FT BGS)

**FILTER PACK** 940.0 TO 968.3 (FT BGS)

**SCREENED INTERVAL** 944.0 TO 964.0 (FT BGS)

**BENTONITE SEAL** 968.3 TO 975.3 (FT BGS)

**PZ #2 BOTTOM OF CASING** 974.2 (FT BGS)

**SLOUGH** 975.3 TO 987.0 (FT BGS)

**BOTTOM OF BORING** 987.0 (FT BGS)

**STAINLESS-STEEL CENTRALIZERS**  
 USED YES  
 ABOVE AND BELOW SCREEN

**WELL COMPLETION BEGAN**  
 DATE 1/11/15 TIME 1015h  
**WELL COMPLETION FINISHED**  
 DATE 1/19/15 TIME 1000h

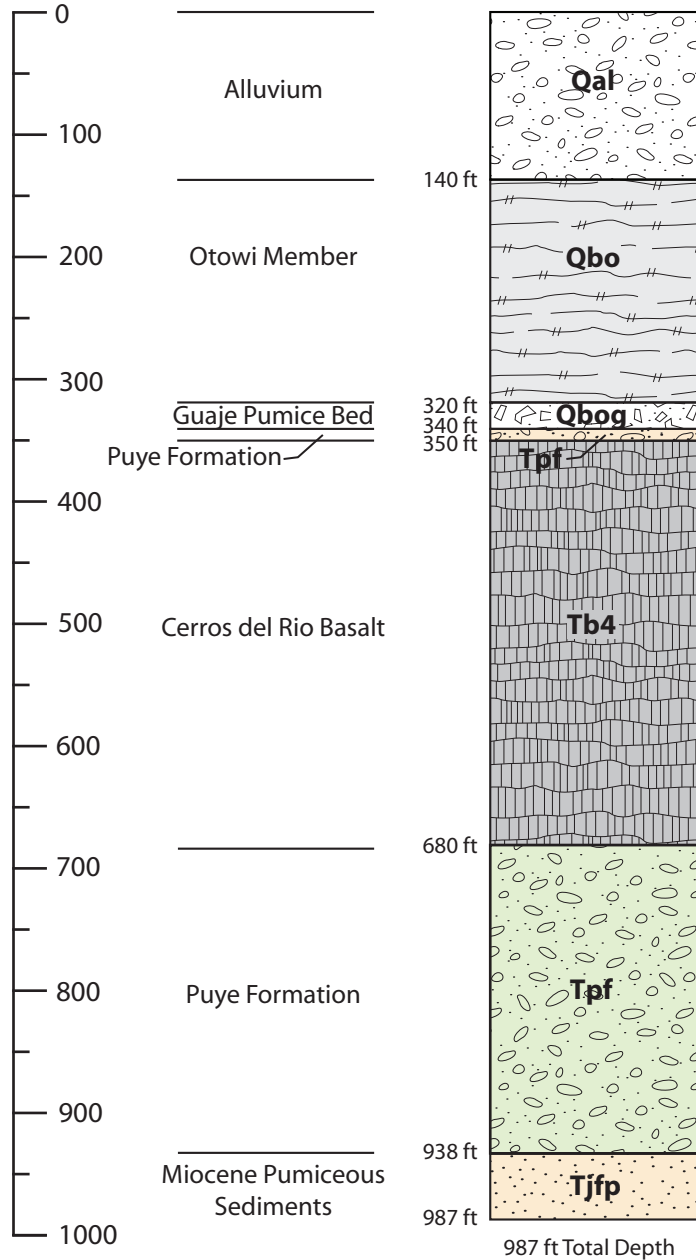


Drafted By: PTM  
 Date: February 4, 2015  
 File Name: CrCH-2\_AsBuiltDiagram\_FactSheet

**Well CrCH-2 As-Built Well Construction Diagram**  
 Technical Area 05 (TA-05)  
 Los Alamos National Laboratory  
 Los Alamos, New Mexico

**Fact Sheet**  
 NOT TO SCALE

DEPTH (FT BGS)



**DRILLING INFORMATION**

**DRILLING COMPANY/PERSONNEL:**

Yellow Jacket Drilling  
 A. Adams, A. Lamon, S. Walker, J. Saldana,  
 S. Jorge, M. Williams, J. Oropeza

**DRILL RIGS:**

0-705 ft bgs: Foremost DR-24HD  
 705-987 ft bgs: Terrasonics 150T

**DRILLING METHOD:**

- 0-705 ft bgs: DUAL ROTARY WITH CASING ADVANCE USING AIR AND WATER
- 705-987 ft bgs: SONIC CORING WITH CASING ADVANCE

**DRILLING FLUID TYPE:**

- |   |   |
|---|---|
| 0-705 ft bgs  | 705-987 ft bgs  |
| <input checked="" type="checkbox"/> WATER               | <input checked="" type="checkbox"/> NONE DURING CORING; |
| <input checked="" type="checkbox"/> AIR                 | WATER USED TO REMOVE                                    |
| <input checked="" type="checkbox"/> AQF-2 FOAMING AGENT | SLOUGH BETWEEN CORE                                     |
|   | RUNS  |

**DRILLING START/FINISH:**

DATE: 09/15/2014  
 DATE: 12/17/2014

▼ 907.3 ft bgs (12/23/14)  
 (video log of corehole  
 prior to well installation)



Prepared By: GW, EJ, and DB  
 Date: February 3, 2015  
 File Name: CrCH-2\_Lithology\_FactSheet

**Well Summary Data Sheet**  
**CrCH-2 Borehole Stratigraphy**  
 Technical Area 05 (TA-05)  
 Los Alamos National Laboratory  
 Los Alamos, New Mexico

**Fact Sheet**  
 NOT TO SCALE