



**U.S. Department of Energy  
Hanford Site**

January 3, 2022

21-SGD-004164

Mr. David Bowen, Program Manager  
Nuclear Waste Program  
Washington State Department of Ecology  
3100 Port of Benton Boulevard  
Richland, Washington 99354

Mr. David Einan, Manager  
Superfund and Emergency Management Division  
Site Cleanup Section 4  
825 Jadwin Avenue, Suite 210  
Richland, Washington 99352

Addressees:

**COMPLETION OF HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT  
ORDER (TRI-PARTY AGREEMENT) MILESTONE M-024-72**

This letter documents completion of Tri-Party Agreement (TPA) interim Milestone M-024-72, "Department of Energy shall complete the construction of all wells listed for Calendar Year 2021 and before, as identified in TPA change package M-24-21-01," due December 31, 2021.

The installation of 30 wells was completed on December 20, 2021, as required with TPA Change Control Form M-24-21-01, approved on July 29, 2021. Attached is the listing of M-24 Calendar Year 2021 Wells Completed.

If you have any questions, please contact me, or your staff may contact Kathy Higgins, Program Analyst, Soil and Groundwater Division, on (509) 376-3658.

Sincerely,

**MICHAEL CLINE** Digitally signed by MICHAEL CLINE  
Date: 2022.01.03 16:02:24 -08'00'

Michael W. Cline, Director  
Soil and Groundwater Division

SGD:KLH

Attachment

cc: See page 2

Addressees:  
21-SGD-004164

-2-

January 3, 2022

cc w/ attach:

D. B. Bartus, EPA

J. Bell, NPT

S. L. Brasher, HMIS

R. Buck, Wanapum

C. E. Cameron, EPA

L. Contreras, YN

S. W. Davis, HMIS

R. E. Fox, CPCCo

D. Goswami, Ecology

N. M. Menard, Ecology

D. L. Morgans, CPCCo

M. Murphy, CTUIR

S. N. Schleif, Ecology

K. R. Welsch, Ecology

S. Wiegman, HAB

M. Woods, ODOE

Administrative Record: (M-024-72)

Environmental Portal

Attachment  
21-SGD-004164

M-24 Calendar Year 2021 Wells Completed

(3 pages including cover sheet)

M-024 Calendar Year 2021 Wells Completed

2021 Number	Well ID	Operable Unit	Well Name	Program	Justification/Purpose/Location	Comment	Completion Calendar Year
1	C9721	100-HR-3	699-95-48B	CERCLA	Needed for monitoring, characterization, and delineation of contamination in the first water bearing unit of the RUM. Potential for extraction in FY21 depending on concentrations identified.	Accepted 1/6/2021	M-024 CY2021
2	C9930	100-HR-3	699-95-48C	CERCLA	100-H Horn next to 199-H4-80 Needed for extraction or monitoring depending upon concentrations found in the first water bearing unit of the RUM. Recommend well for pump and treat optimization.	Accepted 1/6/2021	M-024 CY2021
3	C9928	100-HR-3	699-98-50	CERCLA	100-D Area (Horn) next to existing well 699-98-49A Install new RUM aquifer monitoring well in the north central Horn area for plume delineation and geologic characterization.	Accepted 1/6/2021	M-024 CY2021
4	C9929	100-HR-3	199-D11-1	CERCLA	100-D Area (Horn) next to existing well D7-6 Install new RUM aquifer monitoring well in the northwest Horn area for plume delineation and geologic characterization. Needed for monitoring, characterization, and delineation of contamination in the first water bearing unit of the RUM. Potential for extraction in FY21 depending on concentrations identified.	Accepted 1/6/2021	M-024 CY2021
5	C9722	100-HR-3	199-D7-7	CERCLA	Needed for extraction or monitoring depending upon concentrations found in the first water bearing unit of the RUM. Recommend well for pump and treat optimization.	Accepted 1/6/2021	M-024 CY2021
6	C9925	100-HR-3	699-97-47D	CERCLA	This well will be completed in the uppermost RUM aquifer as a monitoring well in the central Horn area. It will provide monitoring of Cr(VI) further eastward in the Horn. Characterization samples in the RUM aquifer collected during drilling will provide additional characterization of the lower aquifer.	Accepted 1/6/2021	M-024 CY2021
7	C9867	200-PO-1	699-43-43B	RCRA	Replacement for well B8758 699-43-44 due to failed casing, critical downgradient RCRA well B-Pond replacement well (C9867) – RCRA replacement well; recommend delay installation until the Engineering Report is approved by Ecology that identifies the actual location. SGW-60591 216-B-3.	Accepted 12/3/2020	M-024 CY2021
8	C9726	200-BP-5	299-E35-6	AEA	Downgradient of Trench 94 for AEA. Trench 94 contains Naval reactors from decommissioned vessels and has no groundwater monitoring. LLWMA-2 monitoring well - East of Trench 94 - Upgradient Contingent on results of geophysical investigations. Trench 94 is on a path to be removed from the permit. If Permit is adjusted, this well is not required for RCRA monitoring, however, AEA monitoring is still required.	Decommissioned Accepted 12/3/2020	M-024 CY2021
9	D0210	200-BP-5	299-E26-81	RCRA	New well for the Liquid Effluent Retention Facility (LERF) Basin 41 expansion. The well is being constructed to support long term RCRA groundwater monitoring as described in SGW-41072, LERF Engineering Evaluation and Characterization Report.	Accepted 12/3/2020	M-024 CY2021
10	D0082	200-ZP-1	699-46-70	CERCLA	Characterization monitoring well of the Rwia (FY21) Northeast corner of 200 West Sufficient data must be collected in the study Rwia to adequately define the nature and extent of the 200-ZP-1 OU COC plumes and the hydrogeologic properties, hydraulic properties, and transport parameters of the Rwia, the RIm, and, to a limited extent, in the Rwie to support fate and transport modeling, to evaluate performance of the 200-ZP-1 OU remedy, and to make recommendations for optimization or modifications to that remedy.	Accepted 8/4/2021	M-024 CY2021
11	D0083	200-ZP-1	699-45-67C	CERCLA	Characterization monitoring well of the Rwia (FY21) Northeast corner of 200 West Sufficient data must be collected in the study Rwia to adequately define the nature and extent of the 200-ZP-1 OU COC plumes and the hydrogeologic properties, hydraulic properties, and transport parameters of the Rwia, the RIm, and, to a limited extent, in the Rwie to support fate and transport modeling, to evaluate performance of the 200-ZP-1 OU remedy, and to make recommendations for optimization or modifications to that remedy.	Accepted 9/15/2021	M-024 CY2021
12	D0263	200-BP-5	299-E33-283	RCRA	EER identified well in SGW-60590, LLBG-1 LLBGWMA-1_PW-1 (Originally was D0059)	Accepted 8/4/2021	M-024 CY2021
13	D0060	200-BP-5	299-E28-35	RCRA	EER identified well in SGW-60590, LLBG-1 LLBGWMA-1_PW-2	Accepted 6/23/2021	M-024 CY2021
14	D0061	200-BP-5	299-E33-276	RCRA	EER identified well in SGW-60590, LLBG-1 LLBGWMA-1_PW-3	Accepted 6/23/2021	M-024 CY2021

M-024 Calendar Year 2021 Wells Completed

15	C9566	200-UP-1	299-W22-123	AEA	216-S-20, S-22, immediately downgradient of Cr,I-129, 1,4-Dioxane. Replacement well for A7843 299-W22-20 which is sample dry. Monitor Cr, I-129, NO3, Tc-99, and H-3 downgradient of WMA S-SX and REDOX Plant;	Accepted 9/30/2021	M-024 CY2021
16	C9935	100-HR-3	199-D1-1	CERCLA	Increase monitoring or injection capacity in 100 D Area.	Accepted 6/23/2021	M-024 CY2021
17	C9718	100-HR-3	199-D2-14	CERCLA	Southeast 100-D Needed for extraction or monitoring depending upon concentrations found in the first water bearing unit of the RUM. Recommend well for pump and treat optimization	Accepted 6/23/2021	M-024 CY2021
18	D0214	100-HR-3	199-H3-34	CERCLA	Monitor, characterize, and delineate contamination in the first water bearing unit of the RUM. New FY20 well 199-H3-31 indicated Cr(VI) concentration of 85 ug/L, much higher than the expected range based on 10-20 ug/L plume contours.	Accepted 9/13/2021	M-024 CY2021
19	D0215	100-HR-3	199-H6-9	CERCLA	Monitor, characterize, and delineate contamination in the first water bearing unit of the RUM.	Accepted 8/26/2021	M-024 CY2021
20	D0056	200-PO-1	299-E25-241	RCRA	EER identified well in SGW-60592, 216-A-29_PW-4, downgradient of 216-A-29 Ditch	Accepted 11/15/2021	M-024 CY2021
21	D0057	200-PO-1	299-E25-242	RCRA	EER identified well in SGW-60592, 216-A-29_PW-5, downgradient of 216-A-29 Ditch	Accepted 9/30/2021	M-024 CY2021
22	D0058	200-PO-1	299-E26-82	RCRA	EER identified well in SGW-60592, 216-A-29_PW-6, downgradient of 216-A-29 Ditch	Accepted 12/8/2021	M-024 CY2021
23	D0049	200-PO-1	699-43-44B	RCRA	EER identified well in SGW-60591. 216-B-3_PW-1	Accepted 6/23/2021	M-024 CY2021
24	D0050	200-PO-1	699-43-44C	RCRA	EER identified well in SGW-60591, 216-B-3_PW-2	Accepted 6/23/2021	M-024 CY2021
25	D0051	200-PO-1	699-43-43C	RCRA	EER identified well in SGW-60591, 216-B-3_PW-3	Accepted 6/23/2021	M-024 CY2021
26	D0052	200-PO-1	699-44-42B	RCRA	EER identified well in SGW-60591, 216-B-3_PW-4	Accepted 6/23/2021	M-024 CY2021
27	D0034	200-UP-1	299-W27-3	RCRA	EER identified well, Chrome characterization well #1 in SGW-60585 216-S-10_PW1	Accepted 8/26/2021	M-024 CY2021
28	D0035	200-UP-1	299-W26-15	RCRA	EER identified well, Chrome characterization well #2 in SGW-60585 216-S-10_PW2	Accepted 12/16/2021	M-024 CY2021
29	D0036	200-UP-1	699-32-77B	RCRA	EER identified well, Chrome characterization well #3 in SGW-60585 216-S-10_PW3	Accepted 11/15/2021	M-024 CY2021
30	D0037	200-UP-1	299-W26-16	RCRA	EER identified well, Chrome characterization well #4 in SGW-60585 216-S-10_PW4	Accepted 8/26/2021	M-024 CY2021