

DEPARTMENT OF ENERGY

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

EMLA-2022-BF23-02-001

November 21, 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:

Fiscal Year 2022 Consent Order Deliverable Accomplishments

Dear Mr. Shean:

Enclosed is a summary of Milestones completed by the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) for fiscal year (FY) 2022 pursuant to the 2016 Compliance Order on Consent (Consent Order). In addition, enclosed is a summary of other Consent Order deliverables submitted to the New Mexico Environment Department (NMED) in FY 2022.

Enclosure 1 lists FY 2022 Milestones in Appendix B of the Consent Order, including their due and submittal dates. A total of 18 Appendix B Milestones were delivered to NMED in FY 2022. Of these 18 Milestones, 16 were submitted before their due dates, and 2 were submitted on their due dates. On August 24, 2022, NMED granted an extension to the FY 2022 Milestone #7 due date for the "Letter Report Documenting Completion of R-73 and Collection of First Samples." Consistent with Section XXXV.A(3) of the Consent Order, because NMED granted the extension beyond FY 2022, this report was removed from being a FY 2022 Milestone. DOE received direction from the New Mexico Office of the State Engineer on September 9, 2022, to plug and abandon Well R-73. EM-LA is working to plug and abandon Well R-73.

In addition to Appendix B Milestones, EM-LA submitted 79 Consent Order deliverables. Enclosure 2 contains a list of these deliverables and their submittal dates.

If you have any questions, please contact Arturo Duran at (505) 257-7907 (arturo.duran@em.doe.gov).

Sincerely,

ARTURO DURAN

Digitally signed by ARTURO DURAN Date: 2022.11.17 10:11:11

Arturo Q. Duran

Compliance and Permitting Manager U.S. Department of Energy **Environmental Management** Los Alamos Field Office

Enclosure(s):

- 1. Fiscal Year 2022 Milestones in Appendix B of the Consent Order
- 2. Fiscal Year 2022 Other Deliverables to the New Mexico Environment Department and Submittal Dates

CC (letter and enclosure[s] emailed):

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Enclosure 1
Fiscal Year 2022 Milestones in Appendix B of the Consent Order

Milestone # FY 2022	Title	Due Date	Submittal Date
1	Interim Facility-Wide Groundwater Monitoring Plan for the 2023 Monitoring Year, October 2022–September 2023	6/30/2022	6/15/2022
2	Chromium Interim Measures and Characterization Work Plan	9/30/2022	9/29/2022
3	Annual Progress Report on Chromium Plume Control Interim Measure Performance July 2021 through March 2022	6/30/2022	6/30/2022
4	Letter Report Documenting Completion of R-71 and Collection of First Samples	2/28/2022	2/14/2022
5	Letter Report for the Well R-72 Completion and Collection of First Groundwater Samples	1/31/2022	1/27/2022
6	Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-73	11/30/2021	11/30/2021
*	Letter Report Documenting Completion of R-73 and Collection of First Samples		
8	Drilling Work Plan for Groundwater Regional Aquifer Monitoring Well R-76 (Replacement of Groundwater Regional Aquifer Monitoring Well R-28)	3/31/2022	3/21/2022
9	Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-77	3/31/2022	3/17/2022
10	Fate and Transport Modeling and Risk Assessment Report for RDX Contamination in Deep Groundwater, Revision 1	9/30/2022	9/29/2022
11	Drilling Work Plan for RDX Groundwater Project Regional Aquifer Monitoring Well R-74	3/16/2022	3/14/2022
12	Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary, Revision 1	5/30/2022	5/24/2022
13	Supplemental Investigation Report for Sites at Technical Area 49 Outside the Nuclear Environmental Site Boundary, Revision 1	5/30/2022	5/24/2022
14	North Ancho Canyon Aggregate Area Phase II Investigation Progress Report	9/30/2022	9/27/2022
15	Twomile Canyon Aggregate Area Progress Report	9/30/2022	9/27/2022
16	Phase II Threemile Canyon Aggregate Area Progress Report	9/30/2022	9/19/2022
17	Starmer/Upper Pajarito Canyon Aggregate Area Progress Report	9/30/2022	9/28/2022
18	Interim Measures Final Report for Soil-Vapor Extraction of Volatile Organic Compounds from Material Disposal Area L, Technical Area 54, Revision 1	6/30/2022	6/29/2022
19	Periodic Monitoring Report for 2021 Vapor-Sampling Activities at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54	5/30/2022	5/27/2022

^{*} NMED granted an extension for Milestone #7 on August 24, 2022. Because NMED granted an extension for this report beyond FY 2022, it was removed as a Milestone per Section XXXV.A(3) of the Consent Order.

EM2022-0774

Enclosure 2
Fiscal Year 2022 Other Deliverables to the New Mexico Environment Department and Submittal Dates

Item Number	Title	Submittal Date
1	R-72 Well Design Package	10/14/2021
2	Response to the New Mexico Environment Department Request for Test Data used to Calculate Aquifer Parameters at Monitoring Wells R-18, R-63, R-68, and R-69 Parts 1, 2, 3 and 4	10/18/2021
3	Request for Certificates of Completion for Eight Solid Waste Management Units and Five Areas of Concern in the Lower Sandia Canyon Aggregate Area	10/18/2021
4	Phase II Investigation Work Plan for Threemile Canyon Aggregate Area, Revision 3	10/21/2021
5	October 2021 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	10/26/2021
6	Addendum to the Investigation Report for Chaquehui Canyon Aggregate Area for Material Disposal Area K, at Technical Area 33	10/28/2021
7	Monthly Notification of Groundwater Data Reviewed in October 2021	10/29/2021
8	Monthly Notification of Groundwater Data Reviewed in November 2021	11/23/2021
9	2021 Annual Progress Report for the Corrective Measures Evaluation for Royal Demolition Explosive in Deep Groundwater	11/30/2021
10	2021 Annual Periodic Monitoring Report for the General Surveillance Monitoring Group: Los Alamos and Pueblo Canyon, Mortandad and Sandia Canyon, Water Canyon/Cañon de Valle, Ancho Canyon, White Rock Canyon, and Pajarito Canyon Watersheds	11/30/2021
11	2021 Annual Periodic Monitoring Report for the Base Flow Sampling: Los Alamos Canyon, Sandia Canyon, Water Canyon, White Rock Canyon, and Pajarito Canyon Watersheds	11/30/2021
12	Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, August 7, 2021–November 8, 2021	11/30/2021
13	Completion Report for Regional Aquifer Monitoring Well R-70, Revision 2	12/1/2021
14	Updated Fiscal Year 2022 Appendices A, B, and C to the 2016 Compliance Order on Consent	12/2/2021
15	2021 Biennial Asphalt Monitoring and Removal Report Area of Concern C-00-041, Guaje/Barrancas/Rendija Canyons Aggregate Area	12/16/2021
16	Fiscal Year 2021 Consent Order Deliverable Accomplishments	12/16/2021
17	Fact Sheets for Regional Well R-72 (RG-00485 POD13)	12/20/2021
18	Monthly Notification of Groundwater Data Reviewed in December 2021	12/21/2021
19	December 2021 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	12/22/2021
20	Fact Sheets for Regional Well R-71 Well (RG-00485 POD12)	1/20/2022
21	Monthly Notification of Groundwater Data Reviewed in January 2022	1/27/2022
22	January 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	1/27/2022
23	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	2/3/2022
24	Monthly Notification of Groundwater Data Reviewed in February 2022	2/24/2022

Enclosure 2
Fiscal Year 2022 Other Deliverables to the New Mexico Environment Department and Submittal Dates

Item Number	Title	Submittal Date
25	Status Update on the Implementation of the Solid Waste Management Unit Assessment Work Plan for Middle DP Road Site	2/25/2022
26	2022 Annual Periodic Monitoring Report for the Technical Area 21 Monitoring Group, Los Alamos Canyon Watershed	2/28/2022
27	Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, November 9, 2021-February 15, 2022	2/28/2022
28	Request for Certificates of Completion for 24 Solid Waste Management Units and 7 Areas of Concern in the Upper Sandia Canyon Aggregate Area	3/14/2022
29	Status Update and Request for Assistance Regarding Letter of Completion Report of R-73 and Collection of First Samples Fiscal Year 2022 Milestone #7, Appendix B of the 2016 Compliance Order on Consent	3/14/2022
30	Response to the Draft New Mexico Environment Department Comments for Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary, Dated January 6, 2022	3/15/2022
31	Response to the Draft New Mexico Environment Department Comments for Supplemental Investigation Report for Sites at Technical Area 49 Outside the Nuclear Environmental Site Boundary, Dated December 13, 2021	3/15/2022
32	Monthly Notification of Groundwater Data Reviewed in March 2022	3/24/2022
33	March 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	3/24/2022
34	Notification of Completed Waste Characterization for Middle DP Road Site Project and Closeout of New Mexico Environment Department Request for Information	3/31/2022
35	Sediment Management Decision Tree Annual Report for Calendar Year 2021	3/31/2022
36	2021 Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project	4/15/2022
37	2022 Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project	4/15/2022
38	2021 Sandia Wetland Performance Report	4/21/2022
39	Response to the Draft New Mexico Environment Department Comments for the Revised Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary, Dated April 7, 2022	4/21/2022
40	Response to the Draft New Mexico Environment Department Comments for the Revised Supplemental Investigation Report for Sites at Technical Area 49 Outside the Nuclear Environmental Site Boundary, Dated April 7, 2022	4/21/2022
41	Monthly Notification of Groundwater Data Reviewed in April 2022	4/27/2022
42	Request for Certificates of Completion for 20 Solid Waste Management Units and 2 Areas of Concern in the Chaquehui Canyon Aggregate Area	4/28/2022
43	April 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	4/28/2022
44	Response to the Draft New Mexico Environment Department Comments for the Revised Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary, Revision 1, Dated May 10, 2022	5/24/2022
45	Response to the Draft New Mexico Environment Department Comments for the Revised Supplemental Investigation Report for Sites at Technical Area 49 Outside the Nuclear Environmental Site Boundary, Revision 1, Dated May 10, 2022	5/24/2022

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Fiscal Year 2022 Other Deliverables to the New Mexico Environment Department and Submittal Dates

Item Number	Title	Submittal Date
46	Monthly Notification of Groundwater Data Reviewed in May 2022	5/26/2022
47	2021 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area, Revision 1, and Comment Response	5/27/2022
48	2022 Annual Periodic Monitoring Report for the Chromium Investigation Monitoring Group, Mortandad Canyon and Sandia Canyon Watersheds	5/31/2022
49	2022 Annual Periodic Monitoring Report for the Technical Area 54 Monitoring Group, Pajarito Canyon and Mortandad Canyon Watersheds	5/31/2022
50	2022 Annual Periodic Monitoring Report for the Material Disposal Area C Monitoring Group, Mortandad Canyon Watersheds	5/31/2022
51	Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, February 16, 2022-May 11, 2022	5/31/2022
52	Drilling Work Plan for RDX Groundwater Project Regional Aquifer Monitoring Well R-74, Revision 1, and Comment Response	6/10/2022
53	Drilling Work Plan for Groundwater Regional Aquifer Monitoring Well R-76 (Replacement of Groundwater Regional Aquifer Monitoring Well R-28), Revision 1, and Comment Response	6/10/2022
54	Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-77, Revision 1, and Comment Response	6/10/2022
55	Monthly Notification of Groundwater Data Reviewed in June 2022	6/22/2022
56	Response to New Mexico Environment Department Request for Additional Information Concerning the 2020 Biennial Inspection and Maintenance Report on Erosion Controls Associated with Solid Waste Management Unit 16-003(o) within Fishladder Canyon	6/24/2022
57	June 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	6/27/2022
58	Revised Response to New Mexico Environment Department Draft Comments on Interim Measures Final Report for Soil-Vapor Extraction of Volatile Organic Compounds from Material Disposal Area L, Technical Area 54	6/29/2022
59	Monthly Notification of Groundwater Data Reviewed in July 2022	7/27/2022
60	July 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	7/29/2022
61	2021–2022 Annual Long-Term Monitoring Status Report (July 2021 through June 2022) for the Los Alamos County Airport Landfill Cover System Replacement, Solid Waste Management Units 73-001(a,d) in Technical Area 73	7/29/2022
62	Response to the New Mexico Environment Department Draft Comments for Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area, Revision 2, Dated May 4,2022	8/1/2022
63	Periodic Monitoring Report for 2021 Vapor-Sampling Activities at Material Disposal Area C, Solid Waste Management Unit 50-009, at Technical Area 50	8/11/2022
64	Request for Extension for Fiscal Year 2022 Appendix B Milestone #7, Letter Report Documenting Completion of R-73 and Collection of First Samples due to Force Majeure and Unanticipated Breakage of Lines of Pipe	8/11/2022
65	Response to the New Mexico Environment Department Draft Comments for Addendum to the Phase II Investigation Report for Middle Los Alamos Canyon Aggregate Area, Revision 1, Dated July 20, 2022	8/24/2022

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Fiscal Year 2022 Other Deliverables to the New Mexico Environment Department and Submittal Dates

Item Number	Title	Submittal Date
66	Monthly Notification of Groundwater Data Reviewed in August 2022	8/26/2022
67	2022 Annual Periodic Monitoring Report for the Technical Area 16 260 Monitoring Group, Pajarito Canyon and Water Canyon/ Cañon de Valle Watersheds	8/30/2022
68	2022 Annual Periodic Monitoring Report for the Material Disposal Area AB Monitoring Group, Ancho Canyon and Water Canyon	8/30/2022
69	Quarterly Status Report for Westbay Well R-25 Plugging and Abandonment Activities, May 12, 2022–August 17, 2022	8/31/2022
70	Completion Report for Regional Aquifer Monitoring Well R-72	9/2/2022
71	Response to NMED draft comments for the Interim Facility-Wide Groundwater Monitoring Plan for the 2023 Monitoring Year, October 2022-September 2023	9/8/2022
72	Completion Report for Regional Aquifer Monitoring Well R-71	9/16/2022
73	ECORISK Database, Release 4.3	9/19/2022
74	Request for Certificates of Completion for Three Solid Waste Management Units and Two Areas of Concern at Technical Area 49 Inside the Nuclear Environmental Site Boundary	9/21/2022
75	Request for Certificates of Completion for One Solid Waste Management Unit at Technical Area 49 Outside the Nuclear Environmental Site Boundary	9/21/2022
76	2022 Annual Long-Term Monitoring and Maintenance Report for the Corrective Measures Implementation at Former 260 Outfall Area	9/27/2022
77	Interim Facility-Wide Groundwater Monitoring Plan for the 2023 Monitoring Year, October 2022-September 2023, Revision 1	9/28/2022
78	September 2022 Monthly Status Update on R-25 Westbay Well Plugging and Abandonment	9/29/2022
79	Monthly Notification of Groundwater Data Reviewed in September 2022	9/29/2022