

Appendix A. Construction Verification Data Contents

Section	Page
A1. Perimeter Embankment <i>(not included)</i>	
A2. RRM	
Standard Proctor Test Results Summary	A2-1
Lift Approval Summaries	A2-2
Lift Approval Package	A2-27
Top of Waste Buyoff Survey	A2-32
A3. Interim Cover	
Standard Proctor Test Results Summary	A3-1
Lift Approval Summaries	A3-2
Lift Approval Package	A3-4
Buyoff Surveys	A3-8
A4. Radon Barrier <i>(not included)</i>	
A5. Infiltration and Bio-intrusion Barrier <i>(not included)</i>	
A6. Frost Protection <i>(not included)</i>	
A7. Cap Rock and Armoring <i>(not included)</i>	
A8. Spoils Embankment	
Standard Proctor Test Results Summary	A8-1
Lift Approval Summaries	A8-2
Lift Approval Package	A8-7

NOTE: Appendices A1 and A4 through A7 are not included as they are not relevant to the period covered in this Addendum.

Appendix A2.
RRM

Standard Proctor Test Results Summary
Lift Approval Summaries
Lift Approval Package
Top of Waste Buyoff Surveys

Appendix A2. RRM Standard Proctor Test Results Summary

Proctor ID #	Date sampled	Date Approved	Maximum Dry Density (lb/ft³)	Optimum Moisture Content %	Proctor Description
DB5-20210408	4/8/2021	5/5/2021	108.5	16.8	Sandy, lean clay (CL)
DB7-20210408	4/8/2021	5/5/2021	106.4	18	Sandy, lean clay (CL)
DB4-20210707	7/7/2021	7/26/2021	108	17.5	Sandy, lean clay (CL)
DB6-20210707	7/7/2021	7/26/2021	105.7	18.6	Sandy, lean clay (CL)

Appendix A2. RRM Lift Approval Summaries

October 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
10/05/20	UW1X05201001-00	1	1537	1,537	97.7	0.8	DB4-20200422	0	0	N/A
10/05/20	UW1Z02201001-00	N/A	2099	3,636	98.9	0.9	N/A	0	0	N/A
10/06/20	UW1P03200924-00	N/A	1408	5,044	99.6	0.9	N/A	0	0	N/A
10/06/20	UW1P08200924-00	N/A	1432	6,476	99.3	0.9	N/A	0	0	N/A
10/07/20	UW1S03201006-00	N/A	1045	7,521	99.6	0.9	N/A	0	0	N/A
10/07/20	UW1P01201005-00	N/A	941	8,462	100.0	0.7	N/A	0	0	N/A
10/07/20	UW1S08201006-00	N/A	1252	9,714	99.8	0.8	N/A	0	0	N/A
10/07/20	UW1U02201006-00	N/A	636	10,350	100.0	0.7	N/A	0	0	N/A
10/07/20	UW1P02201005-00	N/A	521	10,871	99.4	0.6	N/A	0	0	N/A
10/08/20	UW1U01201006-00	N/A	859	11,730	99.8	0.7	N/A	0	0	N/A
10/12/20	UW1P08201008-00	N/A	1428	13,158	99.1	1.0	N/A	0	0	N/A
10/12/20	UW1O2201008-00	N/A	1750	14,908	99.8	0.9	N/A	0	0	N/A
10/12/20	UW1Q23201006-00	1	2115	17,023	99.2	0.9	DB4-20200422	0	0	N/A
10/13/20	UW1O3N201012-00	N/A	931	17,954	99.4	0.8	N/A	0	0	N/A
10/13/20	UW101N201012-00	N/A	1197	19,151	99.6	0.8	N/A	0	0	N/A
10/13/20	UW1S08201012-00	N/A	1139	20,290	95.8	1.0	N/A	0	0	N/A
10/13/20	UW1S02201012-00	N/A	1347	21,637	98.5	1.0	N/A	0	0	N/A
10/14/20	UW1U1N201013-00	N/A	615	22,252	99.9	0.7	N/A	0	0	N/A
10/14/20	UW1U4N201013-00	N/A	1016	23,268	94.5	0.7	N/A	0	0	N/A
10/15/20	UW1V02201012-00	N/A	1432	24,700	99.6	0.8	N/A	0	0	N/A
10/19/20	UW1Z01201015-00	N/A	2053	26,753	99.9	0.8	N/A	0	0	N/A
10/21/20	UW1O20201015-00	N/A	1824	28,577	99.9	0.8	N/A	0	0	N/A
10/21/20	UW1V02201020-00	N/A	895	29,472	100.0	0.5	N/A	0	0	N/A
10/21/20	UW1P08201014-00	N/A	857	30,329	98.8	0.6	N/A	0	0	N/A
10/21/20	UW1O02201014-00	N/A	1167	31,496	99.9	0.6	N/A	0	0	N/A
10/22/20	UW1Z01201021-00	N/A	1183	32,679	99.4	0.9	N/A	0	0	N/A
10/22/20	UW1Z4N201021-00	N/A	1344	34,023	99.0	0.6	N/A	0	0	N/A
10/26/20	UW1Z01201026-00	N/A	1314	35,337	99.4	1.0	N/A	0	0	N/A
10/26/20	UW1V02201022-00	1	1306	36,643	99.4	0.9	DB7-20200422	0	0	N/A
10/26/20	UW1O20201026-00	N/A	1849	38,492	100.0	0.8	N/A	0	0	N/A
10/28/20	UW1O20201027-00	N/A	1849	40,341	100.0	0.8	N/A	0	0	N/A
10/28/20	UW1V02201026-00	N/A	710	41,051	99.7	0.7	N/A	0	0	N/A
10/28/20	UW1U1N201020-00	N/A	790	41,841	99.8	0.9	N/A	0	0	N/A
10/28/20	UW1S08201019-00	N/A	683	42,524	99.8	0.6	N/A	0	0	N/A
10/28/20	UW1S02201019-00	1	808	43,332	98.2	0.6	DB7-20200422	0	0	N/A

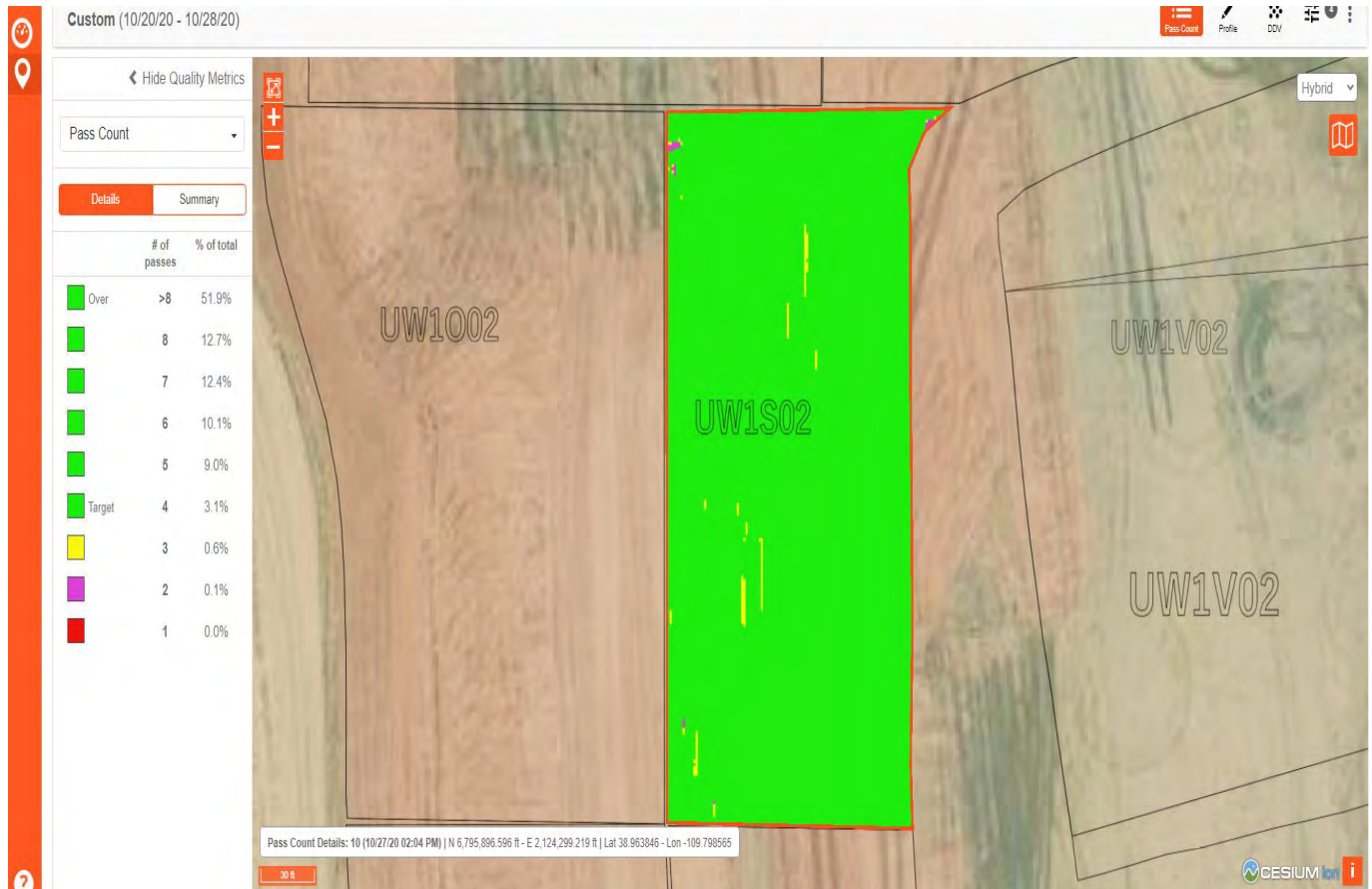
Appendix A2. RRM Lift Approval Summaries (*continued*)

Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
10/28/20	UW1Z01201027-00	1	789	44,121	99.2	0.6	DB7-20200422	0	0	N/A
10/28/20	UW1O1N201020-00	N/A	1163	45,284	99.8	1.0	N/A	0	0	N/A
10/29/20	UW1Z10201028-00	N/A	1456	46,740	100.0	0.9	N/A	0	0	N/A
10/29/20	UW1Z01201028-00	N/A	828	47,568	100.0	0.6	N/A	0	0	N/A
10/29/20	UW1V02201028-00	N/A	842	48,410	100.0	0.6	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.3 Total Quantity Approved (yd³) = 48,410 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 5 Quantity per Moisture Test (yd³) = 9,682 Total Average Thickness (ft) = 0.8 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from October 2020. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1S02201019-00



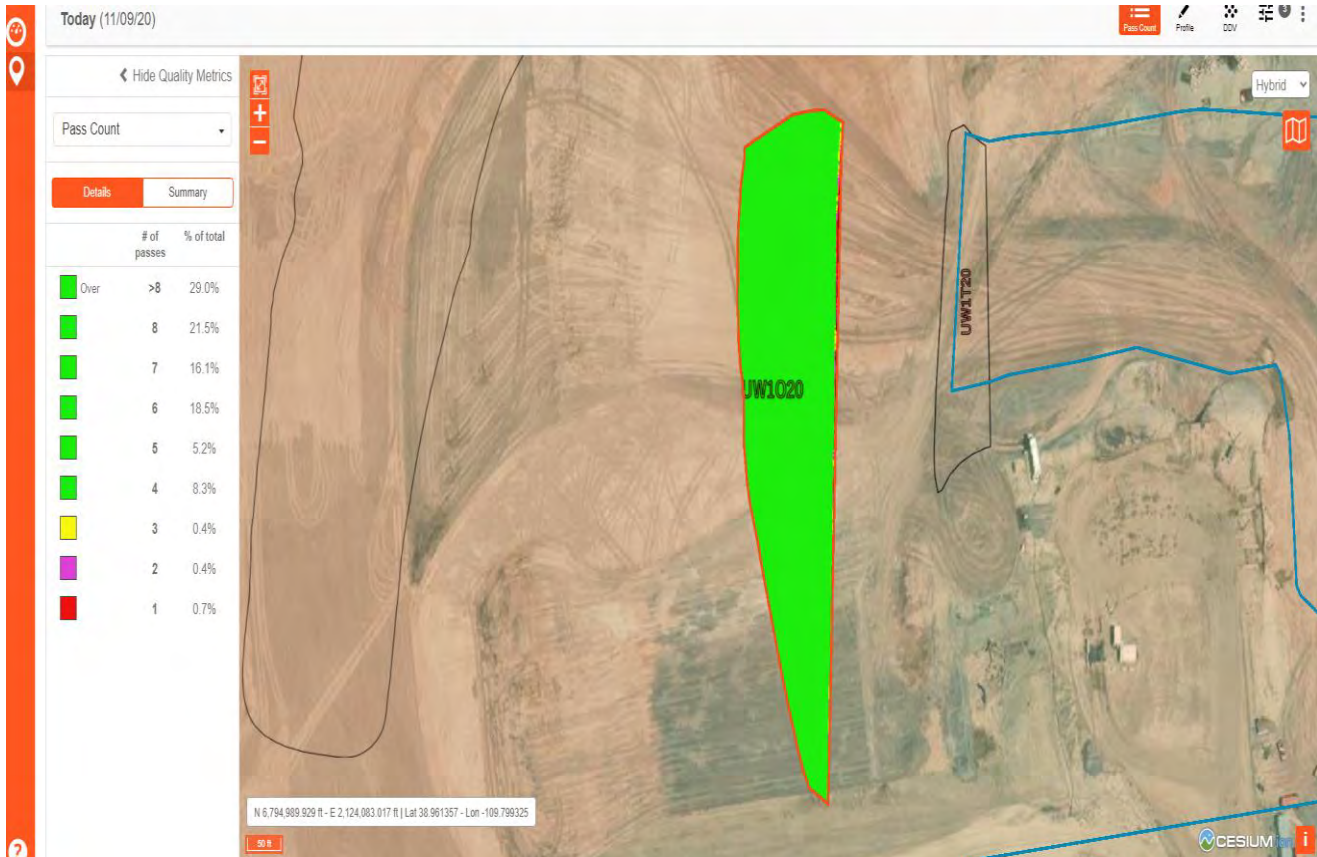
Appendix A2. RRM Lift Approval Summaries (*continued*)

November 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
11/02/20	UW1Z01201029-00	N/A	552	552	100.0	0.4	N/A	0	0	N/A
11/02/20	UW1O20201102-00	N/A	1679	2,231	99.9	0.7	N/A	0	0	N/A
11/02/20	UW1VO2201029-00	N/A	561	2,792	100.0	0.4	N/A	0	0	N/A
11/03/20	UW1O20201103-00	N/A	2159	4,951	99.2	0.9	N/A	0	0	N/A
11/04/20	UW1VO2201102-00	N/A	1016	5,967	100.0	0.6	N/A	0	0	N/A
11/05/20	UW1VO2201105-00	N/A	822	6,789	99.6	0.6	N/A	0	0	N/A
11/05/20	UW1O20201104-00	N/A	1406	8,195	99.6	0.9	N/A	0	0	N/A
11/05/20	UW1Z10201105-00	1	1341	9,536	99.5	0.8	DB7-20200422	0	0	N/A
11/09/20	UW1O20201109-00	N/A	1406	10,942	98.3	0.9	N/A	0	0	N/A
11/09/20	UW1VO2201105-01	3	421	11,363	99.7	0.7	DB4-20200422	3	0	93
11/10/20	UW1Z10201109-00	N/A	1509	12,872	100.0	0.9	N/A	0	0	N/A
11/11/20	UW1O20201110-00	N/A	1068	13,940	100.0	0.8	N/A	0	0	N/A
11/12/20	UW1O20201111-00	N/A	1250	15,190	98.9	0.8	N/A	0	0	N/A
11/12/20	UW1Z10201111-00	N/A	1509	16,699	99.6	0.9	N/A	0	0	N/A
11/16/20	UW1VO2201116-00	N/A	1201	17,900	99.8	0.8	N/A	0	0	N/A
11/16/20	UW1Z10201112-00	N/A	1293	19,193	98.6	0.8	N/A	0	0	N/A
11/17/20	UW1Z01201116-00	N/A	1164	20,357	99.1	0.8	N/A	0	0	N/A
11/17/20	UW1VO2201117-00	N/A	1201	21,558	99.2	0.8	N/A	0	0	N/A
11/18/20	UW1O20201116-00	N/A	1406	22,964	99.9	0.9	N/A	0	0	N/A
11/19/20	UW1Z4N201117-00	N/A	1345	24,309	98.4	0.6	N/A	0	0	N/A
11/19/20	UW1VO2201119-00	N/A	751	25,060	99.8	0.5	N/A	0	0	N/A
11/19/20	UW1Z01201118-00	N/A	1164	26,224	100.0	0.8	N/A	0	0	N/A
11/23/20	UW1O20201119-00	1	2023	28,247	99.7	0.9	DB4-20200422	0	0	N/A
11/24/20	UW1Z01201124-00	N/A	1021	29,268	100.0	0.9	N/A	0	0	N/A
11/24/20	UW1Z4N201124-00	N/A	2078	31,346	99.9	0.9	N/A	0	0	N/A
11/25/20	UW1VO2201124-00	N/A	1,219	32,565	100.0	0.8	N/A	0	0	N/A
11/30/20	UW1Z4N201125-00	N/A	2,309	34,874	98.3	1.0	N/A	0	0	N/A
11/30/20	UW1Z01201125-00	1	1,021	35,895	98.3	0.9	DB4-20200422	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.5 Total Quantity Approved (yd³) = 35,895 Total # of Nuclear Density Gauge Tests = 3 Total # of Moisture Tests = 6 Quantity per Moisture Test (yd³) = 5,983 Total Average Thickness (ft) = 0.8 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from November 2020. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1O20201109-00



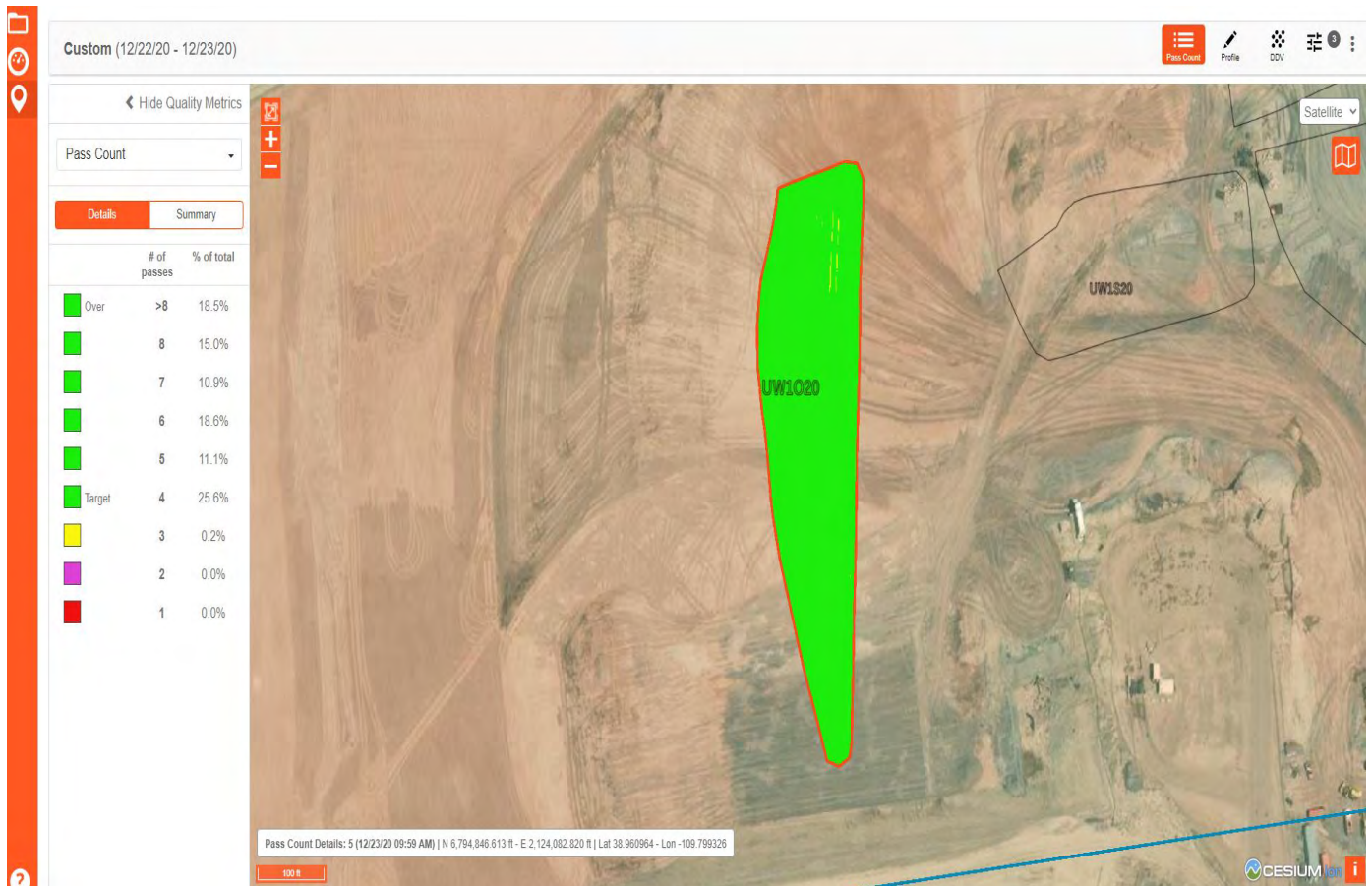
Appendix A2. RRM Lift Approval Summaries (*continued*)

December 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
12/01/20	UW1O20201123-00	N/A	2448	2,448	99.9	1.0	N/A	0	0	N/A
12/01/20	UW1V02201201-00	N/A	1371	3,819	100.0	0.9	N/A	0	0	N/A
12/02/20	UW1Z4N201201-00	N/A	2078	5,897	99.4	0.9	N/A	0	0	N/A
12/02/20	UW1Z01201201-00	N/A	908	6,805	99.0	0.8	N/A	0	0	N/A
12/03/20	UW1V02201202-00	N/A	1605	8,410	99.7	1.0	N/A	0	0	N/A
12/07/20	UW1Z01201203-00	N/A	1079	9,489	100.0	1.0	N/A	0	0	N/A
12/07/20	UW1Z4N201203-00	N/A	2018	11,507	99.3	0.9	N/A	0	0	N/A
12/08/20	UW1O20201207-00	N/A	2535	14,042	99.9	1.0	N/A	0	0	N/A
12/09/20	UW1V02201208-00	1	1445	15,487	99.9	0.9	DB6-20200422	0	0	N/A
12/10/20	UW1V02201210-00	N/A	1459	16,946	100.0	0.9	N/A	0	0	N/A
12/10/20	UW1Z4N201208-00	N/A	2019	18,965	99.3	0.9	N/A	0	0	N/A
12/20/20	UW1Z01201208-00	N/A	971	19,936	99.5	0.9	N/A	0	0	N/A
12/10/20	UW1S20201207-00	N/A	2992	22,928	N/A	1.9	N/A	0	0	N/A
12/14/20	UW1Z01201210-00	N/A	1011	23,939	100.0	0.9	N/A	0	0	N/A
12/14/20	UW1Z4N201210-00	N/A	1937	25,876	99.9	0.9	N/A	0	0	N/A
12/17/20	UW1V02201214-00	N/A	1460	27,336	99.3	0.9	N/A	0	0	N/A
12/17/20	UW1O20201214-00	1	1656	28,992	99.4	0.8	DB4-20200422	0	0	N/A
12/17/20	UW1Z10201216-00	N/A	1449	30,441	98.9	0.7	N/A	0	0	N/A
12/21/20	UW1Z4N201216-00	N/A	1937	32,378	98.7	0.9	N/A	0	0	N/A
12/21/20	UW1O3N201217-00	N/A	810	33,188	100.0	0.9	N/A	0	0	N/A
12/21/20	UW1U4N201217-00	N/A	1088	34,276	100.0	1.0	N/A	0	0	N/A
12/22/20	UW1Z01201215-00	N/A	898	35,174	100.0	0.8	N/A	0	0	N/A
12/23/20	UW1O20201222-00	N/A	2249	37,423	99.8	0.9	N/A	0	0	N/A
12/23/20	UW1S20201221-00	6	2834	40,257	99.7	1.8	DB4-20200422	6	0	91
12/28/20	UW1S20201223-00	N/A	1762	42,019	99.4	1.0	N/A	0	0	N/A
12/28/20	UW1Z10201223-00	N/A	1932	43,951	99.5	0.9	N/A	0	0	N/A
12/30/20	UW1O20201228-00	N/A	2249	46,200	99.4	0.9	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.6 Total Quantity Approved (yd³) = 46,200 Total # of Nuclear Density Gauge Tests = 6 Total # of Moisture Tests = 8 Quantity per Moisture Test (yd³) = 5,775 Total Average Thickness (ft) = 1.0 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from December 2020. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1O20201222-00



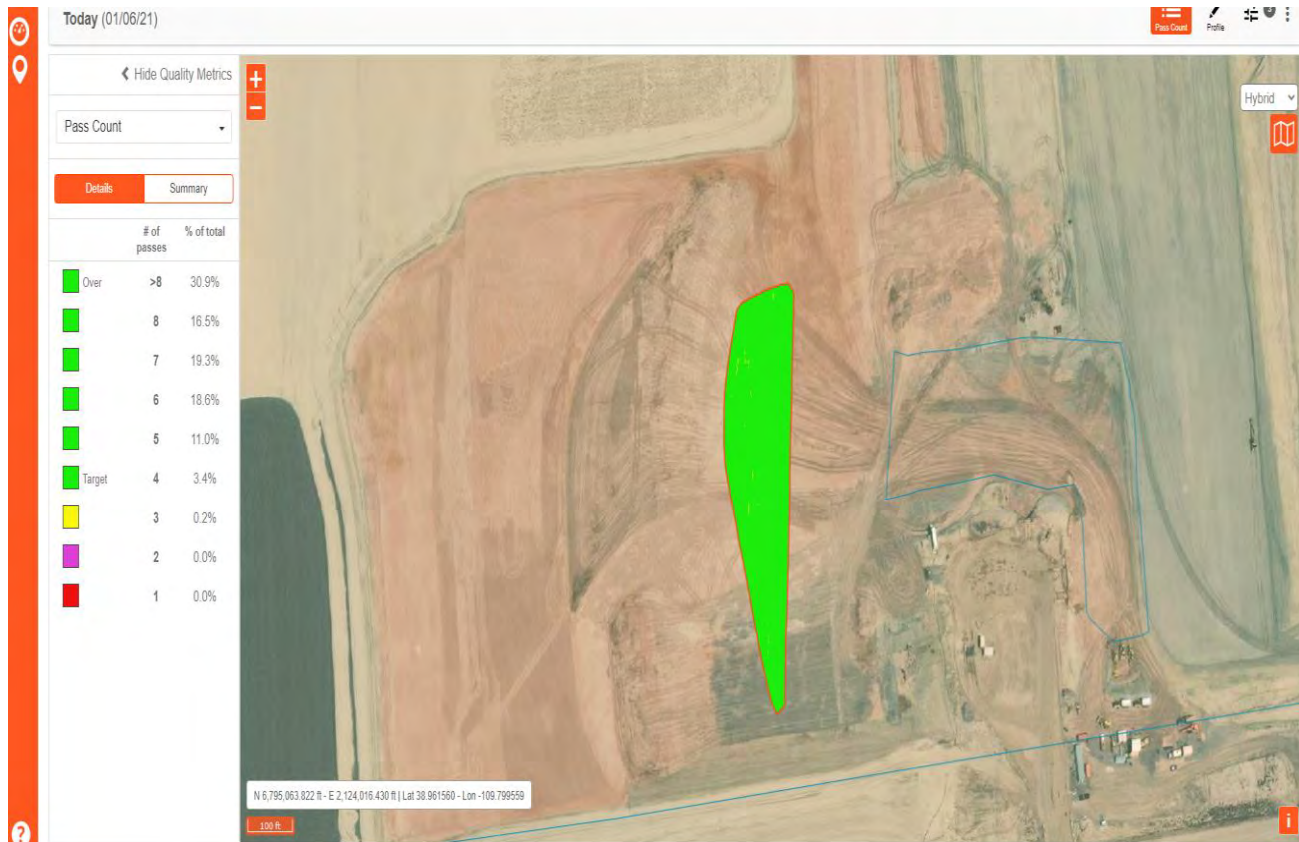
Appendix A2. RRM Lift Approval Summaries (*continued*)

January 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
01/04/21	UW1Z10201230-00	1	1932	1,932	100.0	0.9	DB4-20200422	0	0	N/A
01/04/21	UW1O20201230-00	N/A	2499	4,431	99.8	1.0	N/A	0	0	N/A
01/06/21	UW1Z10210105-00	N/A	2566	6,997	99.9	1.1	N/A	0	0	N/A
01/06/21	UW1O20210105-00	N/A	2640	9,637	99.8	1.0	N/A	0	0	N/A
01/06/21	UW1S20201231-00	6	4079	13,716	99.9	1.9	NWL-20200422	6	0	95.6
01/07/21	UW1Z10210106-00	N/A	2333	16,049	100.0	1.0	N/A	0	0	N/A
01/12/21	UW1S20210107-00	6	4,424	20,473	96.8	2.0	NWL-20200422	6	0	97.2
01/12/21	UW1Z10210111-00	N/A	1,932	22,405	99.8	0.9	N/A	0	0	N/A
01/13/21	UW1O20210112-00	N/A	2,881	25,286	99.8	1.1	N/A	0	0	N/A
01/18/21	UW1Z10210114-00	N/A	2,355	27,641	100.0	0.9	N/A	0	0	N/A
01/21/21	UW1M18210118-00	N/A	2,967	30,608	99.9	1.1	N/A	0	0	N/A
01/21/21	UW1Y09210120-00	N/A	3,071	33,679	100.0	1.0	N/A	0	0	N/A
01/21/21	UW1S20210113-00	6	4,646	38,325	99.8	2.1	DB3-20200422	6	1	90.7
01/25/21	UW1R18210121-00	N/A	2,273	40,598	99.4	1.0	N/A	0	0	N/A
01/27/21	UW1R18210126-00	N/A	2,014	42,612	99.2	0.9	N/A	0	0	N/A
01/28/21	UW1M18210127-00	N/A	1,888	44,500	99.8	0.7	N/A	0	0	N/A
01/28/21	UW1Y09210125-00	N/A	3,071	47,571	98.6	1.0	N/A	0	0	N/A
<p style="text-align: right;"> Average CBCS Screen Passing Pixels (%) = 99.6 Total Quantity Approved (yd³) = 47,571 Total # of Nuclear Density Gauge Tests = 18 Total # of Moisture Tests = 19 Quantity per Moisture Test (yd³) = 2,504 Total Average Thickness (ft) = 1.2 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from January 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1O20210105-00



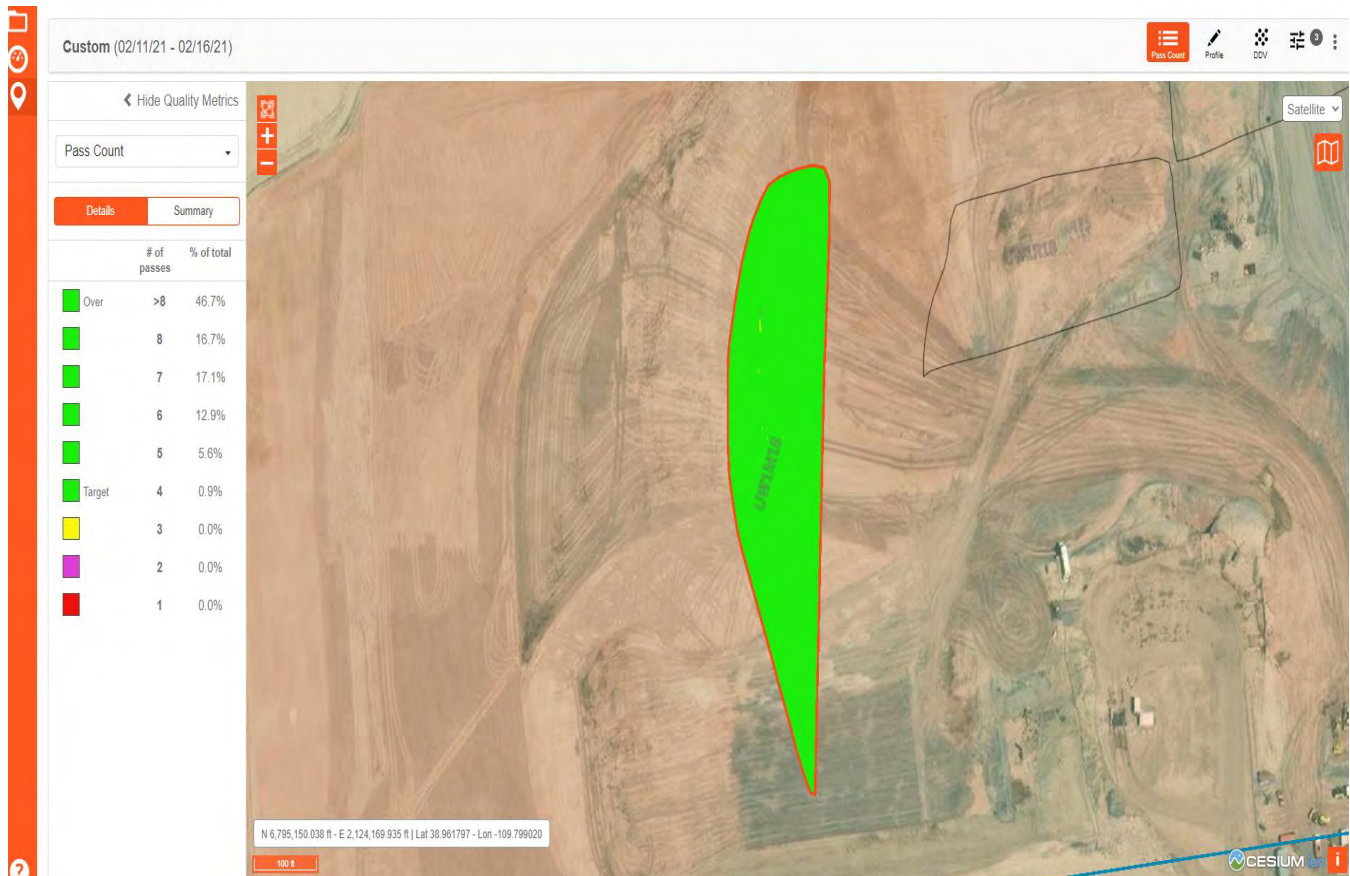
Appendix A2. RRM Lift Approval Summaries (*continued*)

February 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
02/01/21	UW1R18210128-00	N/A	1,968	1,968	99.8	0.9	N/A	0	0	N/A
02/02/21	UW1Y09210201-00	N/A	3187	5,155	99.9	1.0	N/A	0	0	N/A
02/03/21	UW1R18210201-00	N/A	2187	7,342	99.9	1.0	N/A	0	0	N/A
02/04/21	UW1M18210203-00	1	2,187	9,529	99.9	1.0	DB2-20200422	0	0	N/A
02/08/21	UW1R18210204-00	N/A	1968	11,497	100.0	0.9	N/A	0	0	N/A
02/09/21	UW1M18210208-00	N/A	2697	14,194	99.9	1.0	N/A	0	0	N/A
02/10/21	UW1R18210209-00	N/A	2083	16,277	98.3	0.9	N/A	0	0	N/A
02/11/21	UW1Y09210209-00	N/A	3312	19,589	98.9	1.0	N/A	0	0	N/A
02/16/21	UW1R18210210-00	1	2027	21,616	100.0	0.9	DB3-20200422	0	0	N/A
02/16/21	UW1M18210210-00	N/A	2389	24,005	99.9	0.9	N/A	0	0	N/A
02/17/21	UW1Y09210216-00	N/A	2980	26,985	100.0	0.9	N/A	0	0	N/A
02/18/21	UW1M18210217-00	1	2654	29,639	99.7	1.0	DB3-20200422	0	0	N/A
02/22/21	UW1R18210218-00	N/A	1838	31,477	97.7	0.8	N/A	0	0	N/A
02/23/21	UW1Y09210222-00	N/A	3312	34,789	99.9	1.0	N/A	0	0	N/A
02/24/21	UW1M18210223-00	N/A	2603	37,392	100.0	0.9	N/A	0	0	N/A
02/25/21	UW1R18210224-00	N/A	2227	39,619	99.4	1.0	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.6 Total Quantity Approved (yd³) = 39,619 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 3 Quantity per Moisture Test (yd³) = 13,206 Total Average Thickness (ft) = 0.9 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from February 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1M18210210-00



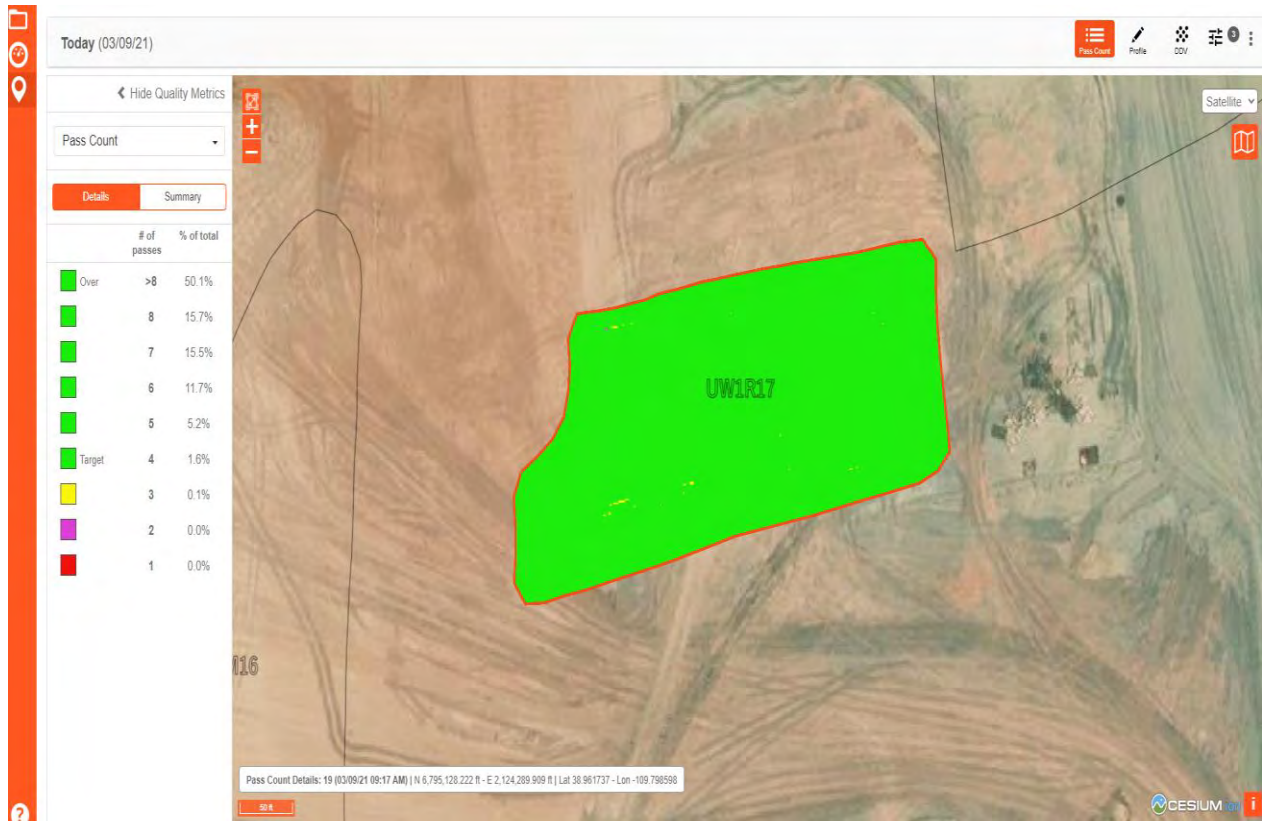
Appendix A2. RRM Lift Approval Summaries (*continued*)

March 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
03/02/21	UW1R18210301-00	N/A	2227	2,227	99.4	1.0	N/A	0	0	N/A
03/02/21	UW1Y09210224-00	1	3210	5,437	100.0	0.9	DB3-20200422	0	0	N/A
03/03/21	UW1M18210302-00	N/A	2893	8,330	99.9	1.0	N/A	0	0	N/A
03/04/21	UW1X08210303-00	N/A	3252	11,582	99.8	0.9	N/A	0	0	N/A
03/09/21	UW1M16210304-00	1	2440	14,022	99.7	0.9	NWL-20200422	0	0	N/A
03/09/21	UW1R17210308-00	N/A	2223	16,245	99.9	1.0	N/A	0	0	N/A
03/11/21	UW1X08210308-00	1	3614	19,859	99.9	1.0	NWL-20200422	0	0	N/A
03/11/21	UW1M16210310-00	N/A	2982	22,841	97.8	1.1	N/A	0	0	N/A
03/15/21	UW1R17210311-00	N/A	2001	24,842	99.2	0.9	N/A	0	0	N/A
03/17/21	UW2F4N210127-00	N/A	1715	26,557	N/A	1.7	N/A	0	0	N/A
03/17/21	UW2I5N210127-00	N/A	1466	28,023	N/A	1.6	N/A	0	0	N/A
03/18/21	UW1M16210315-00	N/A	2945	30,968	99.4	1.0	N/A	0	0	N/A
03/22/21	UW1M16210318-00	1	3239	34,207	99.5	1.1	DB2-20200422	0	0	N/A
03/22/21	UW1X08210316-00	N/A	3976	38,183	99.7	1.0	N/A	0	0	N/A
03/25/21	UW1M16210323-00	N/A	3,260	41,443	98.8	1.1	N/A	0	0	N/A
03/29/21	UW2L5N210127-00	N/A	476	41,919	N/A	1.6	N/A	0	0	N/A
03/31/21	UW1R17210329-00	N/A	2054	43,973	99.9	0.9	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.5 Total Quantity Approved (yd³) = 43,973 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 4 Quantity per Moisture Test (yd³) = 10,993 Total Average Thickness (ft) = 1.1 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from March 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1R17210308-00



Appendix A2. RRM Lift Approval Summaries (*continued*)

April 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
04/01/21	UW1X08210330-00	N/A	4422	4,422	99.8	1.1	N/A	0	0	N/A
04/05/21	UW1R17210331-00	N/A	2433	6,855	100.0	1.0	N/A	0	0	N/A
04/06/21	UW1X08210401-00	N/A	1878	8,733	100.0	1.0	N/A	0	0	N/A
04/06/21	UW1X12210401-00	N/A	2011	10,744	100.0	0.9	N/A	0	0	N/A
04/07/21	UW1R17210406-00	N/A	1878	12,622	99.9	1.0	N/A	0	0	N/A
04/07/21	UW2J02210318-00	N/A	3,670	16,292	N/A	1.6	N/A	0	0	N/A
04/08/21	UW1X08210407-00	N/A	1878	18,170	99.9	1.0	N/A	0	0	N/A
04/08/21	UW1X12210407-00	N/A	2234	20,404	99.9	1.0	N/A	0	0	N/A
04/12/21	UW1R16210408-00	1	1974	22,378	99.9	0.9	DB3-20200422	0	0	N/A
04/13/21	UW1X08210412-00	N/A	1987	24,365	100.0	0.9	N/A	0	0	N/A
04/13/21	UW1Z07210412-00	N/A	1535	25,900	99.9	0.7	N/A	0	0	N/A
04/15/21	UW1R16210413-00	N/A	2000	27,900	99.1	0.8	N/A	0	0	N/A
04/19/21	UW1X08210414-00	1	2207	30,107	99.7	1.0	DB3-20200422	0	0	N/A
04/19/21	UW1Z07210415-00	N/A	2131	32,238	99.9	1.0	N/A	0	0	N/A
04/21/21	UW1R16210419-00	N/A	2522	34,760	100.0	1.0	N/A	0	0	N/A
04/22/21	UW1W08210421-00	1	2216	36,976	99.6	1.0	DB3-20200422	0	0	N/A
04/26/21	UW1Z07210421-00	N/A	2131	39,107	98.6	1.0	N/A	0	0	N/A
04/27/21	UW2G02210407-00	N/A	3566	42,673	N/A	1.7	N/A	0	0	N/A
04/27/21	UW1R16210422-00	N/A	2522	45,195	99.8	1.0	N/A	0	0	N/A
04/27/21	UW2F1N210318-00	3	1828	47,023	100.0	1.9	NWL-20200422	3	0	93.7
04/27/21	UW2F4N210318-00	3	1917	48,940	100.0	1.9	NWL-20200422	3	0	93.3
04/27/21	UW2I5N210325-00	3	2098	51,038	100.0	2.0	NWL-20200422	3	0	94.7
04/27/21	UW2I1N210325-00	3	2022	53,060	100.0	1.9	NWL-20200422	3	0	94
04/28/21	UW2G02210427-00	N/A	1678	54,738	99.7	0.8	N/A	0	0	N/A
04/28/21	UW2J02210427-00	N/A	2264	57,002	99.0	0.9	N/A	0	0	N/A
04/29/21	UW2J02210428-00	N/A	2264	59,266	100.0	0.9	N/A	0	0	N/A
04/29/21	UW1W08210426-00	N/A	1994	61,260	99.9	0.9	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.8 Total Quantity Approved (yd³) = 61,260 Total # of Nuclear Density Gauge Tests = 12 Total # of Moisture Tests = 15 Quantity per Moisture Test (yd³) = 4,084 Total Average Thickness (ft) = 1.1 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from April 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW2J02210428-00



Appendix A2. RRM Lift Approval Summaries (*continued*)

May 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
05/03/21	UW1Z07210429-00	2	2344	2,344	99.5	1.1	DB3-20200422	0	2	96.2
05/03/21	UW2G02210429-00	N/A	2097	4,441	96.9	1.0	N/A	0	0	N/A
05/04/21	UW2I5N210504-00	N/A	839	5,280	100.0	0.8	N/A	0	0	N/A
05/04/21	UW2I1N210504-00	N/A	852	6,132	100.0	0.8	N/A	0	0	N/A
05/05/21	UW2F1N210504-00	N/A	962	7,094	93.6	1.0	N/A	0	0	N/A
05/06/21	UW2F4N210504-00	N/A	1009	8,103	99.3	1.0	N/A	0	0	N/A
05/06/21	UW2G09210426-00	N/A	3393	11,496	N/A	1.6	N/A	0	0	N/A
05/10/21	UW2G09210510-00	N/A	2121	13,617	99.8	1.0	N/A	0	0	N/A
05/10/21	UW2J02210506-00	N/A	2294	15,911	99.2	1.0	N/A	0	0	N/A
05/10/21	UW2G02210504-00	N/A	2097	18,008	99.9	1.0	N/A	0	0	N/A
05/12/21	UW2F02210510-00	N/A	2120	20,128	99.9	0.9	N/A	0	0	N/A
05/12/21	UW2F4N210510-00	N/A	1983	22,111	99.2	0.9	N/A	0	0	N/A
05/13/21	UW2L5N210512-00	N/A	1741	23,852	99.9	0.9	N/A	0	0	N/A
05/13/21	UW2M01210512-00	N/A	1854	25,706	100.0	1.0	N/A	0	0	N/A
05/17/21	UW2G09210513-00	N/A	1697	27,403	99.4	0.8	N/A	0	0	N/A
05/18/21	UW1R16210517-00	1	2036	29,439	99.8	0.8	NWL-20200422	0	0	N/A
05/19/21	UW1Z07210518-00	N/A	1835	31,274	99.8	0.8	N/A	0	0	N/A
05/19/21	UW1W08210517-00	N/A	2125	33,399	99.3	0.9	N/A	0	0	N/A
05/20/21	UW1W08210519-00	N/A	1889	35,288	99.3	0.8	N/A	0	0	N/A
05/24/21	UW1Z07210520-00	N/A	1783	37,071	99.3	0.8	N/A	0	0	N/A
05/25/21	UW1Z07210524-00	N/A	2018	39,089	99.3	0.8	N/A	0	0	N/A
05/25/21	UW1W08210520-00	1	1889	40,978	99.6	0.8	NWL-20200422	0	0	N/A
05/26/21	UW1W08210525-00	N/A	2001	42,979	100.0	0.9	N/A	0	0	N/A
05/27/21	UW1Z07210526-00	N/A	2269	45,248	99.5	0.9	N/A	0	0	N/A
05/27/21	UW1R16210527-00	N/A	2187	47,435	100.0	0.9	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.3 Total Quantity Approved (yd³) = 47,435 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 4 Quantity per Moisture Test (yd³) = 11,859 Total Average Thickness (ft) = 0.9 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from May 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW2I1N210504-00



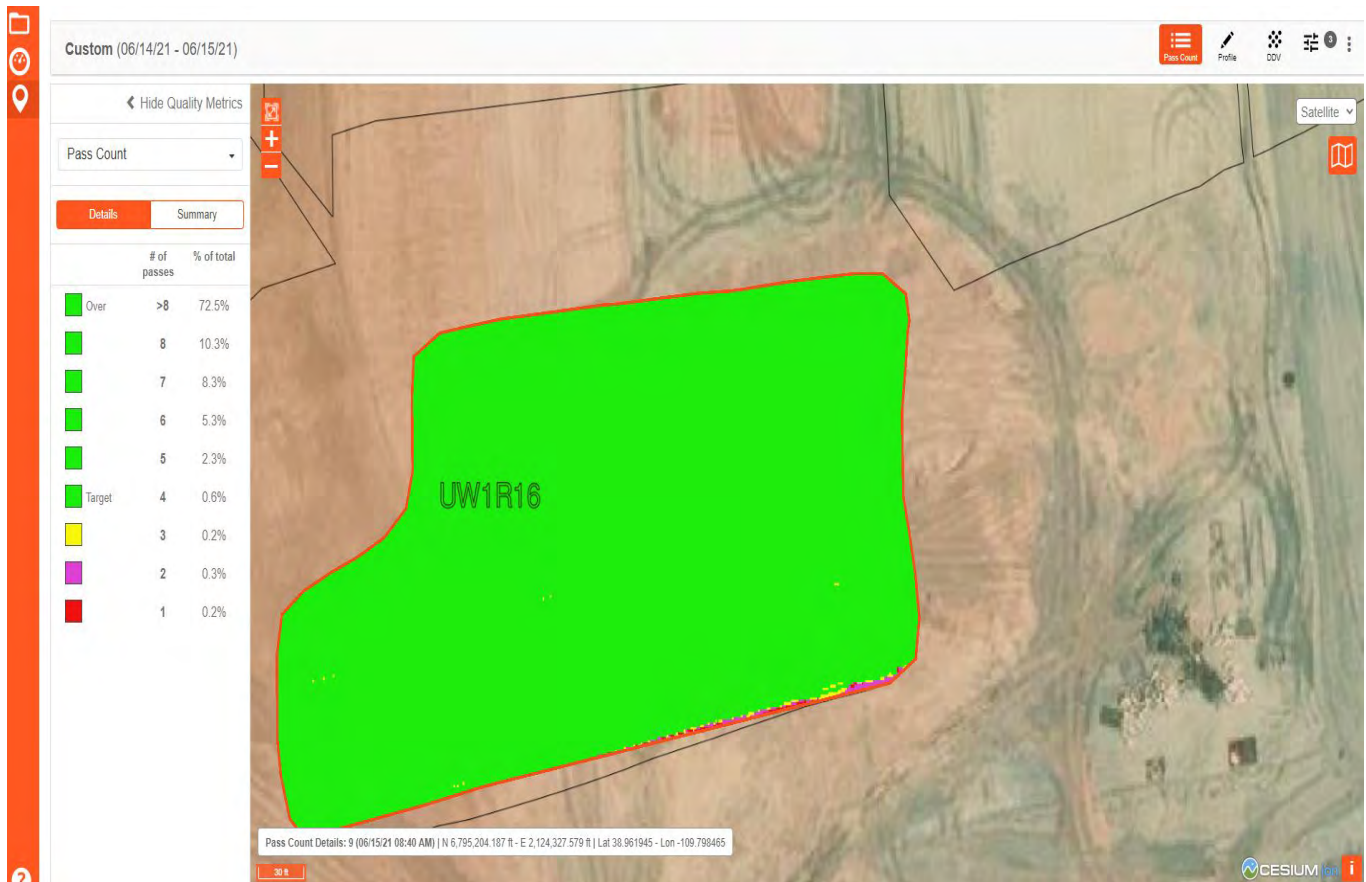
Appendix A2. RRM Lift Approval Summaries (*continued*)

June 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
06/01/21	UW1W08210527-00	N/A	2001	2,001	99.7	0.9	N/A	0	0	N/A
06/02/21	UW1Z07210601-00	N/A	2270	4,271	98.4	0.9	N/A	0	0	N/A
06/03/21	UW1W08210602-00	1	2223	6,494	99.9	1.0	DB7-20210408	0	0	N/A
06/07/21	UW1Z07210603-00	N/A	2270	8,764	100.0	0.9	N/A	0	0	N/A
06/08/21	UW1R16210607-00	N/A	2430	11,194	99.6	1.0	N/A	0	0	N/A
06/08/21	UW1W08210608-00	N/A	2223	13,417	99.5	1.0	N/A	0	0	N/A
06/09/21	UW1R16210608-00	N/A	2356	15,773	98.3	0.9	N/A	0	0	N/A
06/10/21	UW1R16210609-00	1	2187	17,960	99.8	0.9	DB7-20210408	0	0	N/A
06/14/21	UW1R16210610-00	N/A	2618	20,578	100.0	1.0	N/A	0	0	N/A
06/16/21	UW1R16210614-00	N/A	2356	22,934	99.3	0.9	N/A	0	0	N/A
06/17/21	UW1R16210616-00	N/A	2,618	25,552	99.3	1.0	N/A	0	0	N/A
06/17/21	UW1Z07210609-00	N/A	1,809	27,361	99.9	1.0	N/A	0	0	N/A
06/22/21	UW1Q15210617-00	N/A	2677	30,038	100.0	1.0	N/A	0	0	N/A
06/24/21	UW1V07210617-00	1	2847	32,885	99.9	1.0	DB5-20210408	0	0	N/A
06/24/21	UW1Z06210622-00	N/A	2164	35,049	99.5	1.0	N/A	0	0	N/A
06/24/21	UW1Q15210623-00	N/A	2677	37,726	99.4	1.0	N/A	0	0	N/A
06/28/21	UW1Q15210624-00	1	2,677	40,403	99.9	1.0	DB7-20210408	0	0	N/A
06/30/21	UW1Q15210628-00	N/A	3,044	43,447	99.9	1.0	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.6 Total Quantity Approved (yd³) = 43,447 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 4 Quantity per Moisture Test (yd³) = 10,862 Total Average Thickness (ft) = 1.0 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from June 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1R16210616-00



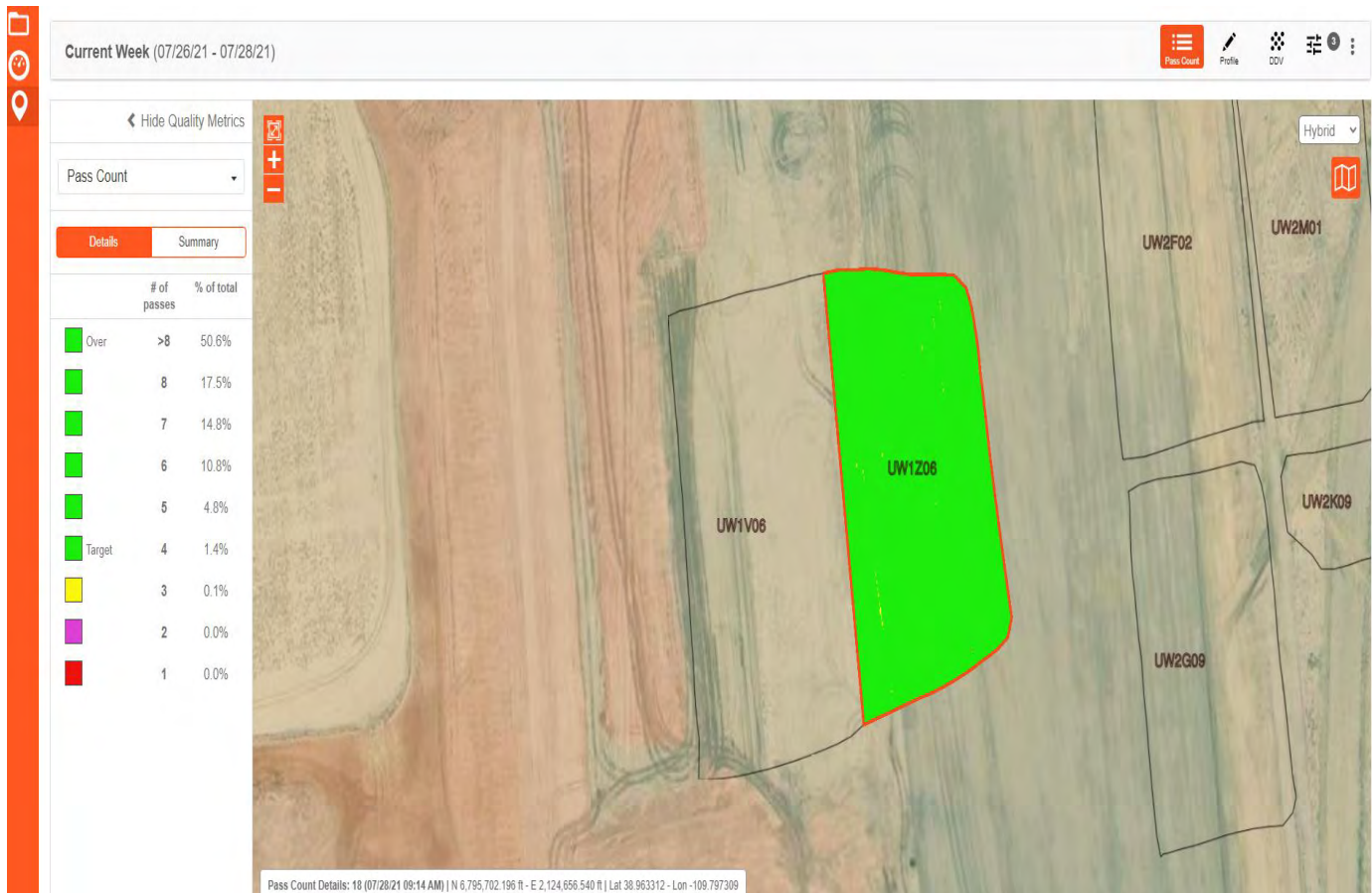
Appendix A2. RRM Lift Approval Summaries (*continued*)

July 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
07/01/21	UW1Q15210630-00	1	2131	2,131	98.1	0.7	DB5-20210408	0	0	N/A
07/01/21	UW1V07210628-00	N/A	2996	5,127	99.9	1.0	N/A	0	0	N/A
07/06/21	UW1Z06210629-00	N/A	2457	7,584	99.5	1.0	N/A	0	0	N/A
07/06/21	UW1Q14210701-00	N/A	2740	10,324	100.0	0.9	N/A	0	0	N/A
07/07/21	UW1Q14210707-00	N/A	2940	13,264	100.0	1.0	N/A	0	0	N/A
07/08/21	UW1V07210701-00	1	2640	15,904	100.0	1.0	DB7-20210408	0	0	N/A
07/12/21	UW1Q14210708-00	N/A	2,940	18,844	100.0	1.0	N/A	0	0	N/A
07/13/21	UW1Q14210712-00	N/A	2646	21,490	97.1	0.9	N/A	0	0	N/A
07/14/21	UW1Z06210712-00	1	2,334	23,824	99.3	0.9	DB7-20210408	0	0	N/A
07/15/21	UW1Q14210714-00	N/A	3,214	27,038	99.9	1.0	N/A	0	0	N/A
07/19/21	UW1V07210714-00	N/A	2,996	30,034	99.4	1.0	N/A	0	0	N/A
07/20/21	UW1Z06210719-00	N/A	2447	32,481	99.6	1.0	N/A	0	0	N/A
07/21/21	UW1Q14210715-00	1	2,370	34,851	99.8	0.8	DB7-20210408	0	0	N/A
07/22/21	UW1V07210720-00	N/A	2,817	37,668	99.9	0.9	N/A	0	0	N/A
07/26/21	UW1Q14210722-00	N/A	2,827	40,495	99.4	0.9	N/A	0	0	N/A
07/27/21	UW1V06210726-00	N/A	1957	42,452	99.8	0.7	N/A	0	0	N/A
07/28/21	UW1Q14210727-00	N/A	1485	43,937	99.1	0.5	N/A	0	0	N/A
07/28/21	UW1Z06210726-00	N/A	2342	46,279	99.8	1.0	N/A	0	0	N/A
07/29/21	UW1Z06210728-00	N/A	1522	47,801	99.9	0.6	N/A	0	0	N/A
07/29/21	UW1V06210727-00	1	2514	50,315	99.2	0.9	DB7-20210408	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.5 Total Quantity Approved (yd³) = 50,315 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 5 Quantity per Moisture Test (yd³) = 10,063 Total Average Thickness (ft) = 0.9 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from July 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW1Z06210726-00



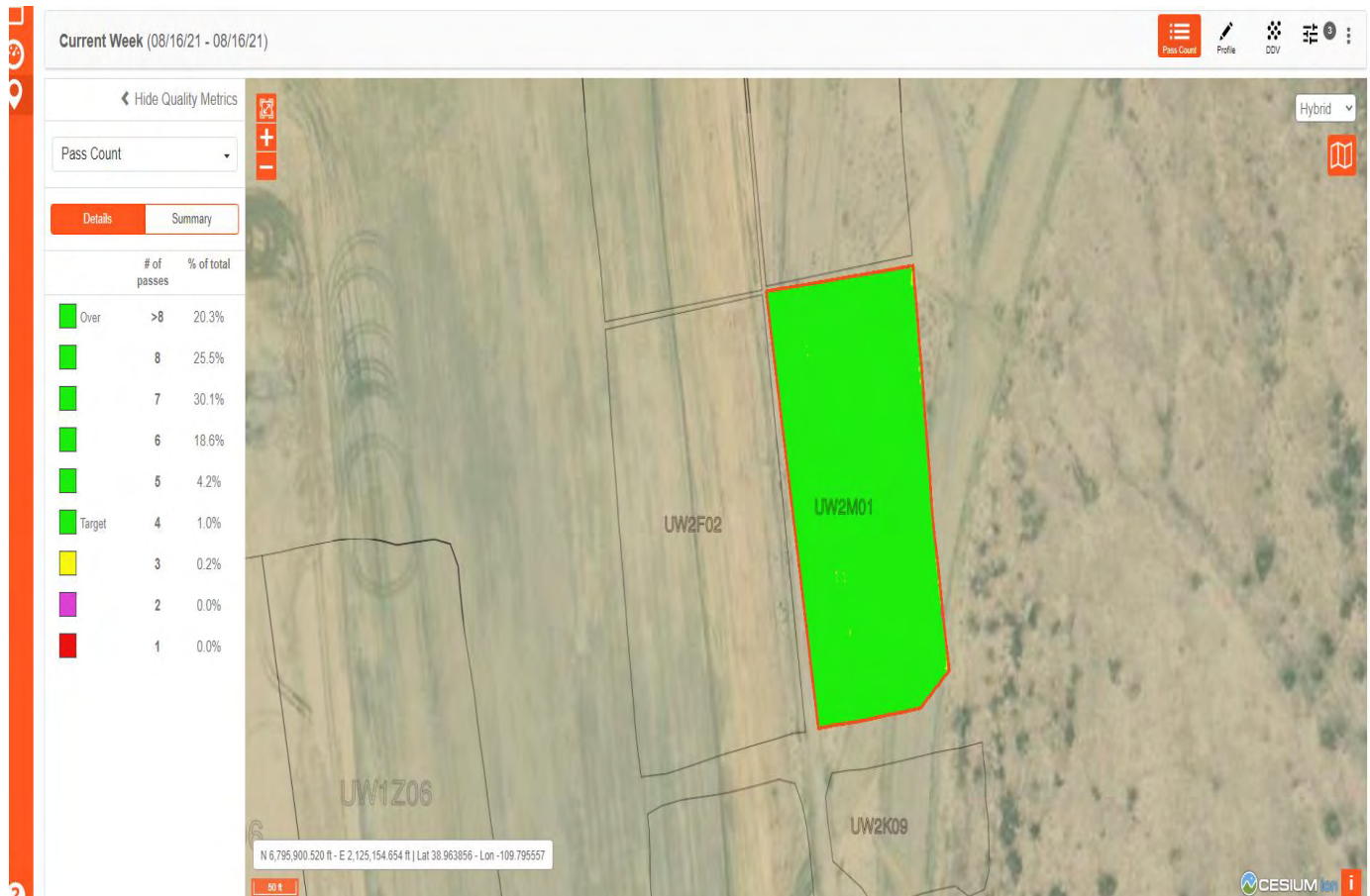
Appendix A2. RRM Lift Approval Summaries (*continued*)

August 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
08/02/21	UW1Z06210729-00	N/A	2260	2,260	99.9	0.9	N/A	0	0	N/A
08/03/21	UW1V06210802-00	N/A	2899	5,159	100.0	1.0	N/A	0	0	N/A
08/04/21	UW2G09210804-00	N/A	1557	6,716	100.0	0.8	N/A	0	0	N/A
08/05/21	UW1Z06210803-00	N/A	2,591	9,307	99.9	1.0	N/A	0	0	N/A
08/09/21	UW2F4N210805-00	N/A	1,672	10,979	99.6	0.8	N/A	0	0	N/A
08/09/21	UW2F02210804-00	N/A	1,615	12,594	99.4	0.8	N/A	0	0	N/A
08/11/21	UW1V06210805-00	1	2969	15,563	100.0	1.0	DB7-20210408	0	0	N/A
08/12/21	UW1V06210811-00	N/A	2888	18,451	99.6	1.0	N/A	0	0	N/A
08/16/21	UW1Z06210812-00	N/A	2804	21,255	99.6	1.0	N/A	0	0	N/A
08/16/21	UW2M01210809-00	1	1441	22,696	99.8	0.8	DB5-20210408	0	0	N/A
08/17/21	UW1Y05210817-00	N/A	1470	24,166	99.8	0.6	N/A	0	0	N/A
08/17/21	UW2L5N210809-00	N/A	1378	25,544	99.7	0.7	N/A	0	0	N/A
08/18/21	UW1U06210817-00	N/A	2626	28,170	100.0	0.9	N/A	0	0	N/A
08/23/21	UW1Y05210818-00	N/A	1765	29,935	99.8	0.7	N/A	0	0	N/A
08/24/21	UW1Y05210824-00	N/A	1804	31,739	98.1	0.8	N/A	0	0	N/A
08/24/21	UW1U06210823-00	N/A	2438	34,177	99.3	0.8	N/A	0	0	N/A
08/25/21	UW1U06210824-00	N/A	2513	36,690	99.4	0.8	N/A	0	0	N/A
08/26/21	UW1Y05210825-00	N/A	1842	38,532	98.9	0.8	N/A	0	0	N/A
08/30/21	UW1Y05210826-00	N/A	1416	39,948	99.1	0.6	N/A	0	0	N/A
08/30/21	UW1U06210826-00	N/A	1187	41,135	96.8	0.4	N/A	0	0	N/A
08/31/21	UW2G09210816-00	1	947	42,082	99.8	0.5	DB7-20210408	0	0	N/A
08/31/21	UW2J02210830-00	N/A	1346	43,428	100.0	0.8	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.5 Total Quantity Approved (yd³) = 43,428 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 3 Quantity per Moisture Test (yd³) = 14,476 Total Average Thickness (ft) = 0.8 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from August 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW2M01210809-00



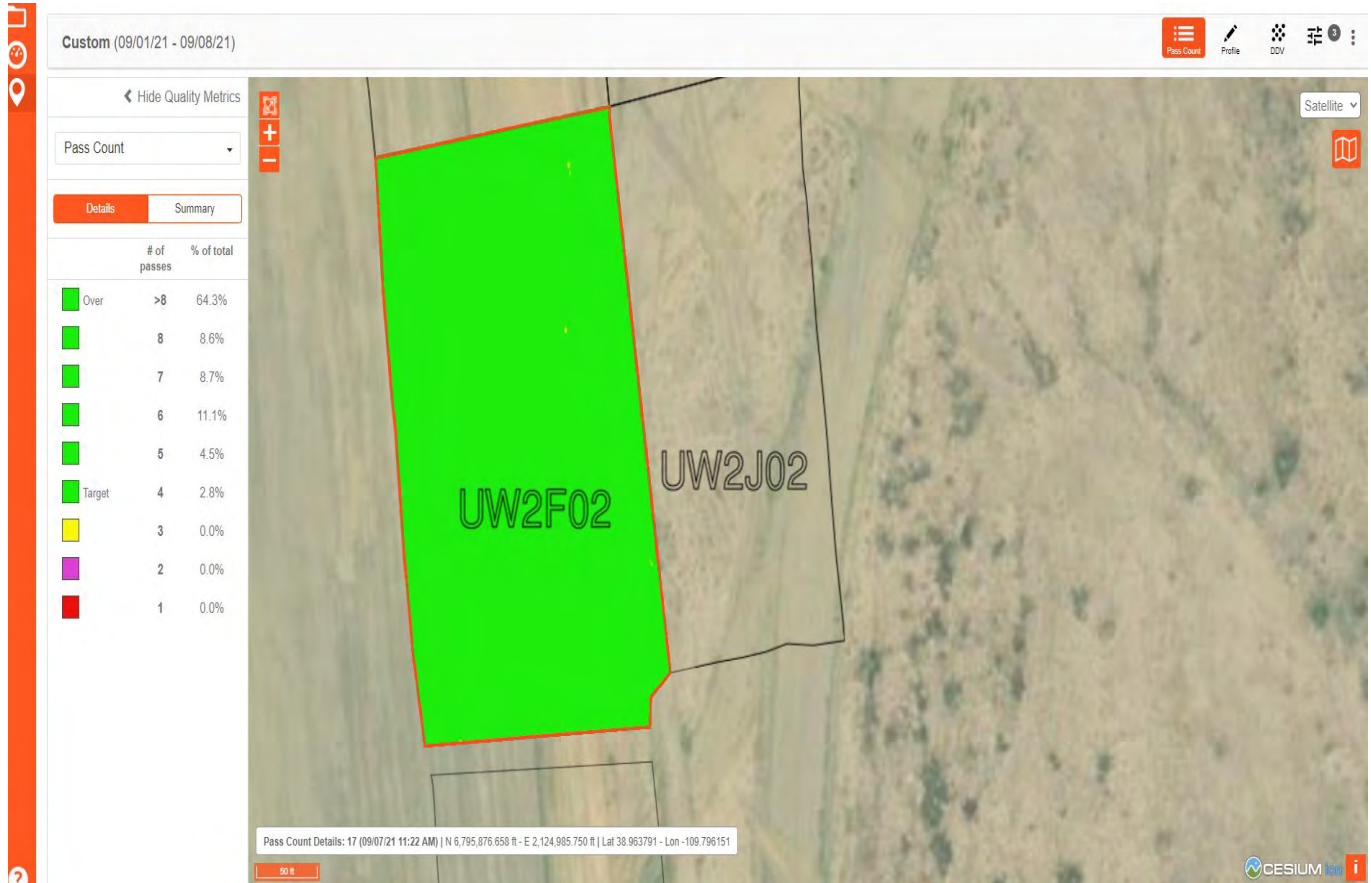
Appendix A2. RRM Lift Approval Summaries (*continued*)

September 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
09/01/21	UW2J02210901-00	N/A	1515	1,515	99.9	0.9	N/A	0	0	N/A
09/01/21	UW2F02210831-00	N/A	1920	3,435	99.3	0.8	N/A	0	0	N/A
09/02/21	UW2E5N210831-00	1	1812	5,247	100.0	0.8	DB6-20210707	0	0	N/A
09/02/21	UW2K09210401-00	N/A	3620	8,867	N/A	1.8	N/A	0	0	N/A
09/07/21	UW2I5N210901-00	N/A	1281	10,148	99.4	0.7	N/A	0	0	N/A
09/08/21	UW2F02210907-00	N/A	2168	12,316	100.0	0.9	N/A	0	0	N/A
09/08/21	UW2E5N210907-00	N/A	1697	14,013	99.7	0.7	N/A	0	0	N/A
09/08/21	UW2I5N210908-00	N/A	1509	15,522	99.8	0.8	N/A	0	0	N/A
09/14/21	UW2F02210909-00	1	2009	17,531	99.0	0.9	NWL-20200422	0	0	N/A
09/14/21	UW2E5N210909-00	N/A	1796	19,327	99.4	0.8	N/A	0	0	N/A
09/14/21	UW2I5N210913-00	N/A	1701	21,028	99.0	0.9	N/A	0	0	N/A
09/14/21	UW2J02210913-00	N/A	1404	22,432	100.0	1.0	N/A	0	0	N/A
09/15/21	UW2K09210414-00	N/A	1556	23,988	99.9	0.9	N/A	0	0	N/A
09/16/21	UW2E5N210914-00	1	1874	25,862	99.9	0.8	DB4-20210707	0	0	N/A
09/20/21	UW2I5N210916-00	N/A	1500	27,362	98.2	0.8	N/A	0	0	N/A
09/20/21	UW2F02210916-00	N/A	1881	29,243	99.6	0.9	N/A	0	0	N/A
09/21/21	UW2J02210916-00	N/A	1386	30,629	98.6	1.0	N/A	0	0	N/A
09/21/21	UW2E5N210921-00	N/A	2108	32,737	99.8	0.9	N/A	0	0	N/A
09/22/21	UW2I5N210921-00	1	1820	34,557	99.0	1.0	DB4-20210707	0	0	N/A
09/27/21	UW2K09210920-00	N/A	1715	36,272	99.5	1.0	N/A	0	0	N/A
09/27/21	UW2I02210923-00	N/A	1510	37,782	99.4	0.9	N/A	0	0	N/A
09/27/21	UW2F02210922-00	N/A	1839	39,621	99.4	0.8	N/A	0	0	N/A
09/28/21	UW2H5N210927-00	N/A	1545	41,166	99.7	0.9	N/A	0	0	N/A
09/28/21	UW2E5N210923-00	N/A	1914	43,080	99.8	0.9	N/A	0	0	N/A
09/29/21	UW2F02210928-00	N/A	1827	44,907	99.5	0.9	N/A	0	0	N/A
09/30/21	UW2G09210929-00	N/A	1785	46,692	100.0	0.9	N/A	0	0	N/A
09/30/21	UW2I02210928-00	N/A	1505	48,197	98.8	0.9	N/A	0	0	N/A
<p style="text-align: center;"> Average CBCS Screen Passing Pixels (%) = 99.5 Total Quantity Approved (yd³) = 48,197 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 4 Quantity per Moisture Test (yd³) = 12,049 Total Average Thickness (ft) = 0.9 </p>										

Appendix A2. RRM Lift Approval Summaries (*continued*)

CBCS compaction screen example from September 2021. There are compaction screens for each lift approved on record. The number of passing pixels reported refers to the percentage of the lift which has green pixels. A green pixel verifies that the minimum of six wheel passes with the compactor has been recorded.

UW2F02210907-00



Appendix A2. RRM Lift Approval Package

LIFT APPROVAL FORM																																			
PROJECT: <u>Moab UMTRA</u>	OTHER _____																																		
NW CORNER _____	DATE: <u>5/17/2021</u>																																		
See attached for lift map		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2" style="text-align: center;">P 1</td></tr> <tr><td>EW:</td><td style="text-align: center;">X</td></tr> <tr><td>NS:</td><td style="text-align: center;">X</td></tr> <tr><td colspan="2" style="text-align: center;">P 2</td></tr> <tr><td>EW:</td><td style="text-align: center;">X</td></tr> <tr><td>NS:</td><td style="text-align: center;">X</td></tr> <tr><td colspan="2" style="text-align: center;">P 3</td></tr> <tr><td>EW:</td><td style="text-align: center;">X</td></tr> <tr><td>NS:</td><td style="text-align: center;">X</td></tr> <tr><td colspan="2" style="text-align: center;">P 4</td></tr> <tr><td>EW:</td><td style="text-align: center;">X</td></tr> <tr><td>NS:</td><td style="text-align: center;">X</td></tr> <tr><td colspan="2" style="text-align: center;">P 5</td></tr> <tr><td>EW:</td><td style="text-align: center;">X</td></tr> <tr><td>NS:</td><td style="text-align: center;">X</td></tr> <tr><td colspan="2" style="text-align: center;">Page 2 attached: Y N</td></tr> </table>		P 1		EW:	X	NS:	X	P 2		EW:	X	NS:	X	P 3		EW:	X	NS:	X	P 4		EW:	X	NS:	X	P 5		EW:	X	NS:	X	Page 2 attached: Y N	
P 1																																			
EW:	X																																		
NS:	X																																		
P 2																																			
EW:	X																																		
NS:	X																																		
P 3																																			
EW:	X																																		
NS:	X																																		
P 4																																			
EW:	X																																		
NS:	X																																		
P 5																																			
EW:	X																																		
NS:	X																																		
Page 2 attached: Y N																																			
IDENTIFY LOTS ABOVE																																			
LIFT ID: <u>UWIR16210517-00</u> NW CORNER: <u>6795187 N 2124255 E</u>																																			
Uncompacted Thickness: <u>0.8</u>	Compacted Thickness: <u>N/A</u>	Debris Insp. By: <u>N/A</u>	Date: <u>N/A</u> Time: <u>N/A</u>																																
NW CORNER of debris placement: <u>N/A</u>	EW Dimension: <u>N/A</u>	NS Dimension: <u>N/A</u>																																	
Lift Area (ft ²): <u>68,729</u>	Lift Volume (yd ³): <u>2,036</u>																																		
Comments: QC confirmed that the lift area was scarified prior to placement. QC observed the material placed to have proper moisture for compaction. QC verified material compaction. QC verified material moisture content, by obtaining a soil(s) sample from the lift area and performing a laboratory moisture content test ASTM D4643.																																			
Attached Forms: Grid Slope <u>X</u> Compaction Macro <u>X</u> Print Screen <u>X</u> Moisture/ Density <u>X</u>																																			
KEYING IN NOTES: <input checked="" type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input checked="" type="checkbox"/> W <u>Satisfactory</u> MOISTURE/ DENSITY TESTS ID# (S): <u>1</u>																																			
LIFT APPROVED BY: <u>Robert Anderson</u>		DATE: <u>5/18/2021</u> TIME: <u>1445</u>																																	
QA/QC APPROVAL: <u>Cody B...</u>		DATE: <u>5/25/21</u>																																	

Density Testing
DOE-EM/GJRAC1783
Rev. 1

QC-F-001
File index No. 43.8.2
Page 1 of 5

Appendix A2. RRM Lift Approval Package (*continued*)

[illegible]

Appendix A2. RRM Lift Approval Package (continued)

% = 4	99.8%
Elevation Avg	4967.0
Total = 4	6297
Total Lines	6312

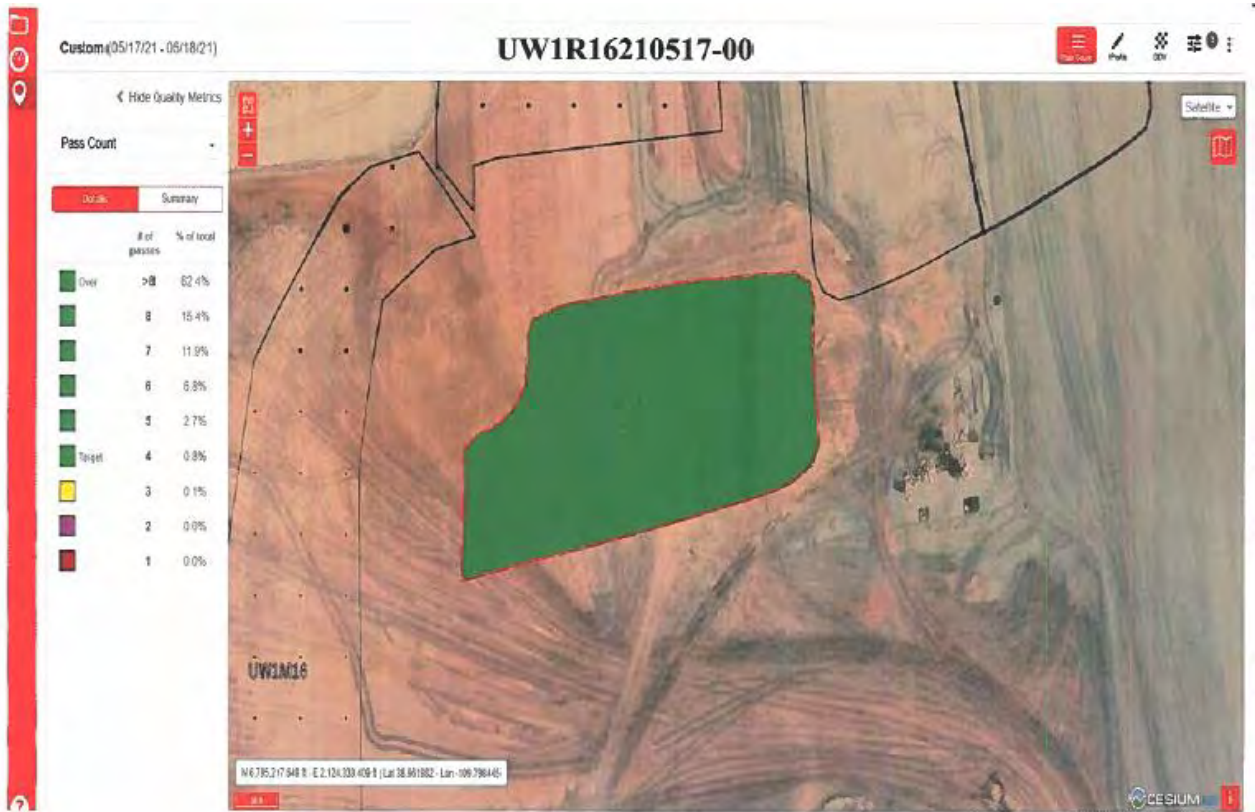
Pass	Minimum Number of Machine Passes
	4

Lift ID: UW1R16210517-00

Northing	Easting	Elevation	# of Passes	Passes = 4	Count	
6794988	2124185	4965.5	13	1	1	Lift Height
6794988	2124188	4965.6	9	1	1	1' 0"
6794991	2124185	4965.6	11	1	1	
6794991	2124188	4965.6	12	1	1	Thick Lift Threshold
6794991	2124191	4965.4	15	1	1	2' 0"
6794991	2124195	4965.4	15	1	1	
6794991	2124198	4965.6	13	1	1	Last Lift Elevation
6794991	2124201	4965.5	7	1	1	N/A
6794991	2124204	4965.6	8	1	1	
6794994	2124185	4965.8	9	1	1	
6794994	2124188	4965.8	6	1	1	
6794994	2124191	4965.6	6	1	1	
6794994	2124195	4965.7	11	1	1	
6794994	2124198	4965.7	12	1	1	
6794994	2124201	4965.6	14	1	1	
6794994	2124204	4965.6	16	1	1	
6794994	2124208	4965.6	17	1	1	
6794994	2124211	4965.6	11	1	1	
6794994	2124214	4965.7	11	1	1	
6794994	2124218	4965.6	11	1	1	
6794994	2124221	4965.7	6	1	1	
6794998	2124181	4966.0	13	1	1	
6794998	2124185	4966.0	13	1	1	
6794998	2124188	4965.7	13	1	1	
6794998	2124191	4965.8	14	1	1	
6794998	2124195	4965.7	12	1	1	
6794998	2124198	4965.7	9	1	1	
6794998	2124201	4965.8	6	1	1	
6794998	2124204	4965.7	7	1	1	
6794998	2124208	4965.6	10	1	1	
6794998	2124211	4965.6	11	1	1	
6794998	2124214	4965.7	13	1	1	
6794998	2124218	4965.7	16	1	1	
6794998	2124221	4965.7	16	1	1	
6794998	2124224	4965.6	12	1	1	
6794998	2124228	4965.6	10	1	1	
6794998	2124231	4965.6	10	1	1	
6794998	2124234	4965.6	6	1	1	
6795001	2124181	4966.0	10	1	1	
6795001	2124185	4966.0	7	1	1	
6795001	2124188	4965.9	8	1	1	
6795001	2124191	4965.8	10	1	1	
6795001	2124195	4965.7	9	1	1	
6795001	2124198	4965.7	14	1	1	

Page 3 of 5

Appendix A2. RRM Lift Approval Package (*continued*)



Appendix A2. RRM Lift Approval Package (continued)

FIELD DENSITY TEST																														
PROJECT: <u>Moab UMTRA Project</u>		OTHER: _____																												
LIFT IDENTIFICATION: <u>UW1R16210517-00</u>		DATE: <u>5/17/2021</u>																												
TEST ID NUMBER(S): <u>1</u>																														
TEST LOCATION: <u>Lift Area</u>		TEST METHOD: <u>N/A D1556</u> <u>N/A D6938</u>																												
ASTM D6938 (DENSITY DETERMINATION) Make/Model <u>Troxler 3430</u> Gauge Serial # <u>N/A</u> Last Calibration Date: <u>N/A</u> Daily Standard Counts: Density _____ Moisture _____ Method A (Direct Transmission) or Method B (Backscatter) Depth Setting _____ (inches) A Count Time _____ (minutes) Moisture Count _____ Density Count _____ Wet Density (ρ_w) _____ (lbs/ft ³) Dry Density _____ (lbs/ft ³) Measure Density _____ (lbs/ft ³) Moisture Fraction _____ (%)		ASTM D1556 (DENSITY DETERMINATION) Testing Apparatus _____ Calibrated Vol. (lbs/ft ³) _____ Bulk Density of sand (ρ_s) _____ g/cm ³ _____ (lbs/ft ³) Mass of Sand to Fill Cone & Plate (M_1) _____ g Mass of bottle & cone before filling _____ g Mass of bottle & cone after filling _____ g Mass of sand to fill cone, plate, & hole (M_2) _____ g Mass of sand to fill hole _____ g Mass of wet soil in container _____ g Mass of container _____ g Mass of wet soil (M_3) _____ g Test Hole Volume $V = (M_1 - M_2) / \rho_s$ _____ cm ³ Dry Mass of soil $M_d = 100 M_3 / (w + 100)$ _____ g Wet Density $\rho_w = (M_3 / V) \times 62.43$ _____ lbs/ft ³ Dry Density $\rho_d = M_d / V$ _____ g/cm ³ Dry Unit Weight $\gamma_d = \rho_d \times 62.43$ _____ lbs/ft ³																												
MOISTURE DETERMINATION ASTM D4643																														
Container ID: <u>Dog</u> Scale Serial #: <u>13532</u> Last Calibration Date: <u>12/15/20</u>																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Mass of container & wet specimen (M_{cm})</td> <td style="width: 20%; text-align: center;">529.9</td> <td style="width: 20%; text-align: right;">g</td> </tr> <tr> <td>Mass of container & dry specimen (M_{cb})</td> <td style="text-align: center;">484.3</td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of water (M_w)</td> <td style="text-align: center;">45.6</td> <td style="text-align: right;">g</td> </tr> <tr> <td>$M_w = M_{cm} - M_{cb}$</td> <td style="text-align: center;">45.6</td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of container (M_c)</td> <td style="text-align: center;">214.6</td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of dry specimen (M_d)</td> <td style="text-align: center;">269.7</td> <td style="text-align: right;">g</td> </tr> <tr> <td>$M_d = M_{cb} - M_c$</td> <td style="text-align: center;">269.7</td> <td style="text-align: right;">g</td> </tr> <tr> <td>Moisture content (w)</td> <td style="text-align: center;">16.9</td> <td style="text-align: right;">%</td> </tr> <tr> <td>$w = (M_w / M_d) \times 100$</td> <td style="text-align: center;">16.9</td> <td style="text-align: right;">%</td> </tr> </table>				Mass of container & wet specimen (M_{cm})	529.9	g	Mass of container & dry specimen (M_{cb})	484.3	g	Mass of water (M_w)	45.6	g	$M_w = M_{cm} - M_{cb}$	45.6	g	Mass of container (M_c)	214.6	g	Mass of dry specimen (M_d)	269.7	g	$M_d = M_{cb} - M_c$	269.7	g	Moisture content (w)	16.9	%	$w = (M_w / M_d) \times 100$	16.9	%
Mass of container & wet specimen (M_{cm})	529.9	g																												
Mass of container & dry specimen (M_{cb})	484.3	g																												
Mass of water (M_w)	45.6	g																												
$M_w = M_{cm} - M_{cb}$	45.6	g																												
Mass of container (M_c)	214.6	g																												
Mass of dry specimen (M_d)	269.7	g																												
$M_d = M_{cb} - M_c$	269.7	g																												
Moisture content (w)	16.9	%																												
$w = (M_w / M_d) \times 100$	16.9	%																												
Dry Density ($\rho_d = (100 \times \rho_w) / (100 + w)$) $\rho_d = (100 \times 16.9) / (100 + 16.9) = 14.5$ g/cm ³ (Note: Wet Density from ASTM D1556 or 100 g/cm ³ unless otherwise noted ASTM D6938 (ρ_w)) Percent Compaction = $\rho_d / \gamma_{dmax} \times 100$ $14.5 / 103.9 \times 100 = 13.9$ %																														
Comments: Microwave oven power setting on HIGH. Initial time setting of 3 minutes and subsequent incremental drying periods of 1 minute until a change of 0.1 % or less of the initial wet mass of the soil.																														
TEST RESULTS: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed Moisture <input type="checkbox"/> Failed Compaction By: <u>Robert Anderson</u> (print) _____ (signature)		Date: <u>5/17/21</u> Time: <u>0830</u>																												
QC APPROVAL: <u>Cody Renger</u> DATE: <u>5/25/21</u>																														

Density Testing
DOE-EM/GJRAC1783

QC-F-002
File Index No. 43.8.2
Page 5 of 5

Appendix A2. Top of Waste Buyoff Survey



Top of waste Buyoff Form

Client: Department of Energy
Project: Moab UMTRA Project
Date: 4-27-2021

In signing this document, the signatory agrees that the top of waste is complete and meets both the project specifications and RAIP requirements.

Excavation Area	Lift Area
	UW1N3N

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr.		04/27/21
Cody Seager/ QA/QC Representative		4/27/21
Kathy Turvy/ QA/QC Manager		4/27/2021
Comments		

Appendix A2. Top of Waste Buyoff Survey (continued)

Top of Waste Buyoff Survey						
Area Buyoff ID:			UW1N3N		Date: 4/27/2021	
Point #	Northing	Easting	Surveyed Elevation	Design Elevation	Difference in feet	Difference in inches
11291 stk	6794580.01	2123949.98	4973.58	4973.57	0.01	0.2
11292 stk	6794610.02	2123950.03	4974.83	4974.79	0.03	0.4
11293 stk	6794659.96	2123949.98	4976.04	4976.02	0.02	0.2
11294 stk	6794709.97	2123949.96	4977.30	4977.24	0.05	0.7
11295 stk	6794760.05	2123949.98	4978.48	4978.47	0.01	0.1
11296 stk	6794810.01	2123950.02	4979.73	4979.69	0.03	0.4
11297 stk	6794859.98	2123949.93	4980.95	4980.92	0.03	0.4
11298 stk	6794909.97	2123950.04	4982.16	4982.14	0.02	0.2
11299 stk	6794960.01	2123949.98	4983.42	4983.37	0.05	0.7
11300 stk	6795010.00	2123950.05	4984.70	4984.59	0.11	1.3
11301 stk	6795059.98	2123949.99	4985.85	4985.82	0.03	0.4
11302 stk	6795109.92	2123949.99	4987.05	4987.04	0.01	0.1
11324 stk	6794380.03	2124000.02	4968.41	4968.39	0.03	0.3
11325 stk	6794409.94	2124000.02	4969.63	4969.61	0.02	0.3
11328 stk	6794460.05	2123999.95	4970.88	4970.84	0.04	0.5
11327 stk	6794509.96	2123998.96	4972.11	4972.06	0.05	0.6
11328 stk	6794560.03	2124000.05	4973.37	4973.29	0.08	1.0
11329 stk	6794610.05	2124000.08	4974.57	4974.51	0.06	0.8
11330 stk	6794660.04	2124000.03	4975.84	4975.74	0.11	1.3
11331 stk	6794710.05	2124000.04	4977.01	4976.96	0.05	0.6
11332 stk	6794759.95	2124000.00	4978.32	4978.19	0.13	1.6
11333 stk	6794809.99	2124000.05	4979.47	4979.41	0.07	0.8
11334 stk	6794860.01	2124000.01	4980.72	4980.64	0.09	1.1
11335 stk	6794909.96	2123999.93	4981.95	4981.86	0.09	1.1
11336 stk	6794960.01	2123999.94	4983.18	4983.08	0.10	1.2
11337 stk	6795009.96	2124000.05	4984.36	4984.31	0.05	0.6
11338 stk	6795060.04	2124000.01	4985.59	4985.53	0.06	0.7
11339 stk	6795109.96	2123999.97	4986.86	4986.76	0.10	1.2
11340 stk	6795160.03	2123999.95	4988.03	4987.98	0.04	0.5
11341 stk	6795209.98	2124000.03	4989.23	4989.21	0.02	0.2
11360 stk	6794359.97	2124050.05	4968.21	4968.10	0.11	1.3
11361 stk	6794409.96	2124049.96	4969.35	4969.33	0.02	0.2
11362 stk	6794459.96	2124050.01	4970.59	4970.55	0.04	0.5
11363 stk	6794510.00	2124049.95	4971.79	4971.78	0.01	0.2
11364 stk	6794560.03	2124049.96	4973.03	4973.00	0.02	0.3
11365 stk	6794610.02	2124049.99	4974.31	4974.23	0.08	0.9
11366 stk	6794660.04	2124050.05	4975.47	4975.45	0.02	0.2
11367 stk	6794710.01	2124050.02	4976.79	4976.68	0.11	1.3
11368 stk	6794760.01	2124050.00	4977.93	4977.90	0.03	0.3
11369 stk	6794810.03	2124049.95	4979.25	4979.13	0.12	1.4
11370 stk	6794860.05	2124050.04	4980.47	4980.35	0.11	1.4
11371 stk	6794910.01	2124049.99	4981.65	4981.58	0.07	0.9
11372 stk	6794960.03	2124050.01	4982.82	4982.80	0.02	0.2
11373 stk	6795009.96	2124050.07	4984.10	4984.03	0.07	0.8
11374 stk	6795059.95	2124050.01	4985.35	4985.25	0.10	1.2
11375 stk	6795110.03	2124050.04	4986.51	4986.48	0.04	0.4
11376 stk	6795159.99	2124050.02	4987.77	4987.70	0.07	0.8
11377 stk	6795210.04	2124049.97	4988.95	4988.93	0.02	0.3
11378 stk	6795260.03	2124049.94	4990.22	4990.15	0.06	0.8
11414 stk	6795260.07	2124100.04	4990.03	4989.87	0.16	2.0
11415 stk	6795310.03	2124100.02	4991.17	4991.09	0.08	0.9
11426 stk	6795660.01	2124099.99	4994.30	4994.23	0.07	0.8
11427 stk	6795609.99	2124099.98	4993.28	4993.22	0.04	0.5
11428 stk	6795660.06	2124100.04	4992.22	4992.21	0.01	0.1
11429 stk	6796009.99	2124099.98	4991.25	4991.19	0.06	0.7
11430 stk	6796060.00	2124100.03	4990.29	4990.18	0.11	1.3
11431 stk	6796110.00	2124100.02	4989.20	4989.17	0.03	0.3
11451 stk	6795310.04	2124150.00	4990.83	4990.81	0.02	0.2
11454 stk	6795459.99	2124149.99	4994.51	4994.49	0.03	0.3
11455 stk	6795510.03	2124149.97	4995.76	4995.71	0.05	0.6
11456 stk	6795559.99	2124150.06	4997.03	4996.94	0.09	1.1
11457 stk	6795610.06	2124150.05	4998.16	4998.16	0.00	0.0
11458 stk	6795660.04	2124149.98	4998.31	4998.24	0.07	0.8

Appendix A2. Top of Waste Buyoff Survey (continued)

11459	stk	6795709.98	2124150.01	4997.25	4997.24	0.01	0.1
11460	stk	6795760.04	2124150.01	4996.27	4996.23	0.05	0.6
11461	stk	6795809.99	2124150.03	4995.30	4995.21	0.09	1.0
11462	stk	6795859.99	2124150.03	4994.27	4994.20	0.07	0.9
11463	stk	6795909.98	2124149.98	4993.24	4993.19	0.05	0.6
11464	stk	6795960.05	2124150.02	4992.23	4992.18	0.05	0.7
11465	stk	6796010.02	2124150.04	4991.23	4991.16	0.07	0.8
11466	stk	6796060.00	2124150.00	4990.21	4990.15	0.06	0.7
11467	stk	6796109.99	2124149.96	4989.14	4989.14	0.01	0.1
11468	stk	6796159.95	2124150.03	4988.18	4988.13	0.06	0.7
11469	stk	6795360.04	2124200.03	4991.89	4991.76	0.14	1.7
11490	stk	6795410.00	2124200.05	4993.06	4992.96	0.08	0.9
11491	stk	6795459.99	2124199.98	4994.26	4994.21	0.05	0.6
11492	stk	6795509.99	2124200.02	4995.44	4995.43	0.01	0.1
11493	stk	6795560.02	2124199.97	4996.74	4996.66	0.08	1.0
11494	stk	6795610.02	2124199.99	4997.89	4997.88	0.01	0.1
11495	stk	6795659.99	2124199.97	4998.27	4998.21	0.06	0.7
11496	stk	6795710.00	2124199.97	4997.21	4997.20	0.01	0.1
11497	stk	6795759.98	2124200.03	4996.25	4996.19	0.06	0.7
11498	stk	6795809.98	2124200.02	4995.25	4995.18	0.07	0.8
11499	stk	6795860.00	2124200.00	4994.19	4994.17	0.02	0.2
11500	stk	6795909.98	2124199.98	4993.16	4993.16	0.01	0.1
11501	stk	6795960.05	2124200.04	4992.22	4992.15	0.08	0.9
11502	stk	6796010.06	2124200.03	4991.20	4991.13	0.07	0.8
11503	stk	6796060.01	2124199.98	4990.12	4990.12	0.00	0.0
11504	stk	6796110.03	2124200.00	4989.16	4989.11	0.05	0.6
11506	stk	6796160.01	2124200.03	4988.16	4988.10	0.07	0.8
11526	stk	6795359.97	2124250.04	4991.52	4991.47	0.05	0.5
11527	stk	6795410.00	2124250.04	4992.78	4992.70	0.08	0.9
11528	stk	6795460.03	2124249.98	4994.01	4993.92	0.09	1.1
11529	stk	6795510.05	2124250.03	4995.19	4995.15	0.04	0.5
11530	stk	6795559.97	2124250.03	4996.42	4996.37	0.04	0.5
11531	stk	6795610.04	2124249.97	4997.65	4997.60	0.05	0.6
11532	stk	6795659.97	2124250.02	4998.26	4998.18	0.08	1.0
11533	stk	6795710.00	2124249.97	4997.21	4997.17	0.04	0.5
11534	stk	6795760.04	2124249.96	4996.18	4996.16	0.02	0.2
11535	stk	6795809.98	2124250.05	4995.18	4995.15	0.03	0.3
11536	stk	6795859.98	2124249.95	4994.19	4994.14	0.05	0.6
11537	stk	6795909.98	2124249.98	4993.20	4993.13	0.07	0.9
11538	stk	6795960.01	2124249.95	4992.16	4992.12	0.05	0.6
11539	stk	6796009.96	2124250.06	4991.18	4991.10	0.07	0.9
11540	stk	6796060.02	2124250.01	4990.17	4990.09	0.08	1.0
11541	stk	6796110.01	2124250.03	4989.17	4989.08	0.09	1.1
11542	stk	6796159.99	2124250.03	4988.11	4988.07	0.05	0.6
11563	stk	6795359.98	2124300.07	4991.31	4991.19	0.12	1.4
11564	stk	6795410.01	2124299.95	4992.51	4992.42	0.09	1.1
11565	stk	6795459.98	2124300.03	4993.78	4993.64	0.14	1.6
11566	stk	6795509.98	2124300.01	4994.93	4994.87	0.06	0.8
11567	stk	6795560.01	2124300.08	4996.16	4996.09	0.07	0.8
11568	stk	6795609.99	2124300.02	4997.39	4997.32	0.07	0.9
11569	stk	6795660.01	2124300.04	4998.17	4998.15	0.02	0.2
11570	stk	6795709.96	2124300.00	4997.20	4997.14	0.06	0.7
11571	stk	6795759.96	2124300.00	4996.19	4996.13	0.05	0.6
11572	stk	6795810.03	2124300.00	4995.13	4995.12	0.01	0.1
11573	stk	6795860.01	2124300.01	4994.16	4994.11	0.05	0.6
11574	stk	6795910.00	2124300.04	4993.13	4993.10	0.04	0.4
11575	stk	6795960.02	2124299.96	4992.11	4992.09	0.02	0.3
11576	stk	6796009.98	2124300.01	4991.20	4991.07	0.13	1.5
11577	stk	6796060.02	2124300.00	4990.10	4990.06	0.04	0.5
11578	stk	6796109.99	2124300.05	4989.07	4989.05	0.02	0.3
11579	stk	6796160.00	2124299.99	4988.05	4988.04	0.01	0.2
11600	stk	6795359.96	2124350.01	4990.94	4990.91	0.04	0.4
11601	stk	6795410.02	2124350.01	4992.16	4992.13	0.03	0.4
11602	stk	6795460.03	2124349.97	4993.43	4993.36	0.07	0.8
11603	stk	6795510.03	2124350.04	4994.65	4994.58	0.07	0.8
11604	stk	6795560.00	2124350.01	4995.89	4995.81	0.07	0.9
11605	stk	6795610.03	2124350.05	4997.06	4997.04	0.02	0.3
11606	stk	6795660.03	2124350.05	4998.14	4998.12	0.02	0.2
11607	stk	6795710.05	2124350.00	4997.18	4997.11	0.05	0.6

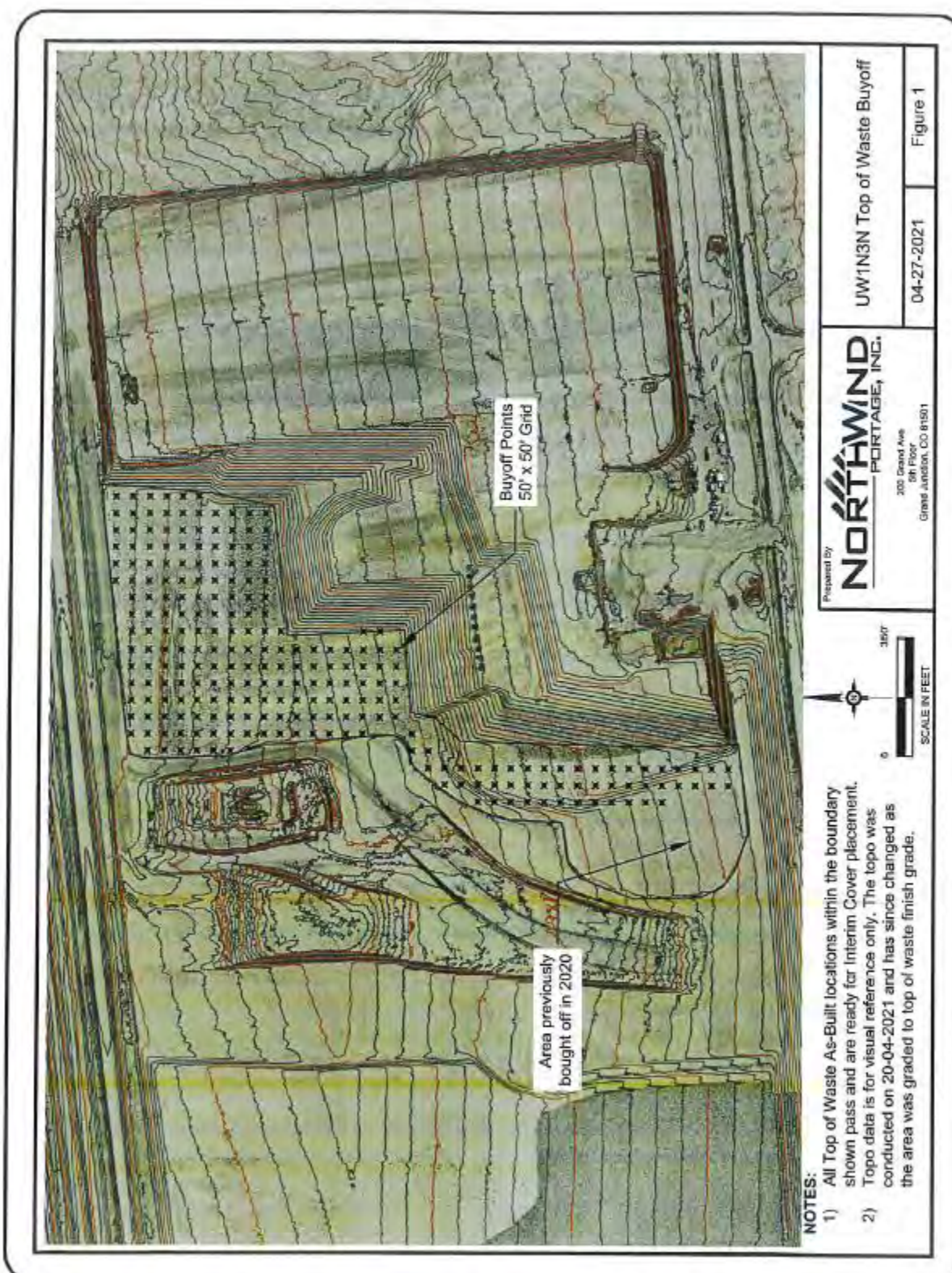
Appendix A2. Top of Waste Buyoff Survey (continued)

11608	stk	6795759.98	2124349.98	4996.15	4996.10	0.05	0.6
11609	stk	6795809.98	2124349.99	4995.14	4995.09	0.05	0.6
11610	stk	6795890.03	2124349.97	4994.12	4994.08	0.04	0.5
11611	stk	6795909.98	2124350.02	4993.11	4993.07	0.05	0.6
11612	stk	6795960.01	2124350.01	4992.12	4992.08	0.06	0.8
11613	stk	6796010.02	2124350.00	4991.08	4991.04	0.04	0.4
11614	stk	6796059.97	2124349.94	4990.12	4990.03	0.09	1.1
11615	stk	6796110.04	2124349.97	4989.11	4989.02	0.09	1.1
11616	stk	6796159.96	2124350.02	4988.02	4988.01	0.01	0.1
11617	stk	6796360.02	2124400.05	4990.69	4990.63	0.06	0.7
11618	stk	6795410.01	2124399.98	4991.89	4991.85	0.04	0.5
11619	stk	6795459.97	2124400.05	4993.16	4993.08	0.08	1.0
11620	stk	6795510.03	2124400.04	4994.33	4994.30	0.03	0.3
11621	stk	6795559.98	2124399.95	4995.64	4995.53	0.11	1.3
11622	stk	6795609.98	2124399.99	4996.83	4996.75	0.08	0.9
11623	stk	6795660.02	2124399.99	4998.03	4997.98	0.05	0.7
11624	stk	6795710.05	2124400.02	4997.09	4997.08	0.01	0.2
11625	stk	6795760.03	2124399.99	4996.11	4996.07	0.04	0.5
11626	stk	6795809.97	2124399.96	4995.10	4995.06	0.04	0.4
11627	stk	6795860.01	2124399.97	4994.13	4994.05	0.08	0.9
11628	stk	6795910.00	2124399.95	4993.06	4993.04	0.02	0.2
11629	stk	6795959.95	2124400.05	4992.12	4992.02	0.10	1.2
11630	stk	6796009.97	2124400.05	4991.05	4991.01	0.04	0.5
11631	stk	6796059.94	2124399.97	4990.08	4990.00	0.08	0.9
11632	stk	6796110.02	2124400.03	4989.16	4989.09	0.17	2.0
11633	stk	6796159.99	2124400.02	4988.08	4987.98	0.10	1.2
11634	stk	6795409.96	2124449.99	4991.62	4991.57	0.05	0.6
11635	stk	6795459.97	2124450.04	4992.87	4992.79	0.07	0.9
11636	stk	6795710.03	2124450.02	4997.10	4997.05	0.06	0.7
11637	stk	6795760.03	2124450.08	4996.04	4996.04	0.00	0.0
11638	stk	6795810.04	2124449.97	4995.14	4995.03	0.11	1.3
11639	stk	6795860.02	2124450.01	4994.03	4994.02	0.01	0.2
11640	stk	6795909.99	2124450.00	4993.04	4993.01	0.03	0.4
11641	stk	6796059.97	2124449.97	4992.02	4991.99	0.02	0.3
11642	stk	6796010.02	2124450.02	4991.01	4990.99	0.03	0.3
11643	stk	6796059.98	2124450.00	4989.97	4989.97	0.00	0.0
11644	stk	6796109.99	2124450.01	4989.01	4988.96	0.05	0.7
11645	stk	6796159.96	2124450.02	4987.96	4987.94	0.02	0.2
11646	stk	6795760.02	2124500.01	4996.05	4996.01	0.03	0.4
11647	stk	6795810.01	2124499.99	4995.08	4995.00	0.08	0.9
11648	stk	6795860.00	2124499.98	4994.00	4993.99	0.01	0.1
11649	stk	6795910.01	2124500.03	4993.08	4992.98	0.10	1.2
11650	stk	6795960.03	2124500.00	4992.07	4991.96	0.11	1.3
11651	stk	6796010.02	2124499.97	4991.06	4990.95	0.11	1.3
11652	stk	6796060.04	2124499.99	4989.96	4989.94	0.02	0.3
11653	stk	6796109.97	2124499.99	4988.96	4988.93	0.04	0.4
11654	stk	6796159.93	2124499.98	4988.07	4987.91	0.16	1.9
11655	stk	6795760.01	2124549.97	4996.04	4995.98	0.06	0.7
11656	stk	6795810.03	2124550.01	4995.00	4994.97	0.03	0.4
11657	stk	6795859.97	2124549.98	4994.00	4993.96	0.04	0.4
11658	stk	6795909.97	2124549.97	4992.98	4992.95	0.03	0.3
11659	stk	6795959.96	2124550.03	4992.02	4991.93	0.09	1.0
11660	stk	6796010.04	2124550.04	4990.93	4990.92	0.01	0.1
11661	stk	6796060.01	2124549.96	4990.03	4989.91	0.12	1.4
11662	stk	6796109.99	2124549.99	4988.98	4988.90	0.09	1.0
11663	stk	6796160.04	2124550.04	4987.96	4987.88	0.07	0.9
11664	stk	6795759.96	2124600.00	4995.97	4995.95	0.03	0.3
11665	stk	6795810.04	2124600.02	4994.95	4994.94	0.02	0.2
11666	stk	6795860.00	2124599.99	4993.97	4993.93	0.04	0.5
11667	stk	6795910.01	2124600.02	4993.01	4992.92	0.09	1.1
11668	stk	6795960.94	2124600.01	4991.92	4991.90	0.02	0.2
11669	stk	6796010.01	2124600.02	4990.97	4990.89	0.08	0.9
11670	stk	6796059.97	2124600.06	4989.96	4989.88	0.08	1.0
11671	stk	6796110.02	2124600.05	4988.93	4988.87	0.07	0.8
11672	stk	6796160.06	2124599.96	4987.94	4987.85	0.08	1.0
11673	stk	6796209.97	2124599.98	4986.88	4986.84	0.04	0.4
11674	stk	6795759.97	2124650.01	4995.99	4995.91	0.07	0.9
11675	stk	6795809.99	2124650.01	4994.94	4994.90	0.04	0.5
11676	stk	6795860.00	2124650.03	4993.91	4993.90	0.02	0.2
11677	stk	6795910.03	2124649.96	4992.98	4992.89	0.09	1.1

Appendix A2. Top of Waste Buyoff Survey (continued)

11831	stk	6795990.03	2124650.03	4991.90	4991.87	0.03	0.3
11832	stk	6796010.03	2124650.00	4990.88	4990.86	0.03	0.4
11833	stk	6796059.99	2124650.02	4989.93	4989.85	0.08	1.0
11834	stk	6796110.02	2124649.98	4988.87	4988.84	0.04	0.4
11835	stk	6796160.03	2124649.99	4987.93	4987.82	0.11	1.3
11836	stk	6796210.07	2124649.99	4986.83	4986.81	0.02	0.2
11864	stk	6795759.98	2124700.00	4995.83	4995.88	0.05	0.8
11865	stk	6795809.97	2124700.02	4994.88	4994.87	0.01	0.1
11866	stk	6795859.99	2124700.01	4993.91	4993.87	0.05	0.8
11867	stk	6795910.02	2124700.02	4992.93	4992.85	0.08	0.9
11868	stk	6795959.95	2124700.01	4991.91	4991.84	0.06	0.8
11869	stk	6796010.04	2124699.99	4990.87	4990.83	0.04	0.5
11870	stk	6796060.06	2124700.00	4989.85	4989.82	0.03	0.4
11871	stk	6796110.02	2124699.97	4988.85	4988.81	0.05	0.6
11872	stk	6796160.02	2124699.99	4987.80	4987.79	0.01	0.1
11873	stk	6796209.99	2124699.97	4986.81	4986.78	0.03	0.4
11901	stk	6795790.00	2124749.99	4995.90	4995.85	0.05	0.5
11902	stk	6795809.96	2124749.98	4994.93	4994.84	0.09	1.0
11903	stk	6795860.05	2124749.97	4993.84	4993.83	0.01	0.1
11904	stk	6795909.98	2124749.97	4992.85	4992.82	0.03	0.4
11905	stk	6795960.02	2124749.97	4991.81	4991.81	0.00	0.0
11906	stk	6796009.96	2124750.05	4990.88	4990.80	0.08	1.0
11907	stk	6796069.98	2124750.00	4989.82	4989.79	0.03	0.3
11908	stk	6796110.00	2124750.03	4988.86	4988.78	0.08	1.0
11909	stk	6796160.01	2124749.98	4987.84	4987.76	0.07	0.9
11910	stk	6796209.97	2124749.98	4986.84	4986.75	0.09	1.1
11938	stk	6795759.97	2124800.03	4995.89	4995.82	0.07	0.8
11939	stk	6795810.03	2124799.99	4994.86	4994.81	0.05	0.6
11940	stk	6795860.03	2124799.99	4993.82	4993.80	0.01	0.1
11941	stk	6795910.02	2124800.01	4992.88	4992.79	0.07	0.8
11942	stk	6795959.99	2124800.02	4991.83	4991.78	0.05	0.6
11943	stk	6796009.97	2124800.02	4990.88	4990.77	0.11	1.3
11944	stk	6796060.01	2124800.00	4989.83	4989.78	0.06	0.9
11945	stk	6796109.99	2124800.01	4988.81	4988.75	0.06	0.7
11946	stk	6796159.98	2124800.00	4987.82	4987.73	0.08	1.0
11947	stk	6796210.03	2124800.00	4986.74	4986.72	0.02	0.2
11979	stk	6795990.05	2124850.00	4991.77	4991.75	0.02	0.3
11980	stk	6796009.98	2124850.05	4990.91	4990.74	0.17	2.0
11981	stk	6796060.01	2124849.99	4989.76	4989.73	0.03	0.4
11982	stk	6796109.86	2124850.05	4988.77	4988.72	0.06	0.7
11983	stk	6796160.02	2124850.02	4987.78	4987.70	0.08	1.0
11984	stk	6796209.89	2124850.02	4986.70	4986.69	0.01	0.1
Comments: QC performed a visual inspection of the final surface, which yielded satisfactory results. All observations of grade tolerance indicated the grade was within the specification requirement of Design grade +0.17 FT (no minus tolerance allowed).							
Approval Date: 4/27/2021				Total Square Feet: 605,730			
North West Corner: 6796152 N. 2124098 E.							
QC Signature:				Reviewed By:			

Appendix A2. Top of Waste Buyoff Survey (continued)



Appendix A3.
Interim Cover

Standard Proctor Test Results Summary
Lift Approval Summaries
Lift Approval Package
Buyoff Surveys

Appendix A3. Interim Cover Standard Proctor Test Results Summary

2021					
Proctor ID	Date sampled	Date Approved	Max Dry Density	Optimum Moisture	Proctor Description
Interim Cover #1 2021	2/4/2021	2/16/2021	116.5	13.4	Clay, silty,, sandy (CL)
Interim Cover #2 2021	2/4/2021	2/16/2021	117.6	12.8	Clay, silty,, sandy (CL)
Interim Cover #3 2021	2/4/2021	2/16/2021	120.4 / 126.3*	11.8 / 10.0*	Clay, silty,, sandy with shale pieces (CL)
Interim Cover #4 2021	2/4/2021	2/16/2021	118.7 / 122.3*	11.7 / 10.0*	Clay, silty,, sandy with shale pieces (CL)
Interim Cover #5 2021	2/4/2021	2/16/2021	121.9 / 126.6*	11.3 / 9.9*	Clay, silty,, sandy with shale pieces (CL)
Interim Cover #6 2021	2/4/2021	2/16/2021	117.2	13.7	Clay, silty,, sandy (CL)

**Oversized (Rock) Correction*

Appendix A3. Interim Cover Lift Approval Summaries

May 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
05/25/21	UI1O13210504-00	4	9573	9,573	N/A	1.1	Interim Cover #6 2021	4	N/A	97.5
<p>Average CBCS Screen Passing Pixels (%) = 0.0</p> <p>Total Quantity Approved (yd³) = 9,573</p> <p>Total # of Nuclear Density Gauge Tests = 4</p> <p>Total # of Moisture Tests = 4</p> <p>Quantity per Moisture Test (yd³) = 2,393</p> <p>Total Average Thickness (ft) = 1.1</p>										

Appendix A3. Interim Cover Lift Approval Summaries (*continued*)

June 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
06/14/21	UI1N3N210504-00	9	17,443	17,443	N/A	1.1	Interim Cover #1 2021	9	N/A	94.2
<p> Average CBCS Screen Passing Pixels (%) = 0.0 Total Quantity Approved (yd³) = 17,443 Total # of Nuclear Density Gauge Tests = 9 Total # of Moisture Tests = 9 Quantity per Moisture Test (yd³) = 1,938 Total Average Thickness (ft) = 1.1 </p>										

Appendix A3. Interim Cover Lift Approval Package

LIFT APPROVAL FORM

PROJECT: <u>Moab UMTRA</u>		OTHER _____	
NW CORNER _____		DATE: <u>5/4/2021</u>	

(IDENTIFY LOTS ABOVE)

LIFT ID: <u>U11N3N210504-00</u>		NW CORNER: <u>6796148 N 2124098 E</u>	
Uncompacted Thickness: <u>1.1</u>	Compacted Thickness: <u>N/A</u>	Debris Insp. By: <u>N/A</u>	Date: <u>N/A</u> Time: <u>N/A</u>
NW CORNER of debris placement: <u>N/A</u>		EW Dimension <u>N/A</u>	NS Dimension <u>N/A</u>
Lift Area (ft²): <u>428,142</u>	Lift Volume (yd³): <u>17,443</u>		

Comments: QC confirmed that the lift area was scarified prior to placement. QC observed the material placed to not contain any particle sizes larger than 2" as per specification. QC also did four Troxler tests to verify compaction and moisture in four different locations. QC also determined the lift was placed to the design authorities specification (placed to design up to 2" above, no minus tolerance)

Attached Forms:	Grid Slope <u>X</u>	Compaction Macro <u>N/A</u>	Print Screen <u>N/A</u>	Moisture/ Density <u>X</u>
------------------------	----------------------------	------------------------------------	--------------------------------	-----------------------------------

KEYING IN NOTES: N E S W <u>N/A</u>	MOISTURE/ DENSITY TESTS ID # (S): <u>P1,P2,P3,P4,P5,P6,P7,P8,P9</u>
--	--

LIFT APPROVED BY: <u>Cody Seager/</u>	DATE: <u>6/14/2021</u>	TIME: <u>0621</u>
--	-------------------------------	--------------------------

Robert Anderson
QA/QC APPROVAL

6/14/2021
DATE

Density Testing
DOE-EM/GJRAC1783
Rev. 1

QC-F-001
File index No. 43.8.2
Page ____ of ____

Appendix A3. Interim Cover Lift Approval Package (continued)

ASTM D6938 Density Determination by Nuclear Method

Project: Moab UMTRA Report Date: 6/10/2021
 LIR ID: U11N3N210594-00
 NDG Make/Model: 3430 Gauge Serial Number: 23532 Gauge Calibration Date: 12/15/2020
 Tare: Interim Sand-Cone and Plate No.: N/A Sand-Cone Calibration Date:

Test ID	Depth (in)	Sand Cone	Standard Counts MS	DS	Preactor ID	Soil Type	OMC (%)	MDD (pcf)	MMC (%)	GMC (%)	WD (pcf)	DD (pcf)	Rel. Comp. (%)	Pass / Fail	Date of Test
P1	6		491	2176	Interim #1 2021	CL	13.4	116.5	N/A	7.4	116.0	108.0	93	P	5/24/2021
P2	6		491	2176	Interim #1 2021	CL	13.4	116.5	N/A	7.3	114.1	106.3	91	P	5/24/2021
P3	6		492	2182	Interim #1 2021	CL	13.4	116.4	N/A	5.7	117.6	111.3	96	P	5/29/2021
P4	6		492	2182	Interim #1 2021	CL	13.4	116.4	N/A	6.7	116.0	108.7	93	P	5/29/2021
													#DIVID!	#DIVID!	
													#DIVID!	#DIVID!	

Notes

- Test locations are presented on Page 1
- Specification Requirements: 90% relative compaction. Proctors: ASTM D698

Weather Conditions

Sky Cover: Cloudy
 Wind (mph): 12
 Temperature (°F): 85-85
 Precipitation: N/A

LEGEND

MS: Moisture Standard Count MMC: Microwave Moisture Content
 DS: Density Standard Count GMC: Gauge Moisture Content
 OMC: Optimum Moisture Content WD: Wet Density
 MDD: Maximum Dry Density DD: Dry Density

Testing By: Cody Seeger Cody Seeger
 Print Name / Signature

Date: 6/14/21

QA/QC Approval: Robert Anderson Robert Anderson
 Print Name / Signature

Date: 6/14/2021

Density Testing
 DOE-EM/GJRAC1783

QC-F-002A
 File Index No. 43.8.2
 Page 3 of 5

Appendix A3. Interim Cover Lift Approval Package (continued)

ASTM D6938 Density Determination by Nuclear Method

Project: Moab UMTRA Report Date: 6/10/2021
 Lift ID: U11N3N210504-00
 NDC Make/Model: 3430 Gauge Serial Number: 23532 Gauge Calibration Date: 12/15/2020
 Tank: Interim Sand-Cone and Plate No.: N/A Sand-Cone Calibration Date:

Test ID	Depth (in)	Sand Cone	Standard Counts S45 DS	Proctor ID	Soil Type	OMC (%)	MDD (pcf)	MMC (%)	GMC (%)	WD (pcf)	DD (pcf)	Rel. Comp. (%)	Pass / Fail	Date of Test
P5	6		492 2182	Interim #1 2021	CL	13.4	114.5	N/A	7.6	114.8	108.7	92	P	5/20/2021
P6	6		496 2159	Interim #1 2021	CL	13.4	116.5	N/A	7.4	117.2	111.3	96	P	6/7/2021
P7	6		496 2159	Interim #1 2021	CL	13.4	116.5	N/A	9.3	121.6	111.2	95	P	6/7/2021
P8	6		497 2143	Interim #1 2021	CL	13.4	116.5	N/A	9.8	126.6	115.3	89	P	6/10/2021
												#DIV/0!	#DIV/0!	
												#DIV/0!	#DIV/0!	

Notes:

- Test locations are presented on Page 1
- Specification Requirements: 90% relative compaction. Proctors: ASTM D698

Weather Conditions

Sky Cover: Cloudy
 Wind (mph): 12
 Temperature (°F): 85-86
 Precipitation: N/A

LEGEND

MS: Moisture Standard Count MMC: Microwave Moisture Content
 DS: Density Standard Count GMC: Gauge Moisture Content
 OMC: Optimum Moisture Content WD: Wet Density
 MDD: Maximum Dry Density DD: Dry Density

Density Testing
 DOE-EM/GJAC1783

Testing By: Cody Seager [Signature]
 Print Name / Signature

Date: 6/14/21

QA/QC Approval: Robert Anderson [Signature]
 Print Name / Signature

Date: 6/14/2021

QC-P-002A
 File Index No. 43.8.2
 Page 41 of 5

Appendix A3. Interim Cover Lift Approval Package (continued)

ASTM D6938 Density Determination by Nuclear Method

Project: Moab UMTRA Report Date: 6/10/2021
 Lift ID: U11N3N210904-00
 NDC Make/Model: 5410 Gauge Serial Number: 23532 Gauge Calibration Date: 12/15/2020
 Task: Interim Sand-Cone and Plate No.: N/A Sand-Cone Calibration Date: _____

Test ID	Depth (in)	Sand Cone	Standard Counts MS DS	Proctor ID	Soil Type	OMC (%)	MDD (pcf)	MMC (%)	GMC (%)	WD (pcf)	DD (pcf)	Rel. Comp. (%)	Pass / Fail	Date of Test
P9	6		492 2182	Interim #1 2021	CL	13.4	116.5	N/A	6.4	114.9	108.0	93	P	6/10/2021
												#DIV/0!	#DIV/0!	
												#DIV/0!	#DIV/0!	
												#DIV/0!	#DIV/0!	
												#DIV/0!	#DIV/0!	
												#DIV/0!	#DIV/0!	

Notes

1. Test locations are presented on Page 1

2. Specification Requirements: 90% relative compaction. Proctors: ASTM D698

Weather Conditions

Sky Cover: Cloudy

Wind (mph): 12

Temperature (°F): 85-95

Precipitation: N/A

LEGEND

MS: Moisture Standard Count
 DS: Density Standard Count
 OMC: Optimum Moisture Content
 MDD: Maximum Dry Density
 MMC: Microwave Moisture Content
 GMC: Gauge Moisture Content
 WD: Wet Density
 DD: Dry Density

Testing By: Cody Seeger
 Print Name / Signature

Date: 6/14/21

QA/QC Approval: Robert Anderson
 Print Name / Signature

Date: 6/14/2021

Density Testing
 DOE-EM/GJRAC1783

QC-F-002A
 File Index No. 43.8.2
 Page 5 of 5

Appendix A3. Interim Cover Buyoff Surveys

Interim Buyoff Form



Client: Department of Energy
Project: Moab UMTRA Project
Date: 1-25-2021

In signing this document, the signatory agrees that the floor is complete and meets both the project specifications and RAIP requirements.

Excavation Area	Lift Area
Interim cover	W31

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr		1-28-21
Cody Seager/ QA/QC Representative		1-28-21
Kathy Turvy/ QA/QC Manager		1/28/2021
Comments		

OP-F-013
Rev 0, August 2010

File Index No. 43.1.1
Page 1 of 1

Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Buyoff Survey W31			Date: 12/30/20	
Point #	Northing	Easting	Grade	Cut/Fill (+/-)
21067 stk	6794409.990	2123649.971	4972.072	0.072
21030 stk	6794359.949	2123600.054	4970.780	0.098
21066 stk	6794360.032	2123649.935	4970.808	0.028
21102 stk	6794360.015	2123700.072	4970.836	0.004
21101 stk	6794309.973	2123699.945	4969.572	0.093
21138 stk	6794310.038	2123749.998	4969.571	0.042
21029 stk	6794310.004	2123599.946	4969.516	0.037
20993 stk	6794309.941	2123550.011	4969.488	0.062
20956 stk	6794309.951	2123500.019	4969.480	0.091
20919 stk	6794310.015	2123450.011	4969.431	0.123
20882 stk	6794309.974	2123400.047	4969.403	0.093
20845 stk	6794310.021	2123350.002	4969.375	0.015
20808 stk	6794310.036	2123300.058	4969.347	0.016
20772 stk	6794310.015	2123250.046	4969.319	0.084
20809 stk	6794360.014	2123300.001	4970.810	0.012
20846 stk	6794359.991	2123350.056	4970.639	0.017
20883 stk	6794360.053	2123400.031	4970.667	0.048
20920 stk	6794360.023	2123449.977	4970.695	0.085
20957 stk	6794360.029	2123499.983	4970.723	0.079
20921 stk	6794410.005	2123449.930	4971.958	0.044
20847 stk	6794410.060	2123349.982	4971.902	0.041
20810 stk	6794410.054	2123299.994	4971.874	0.081
20922 stk	6794309.984	2123450.013	4969.431	0.073
21031 stk	6794409.959	2123600.037	4972.043	0.138
21065 stk	6794310.018	2123650.045	4969.544	0.021
20994 stk	6794360.065	2123549.981	4970.751	0.045
20995 stk	6794410.045	2123550.012	4972.015	0.018
20884 stk	6794410.042	2123399.993	4971.930	0.018
20774 stk	6794410.039	2123249.964	4971.846	0.037
20773 stk	6794360.057	2123250.007	4970.582	0.020

Comments: QC performed a visual inspection of the final surface with satisfactory results. Visual inspection notes: The interim uniform thickness was satisfactory see above survey results for interim thickness. The tolerance is plus 1.67 with no minus. see attached as built for surface structure.

Approval Date: 1-25-2021 Total Square feet 45,033

North West Corner: 6794410 N 2123250 E

QC Signature: *[Signature]* Reviewed By: *[Signature]*

Appendix A3. Interim Cover Buyoff Surveys (*continued*)



Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Buyoff Form



Client: Department of Energy
Project: Moab UMTRA Project
Date: 5-19-2021

In signing this document, the signatory agrees that the floor is complete and meets both the project specifications and RAIP requirements.

Excavation Area	Lift Area
Interim cover	UI1Q13210504-00

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr.		05/14/2021
Cody Seager/ QA/QC Representative		5-19-2021
Robert Anderson/ QA/QC Representative		5/19/2021
Kathy Turvy/ QA/QC Manager		5/19/2021
Comments		

OP-F-013
 Rev 0, August 2010

43831
 File Index No: 43.1.1
 Page 1 of 1

Appendix A3. Interim Cover Buyoff Surveys (continued)

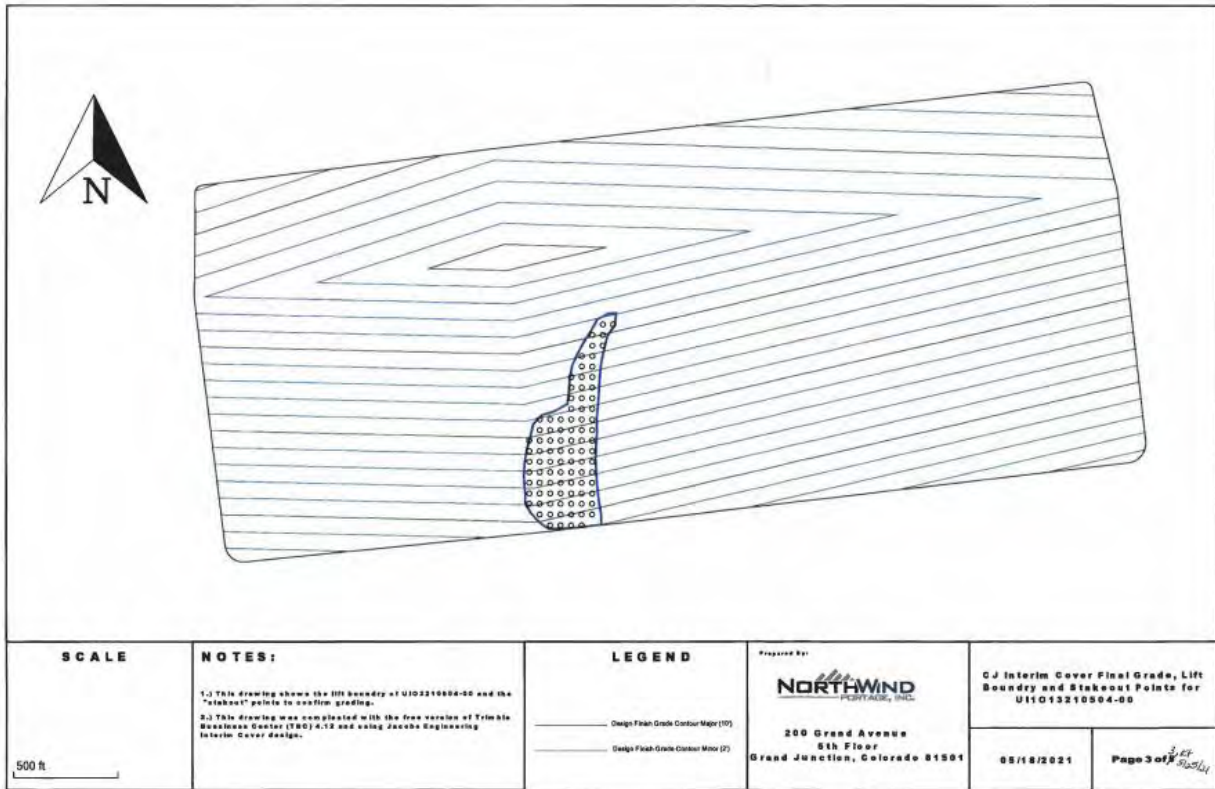
Interim Cover Buyoff Survey						
Area Buyoff ID:			UIC13210504-00		Date: 5/18/2021	
Point #	Northing	Easting	Surveyed Elevation	Design Elevation	Difference in feet	Difference in inches
21250 stk	6794360.008	2123900.004	4970.098	4969.949	0.149	1.6
21251 stk	6794410.014	2123899.962	4971.295	4971.176	0.119	1.5
21139 stk	6794360.042	2123749.956	4970.864	4970.796	0.068	0.8
21103 stk	6794410.045	2123700.015	4972.175	4972.100	0.075	0.9
21104 stk	6794460.011	2123699.943	4973.513	4973.364	0.150	1.8
21105 stk	6794510.008	2123700.004	4974.783	4974.627	0.156	1.9
21142 stk	6794509.967	2123750.057	4974.614	4974.471	0.143	1.7
21141 stk	6794459.963	2123749.970	4973.390	4973.246	0.144	1.7
21140 stk	6794409.999	2123750.057	4972.131	4972.021	0.110	1.3
21176 stk	6794359.993	2123800.011	4970.850	4970.514	0.336	4.0
21177 stk	6794409.966	2123799.957	4971.889	4971.739	0.150	1.8
21178 stk	6794460.034	2123799.957	4973.094	4972.964	0.130	1.6
21216 stk	6794509.974	2123849.989	4974.024	4973.907	0.117	1.4
21215 stk	6794459.956	2123849.963	4972.796	4972.682	0.114	1.4
21214 stk	6794409.957	2123850.021	4971.562	4971.467	0.095	1.1
21213 stk	6794360.015	2123849.992	4970.366	4970.232	0.134	1.6
21252 stk	6794480.005	2123900.012	4972.621	4972.399	0.222	2.7
21253 stk	6794510.055	2123899.955	4973.756	4973.624	0.131	1.6
21290 stk	6794510.056	2123949.998	4973.450	4973.342	0.108	1.3
21327 stk	6794509.979	2124000.002	4973.105	4973.060	0.045	0.5
21289 stk	6794459.987	2123949.998	4972.234	4972.117	0.117	1.4
21288 stk	6794409.984	2123950.008	4971.024	4970.892	0.131	1.6
21287 stk	6794359.940	2123850.042	4969.806	4969.667	0.139	1.7
21324 stk	6794360.022	2124000.040	4969.467	4969.385	0.082	1.0
21325 stk	6794410.015	2123999.988	4970.864	4970.610	0.254	3.0
21326 stk	6794459.993	2123999.940	4971.946	4971.835	0.111	1.3
21106 stk	6794559.959	2123699.950	4975.011	4975.891	-0.880	-10.6
21179 stk	6794509.959	2123799.962	4974.331	4974.189	0.142	1.7
21107 stk	6794610.014	2123699.933	4977.299	4977.155	0.144	1.7
21143 stk	6794660.007	2123750.043	4975.783	4975.696	0.087	1.0
21144 stk	6794610.026	2123749.999	4977.013	4976.921	0.092	1.1
21180 stk	6794660.056	2123799.947	4975.551	4975.414	0.137	1.6
21217 stk	6794659.937	2123850.011	4975.194	4975.132	0.062	0.7
21218 stk	6794609.961	2123850.012	4976.903	4976.356	0.547	6.6
21254 stk	6794659.982	2123900.022	4974.983	4974.849	0.133	1.6
21181 stk	6794609.935	2123799.982	4976.715	4976.639	0.076	0.9
21255 stk	6794609.981	2123900.014	4976.228	4976.074	0.153	1.8
21291 stk	6794659.993	2123949.963	4974.679	4974.567	0.112	1.3
21292 stk	6794610.032	2123950.006	4975.937	4975.792	0.145	1.7
21328 stk	6794560.011	2123999.986	4974.399	4974.285	0.114	1.3
21329 stk	6794610.045	2124000.008	4975.547	4975.510	0.037	0.4
21330 stk	6794659.958	2123999.997	4976.818	4976.735	0.083	1.0
21293 stk	6794659.963	2123950.042	4977.107	4977.017	0.090	1.1
21256 stk	6794659.963	2123900.022	4977.424	4977.296	0.128	1.5
21219 stk	6794660.025	2123850.036	4977.676	4977.581	0.095	1.1
21178 stk	6794309.962	2123500.021	4969.369	4969.289	0.080	1.0
21212 stk	6794310.011	2123850.028	4969.059	4969.007	0.052	0.6
21249 stk	6794309.968	2123899.977	4968.733	4968.724	0.009	0.1
21286 stk	6794309.994	2123950.021	4968.476	4968.442	0.034	0.4
21182 stk	6794659.934	2123799.960	4977.998	4977.864	0.134	1.6
21145 stk	6794660.036	2123750.031	4978.235	4978.146	0.089	1.1
21108 stk	6794659.946	2123699.974	4976.486	4976.419	0.066	0.8
21109 stk	6794710.044	2123700.014	4979.780	4979.653	0.127	1.5
21183 stk	6794709.979	2123600.011	4979.229	4979.068	0.161	1.9
21220 stk	6794710.047	2123650.003	4978.950	4978.806	0.144	1.7
21267 stk	6794709.958	2123699.961	4978.666	4978.524	0.142	1.7
21294 stk	6794710.034	2123950.041	4978.304	4978.242	0.062	0.8
21331 stk	6794710.003	2123999.982	4978.009	4977.960	0.049	0.6
21146 stk	6794710.027	2123749.935	4979.406	4979.371	0.035	0.4
21147 stk	6794760.023	2123750.031	4980.673	4980.595	0.077	0.9
21184 stk	6794759.972	2123800.047	4980.453	4980.313	0.140	1.7

Appendix A3. Interim Cover Buyoff Surveys (continued)

21221	stk	6794759.985	2123880.024	4980.152	4980.031	0.120	1.4
21222	stk	6794809.998	2123850.017	4981.358	4981.256	0.102	1.2
21185	stk	6794809.984	2123799.978	4981.815	4981.538	0.076	0.9
21148	stk	6794810.002	2123780.036	4981.830	4981.820	0.110	1.3
21260	stk	6794860.002	2123900.031	4982.257	4982.199	0.058	0.7
21259	stk	6794809.976	2123900.011	4981.341	4980.974	0.067	0.8
21258	stk	6794759.991	2123900.032	4979.843	4979.749	0.094	1.1
21295	stk	6794759.975	2123520.041	4979.982	4979.407	0.125	1.5
21332	stk	6794759.975	2123999.971	4979.282	4979.165	0.078	0.9
21333	stk	6794809.959	2124000.009	4980.503	4980.409	0.094	1.1
21296	stk	6794809.984	2123950.020	4980.797	4980.692	0.105	1.3
21297	stk	6794860.061	2123950.007	4980.642	4981.917	0.126	1.5
21334	stk	6794859.936	2123999.988	4981.728	4981.635	0.094	1.1
21335	stk	6794910.021	2124000.013	4983.008	4982.859	0.145	1.7
21298	stk	6794910.010	2123950.001	4983.246	4983.142	0.104	1.3
21261	stk	6794910.038	2123900.032	4983.509	4983.424	0.085	1.0
21262	stk	6794960.004	2123899.987	4984.727	4984.649	0.078	0.9
21299	stk	6794960.030	2123949.976	4984.507	4984.367	0.140	1.7
21336	stk	6794959.982	2124000.045	4984.221	4984.084	0.137	1.6
21337	stk	6795010.017	2124000.029	4985.451	4985.309	0.142	1.7
21300	stk	6795010.055	2123949.994	4985.726	4985.591	0.135	1.6
21263	stk	6795009.991	2123900.032	4986.003	4985.874	0.129	1.5
21301	stk	6795060.012	2123949.992	4986.929	4986.816	0.113	1.4
21338	stk	6795059.940	2123999.976	4986.868	4986.534	0.134	1.6
21339	stk	6796109.970	2123999.970	4987.870	4987.759	0.110	1.3
21302	stk	6795110.006	2123950.012	4988.177	4988.041	0.136	1.6
21340	stk	6795160.038	2124000.021	4989.119	4988.984	0.135	1.6
21376	stk	6795159.978	2124050.049	4988.804	4988.702	0.102	1.2
21377	stk	6795209.970	2124049.999	4990.040	4988.827	0.112	1.4
21341	stk	6795210.021	2123999.973	4990.300	4990.000	0.120	1.4
21378	stk	6795259.979	2124049.997	4991.211	4991.152	0.059	0.7
21414	stk	6795260.006	2124099.947	4990.955	4990.969	0.095	1.0
Comments: QC performed a visual inspection of the final surface with satisfactory results. All observations of grade tolerance indicated the grade was within the specification requirement of Design grade +0.17 FT (no minus tolerance allowed).							
Approval Date: 5/19/21				Total Square Feet: 934.974			
North West Corner: 6795315 N 2124115 E							
QC Signature: Carly Reager				Reviewed By: R			

Page 2 of 8
5/20/21

Appendix A3. Interim Cover Buyoff Surveys (continued)



Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Buyoff Form



Client: Department of Energy
Project: Moab UMTRA Project
Date: 6-14-2021

In signing this document, the signatory agrees that the floor is complete and meets both the project specifications and RAIP requirements.

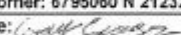

Area	Lift Area
Interim cover	UIV18210624-00

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr.		06-28-21
Cody Seager/ QA/QC Representative		6/28/21
Robert Anderson/ QA/QC Representative		6/28/2021
Kathy Turvy/ QA/QC Manager		6/29/2021
Comments		

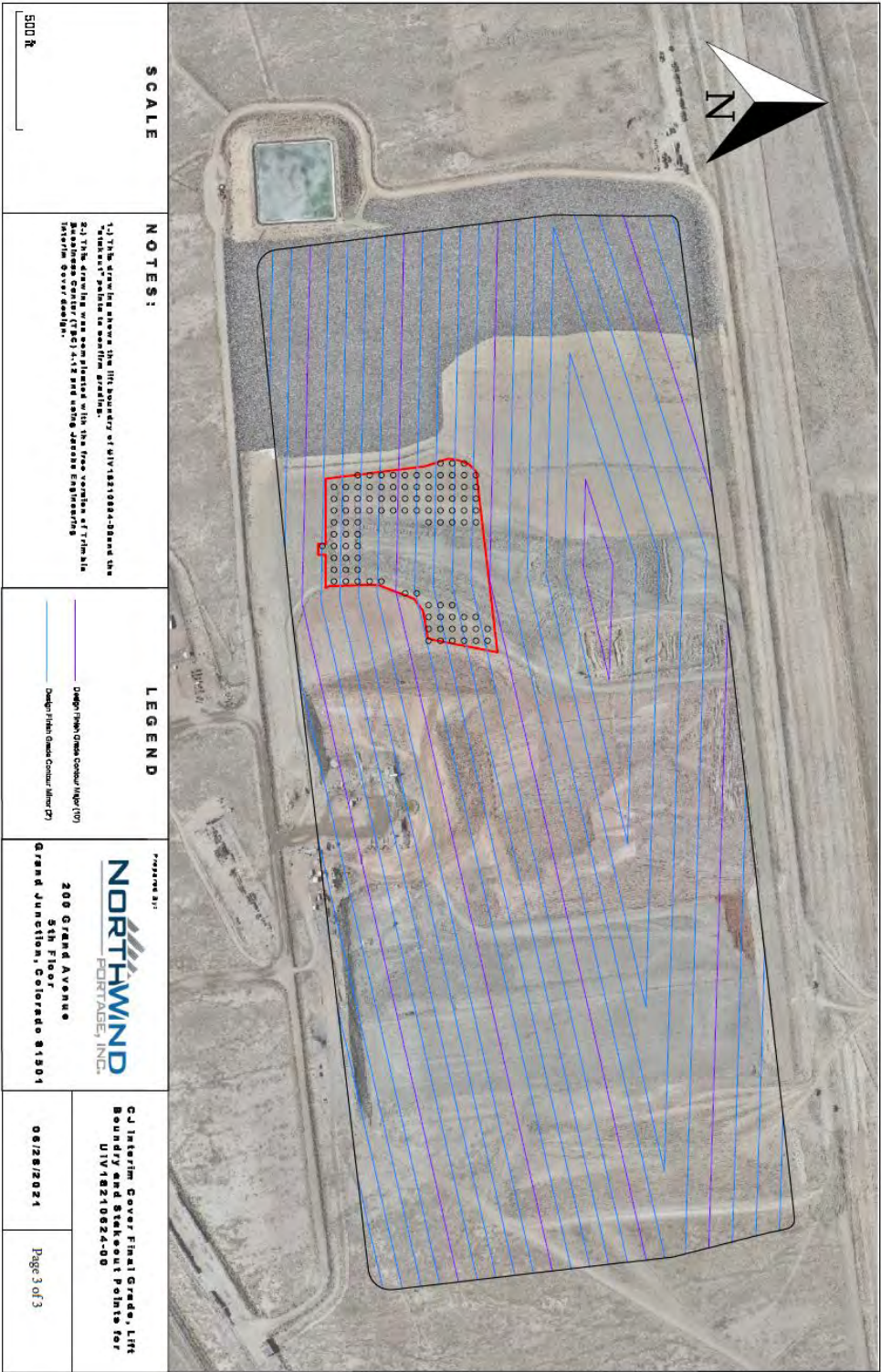
Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Cover Buyoff Survey						
Area Buyoff ID:			Date: 6/24/2021			
Point #	Northing	Easting	Surveyed Elevation	Design Elevation	Difference in feet	Difference in inches
21068 stk	6794460.008	2123649.944	4973.345	4973.335	0.0	0.1
21032 stk	6794460.059	2123599.986	4973.326	4973.307	0.0	0.2
20996 stk	6794460.030	2123550.030	4973.321	4973.279	0.0	0.5
20959 stk	6794459.991	2123500.062	4973.383	4973.251	0.1	1.6
20922 stk	6794460.022	2123450.029	4973.330	4973.222	0.1	1.3
20885 stk	6794459.989	2123400.033	4973.244	4973.194	0.0	0.6
20848 stk	6794460.055	2123349.968	4973.192	4973.186	0.0	0.3
20811 stk	6794459.951	2123300.030	4973.190	4973.137	0.1	0.6
20775 stk	6794459.938	2123250.044	4973.161	4973.109	0.1	0.6
20776 stk	6794510.002	2123250.002	4974.398	4974.373	0.0	0.3
20812 stk	6794510.022	2123299.975	4974.443	4974.401	0.0	0.5
20849 stk	6794509.992	2123350.034	4974.547	4974.430	0.1	1.4
20886 stk	6794510.014	2123400.020	4974.529	4974.458	0.1	0.9
20923 stk	6794509.969	2123449.937	4974.492	4974.486	0.0	0.1
20960 stk	6794510.033	2123500.018	4974.623	4974.514	0.1	1.3
20997 stk	6794509.991	2123550.035	4974.620	4974.543	0.1	0.9
21033 stk	6794510.044	2123599.970	4974.586	4974.571	0.0	0.2
21069 stk	6794510.049	2123649.983	4974.707	4974.599	0.1	1.3
20958 stk	6794410.009	2123500.012	4972.064	4971.987	0.1	0.9
21070 stk	6794559.956	2123649.946	4975.984	4975.863	0.1	1.5
21034 stk	6794559.999	2123600.015	4975.944	4975.835	0.1	1.3
20998 stk	6794559.962	2123550.017	4975.823	4975.806	0.0	0.2
20961 stk	6794560.016	2123500.076	4975.838	4975.778	0.1	0.7
20924 stk	6794560.017	2123450.034	4975.784	4975.750	0.0	0.4
20887 stk	6794560.065	2123400.015	4975.760	4975.722	0.0	0.5
20850 stk	6794559.944	2123349.978	4975.694	4975.693	0.0	0.0
20813 stk	6794560.023	2123299.983	4975.689	4975.665	0.0	0.3
20777 stk	6794559.998	2123249.986	4975.666	4975.637	0.0	0.3
20741 stk	6794559.985	2123200.015	4975.717	4975.609	0.1	1.3
20742 stk	6794610.024	2123200.001	4976.987	4976.872	0.1	1.1
20744 stk	6794710.040	2123200.014	4979.538	4979.400	0.1	1.7
20745 stk	6794759.972	2123199.993	4980.727	4980.664	0.1	0.8
20746 stk	6794809.994	2123199.989	4981.998	4981.927	0.1	0.9
20747 stk	6794859.964	2123199.995	4983.299	4983.191	0.1	1.3
20748 stk	6794909.967	2123200.012	4984.516	4984.455	0.1	0.7
20712 stk	6794909.993	2123149.979	4984.538	4984.427	0.1	1.3
20713 stk	6794959.975	2123149.981	4985.741	4985.690	0.1	0.6
20714 stk	6795010.017	2123149.973	4987.052	4986.954	0.1	1.2
20749 stk	6794959.963	2123200.013	4985.814	4985.719	0.1	1.1
20750 stk	6795010.002	2123199.987	4987.083	4986.982	0.1	1.2
20751 stk	6795060.035	2123199.969	4988.393	4988.246	0.1	1.8
20743 stk	6794660.058	2123200.003	4978.229	4978.136	0.1	1.1
20778 stk	6794610.006	2123249.953	4976.984	4976.900	0.1	1.0
20779 stk	6794660.000	2123250.029	4978.236	4978.164	0.1	0.9
20780 stk	6794710.006	2123250.031	4979.536	4979.428	0.1	1.3
20781 stk	6794760.002	2123249.958	4980.802	4980.692	0.1	1.3
20782 stk	6794809.954	2123249.986	4982.081	4981.956	0.1	1.5
20783 stk	6794860.002	2123249.977	4983.278	4983.219	0.1	0.7
20784 stk	6794909.941	2123250.004	4984.555	4984.483	0.1	0.9
20785 stk	6794960.024	2123250.041	4985.784	4985.747	0.0	0.4
20786 stk	6795010.024	2123249.970	4987.091	4987.011	0.1	1.0
20787 stk	6795060.053	2123249.976	4988.383	4988.275	0.1	1.3
20823 stk	6795060.052	2123300.003	4988.431	4988.303	0.1	1.5
20822 stk	6795010.004	2123300.027	4987.164	4987.039	0.1	1.5
20821 stk	6794959.993	2123299.971	4985.804	4985.775	0.0	0.3
20820 stk	6794910.062	2123299.997	4984.854	4984.511	0.1	1.7
20819 stk	6794860.002	2123299.982	4983.346	4983.248	0.1	1.2
20818 stk	6794809.949	2123299.962	4982.067	4981.984	0.1	1.0
20817 stk	6794760.057	2123299.998	4980.836	4980.720	0.1	1.4
20816 stk	6794709.952	2123299.967	4979.595	4979.456	0.1	1.7
20815 stk	6794660.015	2123299.989	4978.294	4978.193	0.1	1.2

Appendix A3. Interim Cover Buyoff Surveys (continued)

20814	stk	6794610.017	2123299.996	4977.021	4978.929	0.1	1.1
20861	stk	6794610.047	2123349.996	4977.119	4978.957	0.2	1.9
20862	stk	6794659.972	2123350.007	4978.256	4978.221	0.0	0.4
20863	stk	6794710.030	2123349.949	4979.589	4979.485	0.1	1.2
20864	stk	6794760.011	2123350.040	4980.827	4980.748	0.1	0.9
20865	stk	6794809.962	2123350.012	4982.162	4982.012	0.2	1.8
20866	stk	6794859.990	2123349.940	4983.294	4983.276	0.0	0.2
20867	stk	6794910.064	2123349.979	4984.677	4984.540	0.1	1.6
20868	stk	6794959.964	2123349.986	4985.903	4985.804	0.1	1.2
20869	stk	6795009.957	2123349.997	4987.107	4987.087	0.0	0.5
20860	stk	6795060.074	2123349.972	4988.355	4988.331	0.0	0.3
20897	stk	6795059.962	2123399.991	4988.443	4988.359	0.1	1.0
20896	stk	6795010.031	2123399.998	4987.141	4987.096	0.0	0.5
20895	stk	6794959.971	2123399.963	4985.667	4985.832	0.0	0.4
20894	stk	6794909.950	2123399.954	4984.592	4984.568	0.0	0.3
20893	stk	6794860.009	2123399.963	4983.342	4983.304	0.0	0.5
21071	stk	6794610.014	2123649.979	4977.255	4977.127	0.1	1.5
21072	stk	6794659.954	2123650.037	4978.457	4978.391	0.1	0.8
21110	stk	6794760.040	2123700.013	4980.931	4980.878	0.1	0.6
21111	stk	6794910.048	2123699.983	4982.202	4982.103	0.1	1.2
21149	stk	6794859.993	2123750.048	4983.086	4983.045	0.0	0.5
21186	stk	6794860.030	2123800.052	4982.834	4982.763	0.1	0.9
21223	stk	6794859.965	2123849.960	4982.599	4982.481	0.1	1.4
21260	stk	6794859.967	2123900.029	4982.244	4982.199	0.0	0.5
21261	stk	6794909.966	2123900.048	4983.468	4983.424	0.0	0.5
21224	stk	6794909.947	2123849.943	4983.804	4983.706	0.1	1.2
21187	stk	6794910.021	2123800.000	4984.009	4983.988	0.0	0.3
21150	stk	6794909.947	2123750.014	4984.304	4984.270	0.0	0.4
21151	stk	6794969.996	2123750.006	4985.568	4985.495	0.1	0.9
21188	stk	6794960.009	2123799.944	4985.237	4985.213	0.0	0.3
21225	stk	6794969.979	2123849.949	4985.011	4984.931	0.1	1.0
21262	stk	6794960.035	2123899.965	4984.700	4984.649	0.1	0.6
21263	stk	6795009.923	2123899.983	4985.889	4985.874	0.0	0.2
21226	stk	6795009.946	2123849.940	4986.217	4986.156	0.1	0.7
21189	stk	6795010.062	2123800.026	4986.511	4986.438	0.1	0.9
21190	stk	6795059.939	2123799.945	4987.773	4987.663	0.1	1.3
21227	stk	6795059.966	2123850.060	4987.445	4987.381	0.1	0.8
21264	stk	6795060.049	2123899.962	4987.138	4987.099	0.0	0.4
21265	stk	6795110.036	2123899.972	4988.434	4988.324	0.1	1.3
21228	stk	6795110.025	2123849.973	4988.749	4988.606	0.1	1.7
Comments: QC performed a visual inspection of the final surface with satisfactory results. All observations of grade tolerance indicated the grade was within the specification requirement of Design grade +0.17 FT (no minus tolerance allowed).							
Approval Date: 6/28/2021				Total Square Feet: 207,208			
North West Corner: 6795060 N 2123200 E							
QC Signature: 				Reviewed By: 			

Appendix A3. Interim Cover Buyoff Surveys (continued)



Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Buyoff Form



Client: Department of Energy
Project: Moab UMTRA Project
Date: 6-14-2021

In signing this document, the signatory agrees that the Interim is complete and meets both the project specifications and RAIP requirements.

Area	Lift Area
Interim cover	U11N3N210504-00

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr.		06-14-21
Cody Seager/ QA/QC Representative		6/14/21
Robert Anderson/ QA/QC Representative		6/14/2021
Kathy Turvy/ QA/QC Manager		6/15/2021
Comments		

OP-F-013
 Rev 0, August 2010

43.83.1
 File Index No. 43.1.1
 Page 1 of 1

Appendix A3. Interim Cover Buyoff Surveys (continued)

Interim Cover Buyoff Survey						
Area Buyoff ID:			Data:			
Point #	Northings	Eastings	Surveyed Elevation	Design Elevation	Difference in feet	Difference in inches
21452 atk	6795360.000	2124150.006	4993.179	4993.037	0.141	1.7
21489 atk	6795360.061	2124199.953	4992.826	4992.755	0.071	0.9
21526 atk	6795359.938	2124250.018	4992.494	4992.473	0.022	0.3
21563 atk	6795360.015	2124300.009	4992.226	4992.191	0.035	0.4
21601 atk	6795409.876	2124350.037	4993.228	4993.133	0.095	1.1
21638 atk	6795408.999	2124389.966	4992.925	4992.851	0.074	0.9
21676 atk	6795460.031	2124395.982	4994.223	4994.072	0.146	1.8
21684 atk	6795410.022	2124299.992	4993.472	4993.416	0.056	0.7
21527 atk	6795410.009	2124250.030	4993.718	4993.698	0.021	0.3
21490 atk	6795410.084	2124200.035	4994.119	4993.940	0.179	2.2
21483 atk	6795410.007	2124149.979	4994.415	4994.262	0.153	1.9
21454 atk	6795459.990	2124149.989	4995.593	4995.487	0.106	1.3
21491 atk	6795460.013	2124200.036	4995.328	4995.205	0.123	1.5
21528 atk	6795460.003	2124249.988	4994.970	4994.923	0.047	0.6
21565 atk	6795460.024	2124300.057	4994.651	4994.641	0.010	0.1
21502 atk	6795460.019	2124350.014	4994.490	4994.358	0.132	1.6
21640 atk	6795510.040	2124400.061	4993.429	4993.301	0.127	1.6
21603 atk	6795510.015	2124349.965	4993.722	4993.584	0.138	1.7
21566 atk	6795510.024	2124299.942	4995.946	4995.866	0.080	1.0
21529 atk	6795509.955	2124249.996	4996.304	4996.148	0.155	1.9
21482 atk	6795510.061	2124200.002	4996.571	4996.430	0.141	1.7
21455 atk	6795510.055	2124149.973	4996.847	4996.712	0.135	1.7
21456 atk	6795560.033	2124149.939	4996.076	4996.938	0.136	1.7
21493 atk	6795560.062	2124200.019	4997.802	4997.658	0.144	1.8
21530 atk	6795559.962	2124250.032	4997.523	4997.374	0.149	1.8
21567 atk	6795559.985	2124299.987	4997.947	4997.992	0.045	0.6
21604 atk	6795560.017	2124349.980	4998.944	4998.810	0.134	1.7
21641 atk	6795560.011	2124400.054	4996.609	4996.528	0.081	1.0
21642 atk	6795509.946	2124399.951	4997.863	4997.753	0.110	1.4
21605 atk	6795608.953	2124349.990	4998.058	4998.035	0.023	0.3
21568 atk	6795610.035	2124299.983	4998.428	4998.318	0.110	1.4
21531 atk	6795610.024	2124249.996	4998.741	4998.600	0.141	1.7
21494 atk	6795609.988	2124200.021	4998.968	4998.882	0.086	1.1
21457 atk	6795610.046	2124150.016	4999.309	4999.164	0.145	1.8
21458 atk	6795660.001	2124150.021	4999.374	4999.244	0.130	1.6
21495 atk	6795659.970	2124200.013	4999.363	4999.212	0.151	1.9
21532 atk	6795659.020	2124249.977	4999.325	4999.181	0.144	1.8
21569 atk	6795660.001	2124300.020	4999.311	4999.140	0.171	2.1
21606 atk	6795660.042	2124349.975	4999.243	4999.117	0.126	1.6
21643 atk	6795659.962	2124399.965	4999.107	4999.979	0.128	1.6
21644 atk	6795710.067	2124400.025	4998.221	4998.078	0.143	1.8
21570 atk	6795709.972	2124300.052	4998.229	4998.141	0.088	1.1
21533 atk	6795709.968	2124250.021	4998.275	4998.173	0.102	1.3
21496 atk	6795709.964	2124200.009	4998.273	4998.204	0.070	0.9
21459 atk	6795709.975	2124150.045	4998.370	4998.235	0.134	1.7
21460 atk	6795769.033	2124150.042	4997.264	4997.225	0.039	0.5
21607 atk	6795710.026	2124350.006	4998.246	4998.110	0.136	1.7
21487 atk	6795700.031	2124199.974	4997.308	4997.194	0.114	1.4
21534 atk	6795759.946	2124250.018	4997.308	4997.164	0.144	1.8
21571 atk	6795759.967	2124299.990	4997.250	4997.133	0.117	1.5
21608 atk	6795760.048	2124350.008	4997.255	4997.102	0.153	1.9
21645 atk	6795760.003	2124399.980	4997.154	4997.071	0.083	1.0
21682 atk	6795759.963	2124450.019	4997.139	4997.040	0.099	1.3
21718 atk	6795750.006	2124500.011	4997.162	4997.010	0.152	1.9
21754 atk	6795763.014	2124549.989	4997.133	4996.979	0.154	1.9
21790 atk	6795763.014	2124599.949	4997.059	4996.945	0.114	1.4
21827 atk	6795759.962	2124650.003	4997.041	4996.912	0.129	1.6
21902 atk	6795810.020	2124750.068	4995.887	4995.843	0.044	0.6
21865 atk	6795810.007	2124689.984	4996.033	4995.873	0.160	2.0
21828 atk	6795809.930	2124649.994	4996.027	4995.904	0.123	1.5
21781 atk	6795809.979	2124600.031	4995.971	4995.835	0.136	1.7
21755 atk	6795809.973	2124549.970	4996.078	4995.965	0.113	1.4
21719 atk	6795810.059	2124500.018	4996.022	4995.969	0.053	0.7

Appendix A3. Interim Cover Buyoff Surveys (continued)

21883	atk	6795810.052	2124450.042	4996.180	4996.030	0.151	1.0
21461	atk	6795809.982	2124150.023	4996.369	4996.213	0.146	1.0
21488	atk	6795810.003	2124200.037	4996.310	4996.183	0.128	1.5
21535	atk	6795809.994	2124249.973	4996.313	4996.152	0.160	1.9
21572	atk	6795809.990	2124300.015	4996.267	4996.121	0.143	1.7
21809	atk	6795810.015	2124349.966	4996.253	4996.091	0.162	1.9
21536	atk	6795809.965	2124249.981	4996.270	4996.140	0.130	1.8
21546	atk	6795810.022	2124399.966	4996.198	4996.060	0.138	1.7
21482	atk	6795859.948	2124149.990	4995.217	4995.200	0.017	0.2
21573	atk	6795860.028	2124300.020	4995.112	4995.110	0.003	0.0
21610	atk	6795859.959	2124350.018	4995.149	4995.079	0.070	0.8
21547	atk	6795860.008	2124400.073	4995.055	4995.049	0.006	0.1
21884	atk	6795859.985	2124450.011	4995.060	4995.019	0.041	0.5
21720	atk	6795860.069	2124500.012	4994.991	4994.989	0.002	0.0
21786	atk	6795859.971	2124350.046	4995.045	4994.958	0.087	1.0
21792	atk	6795859.966	2124600.011	4995.051	4994.927	0.124	1.5
21829	atk	6795859.951	2124649.986	4995.012	4994.896	0.116	1.4
21866	atk	6795858.963	2124700.029	4995.009	4994.863	0.144	1.7
21903	atk	6795860.034	2124749.981	4994.973	4994.834	0.139	1.7
21941	atk	6795909.976	2124800.025	4993.845	4993.793	0.051	0.5
21904	atk	6795910.020	2124749.989	4993.838	4993.823	0.015	0.2
21887	atk	6795910.011	2124700.054	4993.803	4993.854	0.049	0.6
21830	atk	6795910.022	2124649.950	4993.929	4993.885	0.045	0.5
21793	atk	6795910.056	2124600.042	4994.057	4993.916	0.142	1.7
21800	atk	6795909.928	2124159.903	4994.189	4994.168	0.021	0.4
21537	atk	6795910.038	2124249.956	4994.181	4994.127	0.055	0.6
21574	atk	6795910.047	2124299.949	4994.190	4994.067	0.123	1.5
21611	atk	6795909.973	2124349.963	4994.124	4994.067	0.057	0.7
21648	atk	6795910.011	2124400.021	4994.064	4994.037	0.027	0.3
21685	atk	6795910.001	2124450.022	4994.146	4994.007	0.140	1.7
21721	atk	6795909.977	2124499.981	4994.043	4993.976	0.067	0.8
21767	atk	6795910.075	2124550.022	4994.031	4993.846	0.185	2.0
21484	atk	6795960.013	2124149.929	4993.223	4993.176	0.047	0.6
21501	atk	6795959.969	2124200.031	4993.215	4993.145	0.070	0.8
21538	atk	6795959.990	2124249.937	4993.244	4993.115	0.129	1.5
21575	atk	6795959.978	2124300.068	4993.131	4993.085	0.047	0.6
21612	atk	6795959.981	2124350.031	4993.129	4993.055	0.074	0.9
21649	atk	6795960.000	2124400.020	4993.075	4993.024	0.050	0.6
21686	atk	6795959.989	2124449.989	4993.085	4992.994	0.091	1.1
21722	atk	6795959.998	2124500.031	4993.039	4992.964	0.075	0.9
21758	atk	6795960.023	2124549.977	4993.070	4992.934	0.137	1.6
21794	atk	6795960.010	2124600.020	4993.000	4992.903	0.097	1.2
21831	atk	6795960.037	2124650.053	4992.988	4992.873	0.115	1.4
21868	atk	6795960.030	2124699.986	4992.874	4992.843	0.031	0.4
21905	atk	6795959.978	2124749.951	4992.888	4992.813	0.075	0.9
21942	atk	6795960.037	2124800.007	4992.856	4992.782	0.074	1.0
21943	atk	6796005.963	2124799.950	4991.821	4991.770	0.052	0.6
21906	atk	6796005.973	2124750.025	4991.903	4991.800	0.103	1.2
21869	atk	6796009.961	2124659.953	4991.888	4991.830	0.057	0.7
21832	atk	6796010.026	2124649.968	4991.925	4991.861	0.064	0.8
21795	atk	6796009.955	2124600.004	4991.978	4991.881	0.097	1.0
21759	atk	6796010.005	2124550.036	4992.035	4991.921	0.114	1.4
21723	atk	6796009.970	2124499.980	4992.004	4991.951	0.053	0.6
21687	atk	6796010.028	2124450.008	4992.092	4991.982	0.110	1.3
21465	atk	6796010.053	2124150.011	4992.227	4992.163	0.064	0.8
21502	atk	6796009.987	2124200.026	4992.223	4992.133	0.090	1.1
21839	atk	6796010.007	2124249.967	4992.169	4992.103	0.066	0.8
21576	atk	6796010.089	2124300.015	4992.087	4992.072	0.015	0.2
21813	atk	6796009.989	2124349.986	4992.110	4992.042	0.068	0.8
21680	atk	6796010.051	2124399.971	4992.166	4992.072	0.154	1.8
21486	atk	6796056.961	2124149.980	4991.210	4991.151	0.059	0.7
21503	atk	6796050.035	2124200.020	4991.204	4991.121	0.083	1.0
21549	atk	6796060.046	2124250.044	4991.087	4991.090	0.007	0.1
21577	atk	6796090.016	2124299.933	4991.156	4991.060	0.096	1.2
21614	atk	6796090.060	2124350.025	4991.044	4991.030	0.014	0.2
21551	atk	6796056.981	2124400.016	4991.061	4990.999	0.061	0.7
21686	atk	6796058.974	2124450.034	4991.068	4990.969	0.099	1.2
21724	atk	6796090.002	2124500.024	4991.006	4990.939	0.069	0.8
21760	atk	6796095.974	2124550.003	4990.957	4990.909	0.048	0.6
21796	atk	6796090.005	2124600.005	4990.892	4990.878	0.013	0.2

Appendix A3. Interim Cover Buyoff Surveys (continued)

21833	stk	6796060.061	2124650.045	4990.917	4990.848	0.069	0.8
21870	stk	6796060.028	2124700.045	4990.935	4990.818	0.117	1.4
21807	stk	6796060.043	2124750.028	4990.801	4990.785	0.014	0.2
21945	stk	6796110.001	2124799.969	4989.775	4989.745	0.030	0.4
21908	stk	6796109.945	2124750.027	4989.807	4989.775	0.031	0.4
21871	stk	6796110.041	2124699.988	4989.861	4989.806	0.055	0.7
21834	stk	6796109.990	2124650.038	4989.935	4989.836	0.099	1.2
21757	stk	6796109.948	2124600.004	4989.891	4989.826	0.065	0.8
21761	stk	6796109.991	2124549.994	4989.930	4989.896	0.034	0.4
21487	stk	6796109.985	2124150.013	4990.182	4990.136	0.046	0.6
21504	stk	6796110.048	2124200.025	4990.188	4990.108	0.080	1.0
21641	stk	6796110.020	2124250.004	4990.131	4990.078	0.054	0.6
21878	stk	6796109.988	2124299.980	4990.151	4990.048	0.103	1.2
21615	stk	6796109.965	2124349.983	4990.154	4990.017	0.137	1.6
21683	stk	6796110.010	2124399.967	4990.114	4989.987	0.127	1.5
21689	stk	6796109.965	2124449.971	4990.060	4989.957	0.103	1.2
21725	stk	6796109.985	2124499.973	4990.071	4989.927	0.144	1.7
21944	stk	6796060.065	2124799.992	4990.769	4990.757	0.001	0.0
21946	stk	6796160.024	2124799.959	4988.758	4988.733	0.026	0.3
21947	stk	6796209.978	2124799.961	4987.738	4987.720	0.018	0.2
21909	stk	6796159.955	2124750.029	4988.837	4988.763	0.074	0.9
21910	stk	6796210.049	2124750.024	4987.825	4987.750	0.075	0.9
21872	stk	6796159.980	2124700.026	4988.860	4988.790	0.067	0.8
21873	stk	6796210.003	2124700.005	4987.877	4987.781	0.096	1.2
21835	stk	6796159.959	2124650.001	4988.847	4988.823	0.023	0.3
21836	stk	6796210.009	2124650.063	4987.862	4987.811	0.051	0.6
21798	stk	6796210.020	2124599.928	4987.982	4987.841	0.140	1.7
21798	stk	6796159.985	2124600.036	4988.894	4988.854	0.041	0.5
21762	stk	6796160.035	2124550.058	4988.958	4988.884	0.074	0.9
21726	stk	6796159.975	2124500.004	4988.994	4988.914	0.080	1.0
21690	stk	6796160.001	2124449.996	4989.055	4988.944	0.110	1.3
21693	stk	6796159.948	2124400.037	4989.111	4988.976	0.137	1.6
21616	stk	6796159.986	2124349.961	4989.041	4989.005	0.036	0.4
21579	stk	6796159.968	2124300.039	4989.067	4989.035	0.033	0.4
21542	stk	6796160.024	2124280.007	4989.110	4989.068	0.042	0.5
21505	stk	6796159.953	2124199.984	4989.195	4989.096	0.099	1.2
21468	stk	6796159.975	2124150.031	4988.203	4988.125	0.077	0.9
21499	stk	6795860.002	2124199.981	4995.207	4995.170	0.037	0.4
21463	stk	6795909.980	2124149.994	4994.189	4994.188	0.001	0.0
Comments: QC performed a visual inspection of the final surface with satisfactory results. All observations of grade tolerance indicated the grade was within the specification requirement of Design grade +0.17 FT (no minus tolerance allowed).							
Approval Date: 6/14/2021				Total Square Feet: 428,142			
North West Corner: 6796148 N, 2124098 E							
QC Signature:				Reviewed By:			

Appendix A3. Interim Cover Buyoff Surveys (continued)



Appendix A3. Interim Cover Buyoff Surveys (*continued*)

Interim Buyoff Form



Client: Department of Energy
Project: Moab UMTRA Project
Date: 7-27-2021

In signing this document, the signatory agrees that the floor is complete and meets both the project specifications and RAIP requirements.

Area	Lift Area
Interim cover	U11Z25210727-00

Approver Name/Title	Signature	Sign Date
Mike McCullough/ CJ Operations/Site Mgr.		07-27-21
Cody Seager/ QA/QC Representative		7/27/21
Robert Anderson/ QA/QC Representative		7/27/21
Kathy Turvy/ QA/QC Manager		7/27/21
Comments		

OP-F-013
Rev 0, August 2010

File Index No. 43.1.1
Page 1 of 1

Appendix A3. Interim Cover Buyoff Surveys (continued)

[illegible]

EnergySolutions

Page 1 of 2

Appendix A3. Interim Cover Buyoff Surveys (continued)



Appendix A8.
Spoils Embankment

Standard Proctor Test Results Summary
Lift Approval Summaries
Lift Approval Package

Appendix A8. Spoils Embankment Standard Proctor Test Results Summaries

Proctor ID	Date sampled	Date Approved	Max Dry Density	Optimum Moisture	Proctor Description
Spoils Wedge #12 2020	10/1/2020	10/2/2020	117.1	12.3%	Clay Sandy (CL)
Spoils Wedge #13 2020	10/1/2020	10/2/2020	117.0	11.2%	Clay Sandy (CL)
Spoils Wedge #14 2020	10/8/2020	10/9/2020	114.8	13.7%	Clay Sandy (CL)
Spoils Wedge #15 2020	10/8/2020	10/9/2020	114.5	13.7%	Clay Sandy (CL)
Spoils Wedge #16 2020	10/8/2020	10/9/2020	120.0	11.1%	Clay Sandy (CL)
Spoils Wedge #17 2020	10/15/2020	10/16/2020	116.4	13.0%	Clay Sandy (CL)
Spoils Wedge #18 2020	10/15/2020	10/16/2020	117.6	12.4%	Clay Sandy (CL)
Spoils Wedge #19 2020	10/22/2020	10/23/2020	115.0	13.5%	Clay Sandy (CL)
Spoils Wedge #20 2020	10/29/2020	10/30/2020	115.5	12.5%	Clay Sandy (CL)
Spoils Wedge #21 2020	11/5/2020	11/6/2020	116.8	12.9%	Clay Sandy (CL)
Spoils Wedge #22 2020	11/12/2020	11/13/2020	116.2 / 121.7 *	13% / 11.2% *	Clay Sandy (CL)
Spoils Wedge #23 2020	11/26/2020	1/25/2021	115.5	13.2%	Clay Sandy (CL)
Spoils Wedge #24 2020	12/3/2020	12/4/2020	117.9	12.2%	Clay Sandy (CL)
Spoils Wedge #25 2020	12/4/2020	12/6/2020	118.4	12.4%	Clay Sandy (CL)
Spoils Wedge #26 2020	12/10/2020	12/11/2020	117.0 / 120.4 *	13.3% / 12.4% *	Shale
Spoils Wedge #27 2020	12/10/2020	12/11/2020	119.0 / 124.7 *	12.8% / 11.0% *	Shale
Spoils Wedge #28 2020	12/20/2020	12/21/2020	119.9 / 126.1 *	11.6% / 9.7% *	Shale
Spoils Wedge #29 2020	12/20/2020	12/21/2020	118.0 / 126.6 *	12.9% / 10.1% *	Shale
New Cell #30 2020	12/23/2020	1/4/2021	115.6	14.2%	Clay Sandy, gravelly (CL)
New Cell #31 2020	12/23/2020	1/4/2021	116.4 / 121.9 *	13.6% / 11.7% *	Shale
New Cell #32 2020	1/8/2021	1/11/2021	116.0	13.5%	Clay Sandy, gravelly (CL)
New Cell #33 2020	1/8/2021	1/11/2021	115.5	13.5%	Clay Sandy, gravelly (CL)
New Cell #34 2020	N/A	N/A	N/A	N/A	THIS PROCTOR, NEW CELL #34 DOES NOT EXIST. BRIAN ACCIDENTLY SKIPPED 34 IN HIS NUMBERING
New Cell #35 2020	1/14/2021	1/25/2021	115.7	14.1%	Clay Sandy, gravelly (CL)
New Cell #36 2020	1/14/2021	1/25/2021	114.5	13.5%	Clay Sandy, gravelly (CL)
New Cell #37 2020	1/21/2021	1/25/2021	115.3	13.1%	Clay Sandy, gravelly (CL)
New Cell #38 2020	1/21/2021	1/25/2021	115.7	13.3%	Clay Sandy, gravelly (CL)
New Cell #39 2020	1/28/2021	2/4/2021	117.5	12.6%	Clay Sandy, gravelly (CL)
New Cell #40 2020	1/28/2021	2/4/2021	115.0	14.0%	Clay Sandy, gravelly (CL)
New Cell #41 2020	2/1/2021	2/4/2021	118.2	12.8%	Clay Sandy, gravelly (CL)

* Rock Correction

Appendix A8. Spoils Embankment Lift Approval Summary

October 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
10/01/20	USB88200930-00	1	14096	14,096	N/A	0.7	Spoils Wedge 9 2020	6	0	93
10/05/20	USB88201001-00	1	14096	28,192	N/A	0.7	Spoils Wedge 9 & 13 2020	6	0	93
10/06/20	USB88201005-00	1	11535	39,727	N/A	0.7	Spoils Wedge 13 2020	6	0	93
10/08/20	USB88201006-00	1	11535	51,262	N/A	0.7	Spoils Wedge 13 2020	6	1	93
10/12/20	USB88201007-00	1	11535	62,797	N/A	0.7	Spoils Wedge 15 2020	6	0	97
10/14/20	USB88201013-00	1	5756	68,553	N/A	0.7	Spoils Wedge 15 2020	2	0	95
10/20/20	USB88201014-00	2	5756	74,309	N/A	0.7	Spoils Wedge 15&18 2020	2	0	91
10/21/20	USB88201020-00	1	5756	80,065	N/A	0.7	Spoils Wedge 18 2020	2	0	93
<p style="text-align: center;"> Total Quantity Approved (yd³) = 80,065 Total # of Nuclear Density Gauge Tests = 36 Total # of Moisture Tests = 9 Total # of Sandcone Tests = 0 Quantity per Moisture Test (yd³) = 8,896 Total Average Thickness (ft) = 0.7 </p>										

Appendix A8. Spoils Embankment Lift Approval Summary *(continued)*

November 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
11/02/20	USB88201029-00	1	6261	6,261	N/A	0.7	Spoils Wedge 19 & 20 2020	2	1	93
11/03/20	USB88201102-00	1	15721	21,982	N/A	1.0	Spoils Wedge 20 2020	8	0	97
11/30/20	USB76201120-00	2	24,327	46,309	N/A	1.0	Spoils Wedge #22 2020	7	0	95
<p style="text-align: center;"> Total Quantity Approved (yd³) = 46,309 Total # of Nuclear Density Gauge Tests = 194 Total # of Moisture Tests = 4 Total # of Sandcone Tests = 1 Quantity per Moisture Test (yd³) = 11,577 Total Average Thickness (ft) = 0.9 </p>										

Appendix A8. Spoils Embankment Lift Approval Summary *(continued)*

December 2020										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
12/02/20	USB76201130-00	1	24327	24,327	N/A	1.0	Spoils Wedge #22 2020	7	0	94
12/07/20	USB76201202-00	1	24327	48,654	N/A	1.0	Spoils Wedge #22 2020	7	0	95
12/08/20	USB76201203-00	1	24327	72,981	N/A	1.0	Spoils Wedge #21 & 25 2020	7	1	95
12/09/20	USB76201207-00	1	24327	97,308	N/A	1.0	Spoils Wedge #21 2020	7	0	97
12/11/20	USB76201208-00	1	24327	121,635	N/A	1.0	Spoils Wedge #22 2020	7	0	99
12/15/20	USB76201211-00	1	24327	145,962	N/A	1.0	Spoils Wedge #27 2020	7	0	96
12/17/20	USB76201215-00	1	24327	170,289	N/A	1.0	Spoils Wedge #27 2020	7	1	95
12/22/20	USB76201218-00	1	24327	194,616	N/A	1.0	Spoils Wedge #24&29 2020	7	0	94
<p style="text-align: center;"> Total Quantity Approved (yd³) = 194,616 Total # of Nuclear Density Gauge Tests = 194 Total # of Moisture Tests = 8 Total # of Sandcone Tests = 2 Quantity per Moisture Test (yd³) = 24,327 Total Average Thickness (ft) = 1.0 </p>										

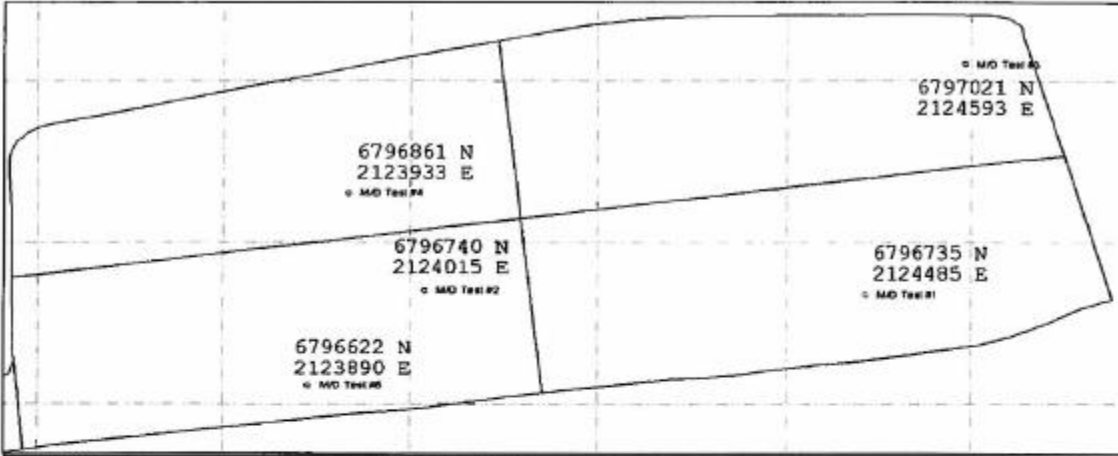
Appendix A8. Spoils Embankment Lift Approval Summary *(continued)*

January 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
01/05/21	USE53210104-00	1	16299	16,299	N/A	0.7	New Cell Area #30 2020	5	0	92
01/06/21	USE53210105-00	1	16299	32,598	N/A	0.7	New Cell Area #30 2020	5	0	92
01/07/21	USE53210106-00	1	16299	48,897	N/A	0.7	New Cell Area #1 2020	5	0	92
01/11/21	USE53210107-00	1	16299	65,196	N/A	0.7	New Cell Area #33 2020	5	1	94
01/13/21	USE53210111-00	1	16299	81,495	N/A	0.7	New Cell Area #33 2020	5	0	95
01/14/21	USE53210113-00	1	16299	97,794	N/A	0.7	New Cell Area #33 2020	5	0	93
01/18/21	USE53210114-00	1	16299	114,093	N/A	0.7	New Cell Area #33 2020	5	0	92
01/18/21	USE53210118-00	1	16299	130,392	N/A	0.7	New Cell Area #35 2020	5	0	93
01/19/21	USE53210118-01	1	16299	146,691	N/A	0.7	New Cell Area #35 2020	5	0	93
01/20/21	USE53210119-00	1	16299	162,990	N/A	0.7	New Cell Area #35 2020	5	0	96
01/21/21	USE53210120-00	1	16299	179,289	N/A	0.7	New Cell Area #35 2020	5	1	93
01/25/21	USE53210121-00	1	16299	195,588	N/A	0.7	New Cell Area #38 2020	5	0	95
01/26/21	USE53210125-00	1	16299	211,887	N/A	0.7	New Cell Area #38 2020	5	0	94
01/27/21	USG45210126-00	1	13332	225,219	N/A	0.7	New Cell Area #38 2020	4	0	91
01/28/21	USG45210127-00	1	13332	238,551	N/A	0.7	New Cell Area #38 2020	4	0	97
<p style="text-align: right;"> Total Quantity Approved (yd³) = 238,551 Total # of Nuclear Density Gauge Tests = 194 Total # of Moisture Tests = 15 Total # of Sandcone Tests = 2 Quantity per Moisture Test (yd³) = 15,903 Total Average Thickness (ft) = 0.7 </p>										

Appendix A8. Spoils Embankment Lift Approval Summary *(continued)*

February 2021										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd ³)	Cumulative Quantity Approved (yd ³)	CBCS Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
02/02/21	USG45210201-00	1	13332	13,332	N/A	0.7	New Cell Area #41 2020	4	1	91
02/02/21	USG45210201-01	1	13332	26,664	N/A	0.7	New Cell Area #41 2020	4	0	96
02/03/21	USG45210202-00	1	6345	33,009	N/A	0.7	New Cell Area #41 2020	2	0	95
02/04/21	USG45210203-00	1	6345	39,354	N/A	0.7	New Cell Area #41 2020	2	0	95
<p style="text-align: center;"> Total Quantity Approved (yd³) = 39,354 Total # of Nuclear Density Gauge Tests = 194 Total # of Moisture Tests = 4 Total # of Sandcone Tests = 1 Quantity per Moisture Test (yd³) = 9,839 Total Average Thickness (ft) = 0.7 </p>										

Appendix A8. Spoils Embankment Lift Approval Package

LIFT APPROVAL FORM							
PROJECT: <u>Moab UMTRA</u>		OTHER _____					
NW CORNER _____		DATE: <u>1/19/2021</u>					
 <p style="text-align: center;">IDENTIFY LOTS ABOVE</p>							
LIFT ID: <u>USE53210119-00</u>		NW CORNER: <u>6796924 N. 2123577 E.</u>					
Uncompacted Thickness: <u>0.7</u>	Compacted Thickness: <u>N/A</u>	Debris Insp. By: <u>N/A</u>	Date: <u>N/A</u>	Time: <u>N/A</u>			
NW CORNER of debris placement: <u>N/A</u>	EW Dimension <u>N/A</u>	NS Dimension <u>N/A</u>					
Lift Area (ft²): <u>656,823</u>	Lift Volume (yd³): <u>16,299</u>						
Comments: Proctor "New Cell Area #35 2020" was used for testing on the 19th & 20th. Arnes began hauling material on the 19th and continued until the 20th. 5 tests were taken on the 20th, 2 tests were taken in the AM on the Southern section. These Tests Passed. 3 Tests were taken on the 20th in the PM in the Northern area of the wedge and those tests passed. A moisture test was taken at random site #5. Proctor #37 Was taken at site #2.							
Attached Forms: Grid Slope <u>N/A</u> Compaction Macro <u>N/A</u> Print Screen <u>N/A</u> Moisture/ Density <u>X</u>							
KEYING IN NOTES: N E S W <u>N/A</u>		MOISTURE/ DENSITY TESTS (#): <u>5</u>					
LIFT APPROVED BY: <u>Brian Sherman/ [Signature]</u>		DATE: <u>1/20/2021</u>		TIME: <u>14:45</u>			
QA/QC APPROVAL <u>[Signature]</u>		DATE <u>1/25/2021</u>					

Density Testing
DOE-EM/GJRAC1783
Rev. 1

QC-F-001
File index No. 43.8.2
Page 1 of 2

Appendix A8. Spoils Embankment Lift Approval Package (continued)

FIELD DENSITY TEST

PROJECT: Moab UMTRA		Standard Count:		Date: 1/20/2021	
Lift ID: USE53210119-00		MS= 617			
Make/Model: Troxler 3430		DS= 1978		Gauge Calibration Date: 7/7/2020	
Task: Spoils Wedge		Sand-Cone and Plate No. 00		Sand-Cone Calibration Date: 5/4/2020	

Test No.	Depth (Inches)	Test Location	MUC	Type	MDD (pcf)	OMC (%)	WD (pcf)	DO (pcf)	MC (%)	Compaction (%)	Pass	Fail	Soil Type	Proctor ID	Date of Test
#1	8	N-6796735 E-2124485	X		115.7	14.1	116.0	107.7	7.7	93	P		CL	New Cell Area 2020 #35	1/20/2021
#2	8	N-6796740 E-2124015	X		115.7	14.1	127.5	114.8	11.1	99	P		CL	New Cell Area 2020 #35	1/20/2021
#3	8	N-6797021 E-2124563	X		115.7	14.1	122.3	112.1	9.1	97	P		CL	New Cell Area 2020 #35	1/20/2021
#4	8	N-6796981 E-2123933	X		115.7	14.1	117.1	109.7	6.7	95	P		CL	New Cell Area 2020 #35	1/20/2021
#5	8	N-6796522 E-2123890	X		115.7	14.1	124.8	112.0	11.3	97	P		CL	New Cell Area 2020 #35	1/20/2021

Legend: * Indicates moisture and density correction for RRM only ** Indicates a retest

Test ID: MC Test #44

Moisture Content:

A. Container No.	#3, #4
B. Container Mass (g)	1630
C. Mass of Container & Wet Soil (g)	2804.9
D. Mass of Container & Dry Soil (g)	2495.7
E. Moisture Content (%)	

Moisture Content:

A. Container No.	
B. Container Mass (g)	
C. Mass of Container & Wet Soil (g)	
D. Mass of Container & Dry Soil (g)	
E. Moisture Content (%)	

Test ID: N/A

ASTM D698

115.7 % MDD

14.1 % OMC

Testing By: Brian Sherman / *[Signature]* **Date:** 1/20/2021

QA/QC Rep: Robert Anderson / *[Signature]* **Date:** 1/25/2021

Print / Signature