

**Appendix A.**  
**Construction Verification Data**

# Appendix A. Construction Verification Data

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**NOTE:** Appendices A1 and 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 Survey**

## Appendix A2. RRM Standard Proctor Test Results Summary

Set	Proctor ID #	Date Sampled	Date Approved	Maximum Dry Density (lb/ft <sup>3</sup> )	Optimum Moisture Content (%)	Soils Description
Set # 135	RRM # 409	10/14/2013	11/5/2013	114.3	13.9	Sand with some silt, very fine to fine, round, poorly graded.
	RRM # 410	10/14/2013	11/5/2013	113.9	13.8	Sand with some silt, very fine to fine, round, poorly graded.
	RRM # 411	10/14/2013	11/5/2013	113.9	13.8	Sand with some silt, very fine to fine, round, poorly graded.
Set # 136	RRM # 412	10/24/2013	11/13/2013	109.9	16.9	Sand with clay, very fine to fine, subround, moderately graded.
	RRM # 413	10/24/2013	11/13/2013	110.4	17.6	Sand with clay, very fine to fine, subround, moderately graded.
	RRM # 414	10/24/2013	11/13/2013	109.5	17.8	Sand with clay, very fine to fine, subround, moderately graded.
Set # 137	RRM # 415	11/4/2013	1/8/2014	114.5	14.9	Sand and clay blend. Very fine to fine, well graded, subround.
	RRM # 416	11/4/2013	1/8/2014	116.5	13.2	Sand and clay blend. Very fine to fine, well graded, subround.
	RRM # 417	11/4/2013	1/8/2014	115.1	13.6	Sand and clay blend. Very fine to fine, well graded, subround.
Set # 138	RRM # 418	11/21/2013	1/28/2014	105.1	16.3	Sand w/ some clay, very fine to fine, subangular moderately graded.
	RRM # 419	11/21/2013	1/28/2014	104.9	16.8	Sand w/ some clay, very fine to fine, subangular moderately graded.
	RRM # 420	11/21/2013	1/28/2014	104.1	17.6	Sand w/ some clay, very fine to fine, subangular moderately graded.
Set # 139	RRM # 421	1/16/2014	2/6/2014	114.3	15.0	Very fine to fine, subangular, well graded, sand with clay.
	RRM # 422	1/16/2014	2/6/2014	115.4	15.4	Very fine to fine, subangular, well graded, sand with clay.
	RRM # 423	1/16/2014	2/6/2014	111.1	15.4	Very fine to fine, subangular, well graded, sand with clay.
Set # 140	RRM # 424	1/30/2014	3/4/2014	118.0	12.2	Very fine to medium, subangular, moderately graded, sand with some clay
	RRM # 425	1/30/2014	3/4/2014	120.5	11.3	Very fine to medium, subangular, moderately graded, sand with some clay
	RRM # 426	1/30/2014	3/4/2014	116.8	11.1	Very fine to medium, subangular, moderately graded, sand with some clay
Set # 141	RRM # 427	5/6/2014	6/17/2014	116.2	14.3	Light reddish brown, fine to medium, subangular, moderately graded sand with clay.
	RRM # 428	5/6/2014	6/17/2014	115.5	14.4	Light reddish brown, fine to medium, subangular, moderately graded sand with clay.
	RRM # 429	5/6/2014	6/17/2014	115.8	14.4	Light reddish brown, fine to medium, subangular, moderately graded sand with clay.
Set # 142	RRM # 430	5/15/2014	6/17/2014	115.0	15.1	Light brown, fine to coarse, subround, moderately graded clay with sand.
	RRM # 431	5/15/2014	6/17/2014	114.0	15.2	Light brown, fine to coarse, subround, moderately graded clay with sand.
	RRM # 432	5/15/2014	6/17/2014	114.9	14.6	Light brown, fine to coarse, subround, moderately graded clay with sand.

## Appendix A2. RRM Standard Proctor Test Results Summary (continued)

Set	Proctor ID #	Date Sampled	Date Approved	Maximum Dry Density (lb/ft <sup>3</sup> )	Optimum Moisture Content (%)	Soils Description
Set # 143	RRM # 433	5/28/2014	6/17/2014	113.3	15.2	Brown soil, very fine to medium, subangular, well graded clay with sand.
	RRM # 434	5/28/2014	6/17/2014	110.9	16.6	Brown soil, very fine to medium, subangular, well graded clay with sand.
	RRM # 435	5/28/2014	6/17/2014	113.3	15.6	Brown soil, very fine to medium, subangular, well graded clay with sand.
Set # 144	RRM # 436	6/11/2014	7/1/2014	111.4	17.0	Brown clay with sand, very fine to medium, subangular well graded.
	RRM # 437	6/11/2014	7/1/2014	114.3	14.9	Brown clay with sand, very fine to medium, subangular well graded.
	RRM # 438	6/11/2014	7/1/2014	110.0	17.8	Brown clay with sand, very fine to medium, subangular well graded.
Set # 145	RRM # 439	6/19/2014	7/1/2014	112.6	15.1	Light brown sand with clay, fine to medium, subround, moderately graded.
	RRM # 440	6/19/2014	7/1/2014	113.4	15.6	Light brown sand with clay, fine to medium, subround, moderately graded.
	RRM # 441	6/19/2014	7/1/2014	113.1	15.7	Light brown sand with clay, fine to medium, subround, moderately graded.
Set # 146	RRM # 442	6/26/2014	7/15/2014	115.4	15.0	Light brown clay with sand, very fine to medium, rounded, well graded.
	RRM # 443	6/26/2014	7/15/2014	116.5	14.4	Light brown clay with sand, very fine to medium, rounded, well graded.
	RRM # 444	6/26/2014	7/15/2014	117.7	14.0	Light brown clay with sand, very fine to medium, rounded, well graded.
Set # 147	RRM # 445	7/2/2014	11/10/2014	114.5	14.5	Light brown, sand with clay, fine to medium, subangular, well graded.
	RRM # 446	7/2/2014	11/10/2014	113.5	14.4	Light brown, sand with clay, fine to medium, subangular, well graded.
	RRM # 447	7/2/2014	11/10/2014	114.0	14.0	Light brown, sand with clay, fine to medium, subangular, well graded.
Set # 148	RRM # 448	7/28/2014	11/10/2014	112.6	15.9	Light brown, very fine to fine, subround, moderately graded, clay w/ some sand.
	RRM # 449	7/28/2014	11/10/2014	111.3	16.3	Light brown, very fine to fine, subround, moderately graded, clay w/ some sand.
	RRM # 450	7/28/2014	11/10/2014	112.3	15.8	Light brown, very fine to fine, subround, moderately graded, clay w/ some sand.

## Appendix A2. RRM Lift Approval Summaries

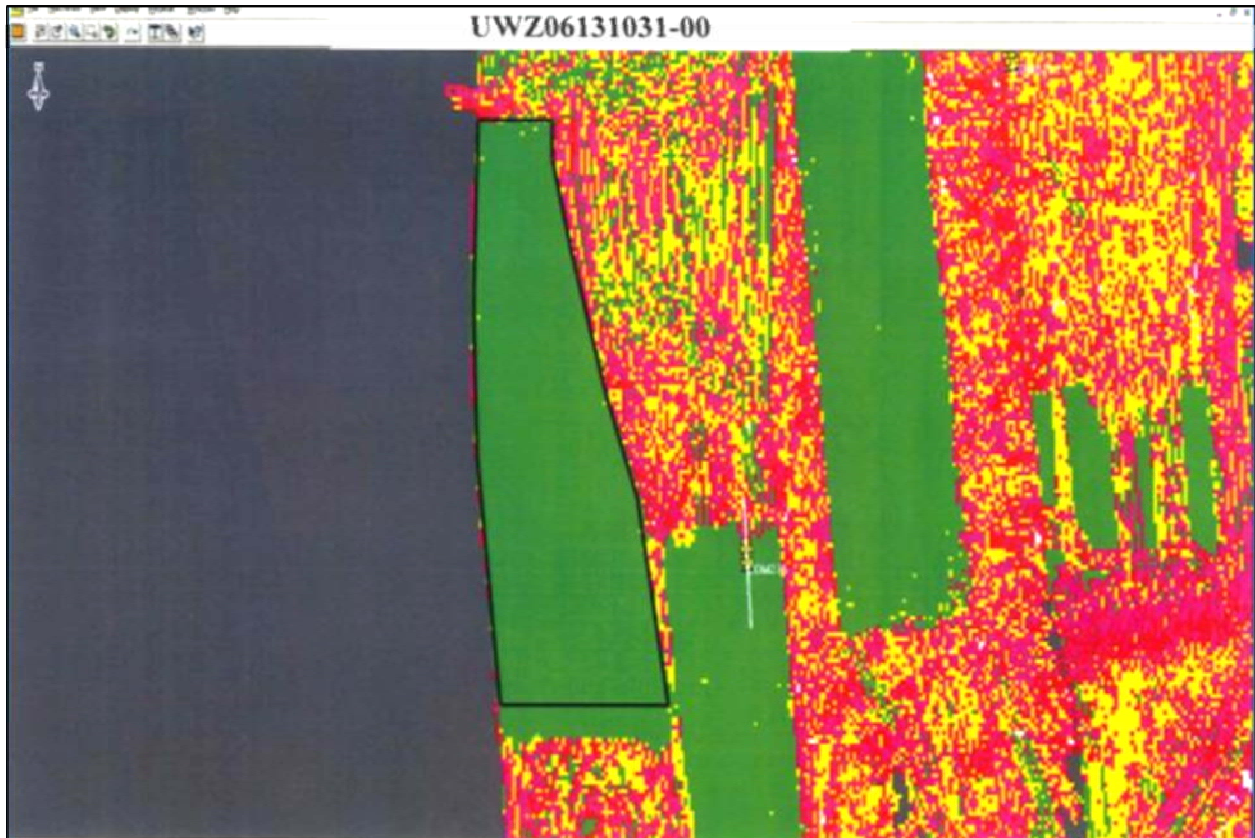
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
10/1/13	UW1E08130930-00	1	717	717	98.6	0.8	392	0	0	N/A
10/1/13	UW1D01130904-00	1	1177	1,894	97.6	0.8	392	0	0	N/A
10/1/13	UW1C08130919-01	2	1339	3,233	97.1	1.0	392	0	0	N/A
10/2/13	UW1E01130930-00	1	1800	5,033	98.5	1.0	403	0	0	N/A
10/2/13	UW1E08131001-00	0	717	5,750	98.4	0.8	N/A	0	0	N/A
10/2/13	UW1D01131001-00	0	1121	6,871	96.7	0.8	N/A	0	0	N/A
10/2/13	UWY01131002-00	1	691	7,562	96.4	0.8	392	0	0	N/A
10/2/13	UW1E01131002-00	1	1283	8,845	98.1	0.9	397	0	0	N/A
10/3/13	UWY01131002-01	0	346	9,191	98.7	0.4	N/A	0	0	N/A
10/3/13	UW1C08131001-00	0	1163	10,354	97.7	0.9	N/A	0	0	N/A
10/3/13	UW1D19131002-00	0	506	10,860	97.8	0.6	N/A	0	0	N/A
10/7/13	UW1H04130917-01	2	948	11,808	98.5	0.8	392	0	0	N/A
10/7/13	UW1D01131002-00	0	1140	12,948	92.0	0.8	N/A	0	0	N/A
10/7/13	UW1H08131003-00	0	1152	14,100	95.7	0.9	N/A	0	0	N/A
10/7/13	UW1E08131003-00	1	956	15,056	98.5	0.7	403	0	0	N/A
10/7/13	UW1G01130917-00	3	1151	16,207	99.5	0.8	392	0	0	N/A
10/8/13	UW1E01131008-00	1	1278	17,485	100.0	0.9	392	0	0	N/A
10/8/13	UW1D19131007-00	1	450	17,935	99.6	0.6	392	0	0	N/A
10/8/13	UW1C08131007-00	0	1163	19,098	99.9	0.9	N/A	0	0	N/A
10/8/13	UWY01131007-00	0	518	19,616	100.0	0.6	N/A	0	0	N/A
10/8/13	UW1E01131007-00	0	1283	20,899	96.6	0.9	N/A	0	0	N/A
10/9/13	UW1E01131009-00	0	1420	22,319	98.8	1.0	N/A	0	0	N/A
10/9/13	UW1C08131008-00	0	1553	23,872	99.9	0.7	N/A	0	0	N/A
10/9/13	UW1E08131008-00	0	1005	24,877	99.6	0.8	N/A	0	0	N/A
10/14/13	UW1E08131009-00	2	1131	26,008	99.2	0.9	403	0	0	N/A
10/14/13	UW1C08131009-00	2	1448	27,456	99.3	1.0	392	0	0	N/A
10/15/13	UWY01131015-00	0	28	27,484	98.9	0.2	N/A	0	0	N/A
10/15/13	UW1E08131015-00	1	1107	28,591	98.7	1.0	382	0	0	N/A
10/15/13	UW1D19131014-00	1	525	29,116	99.4	0.7	403	0	0	N/A
10/16/13	UW1E01131014-00	0	1170	30,286	99.7	0.6	N/A	0	0	N/A
10/16/13	UW1C08131015-00	0	869	31,155	99.4	0.6	N/A	0	0	N/A
10/16/13	UW1D19131016-00	0	601	31,756	98.5	0.8	N/A	0	0	N/A
10/16/13	UW1E08131016-00	0	1061	32,817	99.2	0.9	N/A	0	0	N/A
10/17/13	UW1E01131016-00	1	1350	34,167	98.0	0.9	392	0	0	N/A
10/21/13	UWY01131017-00	1	2,780	36,947	98.1	1.0	403	0	0	N/A
10/21/13	UW1C08131021-00	1	1,714	38,661	99.2	0.9	392	0	0	N/A
10/22/13	UW1D19131021-00	0	1,272	39,933	99.5	0.9	N/A	0	0	N/A
10/23/13	UWZ06130627-00	1	1,969	41,902	98.9	0.9	307	0	0	N/A
10/23/13	UWY01131022-00	1	2,502	44,404	96.9	0.9	392	0	0	N/A
10/23/13	UW1H04131014-00	1	996	45,400	95.5	0.9	392	0	0	N/A
10/24/13	UW1C08131023-00	1	1,777	47,177	99.6	0.9	392	0	0	N/A
10/24/13	UW1D19131023-00	0	1,199	48,376	99.5	0.9	N/A	0	0	N/A
10/24/13	UW1G01131014-00	1	1,285	49,661	99.9	0.9	403	0	0	N/A
10/28/13	UWY01131024-00	1	2,885	52,546	98.9	1.0	392	0	0	N/A

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

October 2013										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
10/28/13	UW1D01131016-00	1	885	53,431	97.2	0.8	392	0	0	N/A
10/29/13	UW1H08131014-00	1	988	54,419	99.9	0.9	392	0	0	N/A
10/30/13	UW1D01131029-00	2	719	55,138	97.3	0.6	397	0	0	N/A
10/31/13	UW1D19131028-00	2	1,065	56,203	99.7	0.8	397	0	0	N/A
10/31/13	UW1C08131028-00	1	1,580	57,783	98.8	0.8	397	0	0	N/A
10/31/13	UW1E01131029-00	1	892	58,675	99.9	0.7	397	0	0	N/A

**Average CAES Screen Passing Pixels (%)= 98.5**  
**Total Quantity Approved (yd<sup>3</sup>) = 58,675**  
**Total # of Nuclear Density Gauge Tests = 0**  
**Total # of Moisture Tests = 38**  
**Quantity per Moisture Test (yd<sup>3</sup>) = 1,544**  
**Total Average Thickness (ft.)= 0.8**

CAES compaction screen example from October 2013. 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.



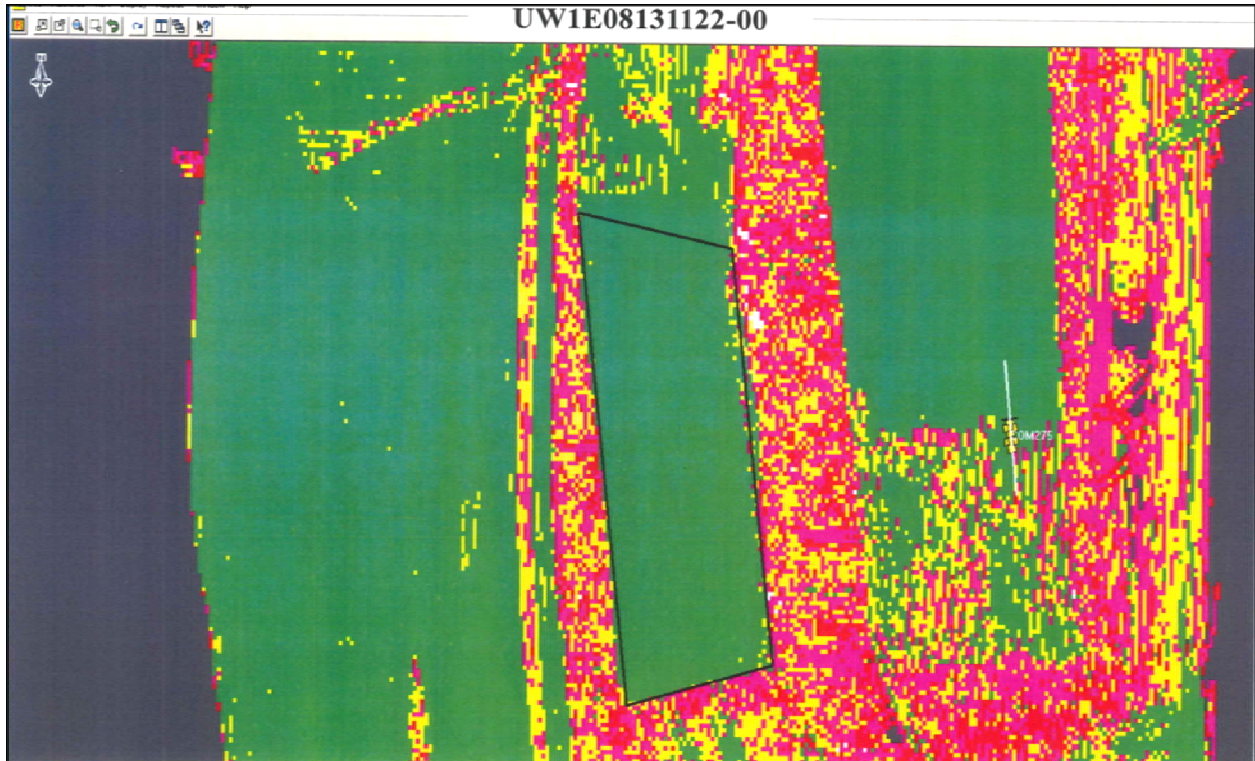
## Appendix A2. RRM Lift Approval Summaries (continued)

November 2013										
Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
11/4/13	UW1E08131029-00	1	1061	1,061	99.7	0.9	397	0	0	N/A
11/5/13	UWY01131028-00	2	2597	3,658	99.6	0.9	397	0	0	N/A
11/5/13	UW1C08131104-00	1	1806	5,464	99.9	0.9	403	0	0	N/A
11/6/13	UW1D19131104-00	1	1098	6,562	99.2	0.9	403	0	0	N/A
11/6/13	UW1E08131104-00	0	1123	7,685	97.9	1.0	N/A	0	0	N/A
11/6/13	UW1E01131105-00	1	892	8,577	99.4	0.7	403	0	0	N/A
11/6/13	UW1D01131031-00	2	838	9,415	96.9	0.7	390, 397	0	0	N/A
11/7/13	UWZ06131031-00	1	1712	11,127	98.7	0.8	397	0	0	N/A
11/7/13	UW1G01131106-00	0	1326	12,453	98.8	0.9	N/A	0	0	N/A
11/7/13	UW1H04131104-00	0	1149	13,602	99.6	1.0	N/A	0	0	N/A
11/11/13	UWY01131105-00	0	2068	15,670	98.4	0.7	N/A	0	0	N/A
11/11/13	UW1E08131107-00	0	786	16,456	97.8	0.7	N/A	0	0	N/A
11/11/13	UW1E01131111-00	0	818	17,274	98.8	0.8	N/A	0	0	N/A
11/12/13	UW1C08131106-00	1	1808	19,082	97.5	0.9	403	0	0	N/A
11/12/13	UW1D19131107-00	1	949	20,031	97.2	0.8	396	0	0	N/A
11/12/13	UW1H08131107-00	0	1023	21,054	95.4	0.8	N/A	0	0	N/A
11/13/13	UW1E01131111-01	1	500	21,554	98.8	0.7	392	0	0	N/A
11/13/13	UW1E08131111-00	0	932	22,486	99.6	0.9	N/A	0	0	N/A
11/13/13	UWH04131112-00	1	801	23,287	98.6	0.7	307	0	0	N/A
11/13/13	UWZ06131112-00	0	1524	24,811	99.4	0.7	N/A	0	0	N/A
11/14/13	UW1G01131112-00	0	1194	26,005	98.8	0.8	N/A	0	0	N/A
11/14/13	UWY01131113-00	1	2092	28,097	99.0	0.7	392	0	0	N/A
11/18/13	UW1C08131114-00	0	1759	29,856	99.8	0.9	N/A	0	0	N/A
11/18/13	UWZ06131114-00	1	1126	30,982	98.2	0.5	392	0	0	N/A
11/19/13	UW1E08131118-00	0	932	31,914	98.5	0.9	N/A	0	0	N/A
11/19/13	UW1D19131118-00	0	932	32,846	98.4	0.8	N/A	0	0	N/A
11/19/13	UW1H08131118-00	0	800	33,646	99.4	0.8	N/A	0	0	N/A
11/19/13	UW1H04131119-00	0	1030	34,676	99.9	0.9	N/A	0	0	N/A
11/19/13	UW1E01131118-00	2	571	35,247	98.4	0.8	392	1	0	92.6
11/19/13	UW1G01131119-00	1	1194	36,441	99.9	0.8	403	0	0	N/A
11/21/13	UW1E08131119-00	1	1406	37,847	97.1	0.8	403	0	0	N/A
11/21/13	UW1E08131121-00	0	36	37,883	94.0	0.3	N/A	0	0	N/A
11/21/13	UW1H08131120-00	1	800	38,683	99.0	0.8	392	0	0	N/A
11/22/13	UW1E08131122-00	1	1100	39,783	96.4	0.7	403	0	0	N/A
11/22/13	UW1G01131121-00	1	1,166	40,949	99.8	0.8	403	0	0	N/A
11/22/13	UW1H04131120-00	3	793	41,742	99.9	0.7	403	0	0	N/A
11/22/13	UW1D01131121-00	0	692	42,434	98.5	0.7	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%)= 98.5</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 42,434</b>  <b>Total # of Nuclear Density Gauge Tests = 1</b>  <b>Total # of Moisture Tests = 25</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 1,697</b>  <b>Total Average Thickness (ft.)= 0.8</b></p>										



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

CAES compaction screen example from November 2013. 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.

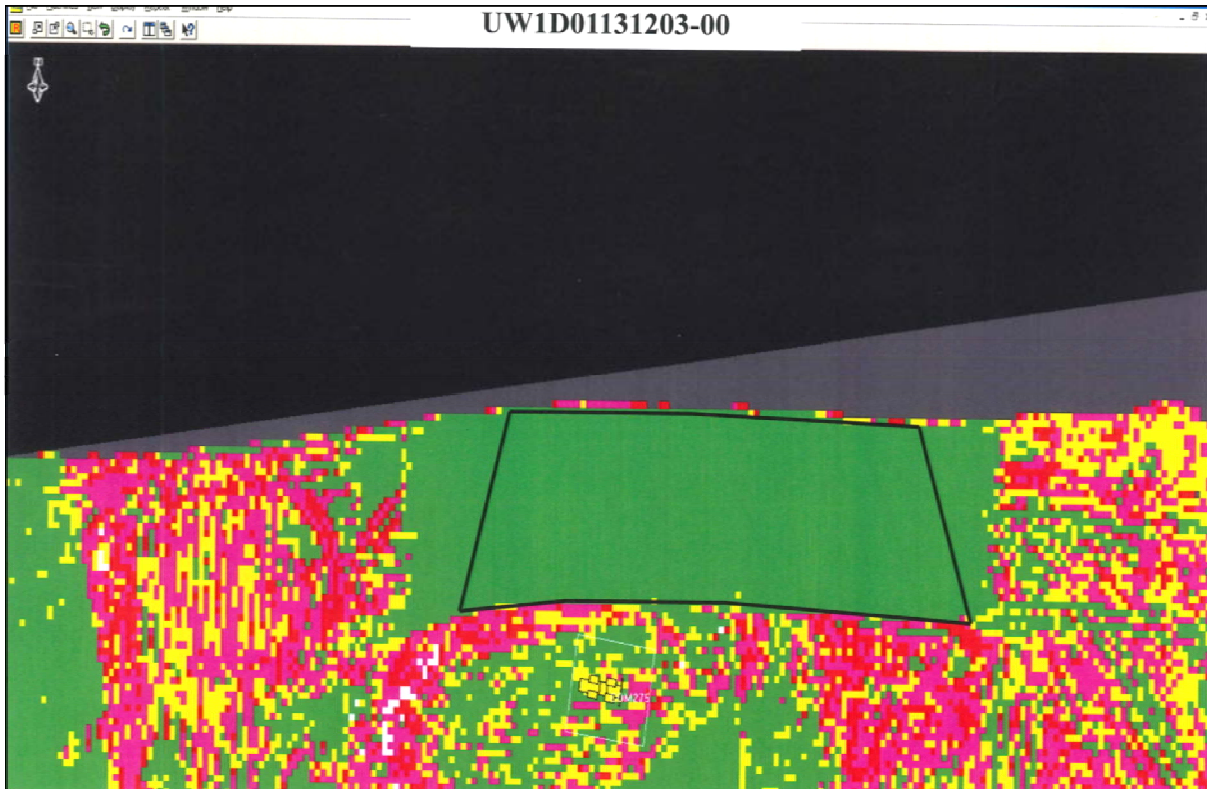


## Appendix A2. RRM Lift Approval Summaries (*continued*)

December 2013										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
12/6/13	UW1112131205-00	1	1039	1,039	98.9	0.9	403	0	0	N/A
12/11/13	UW1112131206-00	1	1154	2,193	95.5	1.0	403	0	0	N/A
<p>Average CAES Screen Passing Pixels (%)= 97.2                      Total Quantity Approved (yd<sup>3</sup>) = 2,193                      Total # of Nuclear Density Gauge Tests = 0                      Total # of Moisture Tests = 2                      Quantity per Moisture Test (yd<sup>3</sup>) = 1,097                      Total Average Thickness (ft.)= 1.0</p>										

NOTE: Due to extreme winter weather conditions only 2 lifts were placed during December.

CAES compaction screen example from December 2013. 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.

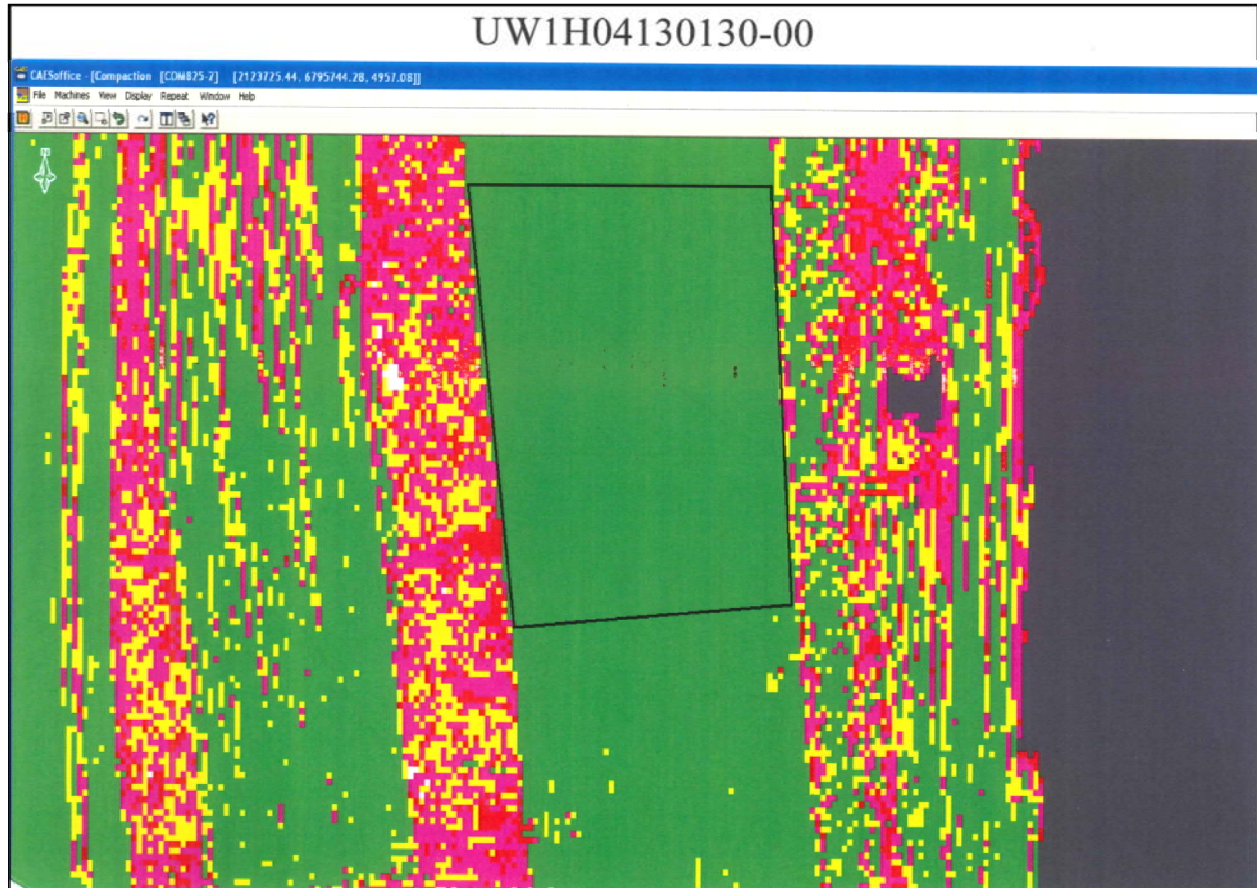


## Appendix A2. RRM Lift Approval Summaries (continued)

January 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
1/9/14	UWI12131211-00	2	843	843	97.1	0.7	390	0	0	N/A
1/10/14	UWI12140109-00	1	560	1,403	97.1	0.5	390	0	0	N/A
1/14/14	UW112140110-00	1	1009	2,412	96.2	0.9	390	0	0	N/A
1/15/14	UW1H08131122-00	3	701	3,113	99.6	0.7	403	0	0	N/A
1/15/14	UW112140114-00	1	996	4,109	99.2	0.9	390	0	0	N/A
1/16/14	UW1H08140115-00	1	1022	5,131	99.8	1.0	390	0	0	N/A
1/16/14	UW112140115-00	0	1106	6,237	99.1	1.0	N/A	0	0	N/A
1/16/14	UW1H08140116-00	1	1022	7,259	99.7	1.0	390	0	0	N/A
1/17/14	UW112140116-00	0	996	8,255	98.4	0.9	N/A	0	0	N/A
1/21/14	UW1H08140117-00	1	1022	9,277	99.0	1.0	403	0	0	N/A
1/21/14	UW112140117-00	0	996	10,273	96.4	0.9	N/A	0	0	N/A
1/21/14	UW1H08140121-00	1	920	11,193	98.4	0.9	403	0	0	N/A
1/21/14	UW112140121-00	0	885	12,078	95.1	0.8	N/A	0	0	N/A
1/22/14	UW1H08140121-01	0	552	12,630	99.5	0.7	N/A	0	0	N/A
1/22/14	UW112140122-00	1	739	13,369	99.4	0.8	382	0	0	N/A
1/22/14	UW1G01140122-00	1	0	13,369	99.6	0.0	403	0	0	N/A
1/22/14	UW1H08140122-00	0	789	14,158	99.5	1.0	N/A	0	0	N/A
1/23/14	UW112140122-01	0	832	14,990	97.5	0.9	N/A	0	0	N/A
1/23/14	UW1G01140122-01	0	1207	16,197	99.7	0.8	N/A	0	0	N/A
1/23/14	UW1H04131122-00	1	901	17,098	99.0	0.8	403	0	0	N/A
1/23/14	UW1H08140123-00	1	1379	18,477	98.7	0.8	403	0	0	N/A
1/24/14	UW1G01140123-00	0	1207	19,684	99.9	0.8	N/A	0	0	N/A
1/24/14	UW1H04140124-00	0	1065	20,749	97.2	0.8	N/A	0	0	N/A
1/24/14	UW1G01140124-00	1	1459	22,208	99.4	1.0	387	0	0	N/A
1/24/14	UW1H04140124-01	0	1198	23,406	99.6	0.9	N/A	0	0	N/A
1/28/14	UW1H04140128-00	0	1332	24,738	99.5	1.0	N/A	0	0	N/A
1/28/14	UW1G01140124-01	1	1459	26,197	98.6	1.0	382	0	0	N/A
1/29/14	UW1G01140128-00	0	1313	27,510	97.4	0.9	N/A	0	0	N/A
1/29/14	UW1H04140129-00	1	1278	28,788	99.9	0.9	387	0	0	N/A
1/30/14	UW1G01140129-00	0	1326	30,114	99.5	0.9	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%)= 98.6</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 30,114</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 19</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 1,585</b>  <b>Total Average Thickness (ft.)= 0.8</b></p>										

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

CAES compaction screen example from January 2014. 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.



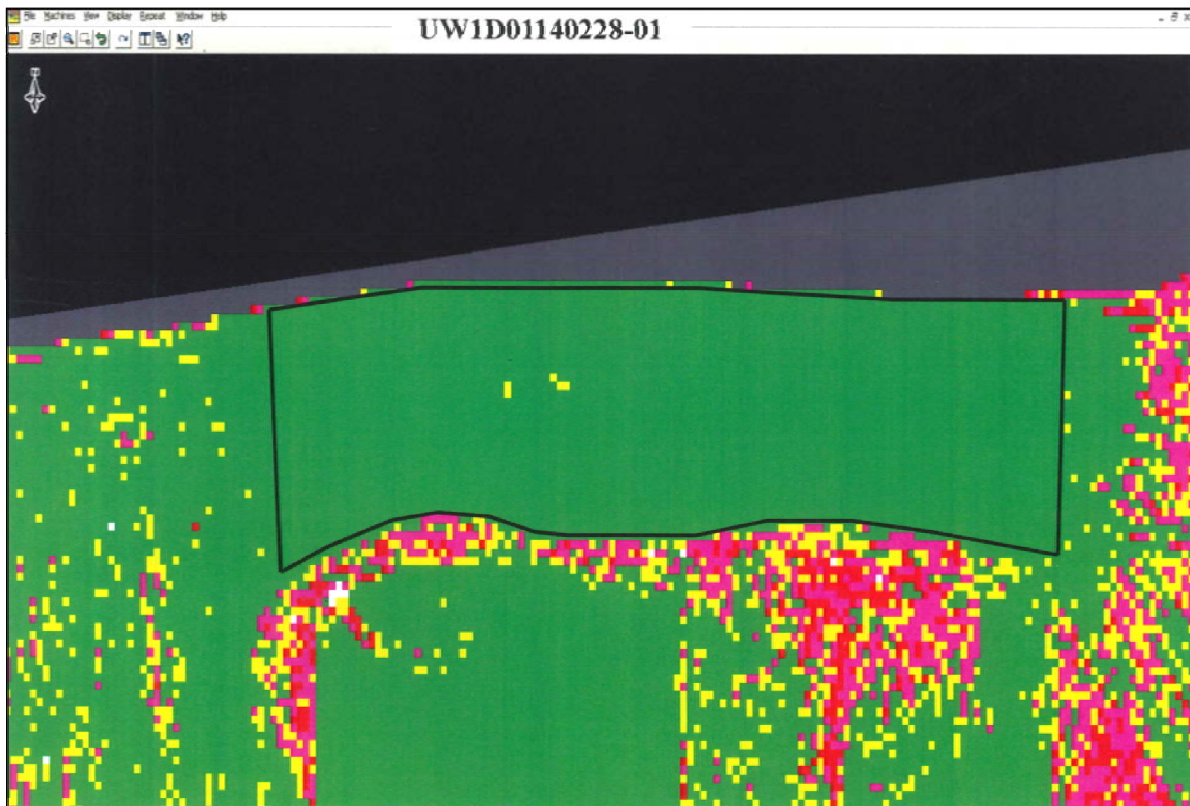
## Appendix A2. RRM Lift Approval Summaries (continued)

February 2014											
Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sand cone Verifications	Verified Compaction (%)	
2/5/14	UW1H04140205-00	0	1136	1,136	99.7	0.8	N/A	0	0	N/A	
2/5/14	UW1H04140130-00	2	1278	2,414	100.0	0.9	387	0	0	N/A	
2/5/14	UW1G01140205-00	2	1472	3,886	98.6	1.0	387	0	0	N/A	
2/6/14	UW1H08140205-00	1	1488	5,374	99.8	0.9	387	0	0	N/A	
2/6/14	UW1G01140206-00	0	1357	6,731	98.5	0.9	N/A	0	0	N/A	
2/6/14	UW1H04140206-00	1	880	7,611	99.1	0.6	417	0	0	N/A	
2/7/14	UW1H08140206-00	0	1280	8,891	95.5	0.8	N/A	0	0	N/A	
2/7/14	UW1G01140207-00	1	1440	10,331	99.7	0.9	387	0	0	N/A	
2/7/14	UW1H04140207-00	0	1321	11,652	99.8	0.9	N/A	0	0	N/A	
2/11/14	UW1H08140207-00	0	1120	12,772	96.5	0.7	N/A	0	0	N/A	
2/11/14	UW1G01140211-00	2	1507	14,279	99.0	1.0	387	0	0	N/A	
2/12/14	UW1H04140211-00	0	1027	15,306	98.6	0.7	N/A	0	0	N/A	
2/12/14	UW1H08140212-00	0	1440	16,746	93.9	0.9	N/A	0	0	N/A	
2/12/14	UW1G01140212-00	1	1344	18,090	99.4	0.9	387	0	0	N/A	
2/13/14	UW1H04140212-00	0	1296	19,386	99.9	0.9	N/A	0	0	N/A	
2/13/14	UW1H08140213-00	1	1290	20,676	99.6	0.9	387	0	0	N/A	
2/13/14	UW1G01140213-00	0	1195	21,871	99.3	0.8	N/A	0	0	N/A	
2/14/14	UW1D01131203-00	3	890	22,761	94.5	0.9	403	0	0	N/A	
2/14/14	UW1H04140213-00	0	1008	23,769	99.4	0.7	N/A	0	0	N/A	
2/14/14	UW1H08140214-00	1	1147	24,916	97.7	0.8	410	0	0	N/A	
2/14/14	UW1A12130626-00	2	763	25,679	99.8	0.6	307	0	0	N/A	
2/14/14	UW1G01140214-00	0	1344	27,023	98.4	0.9	N/A	0	0	N/A	
2/19/14	UW1E08140219-00	2	0	27,023	98.1	0.0	403	0	0	N/A	
2/19/14	UW1H04140214-00	0	989	28,012	100.0	0.7	N/A	0	0	N/A	
2/19/14	UW1H08140219-00	1	1072	29,084	99.9	0.8	410	0	0	N/A	
2/19/14	UW1E08140219-01	0	1360	30,444	98.8	0.7	N/A	0	0	N/A	
2/20/14	UW1G01140219-00	0	1338	31,782	99.8	0.9	N/A	0	0	N/A	
2/20/14	UW1E08140220-00	0	1057	32,839	97.0	0.7	N/A	0	0	N/A	
2/20/14	UW1H08140220-00	1	1340	34,179	97.6	1.0	410	0	0	N/A	
2/21/14	UW1E08140220-01	0	1169	35,348	94.1	0.9	N/A	0	0	N/A	
2/21/14	UW1H04140220-00	0	1413	36,761	99.4	1.0	N/A	0	0	N/A	
2/21/14	UW1E08140221-00	1	1018	37,779	98.9	0.9	410	0	0	N/A	
2/21/14	UW1H08140221-00	0	1021	38,800	99.5	0.9	N/A	0	0	N/A	
2/25/14	UW1E08140225-00	1	1018	39,818	99.3	0.9	417	0	0	N/A	
2/25/14	UW1H04140221-00	0	1,254	41,072	99.6	0.9	N/A	0	0	N/A	
2/26/14	UW1E08140225-01	0	846	41,918	97.1	0.9	N/A	0	0	N/A	
2/26/14	UW1G01140225-00	0	1,328	43,246	98.9	0.9	N/A	0	0	N/A	
2/26/14	UW1E08140226-00	0	779	44,025	95.7	1.0	N/A	0	0	N/A	
2/26/14	UW1H08140226-00	0	1,134	45,159	99.5	1.0	N/A	0	0	N/A	
2/26/14	UW1H04140226-00	1	1,254	46,413	99.5	0.9	387	0	0	N/A	
2/26/14	UW1E08140226-01	0	534	46,947	95.3	0.8	N/A	0	0	N/A	
2/27/14	UW1E08140227-00	0	289	47,236	94.6	0.5	N/A	0	0	N/A	
2/27/14	UW1G01140226-00	1	1,302	48,538	99.1	0.9	417	0	0	N/A	
2/28/14	UW1E01140227-00	0	1,077	49,615	98.7	0.7	N/A	0	0	N/A	

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

Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft.)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
2/28/14	UW1D01140228-00	0	1,069	50,684	96.7	0.9	N/A	0	0	N/A
2/28/14	UW1E08140228-00	1	1,316	52,000	99.1	0.9	417	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%)= 98.3</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 52,000</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 26</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,000</b>  <b>Total Average Thickness (ft.)= 0.8</b></p>										

CAES compaction screen example from February 2014. 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.



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

March 2014										
Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
3/4/14	UW1E0814 0304-00	0	1064	1,064	99.8	0.8	N/A	0	0	N/A
3/4/14	UW1D01140228-01	0	939	2,003	99.9	0.7	N/A	0	0	N/A
3/4/14	UW1E01140304-00	1	1455	3,458	99.5	0.9	379	0	0	N/A
3/5/14	UW1G01140304-00	0	1013	4,471	98.9	0.7	N/A	0	0	N/A
3/5/14	UW1H04140305-00	1	1193	5,664	99.8	0.9	425	0	0	N/A
3/5/14	UW1D01140305-00	1	706	6,370	99.8	0.7	425	0	0	N/A
3/6/14	UW1E01140305-00	1	1552	7,922	99.5	0.8	425	0	0	N/A
3/6/14	UW1E08140306-00	1	1198	9,120	99.6	0.9	425	0	0	N/A
3/6/14	UW1D011403056-00	1	807	9,927	97.1	0.8	425	0	0	N/A
3/7/14	UW1H08140307-00	0	1132	11,059	97.9	1.0	N/A	0	0	N/A
3/7/14	UW1E01140306-00	1	2012	13,071	99.3	1.0	425	0	0	N/A
3/11/14	UW1E08140307-00	1	1268	14,339	98.9	1.0	425	0	0	N/A
3/11/14	UW1H08140307-01	0	742	15,081	97.9	0.7	N/A	0	0	N/A
3/11/14	UW1H04140307-00	0	1228	16,309	100.0	0.9	N/A	0	0	N/A
3/11/14	UW1G01140311-00	0	1162	17,471	99.4	0.8	N/A	0	0	N/A
3/12/14	UW1E08140311-00	1	1141	18,612	98.2	0.9	N/A	0	0	N/A
3/12/14	UW1H08140311-00	0	848	19,460	96.0	0.8	N/A	0	0	N/A
3/12/14	UW1E01140311-00	0	1610	21,070	99.8	0.8	N/A	0	0	N/A
3/13/14	UW1E08140312-00	1	1141	22,211	96.7	0.9	422	0	0	N/A
3/13/14	UW1H04140312-00	0	1213	23,424	99.9	0.9	N/A	0	0	N/A
3/13/14	UW1E01140312-00	1	1811	25,235	99.0	0.9	425	0	0	N/A
3/14/14	UW1G01140313-00	1	1461	26,696	99.8	1.0	425	0	0	N/A
3/14/14	UW1H08140313-00	1	763	27,459	99.7	0.8	425	0	0	N/A
3/14/14	UW1H04140314-00	1	1078	28,537	99.8	0.8	425	0	0	N/A
3/17/14	UW1G01140314-00	0	1315	29,852	99.6	0.9	N/A	0	0	N/A
3/17/14	UW1H08140317-00	1	668	30,520	96.6	0.7	403	0	0	N/A
3/17/14	UW1H04140317-00	0	1078	31,598	99.2	0.8	N/A	0	0	N/A
3/18/14	UW1H04140308-00	0	1213	32,811	98.3	0.9	N/A	0	0	N/A
3/18/14	UW1H08140317-01	0	954	33,765	95.1	1.0	N/A	0	0	N/A
3/18/14	UW1F16140317-00	0	1262	35,027	99.3	1.0	N/A	0	0	N/A
3/18/14	UW1G01140317-00	0	877	35,904	99.2	0.6	N/A	0	0	N/A
3/19/14	UW1G01140318-00	1	1042	36,946	97.5	0.8	379	0	0	N/A
3/19/14	UW1F16140318-00	0	1135	38,081	98.2	0.9	N/A	0	0	N/A
3/19/14	UW1H08140319-00	0	859	38,940	99.7	0.9	N/A	0	0	N/A
3/20/14	UW1H04140319-00	1	1340	40,280	99.1	1.0	382	0	0	N/A
3/20/14	UW1G01140319-00	0	977	41,257	99.4	0.9	N/A	0	0	N/A
3/20/14	UW1F16140319-00	0	1,081	42,338	99.3	0.8	N/A	0	0	N/A
3/20/14	UW1H08140320-00	1	732	43,070	99.0	0.9	413	0	0	N/A
3/24/14	UW1H04140320-00	0	1,206	44,276	99.9	0.9	N/A	0	0	N/A
3/24/14	UW1G01140324-00	0	772	45,048	98.9	0.8	N/A	0	0	N/A
3/24/14	UW1H08140324-00	1	732	45,780	98.5	0.9	413	0	0	N/A
3/25/14	UW1H04140324-00	0	1,206	46,986	99.2	0.9	N/A	0	0	N/A
3/25/14	UW1G01140324-01	0	436	47,422	98.7	0.7	N/A	0	0	N/A
3/25/14	UW1F16140320-00	0	1,216	48,638	98.4	0.9	N/A	0	0	N/A
3/25/14	UW1H08140325-00	1	643	49,281	99.7	0.9	379	0	0	N/A
3/26/14	UW1H04140325-00	1	1,348	50,629	99.5	1.0	379	0	0	N/A

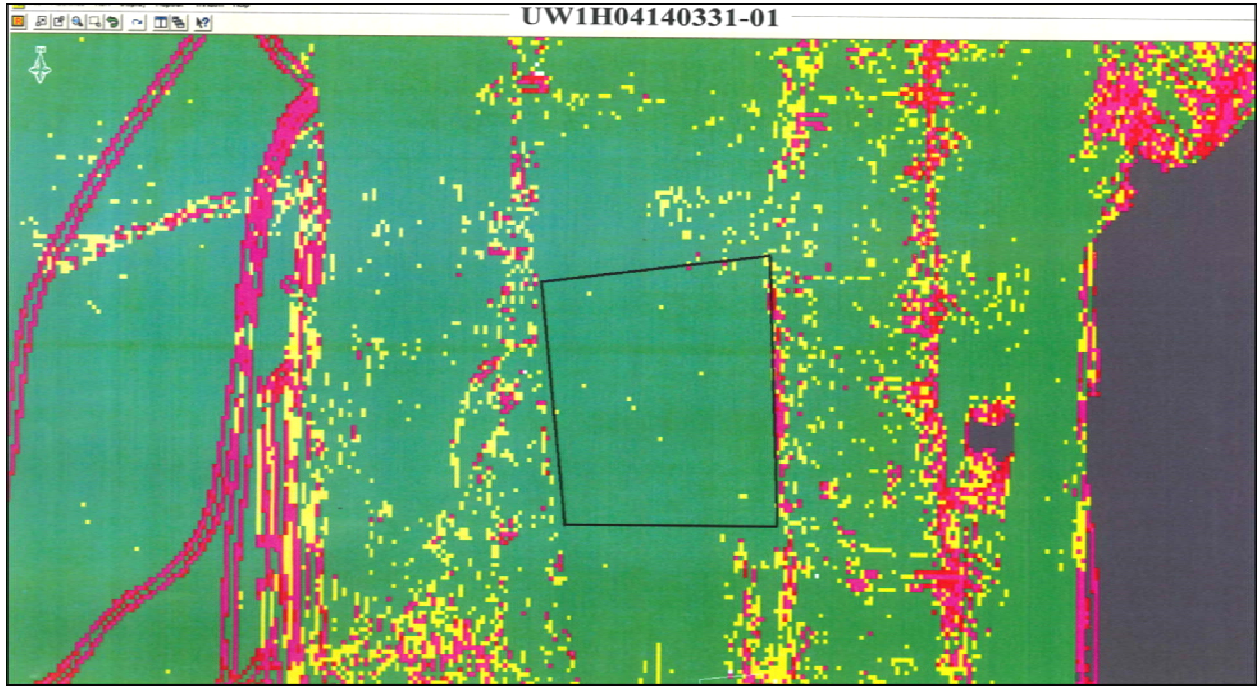
## Appendix A2. RRM Lift Approval Summaries (*continued*)

Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
3/26/14	UW1G01140325-00	1	436	51,065	99.8	0.7	379	0	0	N/A
3/26/14	UW1F16140325-00	0	1,183	52,248	99.1	0.9	N/A	0	0	N/A
3/26/14	UW1H08140326-00	1	643	52,891	99.8	0.9	387	0	0	N/A
3/26/14	UW1H04140326-00	0	1,348	54,239	97.9	1.0	N/A	0	0	N/A
3/26/14	UW1G01140326-00	0	374	54,613	98.3	0.6	N/A	0	0	N/A
3/26/14	UW1H08140326-01	0	572	55,185	98.5	0.8	N/A	0	0	N/A
3/27/14	UW1H04140326-01	0	1,348	56,533	97.9	1.0	N/A	0	0	N/A
3/27/14	UW1G01140327-00	0	207	56,740	97.3	0.5	N/A	0	0	N/A
3/27/14	UW1F16140327-00	1	1,192	57,932	98.4	0.9	403	0	0	N/A
3/31/14	UW1F16140331-00	1	1,325	59,257	99.4	1.0	403	0	0	N/A
3/31/14	UW1H04140331-00	0	1,341	60,598	99.4	1.0	N/A	0	0	N/A
3/31/14	UW1H08140327-00	0	827	61,425	99.5	0.9	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%)= 98.9</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 61,425</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 25</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,457</b>  <b>Total Average Thickness (ft.)= 0.9</b></p>										



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

CAI:S compaction screen example from March 2014. 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.



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

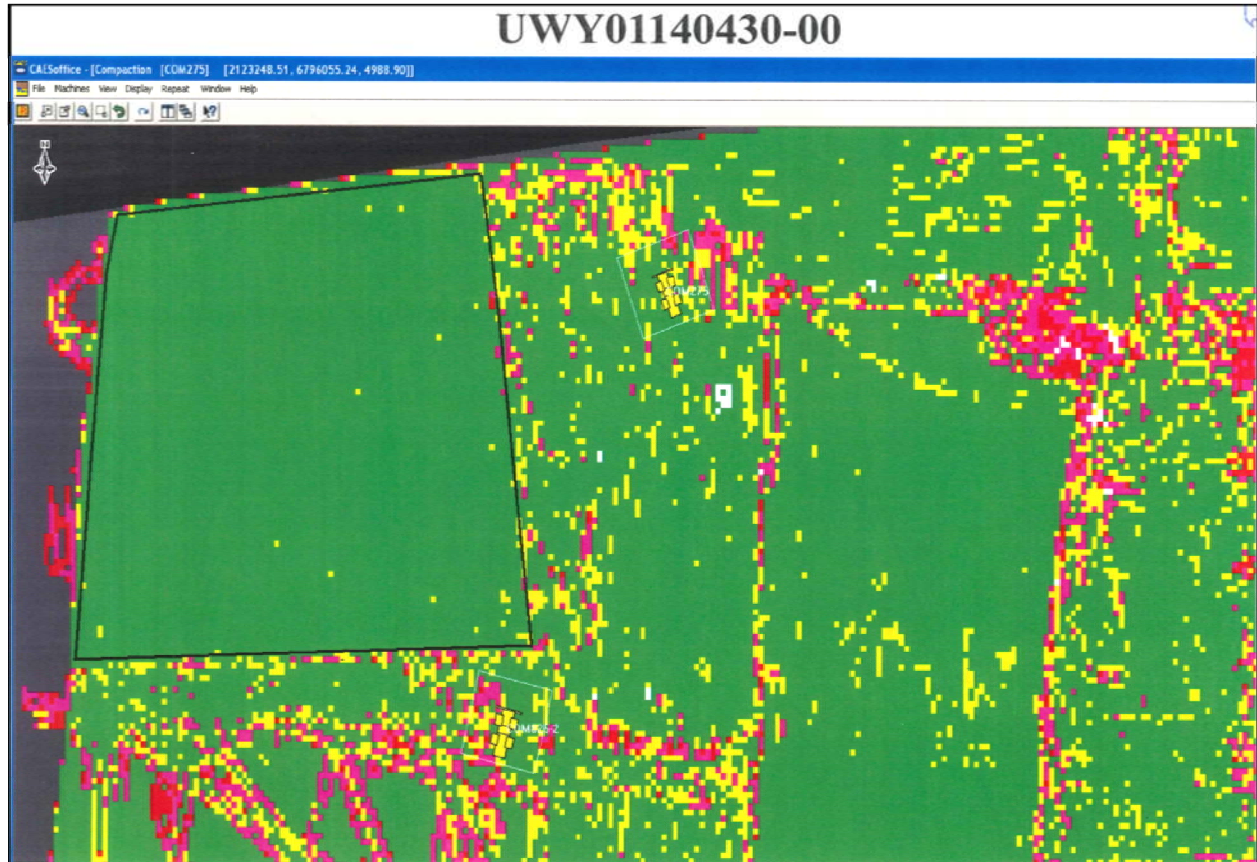
April 2014										
Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
4/1/14	UW1H08140401-00	1	929	929	99.2	1.0	379	0	0	N/A
4/1/14	UW1H04140331-01	0	904	1,833	98.8	0.8	N/A	0	0	N/A
4/2/14	UW1F16140401-00	1	1060	2,893	97.4	0.8	379	0	0	N/A
4/2/14	UW1F16140402-00	0	1155	4,048	99.9	0.9	N/A	0	0	N/A
4/2/14	UW1H08140402-00	1	889	4,937	99.7	1.0	379	0	0	N/A
4/2/14	UW1H04140401-00	2	980	5,917	99.7	0.9	379	0	0	N/A
4/3/14	UW1H08140403-00	0	889	6,806	99.0	1.0	N/A	0	0	N/A
4/3/14	UW1H04140402-00	0	871	7,677	98.7	0.8	N/A	0	0	N/A
4/7/14	UW1116140403-00	0	936	8,613	99.8	0.9	N/A	0	0	N/A
4/7/14	UW1F16140403-00	0	1215	9,828	99.5	0.9	N/A	0	0	N/A
4/7/14	UW1H08140403-01	1	666	10,494	99.6	0.8	387	0	0	N/A
4/7/14	UW1H04140403-00	0	497	10,991	99.0	0.6	N/A	0	0	N/A
4/7/14	UW1F16140407-00	0	1080	12,071	98.8	0.8	N/A	0	0	N/A
4/7/14	UW1116140407-00	1	832	12,903	98.1	0.8	422	0	0	N/A
4/8/14	UW1H04140407-00	0	589	13,492	99.1	0.8	N/A	0	0	N/A
4/8/14	UW1H08140408-00	0	666	14,158	98.6	0.8	N/A	0	0	N/A
4/8/14	UW1F16140408-00	1	897	15,055	99.8	0.7	379	0	0	N/A
4/8/14	UW1H08140408-01	0	1162	16,217	99.4	0.9	N/A	0	0	N/A
4/9/14	UW1F16140408-01	0	1025	17,242	99.4	0.8	N/A	0	0	N/A
4/9/14	UW1116140408-00	0	770	18,012	99.2	0.7	N/A	0	0	N/A
4/9/14	UW1H08140409-00	0	1140	19,152	98.8	0.9	N/A	0	0	N/A
4/9/14	UW1F16140409-00	0	1153	20,305	99.6	0.9	N/A	0	0	N/A
4/9/14	UW1H08140409-01	1	1140	21,445	96.7	0.9	379	0	0	N/A
4/10/14	UW1F16140409-01	0	1025	22,470	99.6	0.8	N/A	0	0	N/A
4/10/14	UW1H08140410-00	0	728	23,198	96.5	0.8	N/A	0	0	N/A
4/10/14	UW1F16140410-00	0	1054	24,252	99.2	0.8	N/A	0	0	N/A
4/10/14	UW1H08140410-01	0	414	24,666	97.9	0.5	N/A	0	0	N/A
4/14/14	UW1116140410-00	1	912	25,578	99.4	0.8	425	0	0	N/A
4/14/14	UW1H08140410-02	0	1499	27,077	99.6	1.0	N/A	0	0	N/A
4/14/14	UW1G01140414-00	0	1463	28,540	99.7	0.9	N/A	0	0	N/A
4/15/14	UW1H08140414-00	1	1499	30,039	97.5	1.0	425	0	0	N/A
4/15/14	UW1G01140414-01	0	1625	31,664	99.0	1.0	N/A	0	0	N/A
4/15/14	UW1F16140415-00	0	1185	32,849	98.8	0.9	N/A	0	0	N/A
4/16/14	UW1116140415-00	1	1027	33,876	96.6	0.9	425	0	0	N/A
4/16/14	UW1H08140415-00	0	1317	35,193	99.4	1.0	N/A	0	0	N/A
4/17/14	UW1G01140416-00	1	1,488	36,681	99.1	0.9	425	0	0	N/A
4/17/14	UW1I01140416-00	0	29	36,710	96.6	0.1	N/A	0	0	N/A
4/17/14	UW1H08140416-00	0	1,317	38,027	99.4	1.0	N/A	0	0	N/A
4/17/14	UW1F16140416-00	0	1,137	39,164	99.9	0.9	N/A	0	0	N/A
4/21/14	UW1G01140417-00	1	1,653	40,817	98.1	1.0	425	0	0	N/A
4/21/14	UW1H08140417-00	1	1,182	41,999	97.5	0.9	425	0	0	N/A
4/21/14	UW1I01140417-00	0	118	42,117	95.6	0.4	N/A	0	0	N/A
4/21/14	UW1G01140421-00	0	1,653	43,770	96.5	1.0	N/A	0	0	N/A
4/22/14	UW1F16140421-00	0	1,137	44,907	99.2	0.9	N/A	0	0	N/A
4/22/14	UW1H08140421-00	0	847	45,754	99.7	0.7	N/A	0	0	N/A

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

Date	Lift ID Number	Number of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID Number	Number of Nuclear Density Gauge Verifications	Number of Sandcone Verifications	Verified Compaction (%)
4/22/14	UW1G01140422-00	1	1,368	47,122	97.5	0.8	425	0	0	N/A
4/22/14	UW1I01140422-00	0	234	47,356	96.8	0.6	N/A	0	0	N/A
4/23/14	UW1H08140422-00	0	1,210	48,566	98.9	1.0	N/A	0	0	N/A
4/23/14	UW1G01140423-00	0	1,710	50,276	96.4	0.9	N/A	0	0	N/A
4/23/14	UW1I01140423-00	0	173	50,449	97.4	0.6	N/A	0	0	N/A
4/23/14	UW1H08140423-00	1	1,210	51,659	99.1	1.0	425	0	0	N/A
4/24/14	UW1G01140423-01	0	1,150	52,809	95.7	0.7	N/A	0	0	N/A
4/24/14	UW1H08140424-00	0	726	53,535	91.1	0.6	N/A	0	0	N/A
4/24/14	UW1I16140424-00	1	772	54,307	99.6	0.7	425	0	0	N/A
4/24/14	UW1F16140424-00	0	1,016	55,323	99.0	0.8	N/A	0	0	N/A
4/28/14	UW1E08140314-00	1	999	56,322	98.9	0.8	425	0	0	N/A
4/28/14	UW1F16140424-01	1	1,143	57,465	98.0	0.9	425	0	0	N/A
4/28/14	UW1I16140424-01	0	882	58,347	99.5	0.8	N/A	0	0	N/A
4/28/14	UW1G01140428-00	0	1,368	59,715	95.7	0.8	N/A	0	0	N/A
4/29/14	UW1E08140428-00	0	1,194	60,909	97.3	1.0	N/A	0	0	N/A
4/29/14	UW1I16140428-00	0	992	61,901	97.8	0.9	N/A	0	0	N/A
4/29/14	UW1H08140429-00	0	484	62,385	96.4	0.4	N/A	0	0	N/A
4/30/14	UWY01140429-00	1	0	62,385	99.6	0.0	403	0	0	N/A
4/30/14	UW1E08140429-00	1	854	63,239	98.5	0.8	425	0	0	N/A
4/30/14	UW1F16140429-00	0	728	63,967	98.9	0.6	N/A	0	0	N/A
4/30/14	UWE1E01140430-00	1	0	63,967	99.4	0.0	425	0	0	N/A
4/30/14	UW1E08140430-00	0	311	64,278	98.3	0.5	N/A	0	0	N/A
4/30/14	UW1I01140430-00	0	144	64,422	94.1	0.5	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%)= 98.3</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 64,422</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 23</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,449</b>  <b>Total Average Thickness (ft.)= 0.8</b></p>										

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

CAES compaction screen example from April 2014. 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.

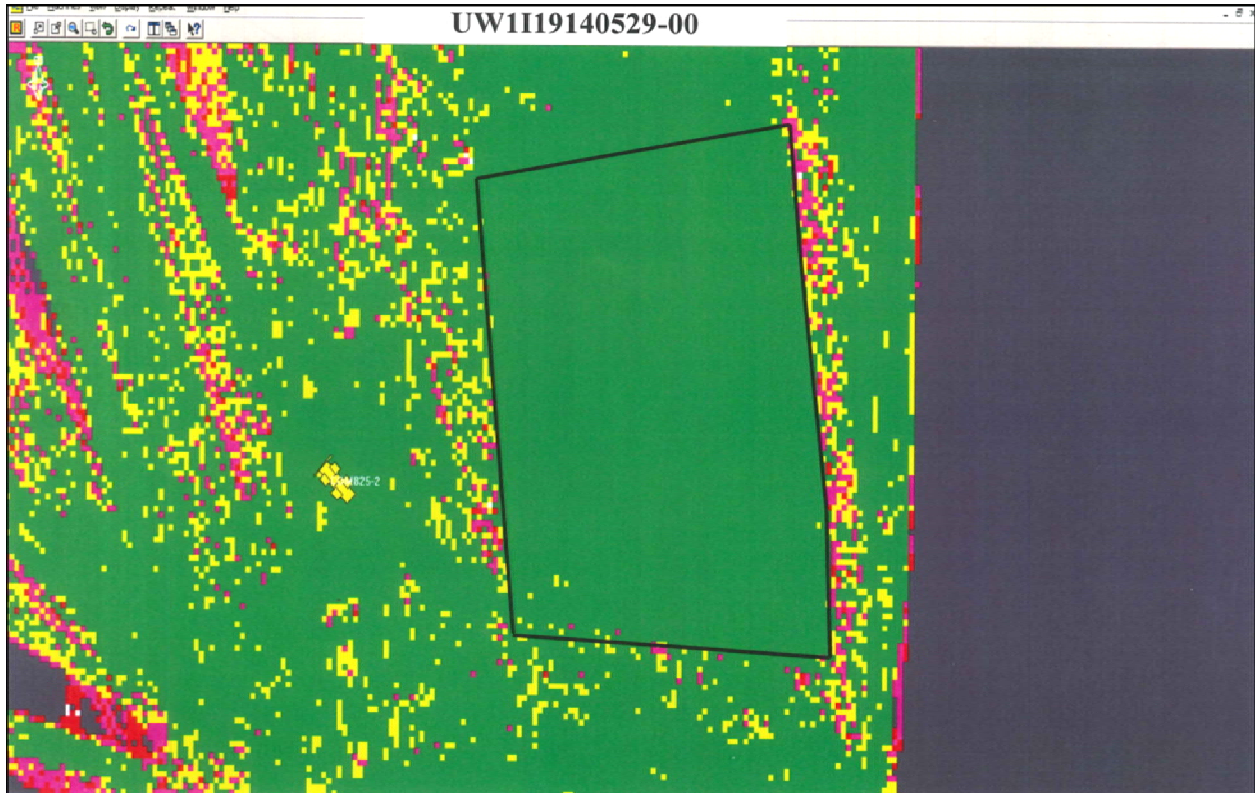


## Appendix A2. RRM Lift Approval Summaries (continued)

May 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
5/1/14	UW1I01140501-00	0	46	46	95.7	0.3	N/A	0	0	N/A
5/1/14	UWY01140430-00	1	2446	2,492	97.5	1.0	425	0	0	N/A
5/1/14	UW1I01140501-01	1	92	2,584	99.3	0.6	425	0	0	N/A
5/2/14	UW1E01140501-00	0	1923	4,507	99.4	0.9	N/A	0	0	N/A
5/2/14	UW1I01140501-02	0	229	4,736	97.6	0.5	N/A	0	0	N/A
5/6/14	UWZ06140505-00	1	0	4,736	99.1	0.0	392	0	0	N/A
5/6/14	UWY01140505-00	1	2446	7,182	98.5	1.0	425	0	0	N/A
5/6/14	UW1I01140505-00	0	413	7,595	98.8	0.9	N/A	0	0	N/A
5/7/14	UW1E01140506-00	1	2136	9,731	99.1	1.0	425	1	0	90.4
5/7/14	UW1I116140429-00	0	914	10,645	98.1	0.8	N/A	0	0	N/A
5/7/14	UW1I01140507-00	0	370	11,015	98.5	0.8	N/A	0	0	N/A
5/8/14	UWZ06140506-00	1	3651	14,666	99.5	0.9	425	0	0	N/A
5/8/14	UWY01140507-00	1	1228	15,894	98.6	0.5	392	0	0	N/A
5/8/14	UW1E01140508-00	1	1748	17,642	99.7	0.8	413	0	0	N/A
5/12/14	UW1D19140512-00	1	0	17,642	98.9	0.0	392	0	0	N/A
5/13/14	UW1D19140512-01	0	817	18,459	99.4	0.8	N/A	0	0	N/A
5/13/14	UW1I19140512-00	1	2139	20,598	98.5	1.0	392	0	0	N/A
5/13/14	UW1A12140513-00	1	0	20,598	99.2	0.0	392	0	0	N/A
5/14/14	UW1I19140513-00	1	1711	22,309	98.8	0.8	419	0	0	N/A
5/15/14	UW1A12140514-00	0	1775	24,084	98.8	0.9	N/A	0	0	N/A
5/15/14	UW1D19140514-00	1	846	24,930	99.2	0.9	417	0	0	N/A
5/15/14	UW1I01140508-00	1	463	25,393	98.0	1.0	425	0	0	N/A
5/15/14	UW1I01140515-00	1	304	25,697	99.0	0.5	417	0	0	N/A
5/19/14	UW1A12140515-00	0	1775	27,472	99.3	0.9	N/A	0	0	N/A
5/19/14	UW1D19140515-00	0	846	28,318	97.9	0.9	N/A	0	0	N/A
5/19/14	UWZ06140519-00	1	0	28,318	97.8	0.0	410	0	0	N/A
5/20/14	UW1I19140515-00	1	1633	29,951	99.5	0.8	419	0	0	N/A
5/21/14	UW1A12140519-00	0	1775	31,726	98.8	0.9	N/A	0	0	N/A
5/21/14	UW1I01140521-00	0	304	32,030	97.8	0.5	N/A	0	0	N/A
5/22/14	UWZ06140520-00	2	3609	35,639	99.9	0.9	419	0	0	N/A
5/22/14	UW1F16140506-00	1	1213	36,852	99.8	1.0	425	0	0	N/A
5/22/14	UW1I01140522-00	0	244	37,096	96.8	0.4	N/A	0	0	N/A
5/27/14	UW1I19140522-00	0	1837	38,933	98.7	0.9	N/A	0	0	N/A
5/28/14	UW1I01140527-00	0	426	39,359	99.6	0.7	N/A	0	0	N/A
5/28/14	UW1F16140527-00	1	1158	40,517	99.2	1.0	419	0	0	N/A
5/29/14	UW1I19140528-00	1	1,394	41,911	99.7	0.7	392	0	0	N/A
5/29/14	UW1I16140529-00	2	1,004	42,915	99.2	0.9	425, 396	0	0	N/A
5/29/14	UW1I01140529-00	0	251	43,166	98.8	0.3	N/A	0	0	N/A
5/29/14	UW1I01140528-00	0	611	43,777	98.4	0.7	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%) = 98.7</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 43,777</b>  <b>Total # of Nuclear Density Gauge Tests = 1</b>  <b>Total # of Moisture Tests = 24</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 1,824</b>  <b>Total Average Thickness (ft.) = 0.7</b></p>										

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

CAES compaction screen example from May 2014. 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.



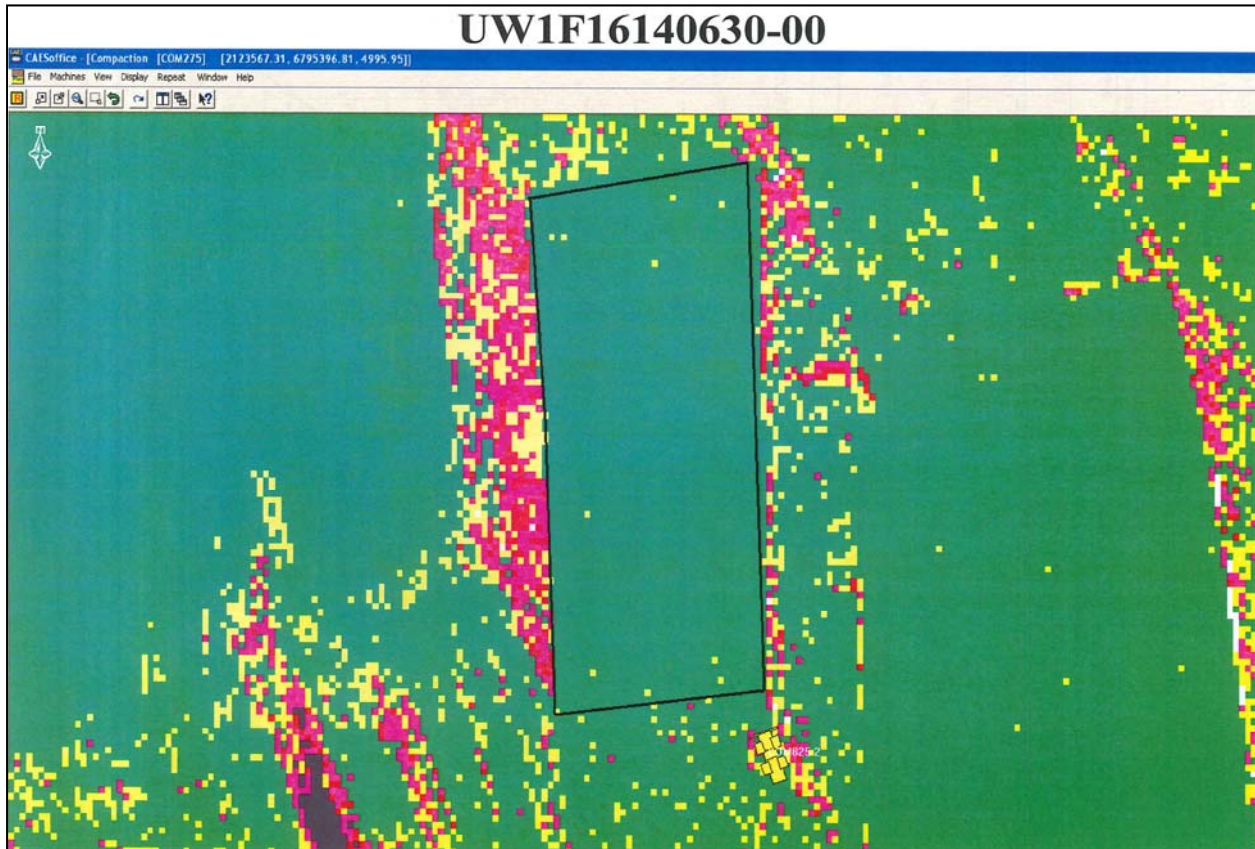
## Appendix A2. RRM Lift Approval Summaries (*continued*)

June 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
6/2/14	UW1F16140529-00	0	1042	1,042	99.7	0.9	N/A	0	0	N/A
6/2/14	UWZ06140522-00	1	1830	2,872	99.5	0.5	396	0	0	N/A
6/2/14	UW1I19140529-00	0	1593	4,465	98.9	0.8	N/A	0	0	N/A
6/2/14	UW1D19140528-00	0	188	4,653	98.8	0.2	N/A	0	0	N/A
6/2/14	UW1I01140602-00	0	77	4,730	98.3	0.1	N/A	0	0	N/A
6/2/14	UW1F16140602-00	0	695	5,425	98.6	0.6	N/A	0	0	N/A
6/3/14	UW1I19140602-00	1	1793	7,218	99.2	0.9	392	0	0	N/A
6/4/14	UW1F16140603-00	1	1013	8,231	99.8	0.9	392	0	0	N/A
6/4/14	UW1I19140604-00	0	1759	9,990	99.5	0.9	N/A	0	0	N/A
6/5/14	UW1F16140604-00	1	1013	11,003	99.6	0.9	392	0	0	N/A
6/9/14	UW1I19140605-00	0	1759	12,762	99.6	0.9	N/A	0	0	N/A
6/9/14	UW1I16140605-00	1	1143	13,905	99.4	1.0	396	0	0	N/A
6/9/14	UW1F16140609-00	0	1013	14,918	99.0	0.9	N/A	0	0	N/A
6/10/14	UW1I19140609-00	1	1563	16,481	98.2	0.8	396	0	0	N/A
6/10/14	UW1I16140610-00	1	1029	17,510	99.5	0.9	396	0	0	N/A
6/11/14	UW1I19140610-00	1	1383	18,893	99.4	0.9	392	0	0	N/A
6/11/14	UW1I16140611-00	0	1258	20,151	99.4	0.9	N/A	0	0	N/A
6/11/14	UW1F16140610-00	0	776	20,927	97.9	0.7	N/A	0	0	N/A
6/12/14	UW1F16140611-00	0	998	21,925	99.0	0.9	N/A	0	0	N/A
6/12/14	UW1I19140612-00	0	1536	23,461	98.4	1.0	N/A	0	0	N/A
6/16/14	UW1I16140612-00	1	1258	24,719	99.6	0.9	396	0	0	N/A
6/16/14	UW1F16140612-00	0	887	25,606	98.9	0.8	N/A	0	0	N/A
6/16/14	UW1I19140616-00	1	1383	26,989	97.3	0.9	396	0	0	N/A
6/17/14	UW1I16140616-00	0	1570	28,559	99.5	1.0	N/A	0	0	N/A
6/17/14	UW1F16140617-00	1	879	29,438	99.9	0.8	419	0	0	N/A
6/18/14	UW1I16140618-00	0	1413	30,851	100.0	0.9	N/A	0	0	N/A
6/18/14	UW1I19140617-00	0	1244	32,095	99.4	0.9	N/A	0	0	N/A
6/19/14	UW1F16140618-00	1	989	33,084	99.5	0.9	396	0	0	N/A
6/19/14	UW1I19140619-00	0	1244	34,328	98.8	0.9	N/A	0	0	N/A
6/23/14	UW1I16140619-00	1	1413	35,741	99.4	0.9	419	0	0	N/A
6/23/14	UW1F16140619-00	1	1011	36,752	99.6	0.9	396	0	0	N/A
6/23/14	UW1I19140623-00	0	1331	38,083	99.7	0.9	N/A	0	0	N/A
6/24/14	UW1I16140623-00	0	1281	39,364	99.7	0.8	N/A	0	0	N/A
6/24/14	UW1F16140624-00	0	898	40,262	99.8	0.8	N/A	0	0	N/A
6/24/14	UW1I19140624-00	1	1035	41,297	95.7	0.7	396	0	0	N/A
6/25/14	UW1I16140624-00	1	1,273	42,570	99.9	0.8	396	0	0	N/A
6/25/14	UW1F16140625-00	0	944	43,514	99.2	0.9	N/A	0	0	N/A
6/26/14	UW1I19140625-00	1	1,151	44,665	99.1	0.9	396	0	0	N/A
6/26/14	UW1I16140626-00	0	1,432	46,097	99.1	0.9	N/A	0	0	N/A

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

Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
6/30/14	UW1F16140626-00	0	944	47,041	98.0	0.9	N/A	0	0	N/A
6/30/14	UW1I19140626-00	1	1,151	48,192	99.3	0.9	396	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%) = 99.1</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 48,192</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 18</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,677</b>  <b>Total Average Thickness (ft.) = 0.8</b></p>										

CAES compaction screen example from June 2014. 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.



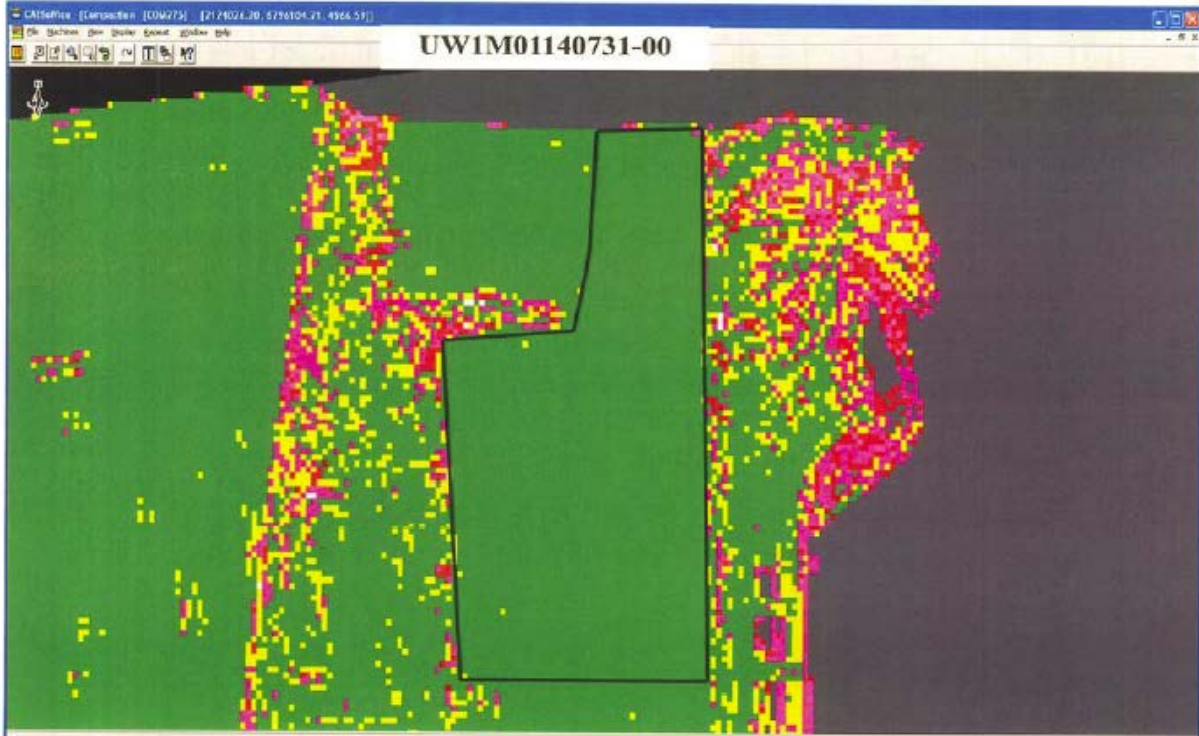


## Appendix A2. RRM Lift Approval Summaries (*continued*)

July 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
7/1/14	UW1I16140630-00	0	1591	1,591	99.7	1.0	N/A	0	0	N/A
7/1/14	UW1F16140630-00	1	1077	2,668	99.6	1.0	396	0	0	N/A
7/2/14	UW1I19140701-00	0	1265	3,933	99.2	0.9	N/A	0	0	N/A
7/2/14	UW1I16140701-00	1	1299	5,232	99.7	0.9	396	0	0	N/A
7/2/14	UW1F16140702-00	0	969	6,201	98.4	0.9	N/A	0	0	N/A
7/7/14	UW1I19140702-00	1	1406	7,607	98.6	1.0	396	0	0	N/A
7/7/14	UW1I16140707-00	0	1155	8,762	98.8	0.8	N/A	0	0	N/A
7/8/14	UW1F16140707-00	1	961	9,723	99.0	0.9	396	0	0	N/A
7/9/14	UW1I19140708-00	0	1113	10,836	99.3	0.8	N/A	0	0	N/A
7/9/14	UW1I16140708-00	0	1234	12,070	99.6	0.9	N/A	0	0	N/A
7/9/14	UW1F16140709-00	1	855	12,925	99.3	0.8	396	0	0	N/A
7/10/14	UW1I19140709-00	0	974	13,899	97.9	0.7	N/A	0	0	N/A
7/10/14	UW1I16140709-00	1	1372	15,271	99.3	1.0	396	0	0	N/A
7/10/14	UW1F16140710-00	0	1068	16,339	98.3	1.0	N/A	0	0	N/A
7/14/14	UW1I16140714-00	0	989	17,328	100.0	0.8	N/A	0	0	N/A
7/14/14	UW1I19140710-00	1	1295	18,623	99.9	0.9	396	0	0	N/A
7/15/14	UW1F16140714-00	0	856	19,479	100.0	0.8	N/A	0	0	N/A
7/15/14	UW1I19140715-00	1	1439	20,918	99.4	1.0	396	0	0	N/A
7/16/14	UW1I16140715-00	0	1113	22,031	99.9	0.9	N/A	0	0	N/A
7/16/14	UW1F16140716-00	1	975	23,006	99.5	0.9	396	0	0	N/A
7/16/14	UW1I19140716-00	0	1205	24,211	98.6	0.9	N/A	0	0	N/A
7/17/14	UW1I16140716-00	1	1356	25,567	100.0	1.0	396	0	0	N/A
7/17/14	UW1F16140717-00	0	650	26,217	99.4	0.6	N/A	0	0	N/A
7/21/14	UW1I19140717-00	0	1339	27,556	99.3	1.0	N/A	0	0	N/A
7/21/14	UW1I16140717-00	0	1356	28,912	99.5	1.0	N/A	0	0	N/A
7/21/14	UW1F16140721-00	1	975	29,887	98.7	0.9	396	0	0	N/A
7/22/14	UW1I16140722-00	0	1187	31,074	98.9	0.9	N/A	0	0	N/A
7/22/14	UW1I19140721-00	1	1189	32,263	99.2	0.9	396	0	0	N/A
7/23/14	UW1F16140722-00	0	950	33,213	98.4	0.8	N/A	0	0	N/A
7/23/14	UW1I19140723-00	1	1319	34,532	98.7	1.0	396	0	0	N/A
7/24/14	UW1I19140724-00	1	1187	35,719	99.5	0.9	396	0	0	N/A
7/24/14	UW1I16140724-00	0	1319	37,038	98.4	1.0	N/A	0	0	N/A
7/28/14	UW1I16140724-01	0	1446	38,484	99.4	1.0	N/A	0	0	N/A
7/28/14	UW1I19140728-00	1	1067	39,551	98.2	0.9	396	0	0	N/A
7/29/14	UW1L04140729-00	0	1162	40,713	99.6	1.0	N/A	0	0	N/A
7/30/14	UW1M01140729-00	1	1,118	41,831	97.0	0.9	396	0	0	N/A
7/30/14	UW1L04140730-00	0	1,114	42,945	99.9	1.0	N/A	0	0	N/A
7/31/14	UW1M01140730-00	1	1,108	44,053	99.5	0.9	396	0	0	N/A
7/31/14	UW1L04140730-01	0	1,114	45,167	99.4	1.0	N/A	0	0	N/A
Average CAES Screen Passing Pixels (%)= 99.2 Total Quantity Approved (yd <sup>3</sup> ) = 45,167 Total # of Nuclear Density Gauge Tests = 0 Total # of Moisture Tests = 17 Quantity per Moisture Test (yd <sup>3</sup> ) = 2,657 Total Average Thickness (ft.)= 0.9										

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

CAES compaction screen example from July 2014. 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.

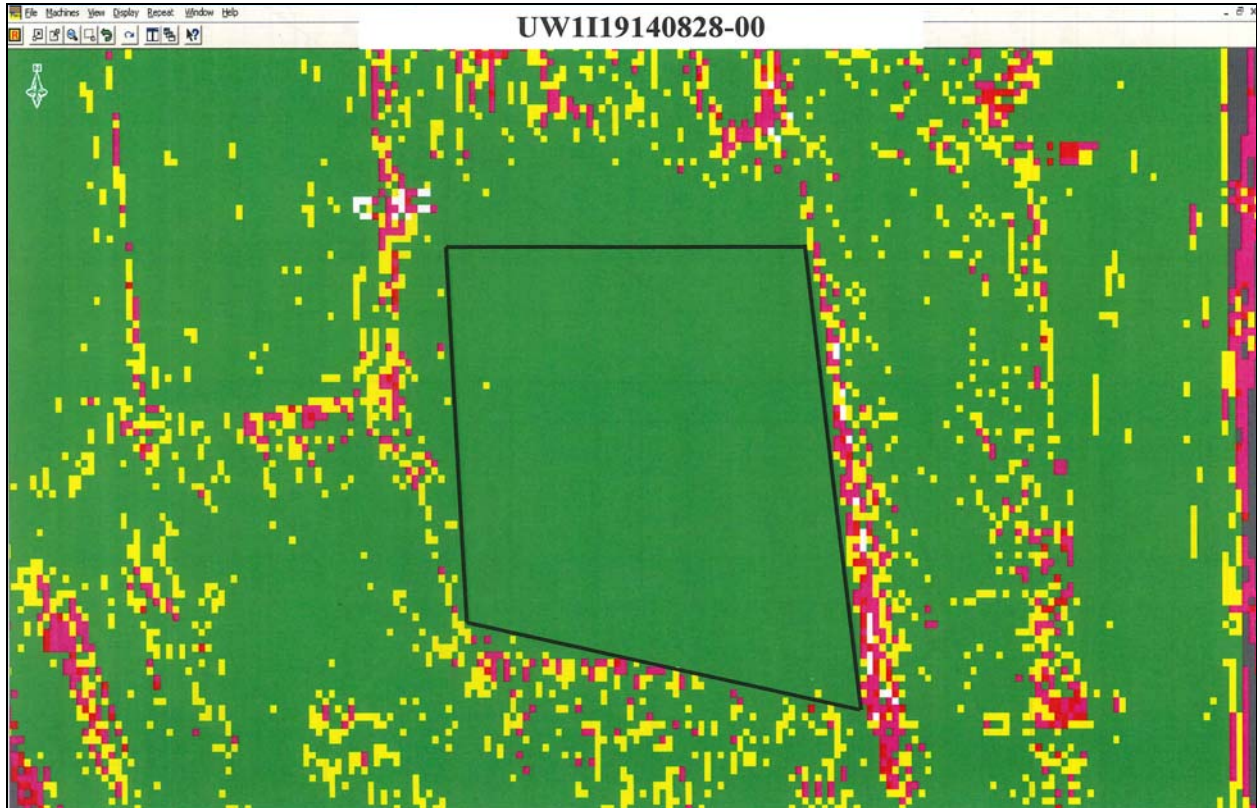


## Appendix A2. RRM Lift Approval Summaries (continued)

August 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
8/4/14	UW1M01140731-00	2	1295	1,295	99.8	1.0	396	0	0	N/A
8/4/14	UW1L04140804-00	1	876	2,171	98.5	0.8	396	0	0	N/A
8/4/14	UW1M01140804-00	0	1295	3,466	99.3	1.0	N/A	0	0	N/A
8/5/14	UW1I16140728-00	1	1446	4,912	98.6	1.0	396	0	0	N/A
8/5/14	UW1F16140723-00	2	1069	5,981	99.5	0.9	396	0	0	N/A
8/6/14	UW1L04140804-01	0	985	6,966	97.6	0.9	N/A	0	0	N/A
8/6/14	UW1M01140805-00	0	1295	8,261	99.7	1.0	N/A	0	0	N/A
8/6/14	UW1F16140806-00	0	1020	9,281	99.9	0.9	N/A	0	0	N/A
8/7/14	UW1I19140806-00	1	1263	10,544	99.9	0.9	396	0	0	N/A
8/7/14	UW1I16140807-00	1	1100	11,644	99.4	0.9	396	0	0	N/A
8/7/14	UW1F16140807-00	0	1020	12,664	99.8	0.9	N/A	0	0	N/A
8/11/14	UW1I19140807-00	0	1403	14,067	99.3	1.0	N/A	0	0	N/A
8/12/14	UW1I16140811-00	1	1100	15,167	99.4	0.9	396	0	0	N/A
8/12/14	UW1L04140811-00	0	1139	16,306	98.8	0.9	N/A	0	0	N/A
8/13/14	UW1M01140812-00	0	865	17,171	99.8	0.7	N/A	0	0	N/A
8/13/14	UW1F16140812-00	1	906	18,077	97.1	0.8	396	0	0	N/A
8/13/04	UW1I19140812-00	0	1122	19,199	98.5	0.8	N/A	0	0	N/A
8/14/14	UW1I16140813-00	1	1100	20,299	99.4	0.9	396	0	0	N/A
8/14/14	UW1L04140813-00	0	982	21,281	99.0	0.8	N/A	0	0	N/A
8/14/14	UW1M01140814-00	0	872	22,153	98.6	0.7	N/A	0	0	N/A
8/26/14	UW1I19140814-00	2	1467	23,620	97.4	1.0	396	0	0	N/A
8/26/14	UW1I16140825-00	0	966	24,586	99.8	0.9	N/A	0	0	N/A
8/26/14	UW1L04140825-00	0	1105	25,691	98.0	0.9	N/A	0	0	N/A
8/27/14	UW1M01140826-00	1	1121	26,812	98.3	0.9	396	0	0	N/A
8/27/14	UW1I19140826-00	1	1217	28,029	99.4	0.9	400	0	0	N/A
8/27/14	UW1I16140826-00	0	1239	29,268	98.5	1.0	N/A	0	0	N/A
8/27/14	UW1L04140827-00	0	1233	30,501	99.4	1.0	N/A	0	0	N/A
8/27/14	UW1M01140827-00	0	1343	31,844	98.3	1.0	N/A	0	0	N/A
8/27/14	UW1F16140828-00	0	1209	33,053	98.1	0.9	N/A	0	0	N/A
<p><b>Average CAES Screen Passing Pixels (%) = 98.9</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 33,053</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 15</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,204</b>  <b>Total Average Thickness (ft.) = 0.9</b></p>										

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

CAES compaction screen example from August 2014. 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.



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

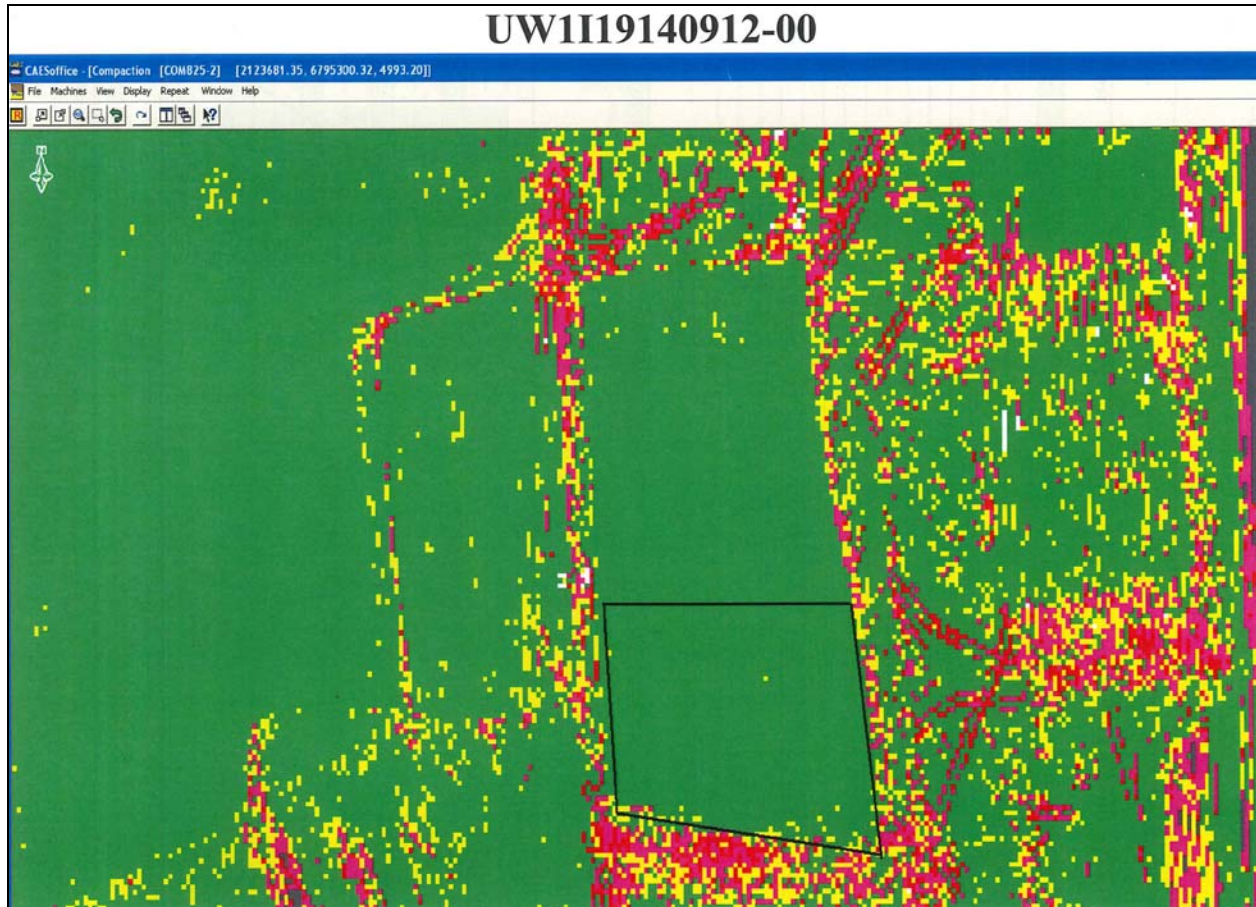
September 2014										
Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
9/2/14	UW1119140828-00	1	1353	1,353	99.9	1.0	430	0	0	N/A
9/2/14	UW1116140902-00	0	914	2,267	99.6	0.8	N/A	0	0	N/A
9/3/14	UW1119140903-00	0	1130	3,397	99.4	0.9	N/A	0	0	N/A
9/3/14	UW1L04140902-00	1	1180	4,577	98.9	1.0	425	0	0	N/A
9/3/14	UW1M01140902-00	0	1206	5,783	99.9	0.9	N/A	0	0	N/A
9/4/14	UW1M01140904-00	0	1275	7,058	99.8	0.9	N/A	0	0	N/A
9/4/14	UW1L04140903-00	1	1047	8,105	99.5	0.9	429	0	0	N/A
9/4/14	UW1116140903-00	1	1028	9,133	99.7	0.9	396	0	0	N/A
9/5/14	UW1L08140904-00	0	1081	10,214	99.3	0.7	N/A	0	0	N/A
9/5/14	UW1119140904-00	0	644	10,858	99.7	0.6	N/A	0	0	N/A
9/8/14	UW1L08140905-00	0	1544	12,402	97.5	1.0	N/A	0	0	N/A
9/8/14	UW1116140905-00	1	1171	13,573	99.9	0.9	429	0	0	N/A
9/9/14	UW1M01140908-00	0	1275	14,848	99.3	0.9	N/A	0	0	N/A
9/9/14	UW1L04140908-00	1	1047	15,895	99.7	0.9	396	0	0	N/A
9/10/14	UW1116140909-00	0	645	16,540	99.8	0.7	N/A	0	0	N/A
9/10/14	UW1119140909-00	1	940	17,480	99.4	0.9	396	0	0	N/A
9/10/14	UW1L08140909-00	0	1506	18,986	99.8	0.9	N/A	0	0	N/A
9/10/14	UW1L04140909-00	0	1064	20,050	99.8	1.0	N/A	0	0	N/A
9/11/14	UW1L08140910-00	0	1673	21,723	98.0	1.0	N/A	0	0	N/A
9/11/14	UW1M01140910-00	0	1513	23,236	99.3	1.0	N/A	0	0	N/A
9/11/14	UW1116140910-00	0	369	23,605	99.7	0.4	N/A	0	0	N/A
9/11/14	UW1119140910-00	1	836	24,441	97.1	0.8	396	0	0	N/A
9/12/14	UW1116140912-00	0	369	24,810	100.0	0.4	N/A	0	0	N/A
9/12/14	UW1119140912-00	0	940	25,750	96.5	0.9	N/A	0	0	N/A
9/12/14	UW1M01140911-00	0	1362	27,112	99.8	0.9	N/A	0	0	N/A
9/12/14	UW1L04140911-00	1	958	28,070	99.6	0.9	396	0	0	N/A
9/15/14	UW1119140915-00	0	522	28,592	99.2	0.5	N/A	0	0	N/A
9/15/14	UW1L08140912-00	1	1506	30,098	99.3	0.9	396	0	0	N/A
9/16/14	UW1L08140916-00	0	1485	31,583	99.3	0.9	N/A	0	0	N/A
9/16/14	UW1L04140915-00	1	694	32,277	99.9	0.7	396	0	0	N/A
9/16/14	UW1M01140915-00	0	1099	33,376	99.9	0.7	N/A	0	0	N/A
9/17/14	UW1L04140916-00	1	892	34,268	98.5	0.9	396	0	0	N/A
9/17/14	UW1M01140917-00	0	1256	35,524	99.4	0.8	N/A	0	0	N/A
9/17/14	UW1L08140917-00	1	1305	36,829	98.8	0.8	396	0	0	N/A
9/18/14	UW1L04140917-00	0	845	37,674	99.4	0.7	N/A	0	0	N/A
9/18/14	UW1M01140918-00	0	1,041	38,715	98.8	0.8	N/A	0	0	N/A
9/19/14	UW1L04140919-00	1	1,096	39,811	99.9	1.0	396	0	0	N/A
9/19/14	UW1L08140918-00	1	1,326	41,137	99.9	0.8	396	0	0	N/A
9/22/14	UW1L15140922-00	1	1,204	42,341	97.9	0.9	396	0	0	N/A
9/23/14	UW1L08140919-00	1	1,310	43,651	98.6	0.8	396	0	0	N/A
9/23/14	UW1L15140923-00	0	1,338	44,989	96.9	1.0	N/A	0	0	N/A
9/24/14	UW1L08140923-00	0	1,664	46,653	98.8	1.0	N/A	0	0	N/A
9/24/14	UW1L08140924-00	1	1,664	48,317	98.8	1.0	396	0	0	N/A
9/24/14	UW1L15140923-01	0	1,312	49,629	99.5	1.0	N/A	0	0	N/A

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

Date	Lift ID #	# of Passing Moisture Tests	Quantity Approved (yd <sup>3</sup> )	Cumulative Quantity Approved (yd <sup>3</sup> )	CAES Screen Passing Pixels (%)	Average Thickness (ft)	Proctor ID #	# of Nuclear Density Gauge Verifications	# of Sandcone Verifications	Verified Compaction (%)
9/25/14	UW1L15140924-00	0	1,050	50,679	99.1	0.8	N/A	0	0	N/A
9/25/14	UW1L08140924-01	1	1,362	52,041	98.9	0.8	396	0	0	N/A
9/25/14	UW1L15140925-00	0	907	52,948	97.7	0.7	N/A	0	0	N/A
<p> <b>Average CAES Screen Passing Pixels (%) = 99.1</b>  <b>Total Quantity Approved (yd<sup>3</sup>) = 52,948</b>  <b>Total # of Nuclear Density Gauge Tests = 0</b>  <b>Total # of Moisture Tests = 19</b>  <b>Quantity per Moisture Test (yd<sup>3</sup>) = 2,787</b>  <b>Total Average Thickness (ft.) = 0.8</b> </p>										

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

CAES compaction screen example from September 2014. 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.



## Appendix A2. RRM Lift Approval Package

### LIFT APPROVAL FORM

<b>PROJECT:</b> Moab UMTRA	<b>OTHER:</b>
<b>NW CORNER</b>	<b>DATE:</b> 5/6/2014

P 1	6795856 N. 2123568 E.		
EW:	290	X 0.329	= 95
NS:	322	X 0.689	= 222
P 2			
EW:	X		=
NS:	X		=
P 3			
EW:	X	N	=
NS:	X		=
P 4	A		
EW:	X		=
NS:	X		=
P 5			
EW:	X		=
NS:	X		=
Page 2 attached: Y N			

IDENTIFY LOTS ABOVE

<b>LIFT ID:</b> UW1E01140506-00	<b>NW CORNER:</b> 6796078 N. 2123473 E.			
Uncompacted Thickness: 1.0	Compacted Thickness: N/A	Debris Insp. By: N/A	Date: N/A	Time: N/A
NW CORNER of debris placement: N/A	EW Dimension: N/A	NS Dimension: N/A		
Lift Area (ft <sup>2</sup> ): 57,685	Lift Volume (yd <sup>3</sup> ): 2,136			

Comments: This is the 8<sup>th</sup> lift placed in the last 7' of design grade. QC verified that the lift area was scarified prior to placement. QC performed an in-place moisture/ density test in correlation with the CAES. The test was satisfactory.

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Attached Forms: Grid Slope  Compaction Macro  Print Screen  Moisture/ Density

KEYING IN NOTES: N E S W Satisfactory      MOISTURE/ DENSITY TESTS ID # (S): 1

LIFT APPROVED BY: Mitch Hogan/ *[Signature]*      DATE: 5/7/2014      TIME: 1402

*[Signature]* 5/13/2014      QA/QC APPROVAL      DATE

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)**

**Slope Elevation Survey**

Average lift thickness=	1.0	Bounding Box	Northing	Easting
Grid Size=	45'	Lower Left	N	
Lift ID:	UW1E01140506-00	Upper Right		A

Last Lift Elevations			Lift Approval Elevations			Lift Thickness	
Northing	Easting	Elevation	Northing	Easting	Elevation	Thickness	
6795919	2123496	4991.6	6795919	2123496	4992.5	0.9	OK
6795964	2123496	4990.7	6795964	2123496	4991.7	1.0	OK
6796009	2123496	4989.8	6796009	2123496	4990.9	1.1	OK
6796054	2123496	4988.7	6796054	2123496	4989.8	1.1	OK
6795784	2123541	4994.6	6795784	2123541	4995.4	0.8	OK
6795829	2123541	4993.8	6795829	2123541	4994.5	0.8	OK
6795874	2123541	4992.7	6795874	2123541	4993.7	1.0	OK
6795919	2123541	4991.7	6795919	2123541	4992.8	1.1	OK
6795964	2123541	4990.8	6795964	2123541	4991.8	1.0	OK
6796009	2123541	4989.9	6796009	2123541	4991.1	1.2	OK
6796054	2123541	4988.8	6796054	2123541	4990.0	1.1	OK
6795784	2123586	4994.7	6795784	2123586	4995.8	1.0	OK
6795829	2123586	4993.6	6795829	2123586	4994.6	1.0	OK
6795874	2123586	4992.8	6795874	2123586	4993.8	1.0	OK
6795919	2123586	4991.9	6795919	2123586	4993.0	1.1	OK
6795964	2123586	4990.8	6795964	2123586	4991.9	1.0	OK
6796009	2123586	4989.9	6796009	2123586	4991.0	1.1	OK
6796054	2123586	4989.0	6796054	2123586	4990.0	1.1	OK
6795784	2123630	4994.7	6795784	2123630	4995.5	0.7	OK
6795829	2123630	4993.8	6795829	2123630	4994.6	0.8	OK
6795874	2123630	4992.9	6795874	2123630	4993.7	0.8	OK
6795919	2123630	4991.7	6795919	2123630	4992.8	1.1	OK
6795964	2123630	4990.6	6795964	2123630	4991.6	1.0	OK
6796009	2123630	4989.9	6796009	2123630	4990.7	0.9	OK
6796054	2123630	4989.1	6796054	2123630	4990.0	0.9	OK
6796054	2123675	4989.0	6796054	2123675	4989.9	1.0	OK
6796099	2123675	4988.0	6796099	2123675	4989.1	1.0	OK
6796054	2123720	4988.6	6796054	2123720	4989.4	0.8	OK
6796099	2123720	4987.7	6796099	2123720	4988.6	0.9	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK
						0.0	OK

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

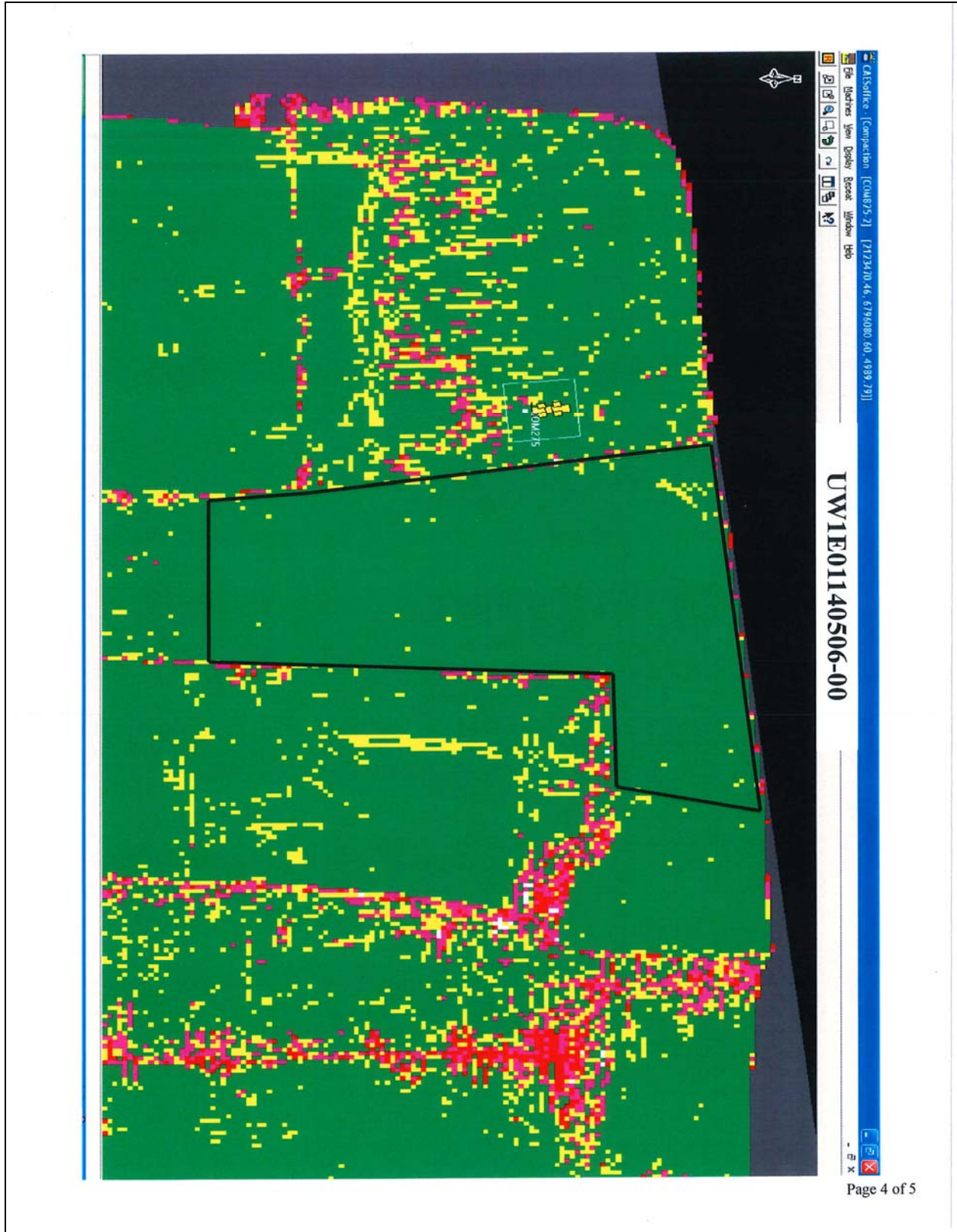
% =6	99.1%
Elevation Avg	4991.8
Total =6	5441
Total Lines	5489

Pass	Minimum Number of Machine Passes
	3

Lift ID: UW1E01140506-00

Northing	Eastng	Elevation	# of Passes	Passes =6	Count	
6796073	2123472	4988.8	6	1	1	Lift Height
6796076	2123472	4988.8	6	1	1	1' 0"
6796080	2123472	4988.7	6	1	1	
6796060	2123476	4989.2	6	1	1	Thick Lift Threshold
6796063	2123476	4989.1	6	1	1	2' 0"
6796066	2123476	4988.9	6	1	1	
6796070	2123476	4988.8	6	1	1	Last Lift Elevation
6796073	2123476	4988.8	6	1	1	N/A
6796076	2123476	4988.7	6	1	1	
6796080	2123476	4988.8	6	1	1	Min. # of Wheel Passes
6796043	2123479	4989.7	6	1	1	6
6796047	2123479	4989.5	6	1	1	
6796050	2123479	4989.4	6	1	1	
6796053	2123479	4989.3	6	1	1	
6796057	2123479	4989.2	6	1	1	
6796060	2123479	4989.1	6	1	1	
6796063	2123479	4989.0	6	1	1	
6796066	2123479	4988.9	6	1	1	
6796070	2123479	4988.8	6	1	1	
6796073	2123479	4988.8	6	1	1	
6796076	2123479	4988.7	6	1	1	
6796080	2123479	4988.7	6	1	1	
6796027	2123482	4990.3	6	1	1	
6796030	2123482	4990.1	6	1	1	
6796034	2123482	4990.0	6	1	1	
6796037	2123482	4989.9	6	1	1	
6796040	2123482	4989.8	6	1	1	
6796043	2123482	4989.6	6	1	1	
6796047	2123482	4989.6	6	1	1	
6796050	2123482	4989.5	6	1	1	
6796053	2123482	4989.4	6	1	1	
6796057	2123482	4989.2	6	1	1	
6796060	2123482	4989.1	6	1	1	
6796063	2123482	4989.1	6	1	1	
6796066	2123482	4989.0	6	1	1	
6796070	2123482	4988.9	6	1	1	
6796073	2123482	4988.8	6	1	1	
6796076	2123482	4988.7	6	1	1	
6796080	2123482	4988.7	6	1	1	
6796001	2123486	4991.0	6	1	1	
6796004	2123486	4990.9	6	1	1	
6796007	2123486	4990.8	6	1	1	
6796011	2123486	4990.7	6	1	1	
6796014	2123486	4990.7	6	1	1	

Appendix A2. RRM Lift Approval Package (continued)



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

**FIELD DENSITY TEST**

<b>PROJECT:</b> Moab UMTRA Project <span style="float: right;"><b>OTHER</b> _____</span>																			
<b>LIFT IDENTIFICATION:</b> <u>UW1E01140506-00</u> <span style="float: right;"><b>DATE:</b> <u>5/7/2014</u></span>																			
<b>TEST ID NUMBER(S):</b> _____ <span style="float: right;"><b>#</b> <u>1</u></span>																			
<b>TEST LOCATION:</b> <u>6795856 N. 2123568 E.</u> <span style="float: right;"><b>TEST METHOD:</b> <u>D1556</u> <input checked="" type="checkbox"/> <u>D6938</u></span>																			
<b>ASTM D6938 (DENSITY DETERMINATION)</b> Make/Model <u>Troxler 3430</u> Gauge Serial # <u>28098</u> Last Calibration Date: <u>2/7/14</u> Daily Standard Counts: <i>On-Cell Standard</i> Density <u>2691</u> Moisture <u>666</u> <i>Method A (Direct Transmission)</i> Depth Setting <u>8</u> (inches) Count Time <u>1</u> (minutes) Moisture Count <u>122</u> Density Count <u>2778</u> Wet Density ( $\rho_m$ ) <u>118.8</u> (lbs/ft <sup>3</sup> ) Dry Density <u>109.0</u> (lbs/ft <sup>3</sup> ) Moisture Density <u>9.9</u> (lbs/ft <sup>3</sup> ) Moisture Fraction <u>9.0</u> (%)	<b>ASTM D1556 (DENSITY DETERMINATION)</b> Testing Apparatus _____ Calibrated Vol. (lbs/ft <sup>3</sup> ) _____ Bulk Density of sand ( $\rho_1$ ) _____ g/cm <sup>3</sup> _____ lbs/ft <sup>3</sup> Mass of Sand to Fill Cone & Plate ( $M_2$ ) _____ g Mass of bottle & cone before filling _____ g Mass of bottle & cone after filling _____ g Mass of sand to fill cone, plate, & hole ( $M_1$ ) _____ 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 $V = (M_1 - M_2) / \rho_1$ _____ cm <sup>3</sup> Dry Mass of soil $M_d = 100 M_3 / (w + 100)$ _____ g Wet Density $\rho_m = (M_3 / V) \times 62.43$ _____ lbs/ft <sup>3</sup> Dry Density $\rho_d = M_d / V$ _____ g/cm <sup>3</sup> Dry Unit Weight $\gamma_d = \rho_d \times 62.43$ _____ lbs/ft <sup>3</sup>																		
<b>MOISTURE DETERMINATION</b> ASTM D4643 Container ID <u>D-5</u> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Mass of container &amp; wet specimen (<math>M_{cms}</math>)</td> <td style="text-align: center;"><u>463.3</u></td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of container &amp; dry specimen (<math>M_{cbs}</math>)</td> <td style="text-align: center;"><u>442.9</u></td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of water (<math>M_w</math>) <math>M_w = M_{cms} - M_{cbs}</math></td> <td style="text-align: center;"><u>20.4</u></td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of container (<math>M_c</math>)</td> <td style="text-align: center;"><u>216.4</u></td> <td style="text-align: right;">g</td> </tr> <tr> <td>Mass of dry specimen (<math>M_s</math>) <math>M_s = M_{cbs} - M_c</math></td> <td style="text-align: center;"><u>226.5</u></td> <td style="text-align: right;">g</td> </tr> <tr> <td>Moisture content (<math>w</math>) <math>w = (M_w / M_s) \times 100</math></td> <td style="text-align: center;"><u>9.0</u></td> <td style="text-align: right;">%</td> </tr> </table>		Mass of container & wet specimen ( $M_{cms}$ )	<u>463.3</u>	g	Mass of container & dry specimen ( $M_{cbs}$ )	<u>442.9</u>	g	Mass of water ( $M_w$ ) $M_w = M_{cms} - M_{cbs}$	<u>20.4</u>	g	Mass of container ( $M_c$ )	<u>216.4</u>	g	Mass of dry specimen ( $M_s$ ) $M_s = M_{cbs} - M_c$	<u>226.5</u>	g	Moisture content ( $w$ ) $w = (M_w / M_s) \times 100$	<u>9.0</u>	%
Mass of container & wet specimen ( $M_{cms}$ )	<u>463.3</u>	g																	
Mass of container & dry specimen ( $M_{cbs}$ )	<u>442.9</u>	g																	
Mass of water ( $M_w$ ) $M_w = M_{cms} - M_{cbs}$	<u>20.4</u>	g																	
Mass of container ( $M_c$ )	<u>216.4</u>	g																	
Mass of dry specimen ( $M_s$ ) $M_s = M_{cbs} - M_c$	<u>226.5</u>	g																	
Moisture content ( $w$ ) $w = (M_w / M_s) \times 100$	<u>9.0</u>	%																	
Dry Density ( $\rho_d = (100 \times \rho_m) / (100 + w)$ ) $\rho_d = (100 \times 118.8) / (100 + 9.0) = 109.0$ lbs/ft <sup>3</sup> <i>Note: Wet Density from ASTM D 1556 (<math>\rho_m</math>) takes precedence over ASTM D 6938 (<math>\rho_w</math>)</i> Percent Compaction = $\rho_d / \gamma_{dmax} \times 100$ $109.0 / 120.5 \times 100 = 90.4$ %																			
Soil Description: <u>Very fine to medium, subangular, moderately graded sand with some clay.</u> Proctor ID: <u>RRM # 425</u> Standard Proctor (ASTM D698) Maximum Dry Density ( $\gamma_{dmax}$ ) <u>120.5</u> (lbs/ft <sup>3</sup> ) Optimum Moisture ( $w_{opt}$ ) <u>11.3</u> (%) Required Moisture: <u>8.3</u> % to <u>14.3</u> % Required Percent Compaction: <u>90.0</u> (%)																			
Comments: <b>Off Cell Standard- DS: 2324 MS: 668. 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.</b>																			
TEST RESULTS: <input checked="" type="checkbox"/> Pass <span style="float: right;">Date: <u>5/7/14</u></span> <input type="checkbox"/> Failed Moisture <input type="checkbox"/> Failed Compaction <span style="float: right;">Time: <u>1000</u></span> By: <u>Beachem Bosh</u> (print) (signature)																			
<table style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">                   QA/QC APPROVAL             </td> <td style="width: 50%; text-align: center;"> <u>05-13-14</u>                  DATE             </td> </tr> </table>		 QA/QC APPROVAL	<u>05-13-14</u> DATE																
 QA/QC APPROVAL	<u>05-13-14</u> DATE																		

Density Testing DOE-EM/GJRAC1783 Rev. 0	QC-F-002 File Index No. 43.8.2 Page <u>5</u> of <u>5</u>
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## Appendix A2. RRM Top-of-Waste Buyoff Survey

Environmental Management - Grand Junction Office  
  
 UMTRA Project

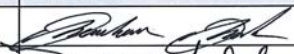
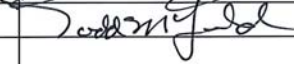
### Top of Waste Buyoff Form

  
 CRJ 001439

**Client:** Department of Energy  
**Project:** Moab UMTRA Project  
**Date:** 06-11-2014

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

Lift Area	Lift Area
UWY01	

Approver Name/Title	Signature	Sign Date
Beachem Bosh QA/QC Representative		06/11/2014
Todd McFarland Operations Supervisor		06-11-2014
<b>Comments</b>		
Lift area includes the following Lifts: UWY01, UW1I01, UW1E01, UW1E08, UWZ06, UW1G01, UW1A12, UW1H08 and UW1D19.		
Total Lift Area = 444,861 ft <sup>2</sup>		

OP-F-013  
 Rev 0, August 2010

RECORD COPY

File Index No. 43 <sup>8-27-14</sup> 8.3.1  
 Page 1 of 1  
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## Appendix A2. RRM Top-of-Waste Buyoff Survey (continued)

<b>Top Of Waste Buyoff Survey</b>						
Lift Area Buyoff ID:			UWY01		Date: 6/11/2014	
Point #	Northing	Easting	Surveyed Elevation	Design Elevation	Difference in feet	Difference in inches
8915	6795980	2123235	4990.28	4990.28	0.0	0.0
8953	6795987	2123284	4990.55	4990.47	0.1	1.0
8914	6796030	2123228	4989.31	4989.28	0.0	0.4
8952	6796036	2123278	4989.51	4989.47	0.0	0.4
8951	6796063	2123275	4988.96	4988.93	0.0	0.4
8913	6796057	2123225	4988.77	4988.74	0.0	0.4
9027	6796075	2123374	4989.43	4989.30	0.1	1.5
8989	6796069	2123324	4989.24	4989.11	0.1	1.6
8990	6796042	2123328	4989.69	4989.65	0.0	0.5
8991	6795993	2123334	4990.76	4990.65	0.1	1.3
9029	6795999	2123383	4990.90	4990.84	0.1	0.7
9028	6796049	2123377	4989.95	4989.84	0.1	1.3
9066	6796055	2123427	4990.11	4990.03	0.1	0.9
9067	6796005	2123433	4991.14	4991.03	0.1	1.3
9065	6796082	2123423	4989.50	4989.49	0.0	0.1
9103	6796088	2123473	4989.67	4989.67	0.0	0.0
9105	6796011	2123483	4991.33	4991.21	0.1	1.5
9142	6796018	2123532	4991.50	4991.38	0.1	1.4
9179	6796018	2123538	4991.49	4991.36	0.1	1.5
9178	6796068	2123533	4990.46	4990.36	0.1	1.2
9141	6796067	2123526	4990.45	4990.38	0.1	0.9
9182	6796074	2123582	4990.23	4990.22	0.0	0.1
9104	6796061	2123476	4990.25	4990.21	0.0	0.4
9183	6796024	2123588	4991.23	4991.22	0.0	0.2
9184	6795974	2123593	4992.24	4992.22	0.0	0.2
9201	6795980	2123643	4992.11	4992.08	0.0	0.4
9202	6796030	2123638	4991.19	4991.08	0.1	1.3
9203	6796079	2123632	4990.08	4990.07	0.0	0.1
9204	6796085	2123682	4990.04	4989.93	0.1	1.3
9205	6796035	2123687	4991.06	4990.93	0.1	1.5
9206	6795985	2123693	4991.96	4991.94	0.0	0.2
9223	6795991	2123743	4991.93	4991.79	0.1	1.6
9224	6796041	2123737	4990.91	4990.79	0.1	1.4
9225	6796090	2123731	4989.93	4989.79	0.1	1.7
9226	6796096	2123781	4989.68	4989.65	0.0	0.4
9229	6796046	2123787	4990.66	4990.65	0.0	0.2
9230	6795997	2123792	4991.73	4991.65	0.1	0.9
9228	6796052	2123836	4990.61	4990.51	0.1	1.2
9227	6796102	2123831	4989.56	4989.50	0.1	0.7
9180	6795969	2123544	4992.46	4992.37	0.1	1.1
9143	6795968	2123539	4992.41	4992.38	0.0	0.3
9106	6795962	2123489	4992.23	4992.21	0.0	0.2
9068	6795956	2123439	4992.10	4992.03	0.1	0.8
9030	6795949	2123390	4991.97	4991.84	0.1	1.5
8992	6795943	2123340	4991.65	4991.65	0.0	0.0
8954	6795937	2123290	4991.56	4991.47	0.1	1.1
8916	6795931	2123241	4991.30	4991.28	0.0	0.2
8879	6795875	2123197	4992.11	4992.09	0.0	0.2
8917	6795881	2123247	4992.38	4992.28	0.1	1.2
8955	6795887	2123297	4992.61	4992.47	0.1	1.7
8993	6795894	2123346	4992.69	4992.65	0.0	0.4
9031	6795900	2123396	4992.95	4992.84	0.1	1.3
9032	6795850	2123402	4993.99	4993.84	0.1	1.8
8994	6795844	2123353	4993.78	4993.65	0.1	1.5
8880	6795825	2123204	4993.20	4993.09	0.1	1.4
8881	6795776	2123210	4994.17	4994.09	0.1	1.0
8919	6795782	2123260	4994.42	4994.28	0.1	1.7
8995	6795794	2123359	4994.78	4994.65	0.1	1.6
8996	6795745	2123365	4995.75	4995.65	0.1	1.2
8958	6795738	2123315	4995.63	4995.47	0.2	1.9
8920	6795732	2123266	4995.40	4995.28	0.1	1.4
8882	6795726	2123216	4995.10	4995.09	0.0	0.1
8959	6795689	2123322	4996.58	4996.47	0.1	1.3
8997	6795695	2123371	4996.66	4996.65	0.0	0.1
8998	6795645	2123378	4997.74	4997.65	0.1	1.0

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## Appendix A2. RRM Top-of-Waste Buyoff Survey (continued)

8960	6795639	2123328	4997.58	4997.47	0.1	1.4
8922	6795633	2123278	4997.29	4997.28	0.0	0.1
8885	6795577	2123235	4998.19	4998.09	0.1	1.2
8923	6795583	2123285	4998.41	4998.28	0.1	1.5
8961	6795590	2123334	4998.57	4998.47	0.1	1.2
8999	6795596	2123384	4998.74	4998.65	0.1	1.1
9000	6795546	2123390	4999.72	4999.65	0.1	0.8
8962	6795540	2123340	4999.56	4999.47	0.1	1.1
8924	6795534	2123291	4999.40	4999.28	0.1	1.4
8886	6795528	2123241	4999.18	4999.09	0.1	1.1
8884	6795627	2123229	4997.17	4997.09	0.1	1.0
8847	6795571	2123185	4997.92	4997.91	0.0	0.1
8846	6795621	2123179	4996.94	4996.91	0.0	0.3
8921	6795683	2123272	4996.40	4996.28	0.1	1.5
8883	6795676	2123222	4996.12	4996.09	0.0	0.4
8957	6795788	2123309	4994.55	4994.47	0.1	0.9
8956	6795838	2123303	4993.59	4993.47	0.1	1.5
8918	6795831	2123253	4993.44	4993.28	0.2	1.9
9033	6795801	2123408	4994.96	4994.84	0.1	1.4
9034	6795751	2123415	4995.99	4995.84	0.1	1.7
9037	6795602	2123433	4998.97	4998.84	0.1	1.6
9038	6795553	2123440	4999.86	4999.84	0.0	0.2
9036	6795652	2123427	4997.92	4997.84	0.1	1.0
9035	6795701	2123421	4996.94	4996.84	0.1	1.2
9069	6795906	2123446	4993.13	4993.03	0.1	1.2
9070	6795856	2123452	4994.14	4994.03	0.1	1.3
9071	6795807	2123458	4995.14	4995.03	0.1	1.3
9072	6795757	2123464	4996.05	4996.03	0.0	0.2
9073	6795708	2123470	4997.09	4997.03	0.1	0.7
9075	6795608	2123483	4999.13	4999.03	0.1	1.2
9113	6795615	2123533	4999.32	4999.21	0.1	1.3
9112	6795664	2123526	4998.34	4998.21	0.1	1.6
9074	6795658	2123477	4998.15	4998.03	0.1	1.4
9111	6795714	2123520	4997.35	4997.21	0.1	1.6
9110	6795763	2123514	4996.27	4996.21	0.1	0.7
9109	6795813	2123508	4995.21	4995.21	0.0	0.0
9108	6795863	2123501	4994.36	4994.21	0.1	1.8
9107	6795912	2123495	4993.25	4993.21	0.0	0.4
9144	6795918	2123545	4993.39	4993.38	0.0	0.1
9181	6795919	2123549	4993.39	4993.37	0.0	0.2
9146	6795819	2123557	4995.50	4995.38	0.1	1.4
9147	6795770	2123563	4996.51	4996.39	0.1	1.5
9148	6795720	2123570	4997.40	4997.39	0.0	0.2
9149	6795670	2123576	4998.43	4998.39	0.0	0.5
9150	6795621	2123582	4999.42	4999.39	0.0	0.4
9151	6795571	2123588	5000.51	5000.38	0.1	1.5
9190	6795676	2123627	4998.30	4998.24	0.1	0.7
9189	6795726	2123621	4997.38	4997.24	0.1	1.8
9188	6795776	2123616	4996.26	4996.23	0.0	0.3
9187	6795825	2123610	4995.34	4995.23	0.1	1.3
9145	6795869	2123551	4994.40	4994.38	0.0	0.2
9186	6795875	2123605	4994.26	4994.23	0.0	0.4
9185	6795925	2123599	4993.35	4993.23	0.1	1.4
9215	6795594	2123787	4999.83	4999.81	0.0	0.3
9216	6795643	2123782	4998.89	4998.81	0.1	1.0
9217	6795693	2123776	4997.94	4997.81	0.1	1.5
9218	6795743	2123770	4996.90	4996.81	0.1	1.2
9219	6795792	2123765	4995.88	4995.80	0.1	0.9
9233	6795848	2123809	4994.70	4994.66	0.0	0.5
9220	6795842	2123759	4994.94	4994.80	0.1	1.6
9221	6795892	2123754	4993.91	4993.80	0.1	1.4
9232	6795897	2123803	4993.72	4993.66	0.1	0.7
9231	6795947	2123798	4992.70	4992.65	0.1	0.6
9222	6795941	2123748	4992.93	4992.80	0.1	1.6
9207	6795936	2123698	4993.04	4992.94	0.1	1.2
9200	6795930	2123649	4993.17	4993.08	0.1	1.0
9199	6795881	2123654	4994.13	4994.09	0.0	0.6
9208	6795886	2123704	4994.07	4993.94	0.1	1.6
9209	6795836	2123710	4995.03	4994.95	0.1	1.0
9198	6795831	2123660	4995.17	4995.09	0.1	1.0
9197	6795781	2123665	4996.23	4996.09	0.1	1.7

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## Appendix A2. RRM Top-of-Waste Buyoff Survey (continued)

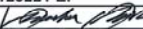
9210	6795787	2123715	4995.98	4995.95	0.0	0.4
9211	6795737	2123721	4997.09	4996.95	0.1	1.6
9196	6795731	2123671	4997.10	4997.09	0.0	0.1
9195	6795682	2123677	4998.23	4998.10	0.1	1.6
9212	6795687	2123726	4998.09	4997.95	0.1	1.6
9194	6795632	2123682	4999.19	4999.09	0.1	1.2
9191	6795626	2123633	4999.36	4999.24	0.1	1.4
9213	6795638	2123732	4999.08	4998.95	0.1	1.5
9192	6795577	2123638	5000.24	5000.24	0.0	0.0
9076	6795559	2123489	5000.03	5000.02	0.0	0.1
9114	6795565	2123539	5000.22	5000.21	0.0	0.1
9193	6795582	2123688	5000.10	5000.09	0.0	0.1
9214	6795588	2123737	5000.00	4999.95	0.1	0.6
9077	6795509	2123495	4998.83	4998.77	0.1	0.8
9039	6795503	2123446	4998.64	4998.59	0.0	0.6
9001	6795497	2123396	4998.42	4998.40	0.0	0.3
8963	6795490	2123347	4998.26	4998.22	0.0	0.5
8887	6795478	2123247	4997.85	4997.84	0.0	0.1
8849	6795472	2123198	4997.73	4997.66	0.1	0.8
8850	6795422	2123204	4996.44	4996.41	0.0	0.3
8888	6795428	2123254	4996.72	4996.59	0.1	1.6
8926	6795435	2123303	4996.90	4996.78	0.1	1.4
8964	6795441	2123353	4996.99	4996.97	0.0	0.3
9040	6795453	2123452	4997.45	4997.34	0.1	1.3
9078	6795460	2123502	4997.58	4997.52	0.1	0.7
9079	6795410	2123508	4996.41	4996.27	0.1	1.7
9041	6795404	2123458	4996.13	4996.09	0.0	0.5
9003	6795397	2123409	4995.93	4995.90	0.0	0.3
8965	6795391	2123359	4995.75	4995.72	0.0	0.3
8927	6795385	2123309	4995.65	4995.53	0.1	1.4
8889	6795379	2123260	4995.40	4995.34	0.1	0.7
8851	6795372	2123210	4995.20	4995.16	0.0	0.5
8848	6795521	2123192	4998.96	4998.91	0.0	0.6
8925	6795484	2123297	4998.15	4998.03	0.1	1.4
9002	6795447	2123402	4997.23	4997.15	0.1	0.9
8852	6795323	2123217	4993.92	4993.91	0.0	0.1
8890	6795329	2123266	4994.12	4994.09	0.0	0.4
8928	6795335	2123316	4994.34	4994.28	0.1	0.7
8966	6795342	2123365	4994.49	4994.47	0.0	0.2
9004	6795348	2123415	4994.79	4994.65	0.1	1.7
9042	6795354	2123465	4994.96	4994.84	0.1	1.5
9080	6795360	2123514	4995.13	4995.02	0.1	1.3
9081	6795311	2123520	4993.82	4993.77	0.0	0.6
9082	6795261	2123527	4992.61	4992.52	0.1	1.1
9044	6795255	2123477	4992.46	4992.34	0.1	1.4
9043	6795304	2123471	4993.67	4993.59	0.1	1.0
9005	6795298	2123421	4993.45	4993.40	0.0	0.6
9006	6795249	2123427	4992.21	4992.15	0.1	0.7
8968	6795242	2123378	4992.08	4991.97	0.1	1.3
8967	6795292	2123372	4993.33	4993.22	0.1	1.3
8929	6795286	2123322	4993.15	4993.03	0.1	1.4
8930	6795236	2123328	4991.86	4991.78	0.1	0.9
8892	6795230	2123279	4991.69	4991.59	0.1	1.2
8891	6795280	2123272	4992.91	4992.84	0.1	0.9
8853	6795273	2123223	4992.71	4992.66	0.1	0.6
8854	6795224	2123229	4991.42	4991.41	0.0	0.1
8855	6795174	2123235	4990.17	4990.16	0.0	0.1
8856	6795124	2123241	4988.94	4988.91	0.0	0.3
8894	6795131	2123291	4989.16	4989.09	0.1	0.8
8932	6795137	2123341	4989.31	4989.28	0.0	0.4
8969	6795193	2123384	4990.83	4990.72	0.1	1.3
8931	6795187	2123334	4990.64	4990.53	0.1	1.3
8893	6795180	2123285	4990.38	4990.34	0.0	0.5

Comments: QC performed a visual inspection of the final surface with satisfactory results. Visual inspection notes: The area was free of humping, thickened edges and defects. The layer uniform thickness was satisfactory see above survey results for layer thickness. This buy off survey includes the following lift areas: UW1101, UW1E08, UW1E08, UW1E01, UW1D19, UWZ06, UW1A12 and UWY01.

Approval Date: 6/11/2014

Total Square Feet: 444,861 ft<sup>2</sup>

North West Corner: 6796055 N. 2123221 E.

QC Signature: Beachem Bosh 

Reviewed By: Mitch Hogan 