MONTHLY PROGRESS REPORT

ORONOGO-DUENWEG MINING BELT SITE - PHASE 10
JASPER COUNTY, MO

CONTRACT NO: EP-S7-15-06

Prepared for

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1.0 INTRODUCTION

EQM Inc. (EQM), under Contract No. EP-S7-15-06, with the United State Environmental Protection Agency (USEPA) prepares this Monthly Progress Report (MPR) to summarize work completed by EQM under Operable Unit 1 of the Oronogo-Duenweg Mining Belt Site - Phase 10 in Jasper County, MO.

EQM was contracted by USEPA to perform the general requirements, erosion control, clearing and grubbing, material removal, seeding and fertilizing on the Phase 10 sites.

This report is organized into sections that present the project schedule and summarize the work activities performed during the reporting period, problems encountered, proposed solutions, corrective actions taken, outstanding issues, changes to organization or method of operation, project costs, submittals, and work planned for the next reporting period.

2.0 PROJECT SCHEDULE STATUS

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
Base Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	38.6	38.8
Base Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	5.6	5.2
Base Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	7.9	4.7
Base Area 4	100%	100%	100%	100%	n/a	100%	100%	100%	9.1	8.8
Base Area 6	100%	100%	100%	100%	n/a	100%	100%	n/a	14.5	12.1
Base Area 8	100%	100%	100%	100%	n/a	100%	100%	100%	27.7	22.9
Base Area 11	100%	100%	n/a	100%	100%	100%	100%	100%	6	4.6
Base Area 13	100%	100%	100%	100%	n/a	100%	100%	100%	13.2	9.3
Base Area 14	100%	100%	100%	100%	n/a	100%	100%	n/a	3.9	3.1
Base Area 15	100%	100%	100%	100%	n/a	100%	100%	100%	30.8	11.8
Cen. City Frwrks. Repos.	100%	n/a	100%	100%	100%	100%	100%	n/a	0	1.9
Opt. 1 Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	35.4	30.1
Opt. 1 Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	19	14.7
Opt. 1 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	21.4	19
Opt. 1 Area 6	100%	100%	100%	100%	100%	100%	100%	100%	14.7	15.2
Opt. 1 Area 9	100%	100%	100%	100%	n/a	100%	100%	100%	4.6	5.2
Opt. 1 Area 15	100%	100%	100%	100%	n/a	100%	100%	n/a	1.9	2
Opt. 1 Area 20	100%	100%	100%	100%	n/a	100%	100%	n/a	3.6	7.8
Balestrin Repository	100%	n/a	100%	100%	100%	100%	100%	n/a	0	3.1
Opt. 2 Area 1	100%	100%	100%	100%	n/a	100%	0%	0%	61.64	42.83
Opt. 2 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	17.8	29.4
Opt. 2 Area 5	100%	100%	100%	100%	n/a	100%	100%	n/a	8.4	7
Opt. 2 Area 6 - South	100%	100%	100%	100%	n/a	100%	100%	100%	146.9	94.1
Opt. 2 Area 6 - North	100%	100%	100%	100%	100%	100%	100%	100%	146.9 25.4	16.7
Opt. 2 Area 6 - West	87%	80%	0%	0%	0%	0%	0%	0%		
Opt. 2 Area 7	100%	100%	100%	100%	n/a	100%	100%	100%		24.3
Opt. 2 Area 8	100%	100%	100%	100%	100%	100%	100%	100%	12.8	36.7
Opt. 2 Area 9	100%	100%	n/a	100%	100%	100%	100%	n/a	n/a	2.4
Gypstack Modification	100% (Excluding Routine Maintenance)								N/A	

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
MW-09	100%	99%	100%	100%	100%	100%	0%	50%	90.2	34.15
MW-14	30%	40%	0%	0%	0%	0%	0%	0%	44.61	
MW-18	75%	75%	75%	75%	0%	0%	0%	40%	56.96	
MW-26-01	100%	100%	100%	100%	n/a	100%	0%	0%	53.88	

3.0 SUMMARY OF WORK ACTIVITIES PERFORMED THIS PERIOD

Mine Waste Remediation – Phase 10 (Option 2)						Monthly Totals																		
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Complete	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2018	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2001	**Erosion Control**																							
2001AA	Sediment Fence	570	LF	570.0	100.0%						330.00							240						
2001AB	Rip Rap	915	Ton	915.0	100.0%			105.16	189.18	87.55	132.89							28.72	371.48					
2001AD	Stabilized Construction Entrance	6	Ea	6.0	100.0%		1.00	2.00			2.00				1									
2002	Clearing and Grubbing	160	Acre	116.3	72.5%							12.38			103.88									44.04
2003	**Earthwork**																							
2003AA	Excavation/Disposal of Contaminated Waste	982,381	CY	982,379.0	100.0%	43,533	51,692	102,023	96,506	86,979	92,806	99,045	82,753	62,577	48,231	83,855	80,185	32,787	19,407					
2003AB	Placement of material for Drainage	96,721	CY	96,474.0	99.7%		1,952	11,637	4,672	3,447		1,992	5,778	8,864		42,914	400	6,736	7,792		290	247		
2003AC	Grade Excavated Areas to final grade	160	Acre	116.3	72.5%							12.38			103.88									44.04
2003AD	Import/Place Clay for all Repository Caps	48,810	CY	48,810.0	100.0%							1,898	8,102	20,438			3,408	5,812	8,604	548				
2003AE	Import/Place Topsoil for all Repository Caps	5,000	CY	5,000.0	100.0%														4,482	518				
2004	**Seeding/Fertilizing**																							
2004AA	Seeding/Fertilizing Repositories	1	Acre	1.3	98.5%				1.28															
2004AB	Seeding/Fertilizing (Fescue)	92	Acre	92.1	100.0%			13.81	2.39						75.9									
2005	Remove/Replace Fencing	5,370	LF	0.0	0.0%																			5370
2006	Supply/Install 24" CMP Pipe	164	lf	164.0	100.0%							60.00			60				44					
2007	Supply/Install 36" CMP Pipe	55	lf	55.0	100.0%														55					

Mine Waste Remediation – Phase 10 (Option 3)																			
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May
3001	**Erosion Control**																		
3001AA	Sediment Fence	6,000	LF	2,150.0	35.8%	465							740	945		-	-	-	-
3001AB	Rip Rap	2,500	Ton	1,832.4	73.3%	71		15				1,527	63					156.90	15.49
3001AC	Stabilized Construction Entrance	6	Ea	4.0	66.7%	1	1		1		1								
3002	Clearing and Grubbing	300	Acre	103.4	34.5%						26			77					
3003	**Earthwork**																		
3003AA	Excavation/Disposal of Contaminated Waste	792,184	CY	777,693.0	98.2%	8,997	49,050	79,812	68,922	57,501	92,911	64,500	72,648	159,384	29,538	29,970	30,539	33,921	16,407
3003AB	Placement of material for Drainage	100,000	CY	121,570.0	121.6%				4,352		33,549	22,715		38,379	384	5,563	13,969	2,659	-
3003AC	Grade Excavated Areas to final grade	300	Acre	103.4	34.5%						26			77					
3003AD	Import/Place Clay for all Repository Caps	26,000	CY	41,143.0	158.2%		1,156		4,894		504	4,032	4,368		11,100	4,974	8,914	1,201	-
3003AE	Import/Place Topsoil for all Repository Caps	15,000	CY	8,067.0	53.8%		1,324				2,734		1,686	2,323					
3004	**Seeding/Fertilizing**																		
3004AA	Seeding/Fertilizing Repositories	10	Acre	0.0	0.0%														
3004AB	Seeding/Fertilizing (Fescue)	290	Acre	166.1	57.3%			166											
3005	Remove/Replace Fencing	10,000	LF	10,021.0	100.2%			1,070	3,485	1,505	31		2,815	1,115					
3006	Supply/Install 24" CMP Pipe	200	lf	26.0	13.0%	6						20							
3007	Supply/Install 36" CMP Pipe	100	lf	5.0	5.0%	5													
3010	Rip Rap, 12"-36"	2,200	Ton	681.0	31.0%	112	88							481					
3011	Crushed Rock, 3" Clean	600	Ton	570.2	95.0%	87	27	28	56				83	196	81	-		13.00	-
3012	Gravel, 1"-3" Crushed w/fines	1,400	Ton	3,579.2	255.7%	200								788	14	-		2,576.55	1,277.66
3013	Powerline Relocation	1	LS	1.0	100.0%							1							
3014	Tire Disposal	40	Ton	44.7	111.7%					13				31					

Mine Waste Remediation – Phase 10 (Option 4)																	
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr, 2019	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
4001	**Erosion Control**																
4001AA	Sediment Fence	5,000.00	LF	0.0	0.0%												
4001AB	Rip Rap	2,000.00	Ton	0.0	0.0%												
4001AD	Stabilized Construction Entrance	4.00	Ea	1.0	25.0%	1											
4002	Clearing and Grubbing	200.00	Acre	0.0	0.0%												
4003	**Earthwork**																
4003AA	Excavation/Disposal of Contaminated Waste	500,000.00	CY	0.0	0.0%												
4003AB	Placement of material for Drainage	100,000.00	CY	0.0	0.0%												
4003AC	Grade Excavated Areas to final grade	300.00	Acre	0.0	0.0%												
4003AD	Import/Place Clay for all Repository Caps	120,000.00	CY	4,839.0	4.0%	4,839											
4003AE	Import/Place Topsoil for all Repository Caps	60,000.00	CY	0.0	0.0%												
3004	**Seeding/Fertilizing**																
4004AA	Seeding/Fertilizing Repositories	70.00	Acre	0.0	0.0%												
4004AB	Seeding/Fertilizing (Fescue)	200.00	Acre	0.0	0.0%												
4005	Remove/Replace Fencing	10,000.00	LF	0.0	0.0%												
4006	Supply/Install 24" CMP Pipe	200.00	lf	0.0	0.0%												
4007	Supply/Install 36" CMP Pipe	100.00	lf	0.0	0.0%												
4010	Rip Rap, 12"-36"	200.00	ton	680.1	340.0%	680	474.85										
4011	Crushed Rock, 3" Clean	200.00	ton	112.4	56.2%	112	295.90										
4012	Gravel, 1-3" Crushed w/fines	200.00	ton	0.0	0.0%												
4013	Tire Disposal	40.00	ton	0.0	0.0%												
4014	Phone Line Relocation	1.00	EA	0.0	0.0%												

4.0 PROBLEMS ENCOUNTERED / RFI's SUBMITTED

- No RFIs were submitted this reporting period. See RFI Log Attachment A
- The project site and region of southwestern Missouri continue to experience significant adverse weather conditions (i.e., extremely high/historic amounts of rain) which are impacting EQM's productivity by making field conditions too wet to conduct work.

5.0 PROPOSED SOLUTIONS

- Nothing at this time.

6.0 CORRECTIVE ACTIONS

- Nothing at this time.

7.0 OUTSTANDING ISSUES

- EQM received a contract mod (#0031) for the relocation of the phone line by AT&T and is currently scheduling the work with AT&T.
- On February 15, 2019, USEPA issued Mod #29 for Option Year 4. Option 4 PoP begins approximately on April 1, 2019. The funded amount is $3,360,570.70. The remaining portion of Option 4 capacity may be issued later in 2019 depending on availability of funds and requisite mine waste areas, designs and waste volumes.
- Also on February 15, 2019 USEPA issued Mod #30 for the demolition and removal of the house trailers on Mr. Porter's property. EQM is currently scheduling this work and anticipates beginning work sometime in June, 2019.

8.0 CHANGES TO ORGANIZATION OR METHOD OF OPERATION

- None during this time period.

9.0 MEETINGS AND CALLS

- USEPA Representatives, Steve Kemp and/or Todd Campbell, periodically contacted EQM's superintendent to check status of the work in progress during the governmental shutdown.

10.0 SUBMITTALS

- A review of current planning documents identified a need for revision/updates. EQM submitted a final revision of the SAP, which includes the FSP & QAPP, via e-mail on 22 Feb 2018 in PDF format. EQM received review comments from USEPA on 10 Oct 2018 for the FSP & QAPP and submitted a revised document to USEPA on 15 Jan 2019. On Feb 4, 2019, EQM provided USEPA with a revised signature page including a signature block for the COR, Steve Kemp.

11.0 PROJECT COSTS

The following project costs are estimated for this reporting period:

Base Contract Value	$3,685,978.44		
Prior Period Cumulative Costs	$3,685,978.44	Prior Period Cumulative % Complete	100%
Current Period Costs	$0.00	Current Period % Complete+	0.0%
Current Cumulative Costs	$3,685,978.44	Current Cumulative % Complete	100%

Option 1 Contract Value	$5,977,289.12		
Prior Period Cumulative Costs	$5,973,773.30	Prior Period Cumulative % Complete	99.9
Current Period Costs	$0.00	Current Period % Complete	0%
Current Cumulative Costs	$5,973,773.30	Current Cumulative % Complete	99.9%

Option 2 Contract Value	$7,767,990.34		
Prior Period Cumulative Costs	$7,720,026.80	Prior Period Cumulative % Complete	99.4%
Current Period Costs	$47,978.76	Current Period % Complete	0.6%
Current Cumulative Costs	$7,767,990.34	Current Cumulative % Complete	100%

Option 3 Contract Value	$7,114,696.44		
Prior Period Cumulative Costs	$6,602,503.84	Prior Period Cumulative % Complete	92.7%
Current Period Costs	$128,938.47	Current Period % Complete	1.8%
Current Cumulative Costs	$6,731,442.31	Current Cumulative % Complete	94.5%

Option 4 Contract Value	$7,419,338.68		
Prior Period Cumulative Costs	$72,063.87	Prior Period Cumulative % Complete	0.0%
Current Period Costs	$18,131.07	Current Period % Complete	0.2%
Current Cumulative Costs	$90,194.94	Current Cumulative % Complete	1.2%

12.0 WEATHER

EQM experienced delays associated with several rain-outs, wet field condition and/or community events:

Weather/Shutdown Events:

Week 1: 5-1 to 5-5

Wednesday 1st – Shutdown All Day (Rain)
Thursday 2nd – Shutdown All Day (Rain)
Friday 3rd – Shutdown All Day (Rain)
Saturday 4th – Shutdown All Day (Rain)

Week 2: 5-6 to 5-12
Monday 6th – Shutdown All Day (Rain)
Tuesday 7th – Shutdown All Day (Rain)
Wednesday 8th – Shutdown All Day (Rain)
Thursday 9th – Shutdown All Day (Rain)
Friday 10th – Shutdown All Day (Rain)
Saturday 11th – Shutdown All Day (Rain)

Week 3: 5-13 to 5-19
Saturday 18th – Shutdown All Day (Rain)

Week 4: 5-20 to 5-26
Monday 20th – Early Shutdown @ 1:30 pm (Rain)
Tuesday 21st - Shutdown All Day (Rain)
Wednesday 22nd – Shutdown All Day (Rain)
Thursday 23rd – Shutdown All Day (Rain)
Friday 24th – Shutdown All Day (Rain)
Saturday 25th – Shutdown All Day (Rain)

Week 5: 5-27 to 5-31
Monday 27th – No Work (Holiday)
Wednesday 29th – Early Shutdown @ 1:30 pm (Rain)
Thursday 30th – Shutdown All Day (Rain)

13.0 30 DAY LOOK AHEAD

Work scheduled for June includes the following:

- Area 2-7: Awaiting seeding window for area to be complete;
- Gypstack Repository: Complete storm water improvements at the per the contract modification with continual maintenance as needed;
- Gypstack Repository: Clear and grub some of the area south of repository per COR direction (on hold);
- Area MW-09: Replace Fencing, Awaiting electric pole move to finish removing waste. Awaiting seeding window for area to be complete;
- Area 2-1: Awaiting seeding window for area to be complete;
- Area 2-3: Bulk of waste removed, waiting for trailers to be moved on Porter parcel to remove remaining waste. This work scheduled tentatively for Feb. of 2019.
- Area 2-6W: Continue to remove waste, AT&T to relocate phone line along Pump Ln., Begin work on water retention structures on Wald and McDonald Properties.
- MW 14: Continue clearing and grubbing and waste removal;
- MW-18: Continue to remove waste from area and placing cap and drainage, replace fencing on the Eddy property as well as the Baldwin property, address storm water runoff issue in MW-18-02;
- MW-26-01: Replace Fencing, Complete Final Surveys

ATTACHMENT A

REQUEST FOR INFORMATION (RFI) REGISTRY

ORONOGO-DUENWEG MINING BELT SITE – Phase 10 REQUEST FOR INFORMATION REGISTRY					
RFI #	**Item Description**	**Date Sub Submitted To EQM**	**Date EQM Submitted To USEPA CO**	**Date CO Returned Response To EQM**	**Action Taken**

ATTACHMENT B

SUBMITTAL REGISTRY

ORONOGO-DUENWEG MINING BELT SITE Phase 10 SUBMITTAL REGISTRY							
Section Number	**Section Title**	**Submittal #**	**Item Type**	**Date Sub Submitted To EQM**	**Date EQM Submitted To USEPA CO**	**Date CO Return Submittal To EQM**	**Approved/ Disapproved**
5	Deliverables	1	Sampling and Analysis Plan	NA	11/18/15	11/2015	Approved via email
			Sampling and Analysis Plan, Rev 1	NA	2/22/18	10/10/18	Pending; see section 10
5	Deliverables	2	Chemical Quality Control Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	3	Quality Assurance Project Plan	NA	11/18/15	11/2015	Approved via email
			Quality Assurance Project Plan, Rev 1	NA	1/15/19		Pending
5	Deliverables	4	Project Management Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	5	Health and Safety Plan	NA	11/18/15	11/2015	Approved via email

ATTACHMENT C

SITE FIGURES

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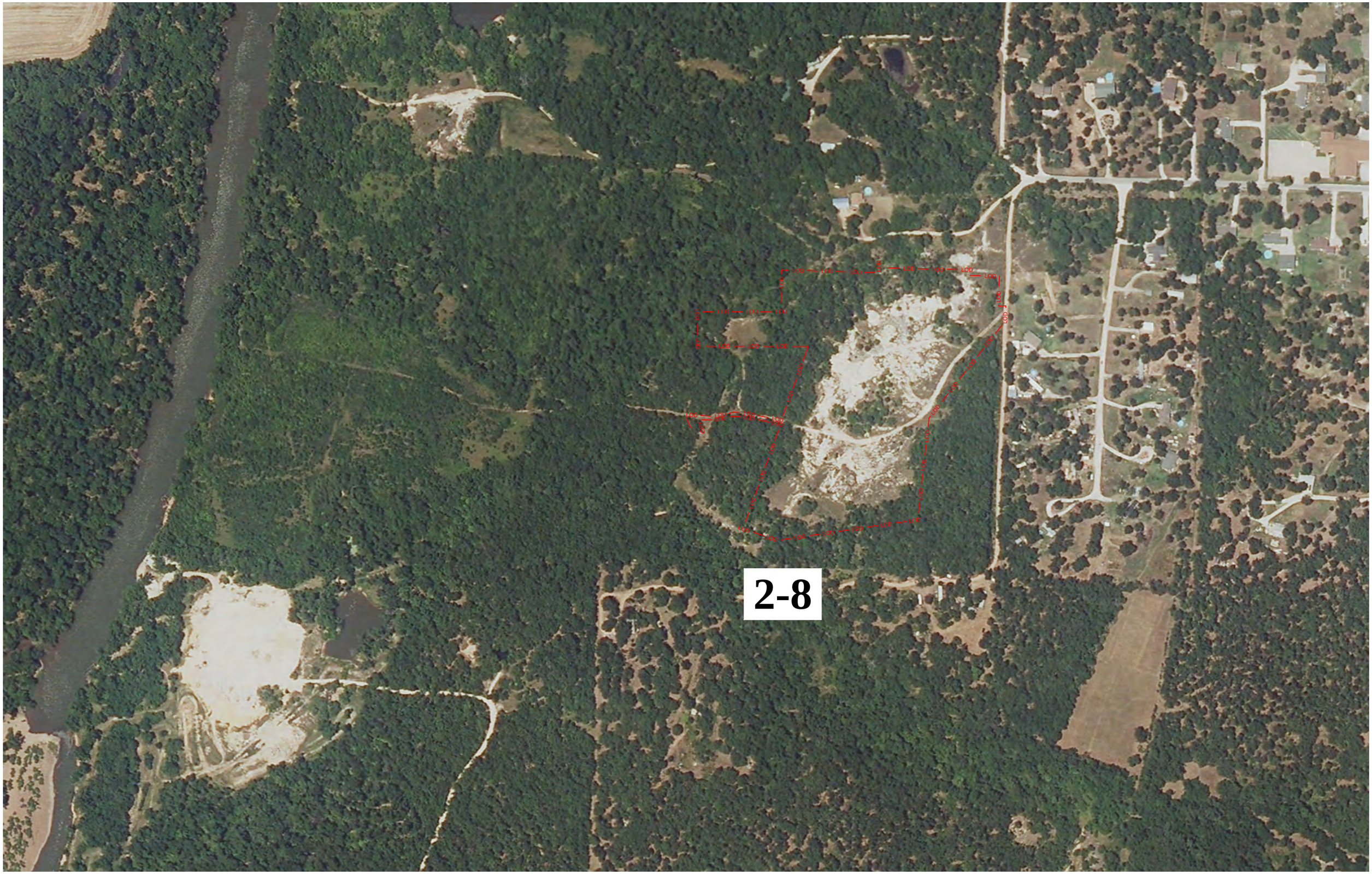
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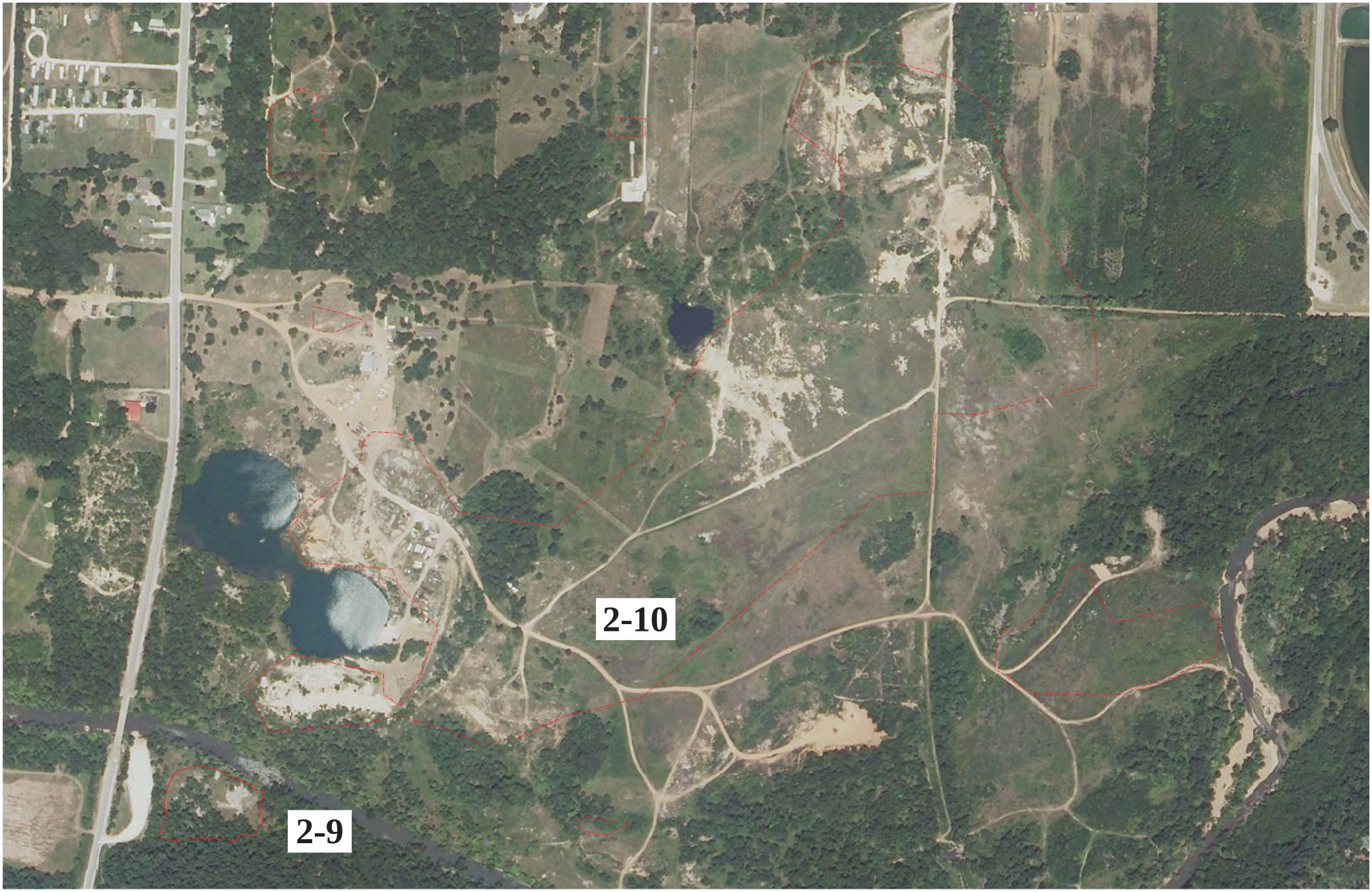
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ATTACHMENT D

PHOTOGRAPHS

Figure 1 – MW-14 Loading Waste during excavation

Figure 2 – MW-26 Final Grade