MONTHLY PROGRESS REPORT

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

CONTRACT NO: EP-S7-15-06

Prepared for

U.S. Environmental Protection Agency – Region 7
11201 Renner Blvd
Lenexa, KS 66219

Prepared by

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240-2788
(800) 229-7495
www.eqm.com

EQM PN: 030319.0001

Report No. 56
Reporting Period: 1 June – 30 June, 2020

9 July 2020

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1.0 INTRODUCTION

EQM Inc. (EQM), under Contract No. EP-S7-15-06, with the United States 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%	95%	30%	0%	0%	0%	0%	146.9	16.7
Opt. 2 Area 6 - West	100%	100%	100%	100%	n/a	95%	100%	0%	25.4	
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% complete								N/A	
Area	**Clearing & Grubbing**	**Waste Removal**	**Clay Cap**	**Drainage**	**Topsoil**	**Final Grading**	**Seeding**	**Fencing**	**Original LOD (Ac)**	**Final LOD (Ac)**
MW-09	100%	100%	100%	100%	100%	100%	100%	100%	90.2	34.15
MW-14-01_02	100%	100%	100%	100%	n/a	100%	90%	100%	44.61	26.99
MW-18-01	100%	100%	100%	100%	100%	100%	100%	100%	56.96	39.93
MW-19-01_02	90%	95%	0%	0%	0%	0%	0%	0%	23.04	
MW-19-03	100%	100%	100%	100%	n/a	100%	100%	0%	2	9.48
MW-26-01	100%	100%	100%	100%	n/a	100%	100%	100%	37.1	27.67
MW-26-04	100%	100%	100%	100%	n/a	100%	100%	100%	2.14	2.1
MW-26-05	100%	100%	100%	100%	100%	100%	100%	100%	8.97	10.39
CC Christian Church	N/A	N/A	0%	0%	0%	0%	0%	0%	N/A	

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 2018	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
3001	**Erosion Control**																								
3001 AA	Sediment Fence	6,000	LF	2,150	36%	465							740	945		0	0	0	0	0					
3001 AB	Rip Rap	2,500	Ton	2,461	98%	71		15				1,527	63					157	15	33		161	391	28	0
3001 AC	Stabilized Construction Entrance	6	Ea	4	67%	1	1		1		1									0					
3002	Clearing and Grubbing	300	Acre	239	80%						26			77						56				79	0
3003	**Earthwork**																								
3003 AA	Excavation/Disposal of Contaminated Waste	792,184	CY	794,100	100%	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	0					
3003 AB	Placement of material for Drainage	100,000	CY	131,700	132%				4,352		33,549	22,715		38,379	384	5,563	13,969	2,659	0	10,130					
3003 AC	Grade Excavated Areas to final grade	300	Acre	239	80%						26			77						56				79	0
3003 AD	Import/Place Clay for all Repository Caps	26,000	CY	41,143	158%		1,156		4,894		504	4,032	4,368		11,100	4,974	8,914	1,201	0	0					
3003 AE	Import/Place Topsoil for all Repository Caps	15,000	CY	8,067	54%		1,324				2,734		1,686	2,323											
3004	**Seeding/Fertilizing**																								
3004 AA	Seeding/Fertilizing Repositories	10	Acre	0	0%																				
3004 AB	Seeding/Fertilizing (Fescue)	290	Acre	166	57%			166																	
3005	Remove/Replace Fencing	10,000	LF	10,021	100%			1,070	3,485	1,505	31		2,815	1,115											
Mine Waste Remediation – Phase 10 (Option 3)																									

CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr 2018	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
3007	Supply/Install 36" CMP Pipe	100	lf	5	5%	5																			
3010	Rip Rap, 12"-36"	2,200	Ton	681	31%	112	88							481											
3011	Crushed Rock, 3" Clean	600	Ton	570	95%	87	27	28	56				83	196	81	0		13	0	0			0	0	0
3012	Gravel, 1"-3" Crushed w/fines	1,400	Ton	5,407	386%	200								788	14	0		2,577	1,278	43		117	122	129	139
3013	Powerline Relocation	1	LS	1	100%							1													
3014	Tire Disposal	40	Ton	45	112%					13				31											
3015	Powerline Relocation at Carl Junction	1	LS	1	100%																1				
3016	Demolition/Debris Disposal of R. Porter's Prop	1	LS	1	100%																1	0	0	0	0

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, 2020	Feb	Mar	Apr	May	June
4001	**Erosion Control**																			
4001AA	Sediment Fence	5,000.00	LF	2,716.0	54.3%				2,716											
4001AB	Rip Rap	2,000.00	Ton	0.0	0.0%															
4001AC	Stabilized Construction Entrance	4.00	Ea	4.0	100.0%	1		1		1	1									
4002	Clearing and Grubbing	200.00	Acre	23.5	11.7%											23				
4003	**Earthwork**																			
4003AA	Excavation/Disposal of Contaminated Waste	500,000.00	CY	516,106.0	103.2%			44,430	62,019	54,783	80,298	114,608	21,510	8,667	35,711	16,892	20,061	46,597	-	10,530
4003AB	Placement of material for Drainage	100,000.00	CY	75,143.0	75.1%			36,365	360	2,748	2,958	17,200	264	3,871	-	6,374	2,535	2,340	-	128
4003AC	Grade Excavated Areas to final grade	300.00	Acre	23.5	7.8%											9				14
4003AD	Import/Place Clay for all Repository Caps	120,000.00	CY	61,928.0	51.6%	4,839		619	3,682	6,146	7,573	5,400	6,882	20,760	1,072	3,611	1,344	-	-	-
4003AE	Import/Place Topsoil for all Repository Caps	60,000.00	CY	4,999.0	8.3%					36		2,271	-	1,884	356	356				96.00
3004	**Seeding/Fertilizing**																			
4004AA	Seeding/Fertilizing Repositories	70.00	Acre	3.6	5.1%														3.59	-
4004AB	Seeding/Fertilizing (Fescue)	200.00	Acre	274.6	137.3%				46				122		-	-			91.37	16.20
4005	Remove/Replace Fencing	10,000.00	LF	15,475.0	154.8%				3,476			3,469	1,948		3,132	-		3,450.00	-	-
4006	Supply/Install 24" CMP Pipe	200.00	lf	40.0	20.0%						40									
4007	Supply/Install 36" CMP Pipe	100.00	lf	0.0	0.0%															
4010	Rip Rap, 12"-36"	200.00	ton	2,211.0	1105.5%	680	475	85			123	138	14		257	191		249.24	-	-
4011	Crushed Rock, 3" Clean	200.00	ton	1,185.4	592.7%	112	296	32		418	168					160				
4012	Gravel, 1-3" Crushed w/fines	200.00	ton	235.7	117.9%										178	-				57.90
4013	Tire Disposal	40.00	ton	0.0	0.0%															
4014	Phone Line Relocation	1.00	EA	1.0	100.0%														0.50	0.50
4015	Haul & Place Wood Chips for Revegetation	1.00	EA	0.0	0.0%														-	-
4016	Gypstack Repairs	1.00	EA	1.0	100.0%						0.06	0.15	0.25	0.25	0.04	0.25			-	-
4017	Power Line Relocation, Area 2-6 north of Dogwood LN	1.00	EA	1.0	100.0%														0.50	0.50
4018	Box Culvert at Dogwood Lane	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
- EQM, Inc. developed Health & Safety Amendment & AHA specific to procedures mitigating the threat posed by the Coronavirus. EQM has implemented these procedures into everyday operations and will continue to do so for the foreseeable future.

5.0 PROPOSED SOLUTIONS

- Nothing at this time.

6.0 CORRECTIVE ACTIONS

- Nothing at this time.

7.0 OUTSTANDING ISSUES

- On May 28, 2020, EQM submitted a revised package of documentation for the Option Period 3 Incentive 1 – Commitment to the Local Community along with EQM's response to review comments. USEPA is reviewing the submittal.
- On June 16, 2020, EQM & USEPA executed contract modification P00042, authorization construction of the road culvert associated with Dogwood Lane following up on the previous contract modification. The contract mod adds $295,136.70 to the total contract amount.
- EQM's subcontractor Liberty Electric completed work on the relocation of power poles at Dogwood Lane on June 19, 2020.
- On June 16, 2020, EQM & USEPA executed contract modification P00043, extending the PoP from June 16, 2020 to July 21, 2020 in response to EQM's written request of pertaining to the schedule impacts due to adverse weather from Dec, 2019 through March 31, 2020.
- EQM submitted a proposed capacity swap for the residual funds from Option Period 3 into Option Period 4. USEPA will be addressing in the next couple of weeks.

8.0 CHANGES TO ORGANIZATION OR METHOD OF OPERATION

- None.

9.0 MEETINGS AND CALLS

- EQM and USEPA corresponded via e-mail and telephone conversations regarding the contract.

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	$0.00	Current Period % Complete	0.0%
Current Cumulative Costs	$7,767,990.34	Current Cumulative % Complete	100%

Option 3 Contract Value	$7,114,696.44		
Prior Period Cumulative Costs	$6,945,601.61	Prior Period Cumulative % Complete	97.6%
Current Period Costs	$0.00	Current Period % Complete	0.0%
Current Cumulative Costs	$6,945,601.61	Current Cumulative % Complete	97.6%

Option 4 Contract Value	$9,174,763.33		
Prior Period Cumulative Costs	$6,402,898.17	Prior Period Cumulative % Complete	69.8%
Current Period Costs	$156,107.71	Current Period % Complete	1.7%
Current Cumulative Costs	$6,559,005.88	Current Cumulative % Complete	71.5%

12.0 WEATHER

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

Week 1: 6-1 to 6-7

Partial Shutdown still in effect

Thursday 4th – Shutdown (Rain)

Week 2: 6-8 to 6-14

Partial Shutdown still in effect

Week 3: 6-15 to 6-21

No adverse weather or events

Week 4: 6-22 to 6-28

Saturday 27th – Early Shutdown (Rain @10:00am)

Week 5: 6-29 to 6-30

No adverse weather or events

13.0 30-DAY LOOK AHEAD

Work scheduled for June includes the following, (weather permitting) (Contingent on full work reinstatement from EPA):

- Remove Waste and initiate Capping of Repository on MW19-1/2
- Continue waste excavations and exploratory testing at Central City Christian Church
- Continue excavations and grading in preparations for capping at Snowball/MW19-1_2
- Continue watering to promote growth of re-vegetation of excavated areas (2 water Trucks operating)
- Begin Capping at Snowball
- Continue progressing through Punch list items
- Continue working with Anderson to finalize design for drainage in Area 2-6 North Powerline
- Perform inspection & maintenance activities

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
5	Deliverables	5 - Amended	Health and Safety Plan, Amended, Mar 2020	NA	3/25/20		Pending

ATTACHMENT C

SITE FIGURES

1-2
1-1
1-11
1-12
1-5
1-4
1-10
1-13
1-3
1-8
1-9
1-6
1-7
1-18
1-14
1-20
1-17
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1-16
1-15

2-7
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2-6
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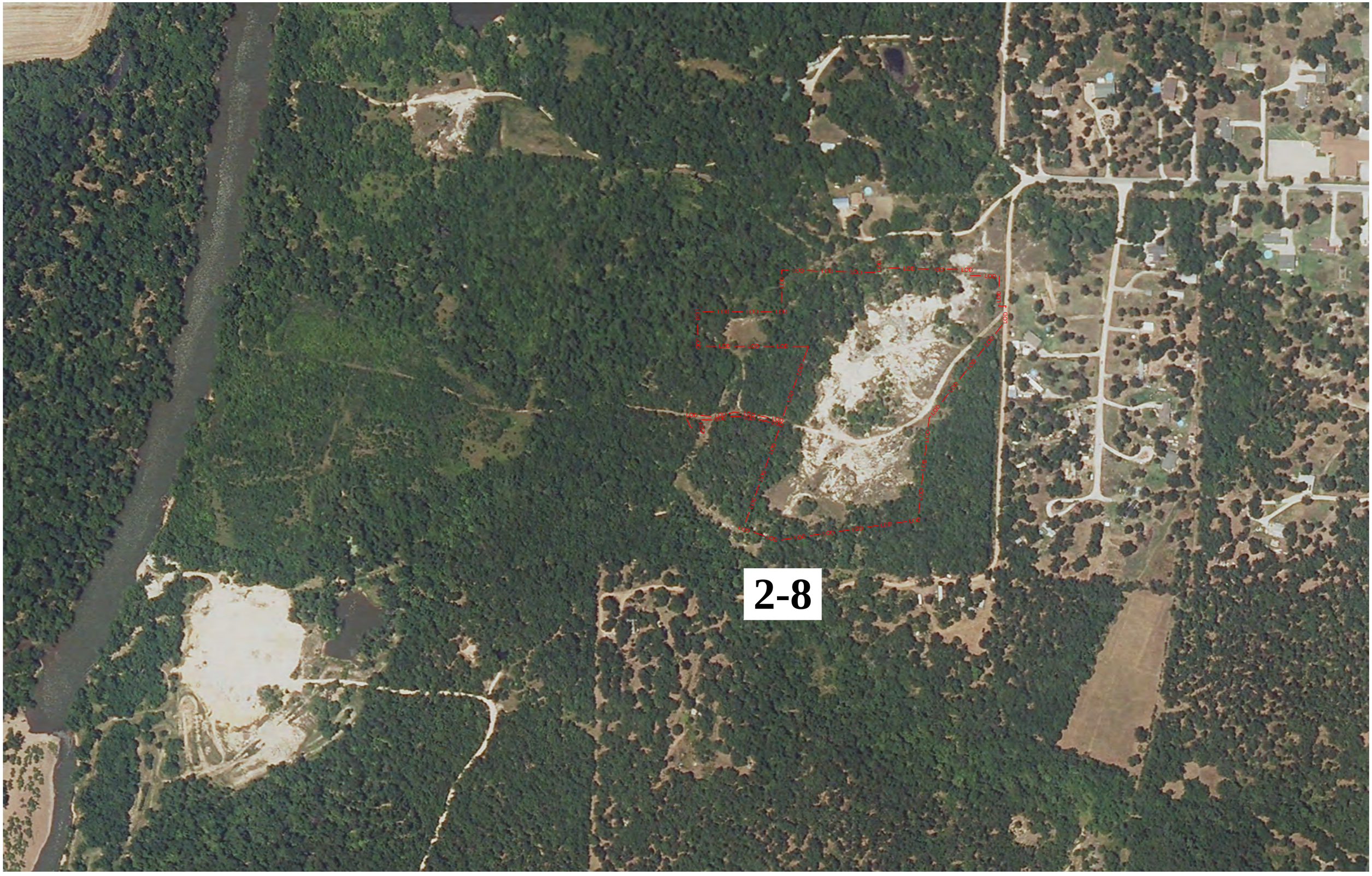
2-4
2-3
2-1
2-1
2-2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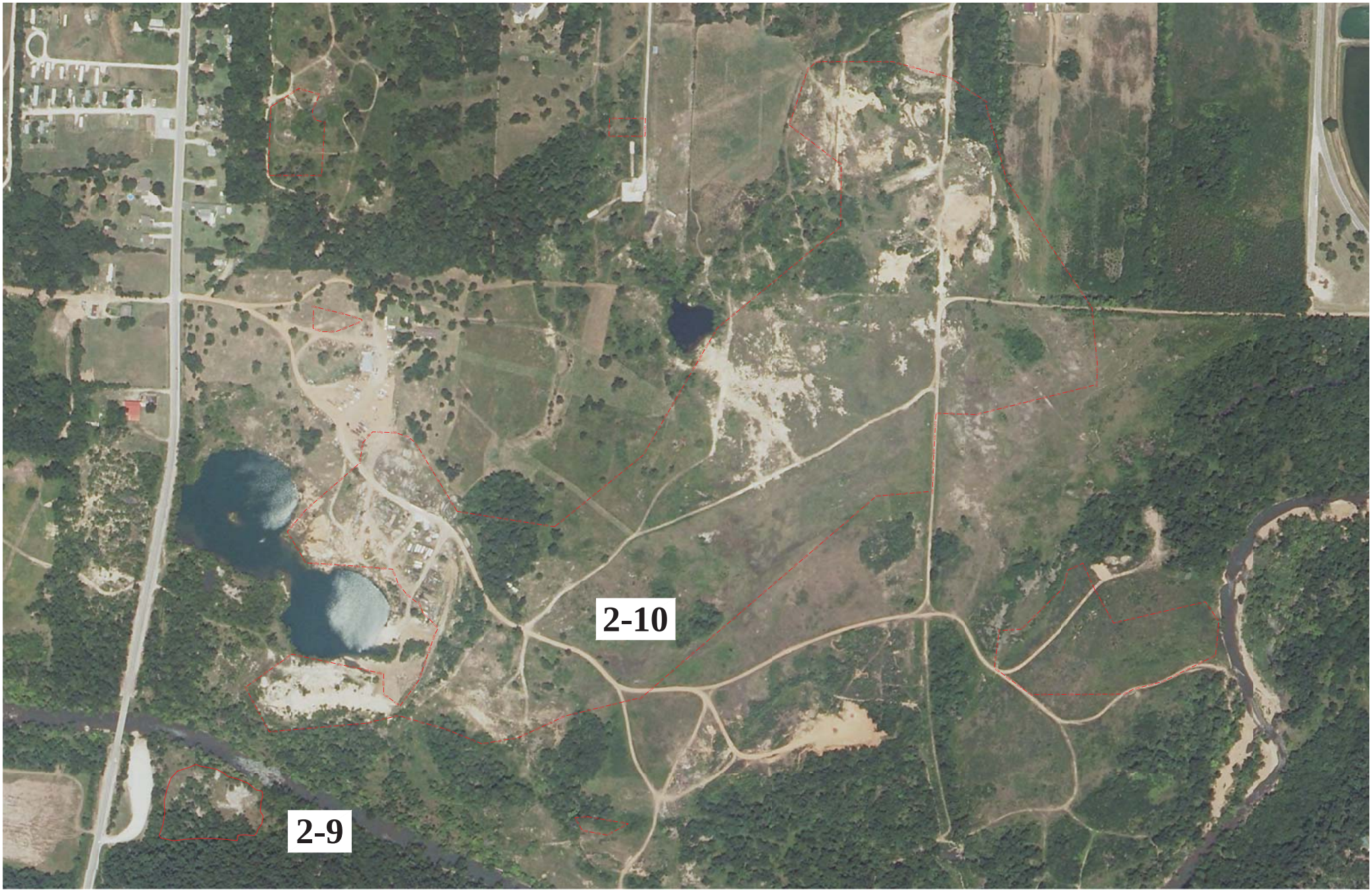
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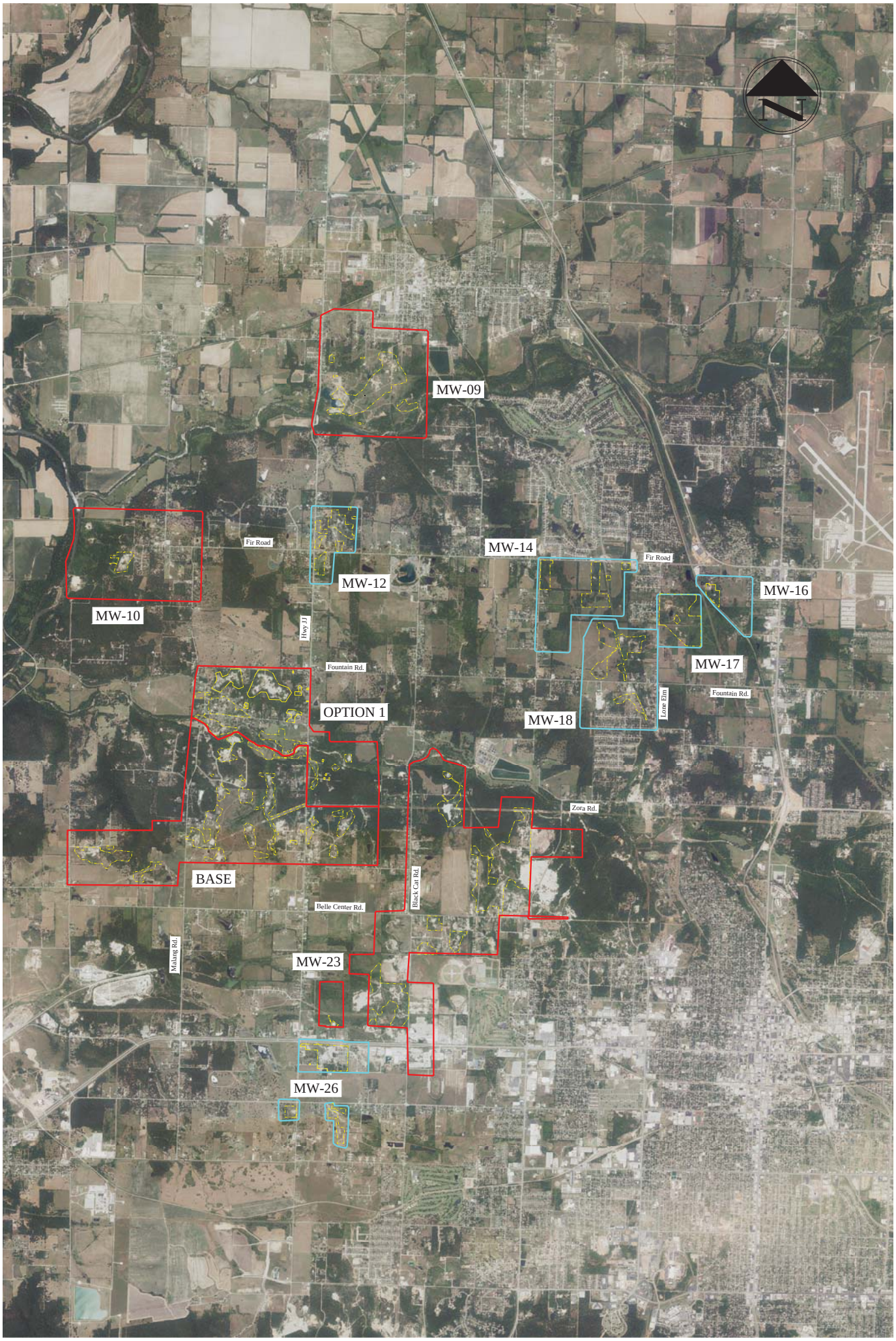
2-9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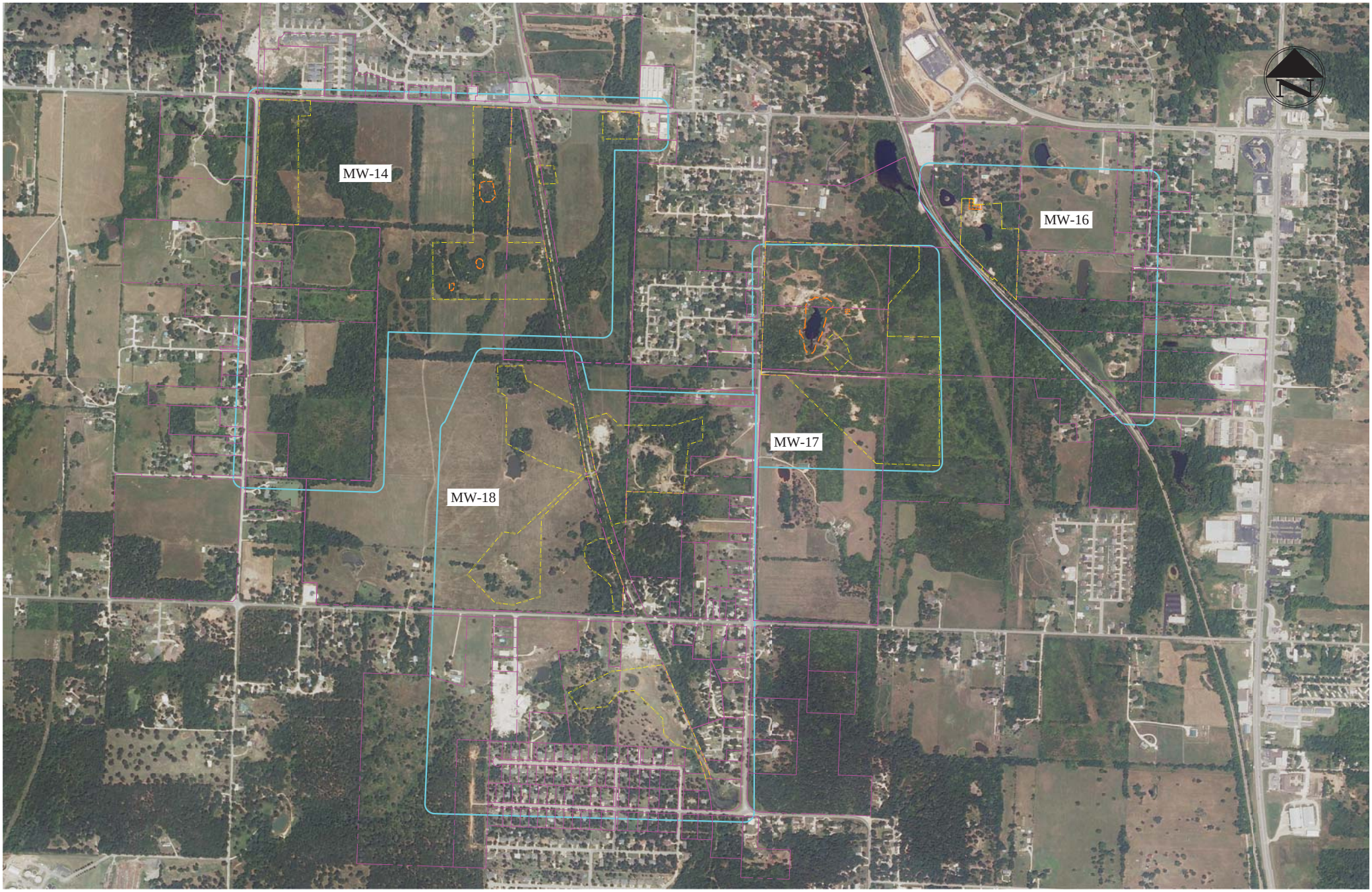
MW-09
MW-10
Fir Road
MW-12
MW-14
Fir Road
MW-16
Hwy JJ
Fountain Rd.
MW-17
Fountain Rd.
OPTION 1
MW-18
Lone Elm
Zora Rd.
BASE
Black Cat Rd.
Belle Center Rd.
Malang Rd.
MW-23
MW-26

MW-12
N

MW-26
MW-26
MW-26
N


MW-14
MW-16
MW-17
MW-18
N

ATTACHMENT D

PHOTOGRAPHS

Figure 1 – Relocation of Power Poles at Dogwood Lane

Figure 2 – Seeding & Mulching MW2-6 West