

Enhance Energy Inc. and North West Redwater Partnership

Knowledge Sharing Report

Appendices i–viii

Calendar Year 2015

Submitted on March 31, 2016

Table of Contents

APPENDICES i–viii

APPENDIX I	Agrium CRF Block Flow Diagram	3
APPENDIX II	Agrium CRF Heat & Mass Balance	5
APPENDIX III	Agrium CRF Measurement Point Block Diagram	9
APPENDIX IV	Agrium CRF Energy Boundary Block Diagram	11
APPENDIX V	Agrium CRF Produced Water Analysis Report	13
APPENDIX VI	Agrium CRF Plot Plan	16
APPENDIX VII	AER ACTL Base Maps	18
APPENDIX VIII	ACTL Block Valve Schematic	47

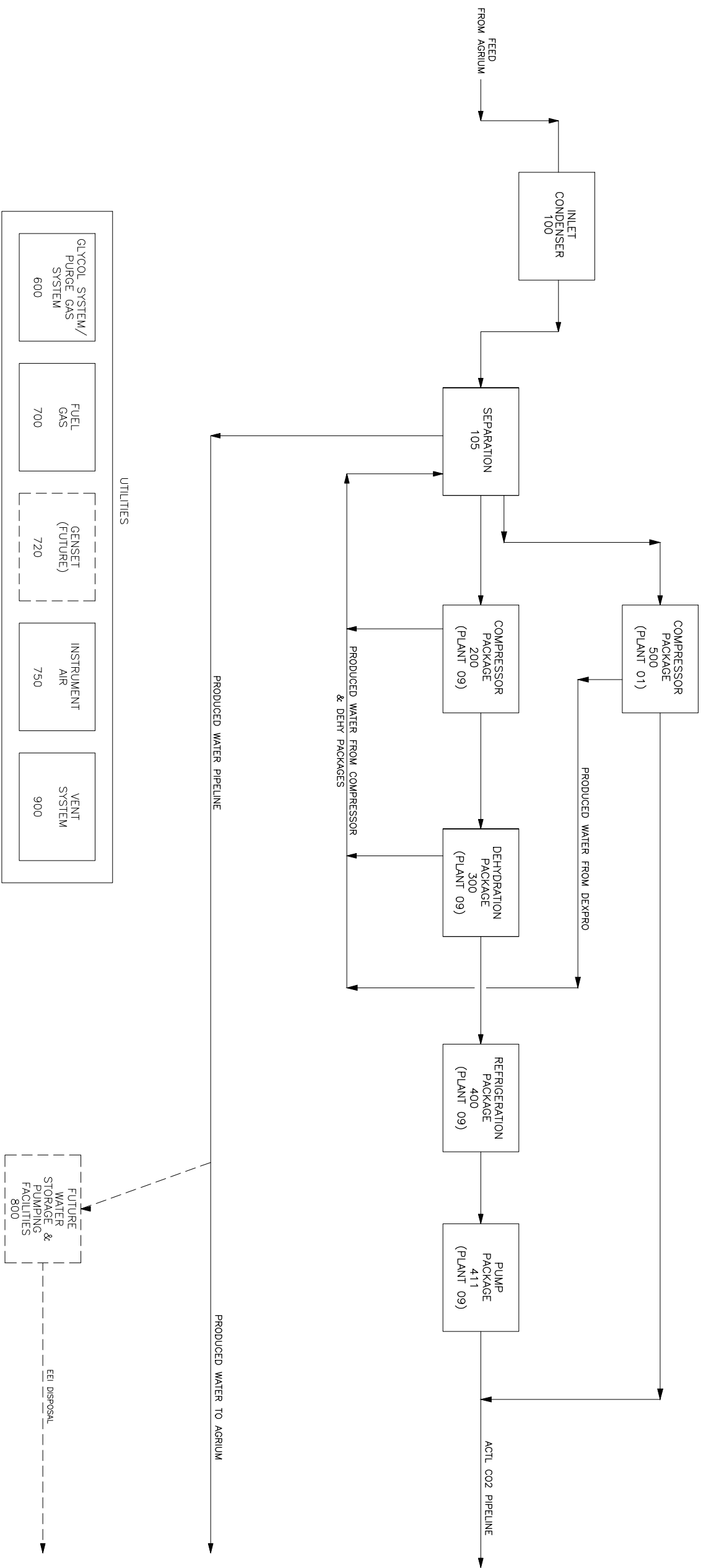
Enhance Energy Inc. and North West Redwater Partnership

APPENDIX i Agrium CRF Block Flow Diagram



Green River, by Tom Milosz





REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	BY	APPD.	ISSUE STAGE	DATE	BY	CHKD.	APPD.
								A - ISSUED FOR REVIEW	14-06-18	CL	SW	TB
								B - RE-ISSUED FOR REVIEW	14-07-24	KH	SW	

REV. NUMBER	CD	ISSUE STAGE	DATE	BY	CHKD.	APPD.
		A - ISSUED FOR REVIEW	14-06-18	CL	SW	TB
		B - RE-ISSUED FOR REVIEW	14-07-24	KH	SW	

ENGINEER'S STAMP		PERMIT No. P10437	A
		PROFESSIONAL STAMP AFFIXED ABOVE SHALL APPLY ONLY TO REV(S)	
		TITLE	AREA
S.A.W. ENGINEERING LTD.		UNIT 09 AGRUM CO2	STURGEON COUNTY
		BLOCK FLOW DIAGRAM	
		FILE NO.	12-100-P-F-0050
		SITE CO2 RECOVERY FACILITY	
		MAN. LSD 04-17-056-21 WAM	
		SCALE NONE	REV. SAW 12-100

Enhance Energy Inc. and North West Redwater Partnership

APPENDIX ii Agrium CRF Heat & Mass Balance



Green River, by Tom Milosz



PRO Stream Number	24	26	30	41	52	53	54	55	56	57	60	61	62	63	65	68	701	702	703	704	707	712	
FROM	PU on CO2 Pipeline	V-300 Battery	P-801/802 EG Supply Header	EG Return Heater AC-820	V-300 H-320	P-337/332 V-300	E-325 H-320	V-310 V-105	E-345 V-105	Total Daily Vapor	H-320 E-335	K-200 PW V-105	V-300 PW LV-300	P-342 V-105	LV-300 V-105	P-111 Agrium Pond	V-445 V-425	LV-4051 LV-405	E-405	V-405 Stage 1	K-400 Stage 1	K-400 Stage 2	AC-400/441
TO	Battery	Battery	EG Supply Header	H-320	H-320	H-320	H-320	V-105	V-105	Total Daily Vapor	E-335	V-105	LV-300	P-342	LV-300	Agrium Pond	V-425	LV-4051	E-405	V-405 Stage 1	K-400 Stage 1	K-400 Stage 2	AC-400/441
Mass Flow CO2	m ton/d	788	800	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
BLEK PHASE	Units																						
Vapor Mole Flow	kg/h	0.0000	1.0000	0.0000	0.0000	0.0000	0.0158	1.0000	0.9622	0.9881	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0395	1.0000	1.0000	1.0000	
Temperature	°C	25.0	48.3	38.0	56.6	45.5	44.7	98.9	45.8	43.0	81.6	42.8	43.0	43.1	43.1	43.0	39.0	0.8	-15.0	-15.0	0.6	81.1	
Pressure	kPag	17928	3820	500	325	3825	3975	88	276	72	89	41	3825	41	41	447	1374	345	142	142	345	1395	
Total Mole Flow	kgmol/h	784.3	785.0	34748.1	34748.1	15.2	10.1	12.7	2.5	5.1	4.9	52.7	0.0	2.2	2.2	1243.1	474.3	406.5	8.323	8.323	1.155	8.078	
Total Mass Flow	kg/h	33.389	33.389	1,028,834	1,028,834	1,670	1,507	1,580	110	218	147	851	0	38	38	22,407	8,078	6,923	8,323	8,323	1,155	8,078	
Volume Flow	m ³ /h	38.6	421.2	954.7	967.2	1.5	1.4	5.3	17.7	38.2	78.6	2.4	0.0	0.0	0.0	22.8	13.7	10.8	201.6	3576.8	334.1	890.5	
Total Heat Flow	KW	-478	1,754	-356.155	-338.057	-178	-153	7	8	13	15	-484	0	-20	-20	-11,438	-1,288	-1,464	-1,464	981	188	1,565	
VAPOUR PHASE																							
Vapor Mole Flow	kgmol/h		785.0																				
Vapor Mass Flow	kg/h		33.389																				
Vapor Actual Volume Flow	m ³ /h		421.2																				
Vapor Std. Volume Flow	m ³ /h		18122.9																				
Vapor Molecular Weight	kg/mol		43.65																				
Vapor Mass Density	kg/m ³		78.28																				
Vapor Viscosity	cp		0.018																				
Vapor Specific Heat	KJ/kg-K		1.148																				
Vapor Thermal Conductivity	W/m-K		0.025																				
Vapor Z Factor			0.5163																				
Vapor Cp / Cv			1.614																				
MOLE FRACTION VAPOUR PHASE																							
Vap. Carbon Dioxide	%		88.85																				
Vap. Hydrogen	%		0.75																				
Vap. Nitrogen	%		0.30																				
Vap. Water	%		0.00																				
Vap. Ethylene Glycol	%		0.00																				
Vap. Ammonia	%		0.00																				
Vapor Total	%		100.00																				
LIQUID PHASE																							
Liquid Mole Flow	kgmol/h	784.3	34748.1	34748.1	15.2	10.1	12.5																
Liquid Mass Flow	kg/h	33.389	1,026,834	1,026,834	1,670	1,507	1,551																
Liquid Actual Volume Flow	m ³ /h	38.9	954.7	967.2	1.5	1.4	1.4																
Liquid Std Volume Flow	m ³ /h	41.1	988.2	988.2	1.5	1.3	1.4																
Liquid Mass Density	kg/m ³	903.1	1,075.6	1,061.6	1,116.9	1,106.1	1,072.0																
Liquid Viscosity	cp	0.1051	4.3738	2.7518	3.9885	15.3776	3.0407																
Liquid Specific Heat	KJ/kg-K	2.3375	3.6979	3.7145	2.3637	2.3005	2.5568																
Thermal Conductivity	W/m-K	0.1125	0.3629	0.3729	0.1523	0.2436	0.2474																
Surface Tension	Dyn/cm	0.58	84.08	80.55	38.85	43.88	40.48																
MOLE FRACTION LIQUID PHASE																							
Liquid Carbon Dioxide	%	98.87	0.00	0.00	18.01	0.17	0.44																
Liquid Hydrogen	%	0.73	0.00	0.00	0.01	0.00	0.00																
Liquid Nitrogen	%	0.30	0.00	0.00	0.00	0.00	0.00																
Liquid Water	%	0.00	73.81	73.81	16.28	0.89	19.61																
Liquid Ethylene Glycol	%	0.00	28.19	28.19	0.00	0.00	0.00																
Liq. Triethylene Glycol	%	0.00	0.00	0.00	65.72	98.83	79.85																
Liquid Ammonia	%	0.00	0.00	0.00	0.00	0.00	0.00																
Liquid Total	%	100.00	100.00	100.00	100.00	100.00	100.00																

NUMBER	0	ISSUED FOR CONSTRUCTION	DATE	2011 DEC 23	BY	CHK'D	ENG	APP'D
REVISIONS	NONE							
CONSULTANTS LOGO								
PROJ. NO.	CS0902059							
SCALE	AS SHOWN							
PROJ. TITLE	CO2 RECOVERY FACILITY #1 HEAT AND MASS BALANCE SHEET 2 OF 3							
PROJ. NO.	A1-EF1-62205-021							
REV.	0							



LSO: 04-17-058-21 WAM
HEAT AND MASS BALANCE SHEET 2 OF 3

PRO Stream Number	113	118	147	134	132	133	134	135	136	137	138	139	140	141	142	143	144	148	150	151	153	
FROM	AC-440/441	EG Supply	K-400	EG Supply	E-101/102	EG Return	E-221	EG Return	E-222	EG Return	E-223	EG Return	E-224	EG Return	E-225	EG Return	E-226	Daily Coolers	EG Return	E-325	EG Return	E-345
TO	V-445	K-400	EG Return	E-101/102	EG Return	E-221	EG Return	E-222	EG Return	E-223	EG Return	E-224	EG Return	E-225	EG Return	E-226	EG Return	Daily Coolers	EG Return	E-325	EG Return	E-345
Mass Flow CO2	mTow/d	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BLK PHASE	Units																					
Vapor Mole Frae	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Temperature	°C	38.0	38.0	43.8	38.0	75.0	38.0	48.0	38.0	48.0	45.0	38.0	45.0	38.0	45.0	38.0	45.0	38.0	80.0	80.0	90.0	
Pressure	kPag	1374	431	378	431	425	431	339	431	431	375	431	346	431	352	431	399	431	411	411	411	
Total Mole Flow	kgmol/h	474.3	3304.6	3304.6	13383.8	3075.2	3075.2	2921.7	2921.7	2821.7	2582.9	2439.6	2439.6	2454.7	2454.7	2682.0	2682.0	148.6	148.6	148.6	40.8	
Total Mass Flow	kg/h	8,078	87,853	87,853	385,506	80,875	80,875	80,875	80,875	80,875	88,338	88,338	78,328	78,328	72,092	72,092	79,257	79,257	4,390	4,390	4,390	1,205
Volume Flow	m ³ /h	13.7	80.8	91.1	367.7	377.8	84.5	85.0	80.3	80.7	71.0	68.0	67.4	67.4	67.6	73.7	74.0	4.1	4.1	4.1	1.1	
Total Heat Flow	kW	-1,295	-34,081	-33,488	-137,951	-122,502	-31,687	-30,931	-30,114	-28,478	-28,823	-26,081	-25,145	-24,814	-25,301	-24,766	-27,844	-1,531	-1,430	-383	-49	
VAPOUR PHASE																						
Vapor Mole Flow	kgmol/h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Mass Flow	kg/h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Actual Volume Flow	m ³ /h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Std. Volume Flow	sm ³ /h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Molecular Weight	kg/mol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Mass Density	kg/m ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Viscosity	cp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Specific Heat	kJ/kgK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Thermal Conductivity	W/mK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Cp / Cv	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MOLE FRACTION VAPOUR PHASE																						
Vap Carbon Dioxide	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vap Hydrogen	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vap Nitrogen	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vap Water	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vap Ethylene Glycol	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vap Ammonia	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vapor Total	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LIQUID PHASE																						
Liquid Mole Flow	kgmol/h	474.3	3304.6	3304.6	13383.8	3075.2	3075.2	2921.7	2921.7	2821.7	2582.9	2439.6	2439.6	2454.7	2454.7	2682.0	2682.0	148.6	148.6	148.6	40.8	
Liquid Mass Flow	kg/h	8,078	87,853	87,853	385,506	80,875	80,875	80,875	80,875	80,875	88,338	88,338	78,328	78,328	72,092	72,092	79,257	79,257	4,390	4,390	4,390	
Liquid Actual Volume Flow	m ³ /h	13.7	80.8	91.1	367.7	377.8	84.5	85.0	80.3	80.7	71.0	68.0	67.4	67.4	67.6	73.7	74.0	4.1	4.1	4.1	1.1	
Liquid Std Volume Flow	m ³ /h	13.1	82.1	92.1	372.9	372.9	85.7	85.7	81.4	81.4	72.0	68.0	67.4	67.4	68.4	74.7	74.7	4.1	4.1	4.1	1.1	
Liquid Mass Density	kg/m ³	587.9	1,075.5	1,075.5	1,046.9	1,075.5	1,059.7	1,075.5	1,075.5	1,075.5	1,070.4	1,075.5	1,070.4	1,075.5	1,070.4	1,075.5	1,070.4	1,075.5	1,059.0	1,059.0	1,059.0	
Liquid Viscosity	cp	0.1161	4.3719	3.7899	1.8898	1.8898	4.3719	3.8328	3.8328	3.8328	3.6327	3.6328	3.6328	3.6328	3.6328	3.6328	3.6328	3.6328	3.6328	3.6328	3.6328	
Liquid Specific Heat	kJ/kgK	5.2266	3.6990	3.7014	3.6990	3.7443	3.8880	3.7024	3.6990	3.7025	3.6990	3.7026	3.6990	3.7025	3.6990	3.6990	3.7025	3.6990	3.6990	3.7190	3.7190	
Thermal Conductivity	W/mK	0.4496	0.3630	0.3661	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3630	0.3745	0.3745	
Surface Tension	Dyn/cm	16.87	64.07	63.15	64.07	62.74	64.07	62.74	64.07	62.91	64.07	62.91	64.07	62.91	64.07	62.91	64.07	62.91	64.07	60.37	60.37	
MOLE FRACTION LIQUID PHASE																						
Liquid Carbon Dioxide	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liquid Hydrogen	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liquid Nitrogen	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liquid Water	%	0.00	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	73.81	
Liquid Ethylene Glycol	%	0.00	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	26.19	
Liquid Triethylene Glycol	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liquid Ammonia	%	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liquid Total	%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

RESERVE DRAWINGS		ISSUE		REVISIONS		NOTES	
NUMBER	TITLE	NO	DATE	BY	CHKD	ENG	APP'D
		0	2011 DEC 23				
		ISSUED FOR CONSTRUCTION					







LSO: 04-17-056-21 W4M
 CO2 RECOVERY FACILITY #1
 HEAT AND MASS BALANCE
 SHEET 3 OF 3

PROJECT NO.	CONTRACT NO.	DRAWING NO.	REV.
A1-E1-82205-021C	A1-E1-82205-021C	A1-E1-82205-021	0

Enhance Energy Inc. and North West Redwater Partnership

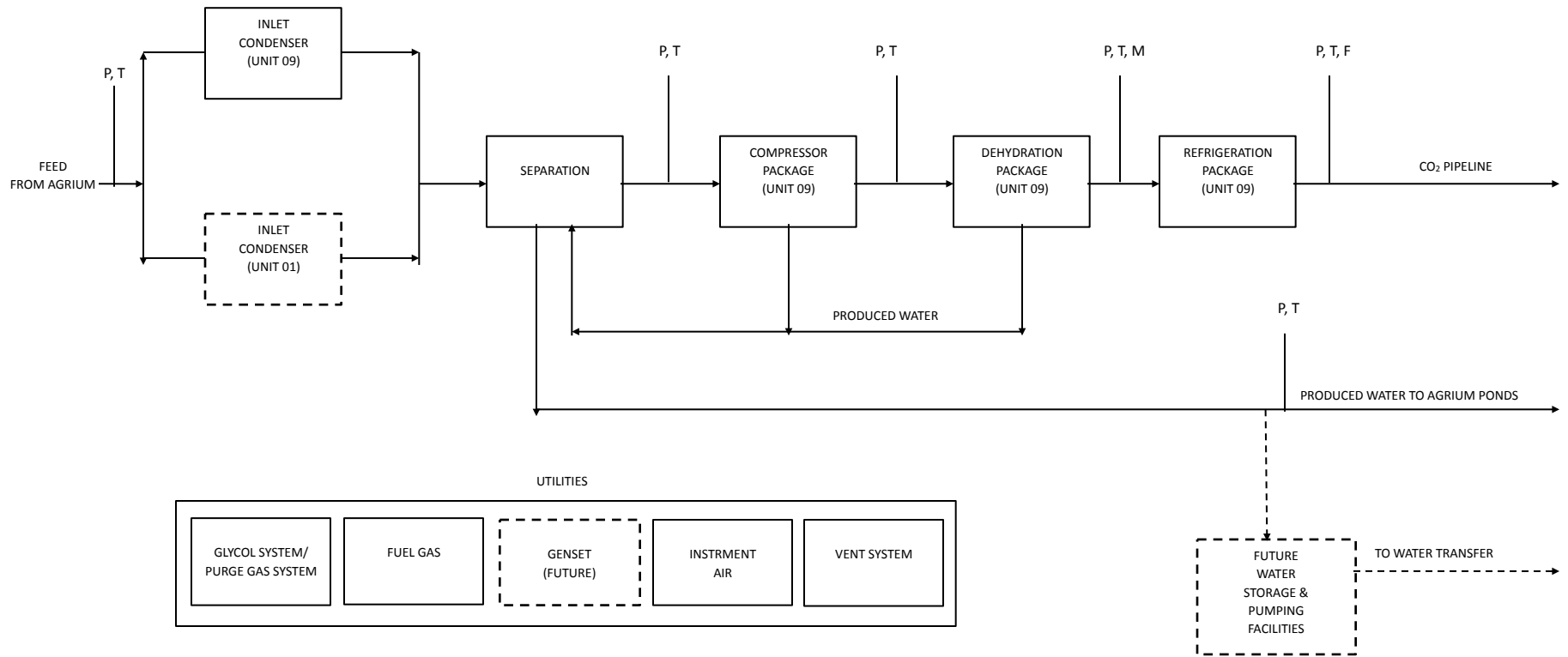
APPENDIX iii Agrium CRF Measurement Point Block Diagram



Green River, by Tom Milosz



Enhance Energy, Inc – Agrium CO₂ Recovery Facility Process Measurement Point Diagram



P- Pressure
T- Temperature
F- Flow
M- Moisture

Enhance Energy Inc. and North West Redwater Partnership

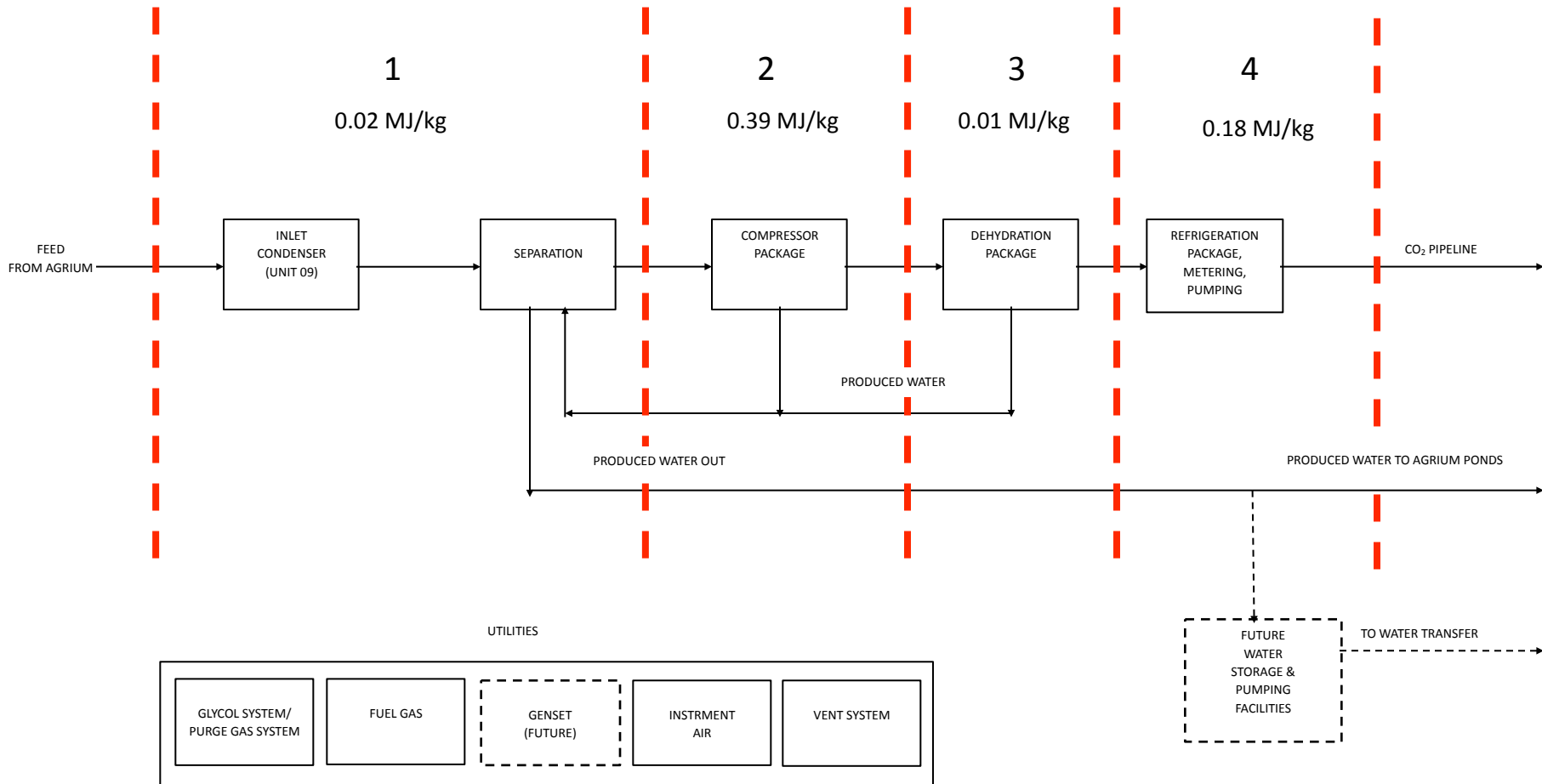
APPENDIX iv Agrium CRF Energy Boundary Block Diagram



Green River, by Tom Milosz



Enhance Energy, Inc – Agrium CO₂ Recovery Facility Energy Boundary Diagram



- 1 – Inlet / Separation
- 2- Compression
- 3- Dehydration
- 4- Refrigeration/Metering/Pumping

Note – each area shares an appropriate portion of the utility systems

Enhance Energy Inc. and North West Redwater Partnership

APPENDIX v
Agrium CRF Produced
Water Analysis Report



Green River, by Tom Milosz





Nalco Analytical Resources
 1601 West Diehl Road, Naperville, Illinois 80563-1198
 Phone: (630) 305-2915, Fax: (630) 305-2948, Analytical.Lab.Naperville@Nalco.com



Agrium Redwater
 Redwater AB Canada
 Sample Marked: T-903 Overhead Condensate
 SAP Sold To Number: 0001000024

Sample Number: NW0702633
 Date Sampled: 16-Jan-2007
 Date Received: 15-Feb-2007
 Date Completed: 07-Mar-2007

Water Analysis Report

Cations/Metals	Filtered	Total
Aluminum (Al)	<1.0	<1.0 mg/L
Barium (Ba)	<4.1	<3.9 mg/L
Boron (B)	<1.0	<1.0 mg/L
Cadmium (Cd)	<0.41	<0.39 mg/L
Calcium (Ca)	<1.0	<1.0 mg/L
Chromium (Cr)	<0.10	<0.10 mg/L
Copper (Cu)	<0.10	<0.10 mg/L
Iron (Fe)	<0.10	<0.10 mg/L
Lead (Pb)	<2.0	<1.9 mg/L
Lithium (Li)	<0.10	<0.10 mg/L
Magnesium (Mg)	<4.1	<3.9 mg/L
Manganese (Mn)	<0.10	<0.10 mg/L
Molybdenum (Mo)	<1.0	<1.0 mg/L
Nickel (Ni)	<1.0	<1.0 mg/L
Phosphorus (P)	<10.1	<9.7 mg/L
Phosphorus (PO ₄)	<31.0	<29.7 mg/L
Potassium (K)	<7.1	6.9 mg/L
Silica (SiO ₂)	<10.8	<10.4 mg/L
Sodium (Na)	<2.0	<1.9 mg/L
Strontium (Sr)	<0.10	<0.10 mg/L
Vanadium (V)	<5.07	<4.85 mg/L
Zinc (Zn)	<0.10	<0.10 mg/L
Calcium (CaCO ₃)	<2.5	<2.4 mg/L
Magnesium (CaCO ₃)	<16.7	<16.0 mg/L
Sodium (CaCO ₃)	<4.4	<4.2 mg/L
Calculated Hardness (CaCO ₃)	NR*	NR*

Anions

Bromide (Br)	<10.0 mg/L
Chloride (Cl)	11 mg/L
Nitrate (NO ₃)	<10.0 mg/L
Nitrite (NO ₂)	<10.0 mg/L
Sulfate (SO ₄)	<10.0 mg/L
Chloride (CaCO ₃)	15 mg/L
Nitrate (CaCO ₃)	<8.1 mg/L
Sulfate (CaCO ₃)	<10.0 mg/L

Authorized by : David R. Szymborski





Nalco Analytical Resources

1601 West Diehl Road, Naperville, Illinois 60563-1198
 Phone: (630) 305-2315, Fax: (630) 305-2946, Analytical.Lab.Naperville@Nalco.com



Agrinum Redwater	Sample Number:	NW0702633
Redwater AB Canada	Date Sampled:	16-Jan-2007
Sample Marked: T-903 Overhead Condensate	Date Received:	15-Feb-2007
SAP SoldTo Number: 0001000024	Date Completed:	07-Mar-2007

Water Analysis Report

ALK - Alkalinity

Bicarbonate (CaCO ₃)	7100 mg/L
Carbonate (CaCO ₃)	110 mg/L
Methyl Orange (CaCO ₃)	7200 mg/L
Phenolphthalein (CaCO ₃)	53 mg/L

Others

pH	8.5 pH Units
Conductivity	13000 µS/cm
Organic Carbon (C) - Total	1100 mg/L
MS Number	MS0048

Authorized by : David R. Szymborski



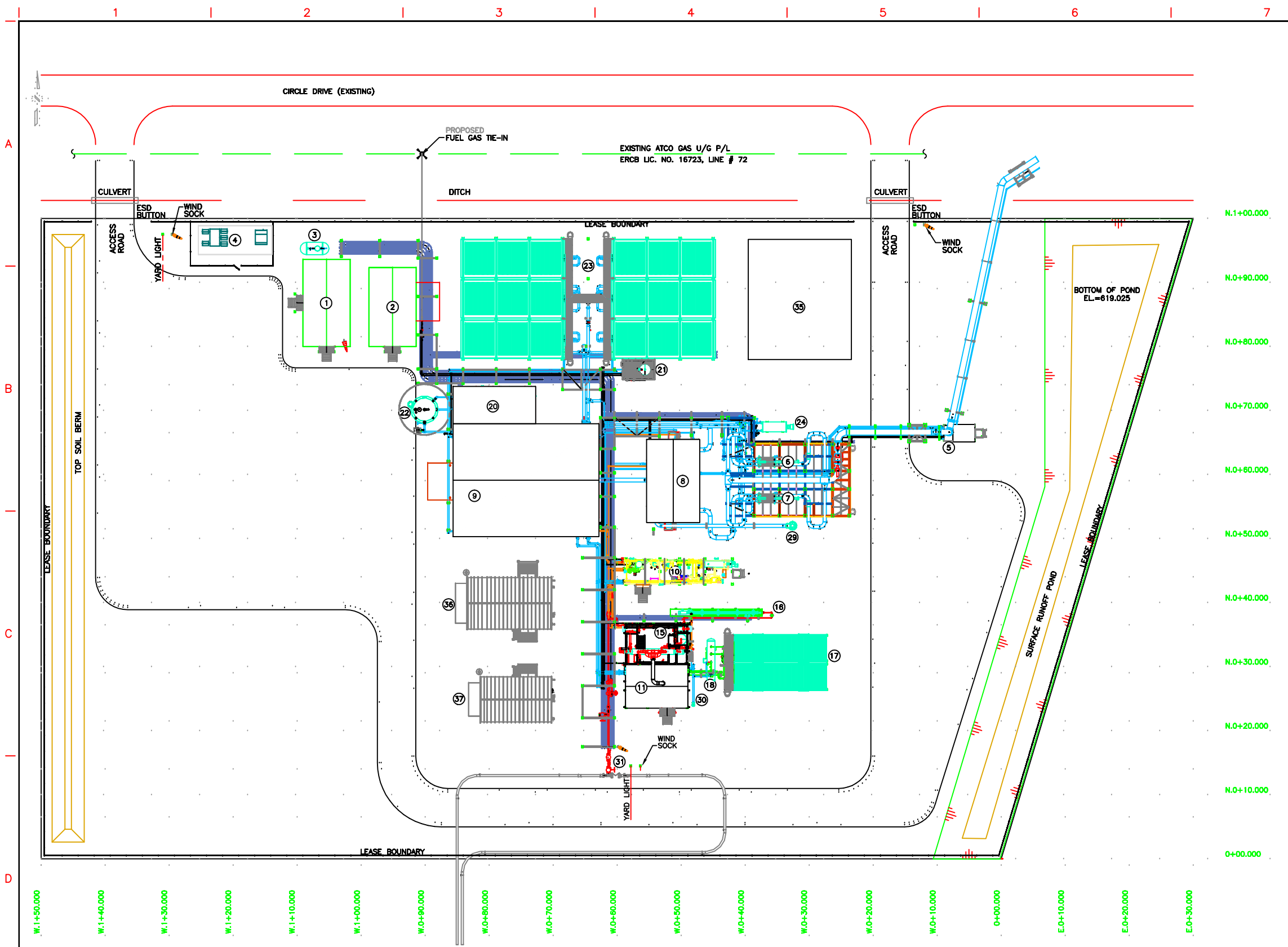
Enhance Energy Inc. and North West Redwater Partnership

APPENDIX vi Agrium CRF Plot Plan



Green River, by Tom Milosz





EQUIPMENT LEGEND		
1	Q-010	OFFICE & MCC BUILDING
2	Q-011	SKV BUILDING
3	TK-011	SEPTIC TANK
4	-	TRANSFORMERS
5	Q-103	DRAIN POT BUILDING
6	E-101	INLET CONDENSER
7	E-102	INLET CONDENSER
8	Q-105	INLET CO2 SEPARATOR BUILDING
9	Q-200	INLET CO2 COMPRESSOR BUILDING
10	Q-300	DEHYDRATION BUILDING
11	Q-400	REFRIGERATION COMPRESSOR PACKAGE
12		
13		
14		
15	Q-410	CO2 LIQUEFACTION SKID
16	P-411	CO2 TRANSFER PUMP (SHIPPING)
17	AC-440/441	NH3 CONDENSER
18	V-445	NH3 ACCUMULATOR
19		
20	Q-600	E-GLYCOL BLDG. (P-601/P-602)
21	V-600	EG SURGE DRUM
22	TK-608	EG POP TANK
23	AC-620	ETHYLENE GLYCOL AIR COOLER
24	H-650	H-650 EG HEATER
25		
26		
27	Q-720	AREA FOR BACK-UP GENERATOR (FUTURE)
28		
29	VS-910	H.V. VENT STACK
30	VS-930	L.V. VENT STACK
31	-	RISER AREA
32	-	-
33	-	-
34	-	-
35	AC-630	FUTURE ETHYLENE GLYCOL AIR COOLER
36	Q-510	FUTURE BOOSTER COMPRESSOR
37	Q-520	FUTURE MAIN COMPRESSOR

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REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	BY	APPD.	ISSUE STAGE	DATE	BY	CHKD.	APPD.																																																																		
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<p>PERMIT No. P10437</p>												<p>SITE TYPE: CO2 RECOVERY FACILITY</p>																																																																		
<p>PROFESSIONAL STAMP AFFIXED ABOVE SHALL APPLY ONLY TO REV(S)</p>										<p>MAN. LSD: 04-17-056-21 W4M</p>		<p>SCALE: 1:300</p>																																																																		
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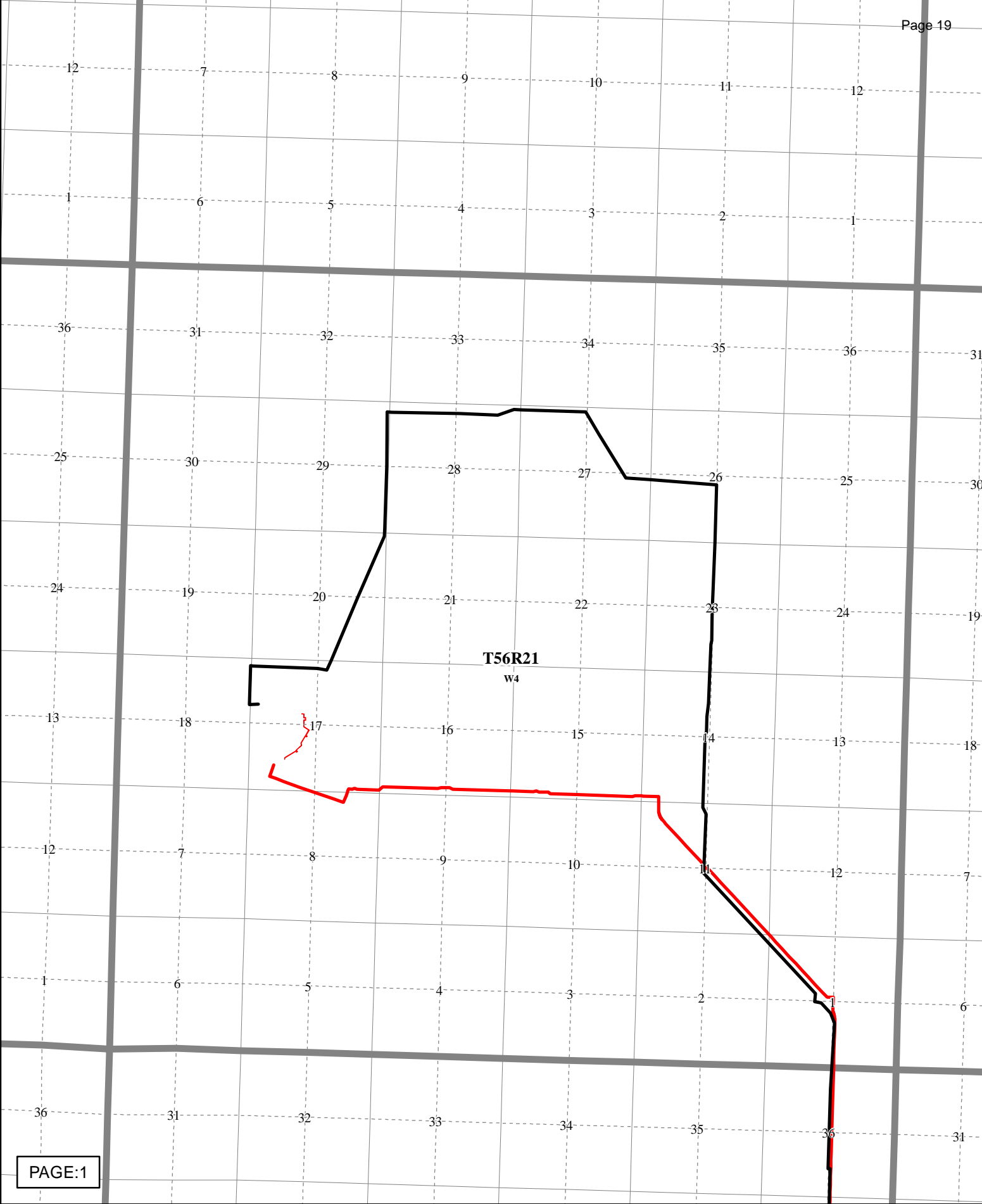
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APPENDIX vii AER ACTL Base Maps



Green River, by Tom Milosz





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w4

PAGE:1



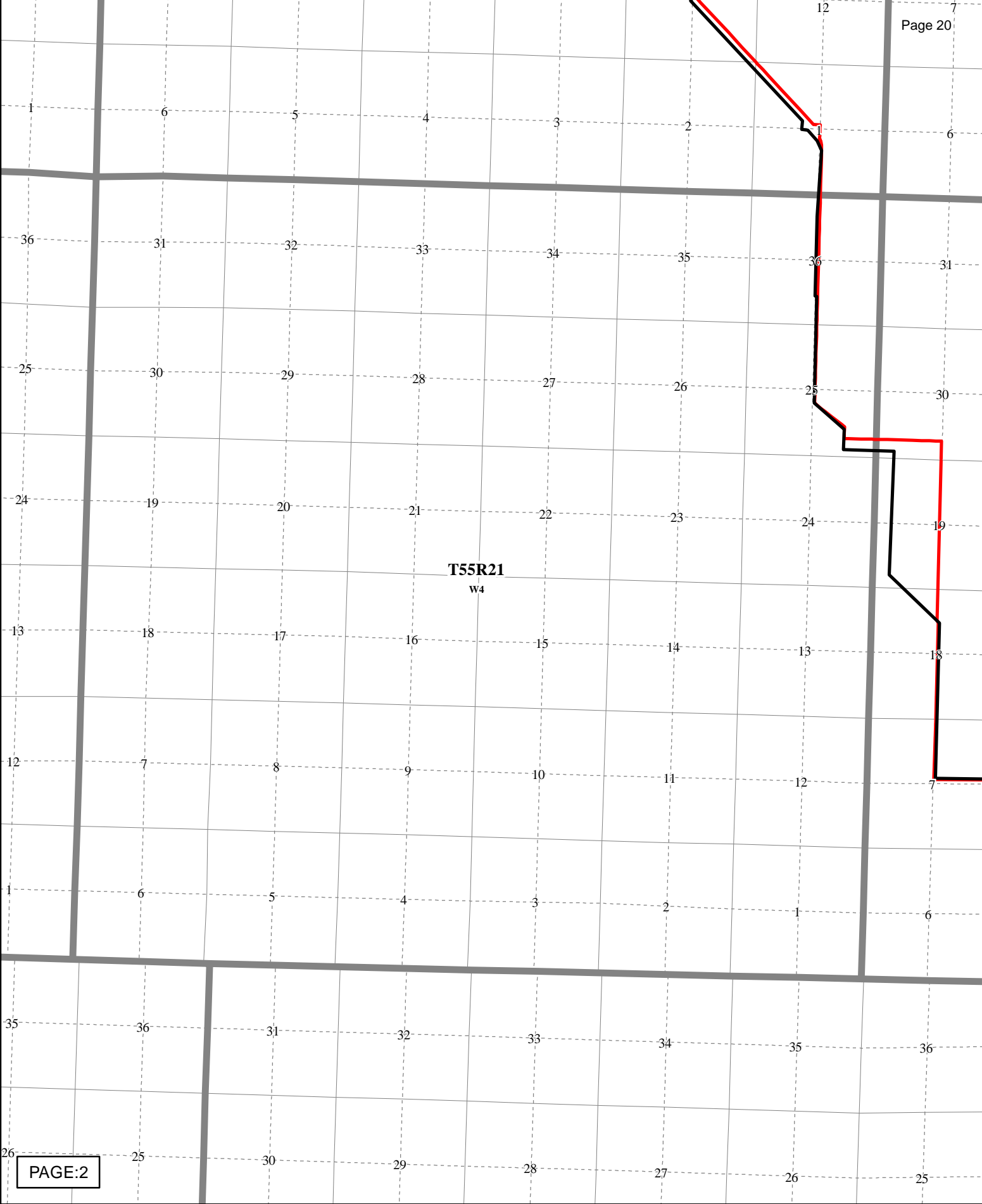
Alberta Carbon Trunk Lines

- Legend**
- AER Pipeline Database
 - Enhance 2014 Route

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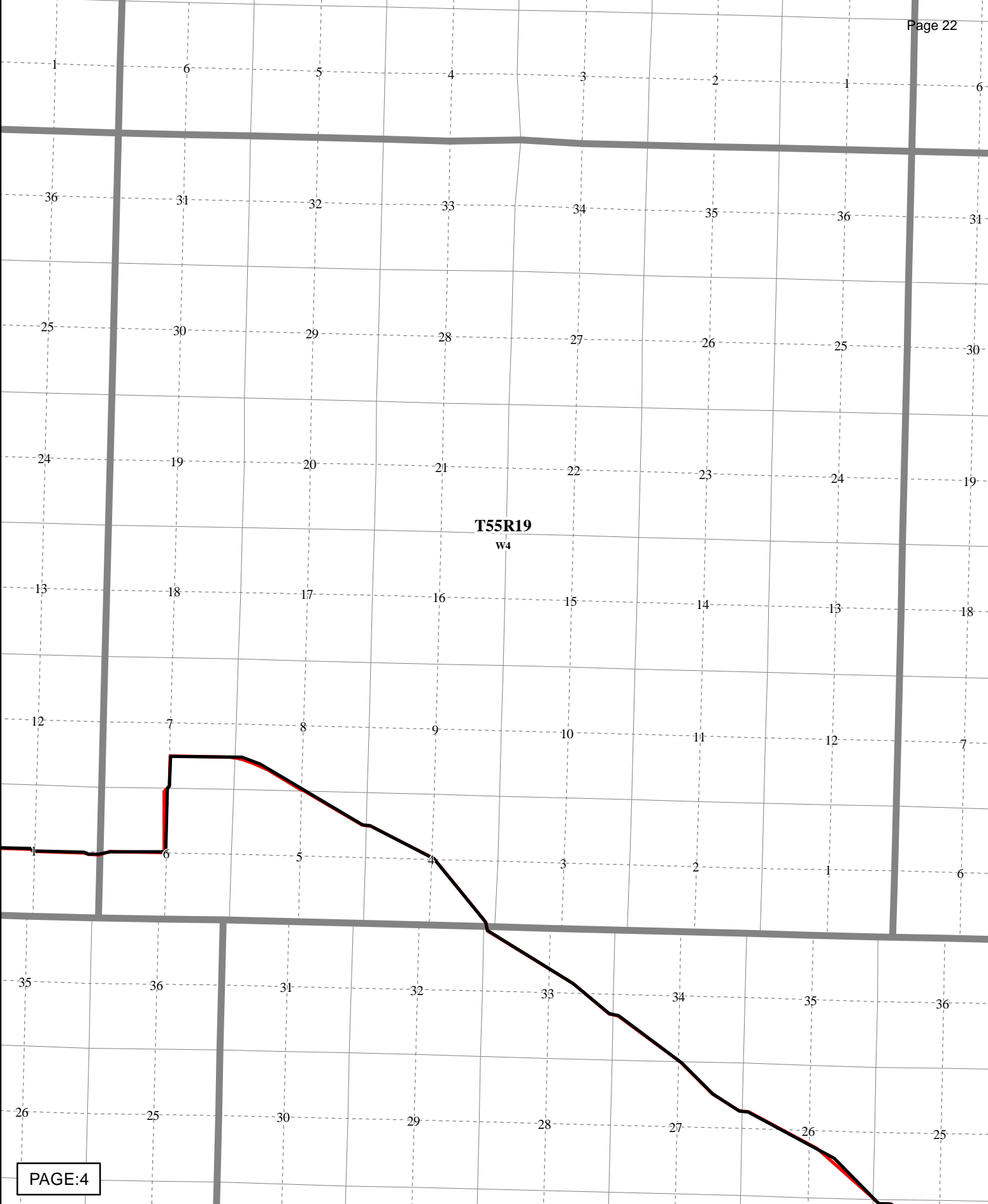
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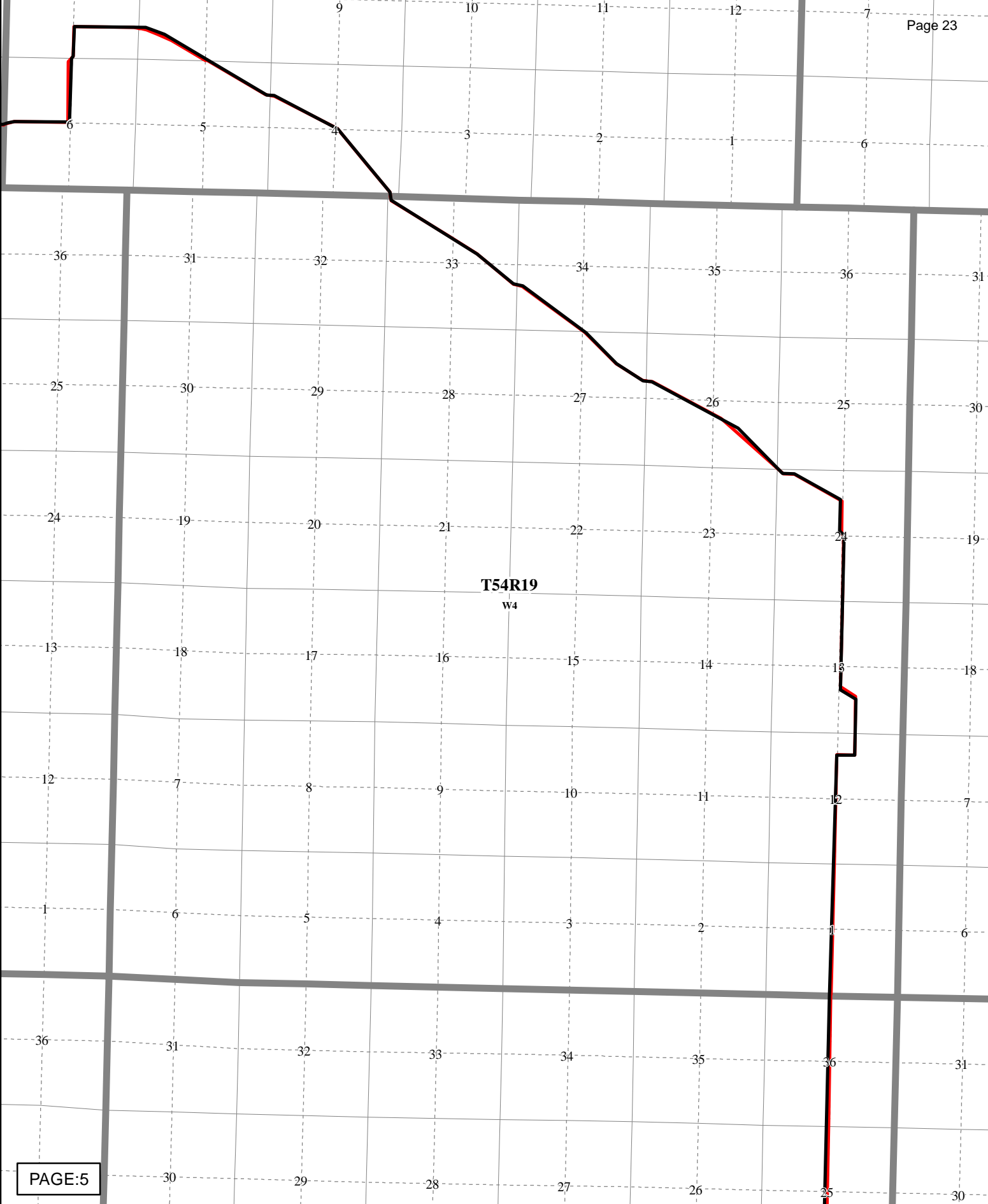
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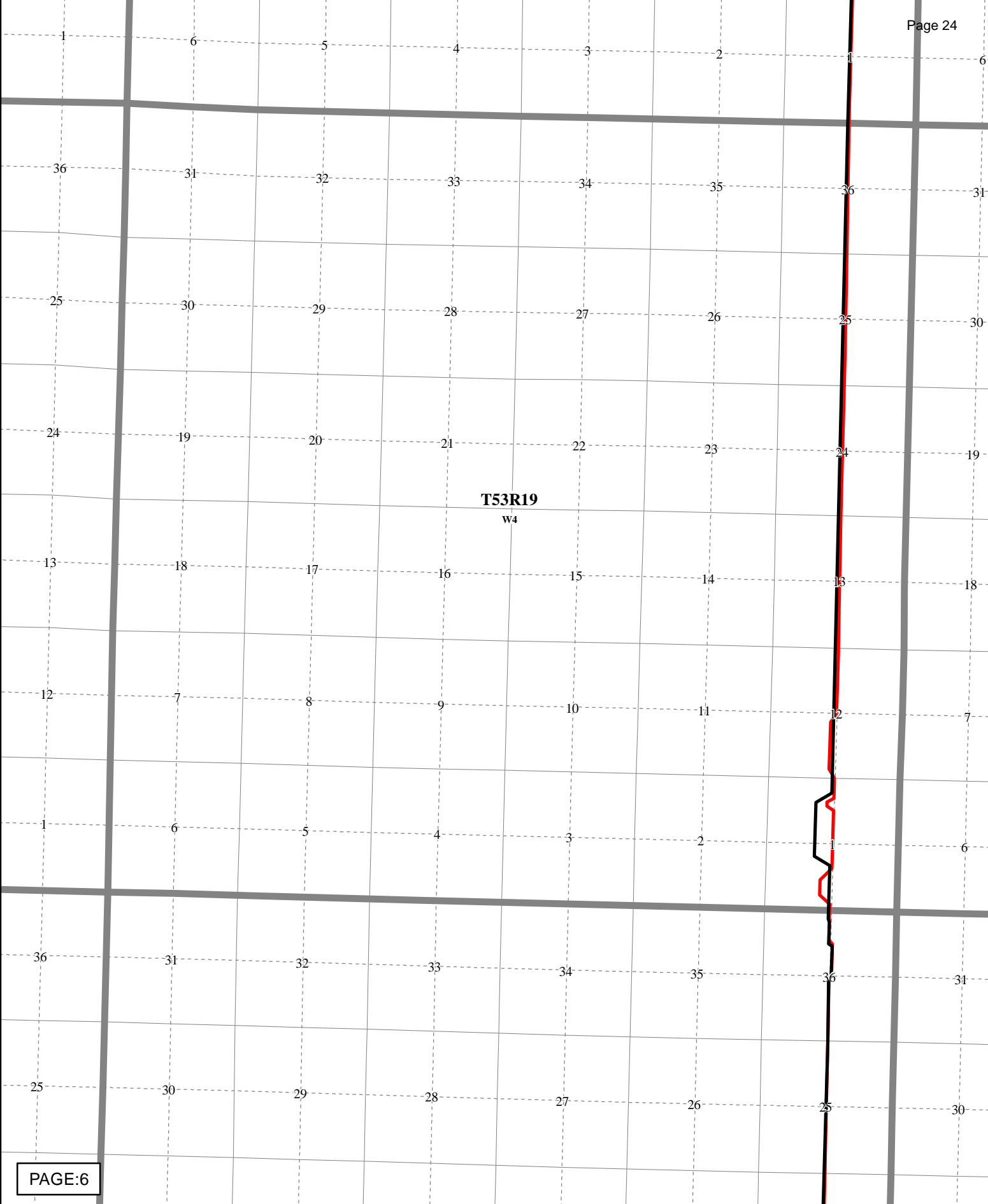
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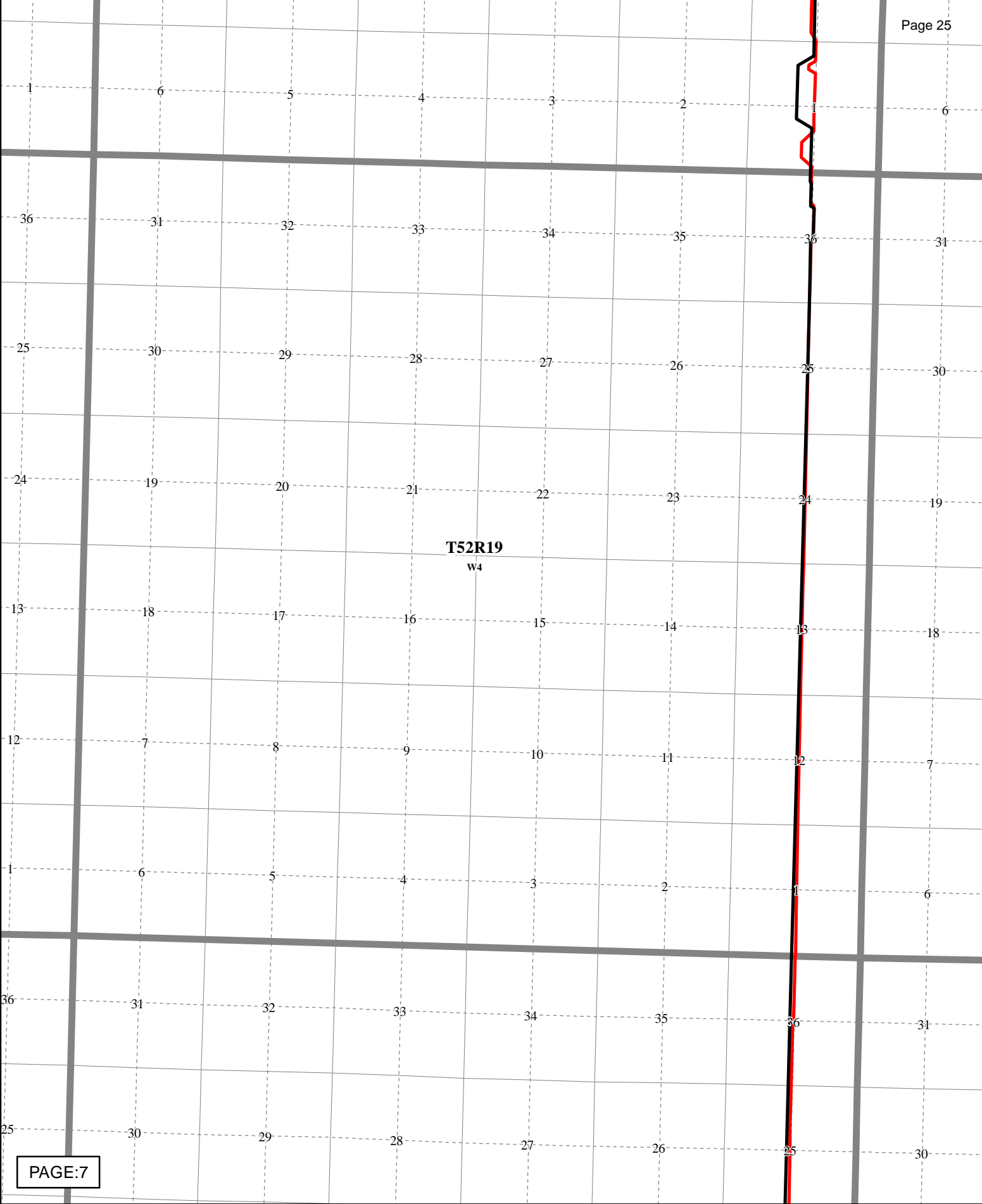
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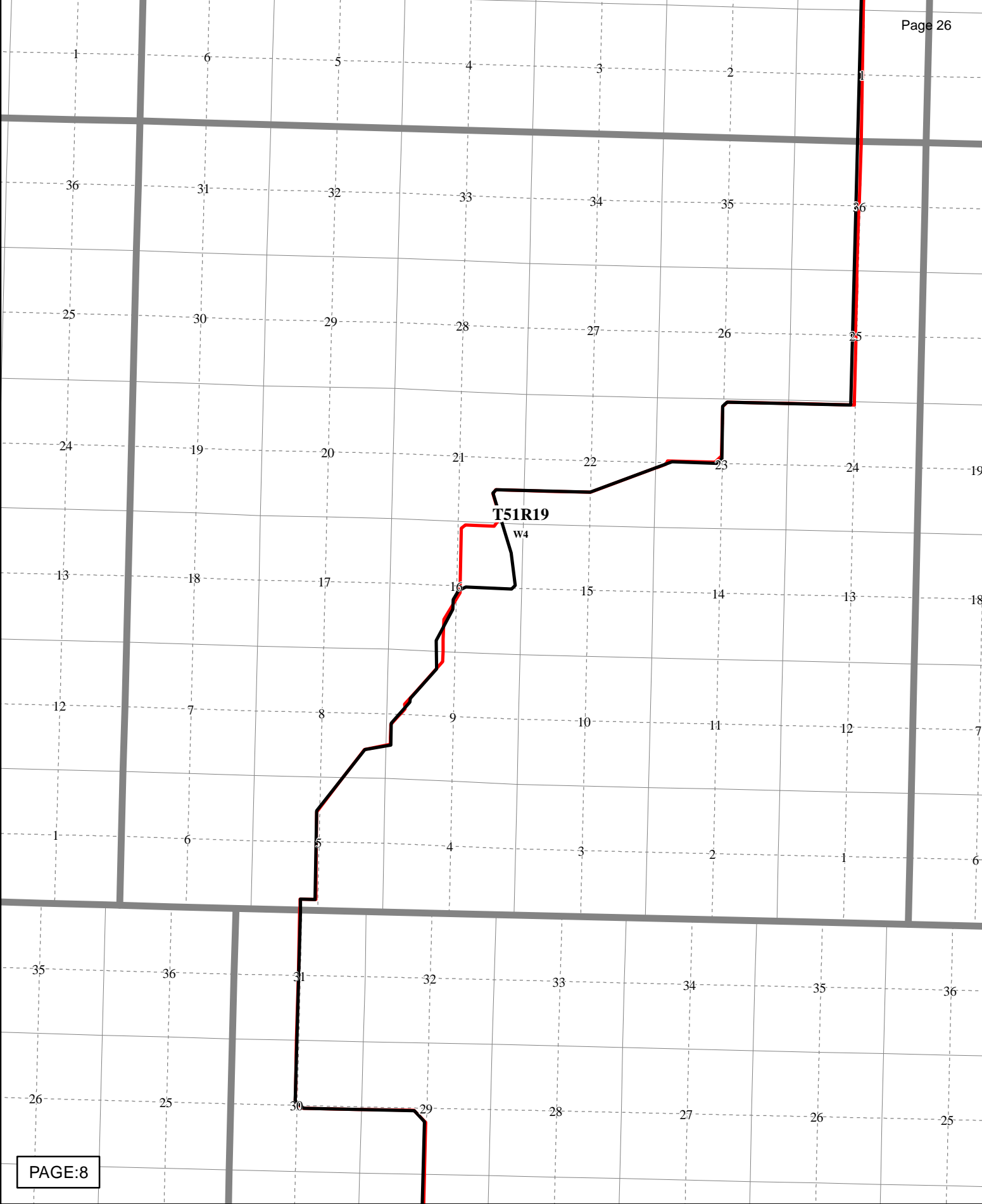
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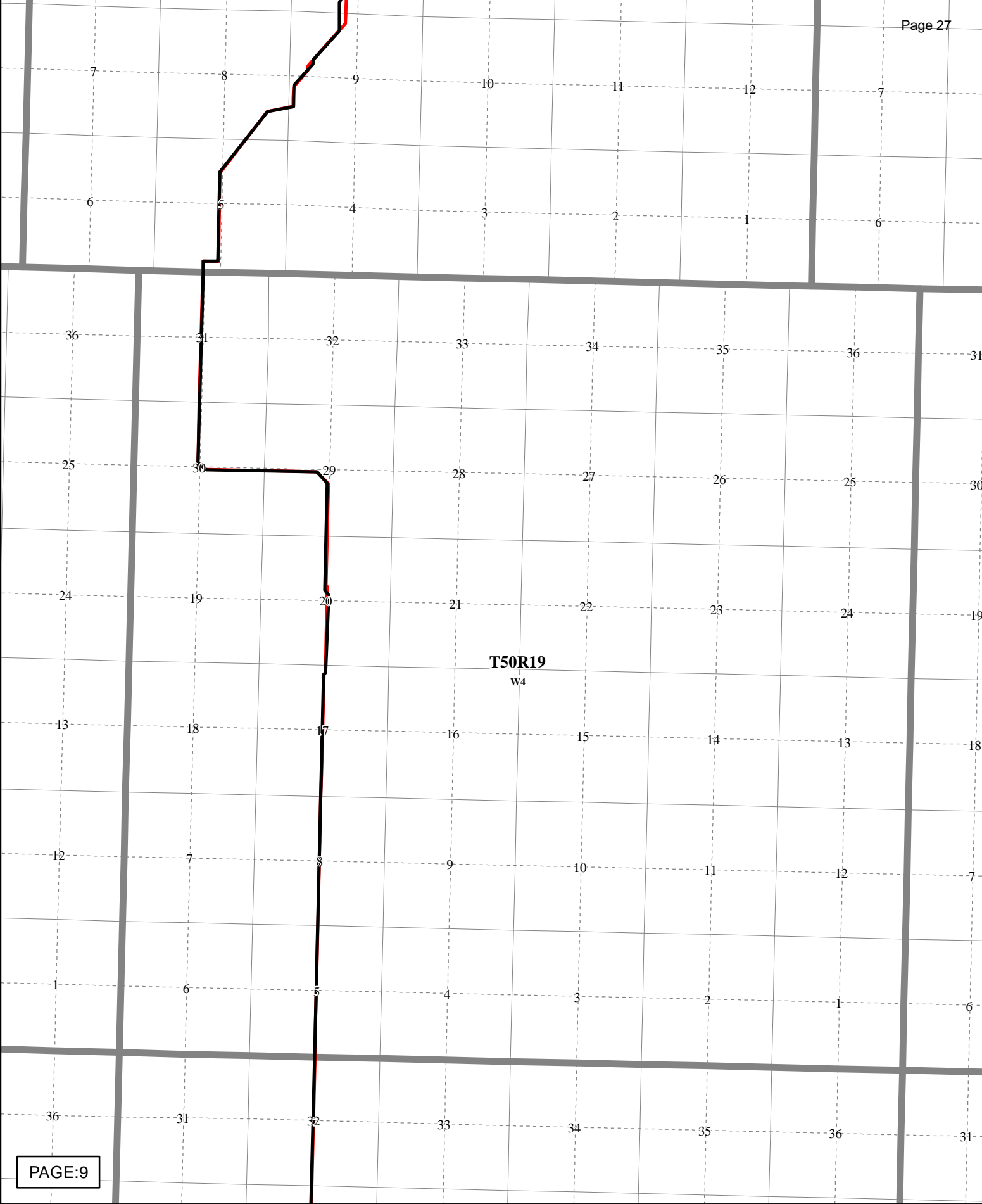
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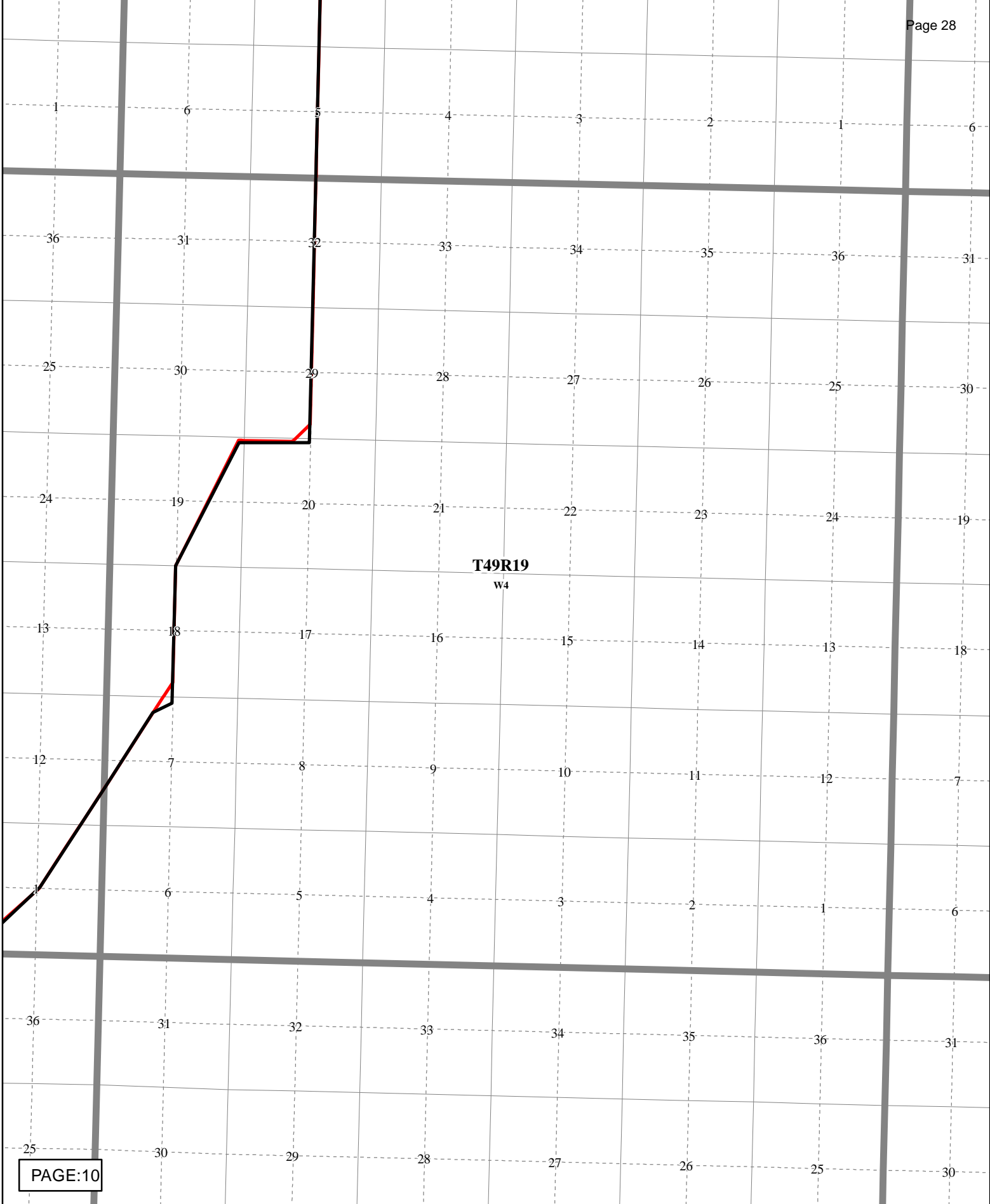
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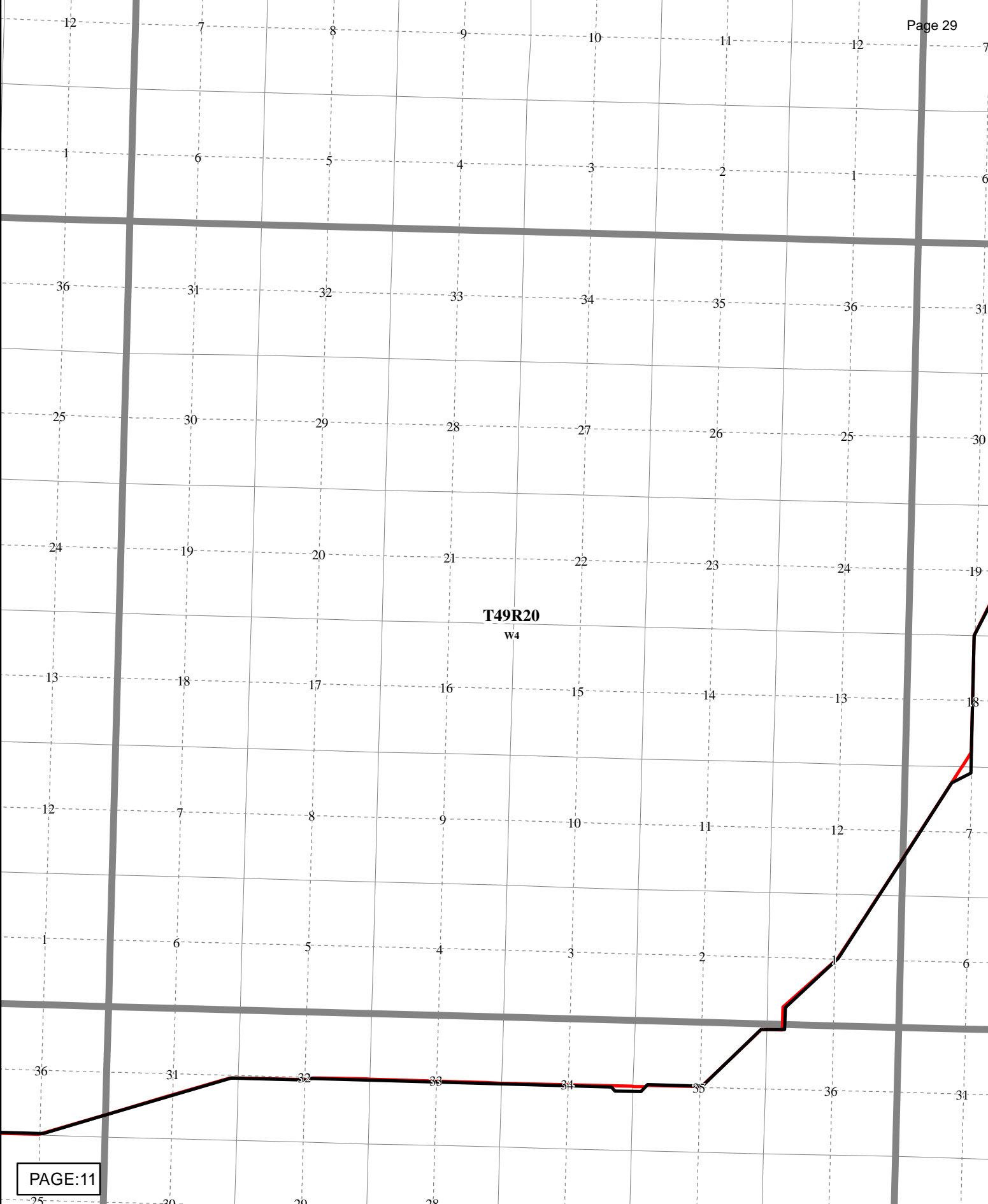
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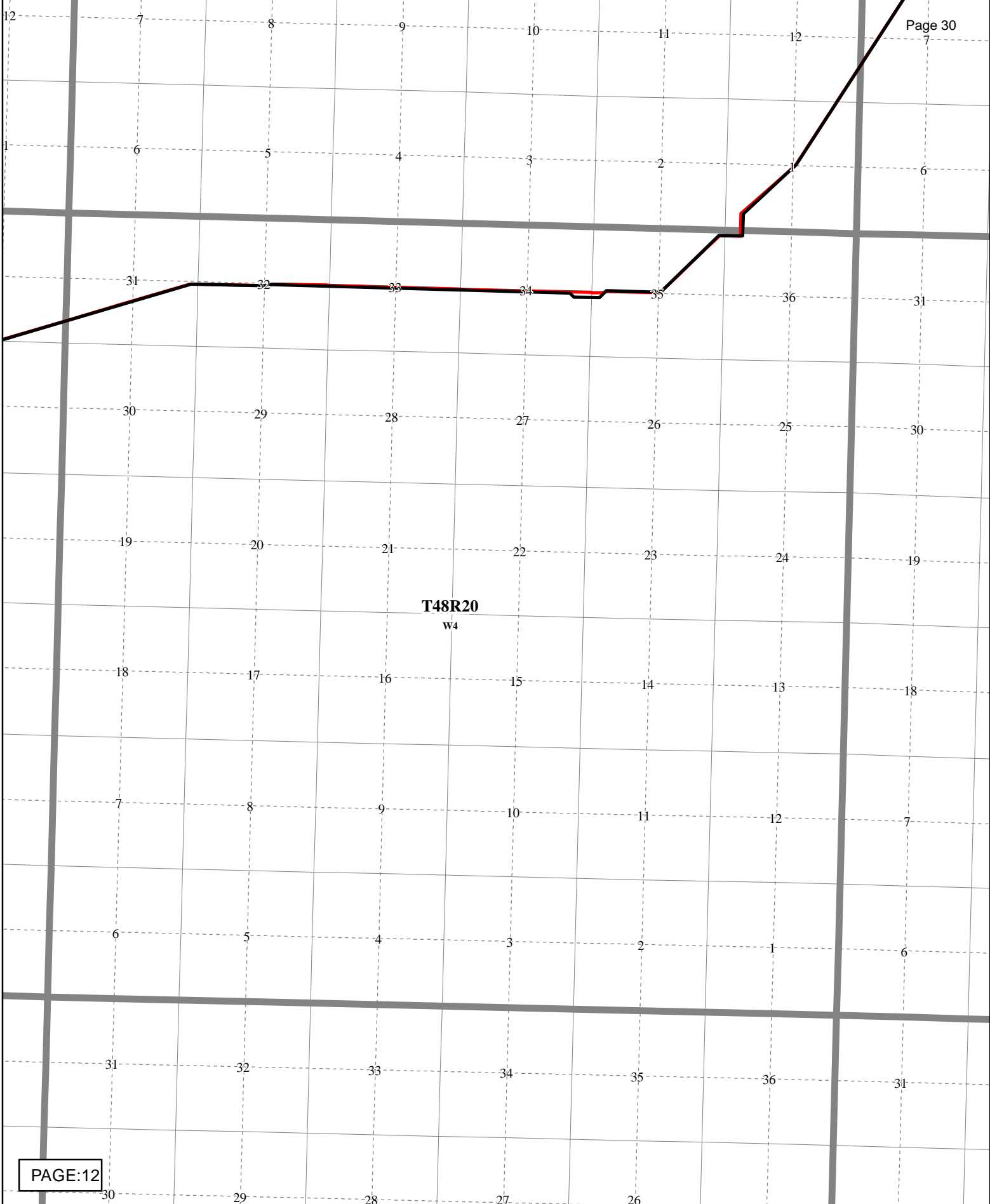
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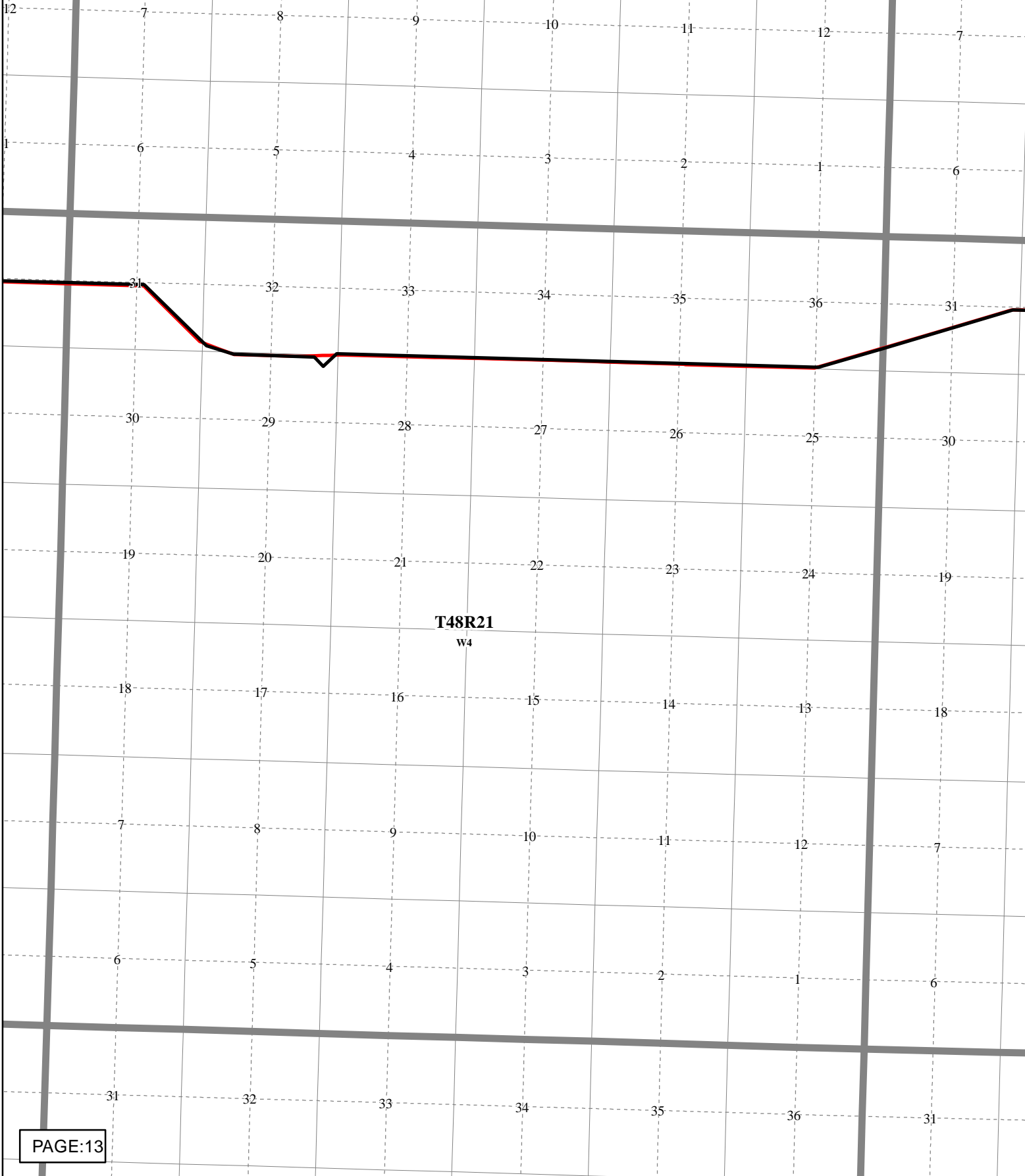
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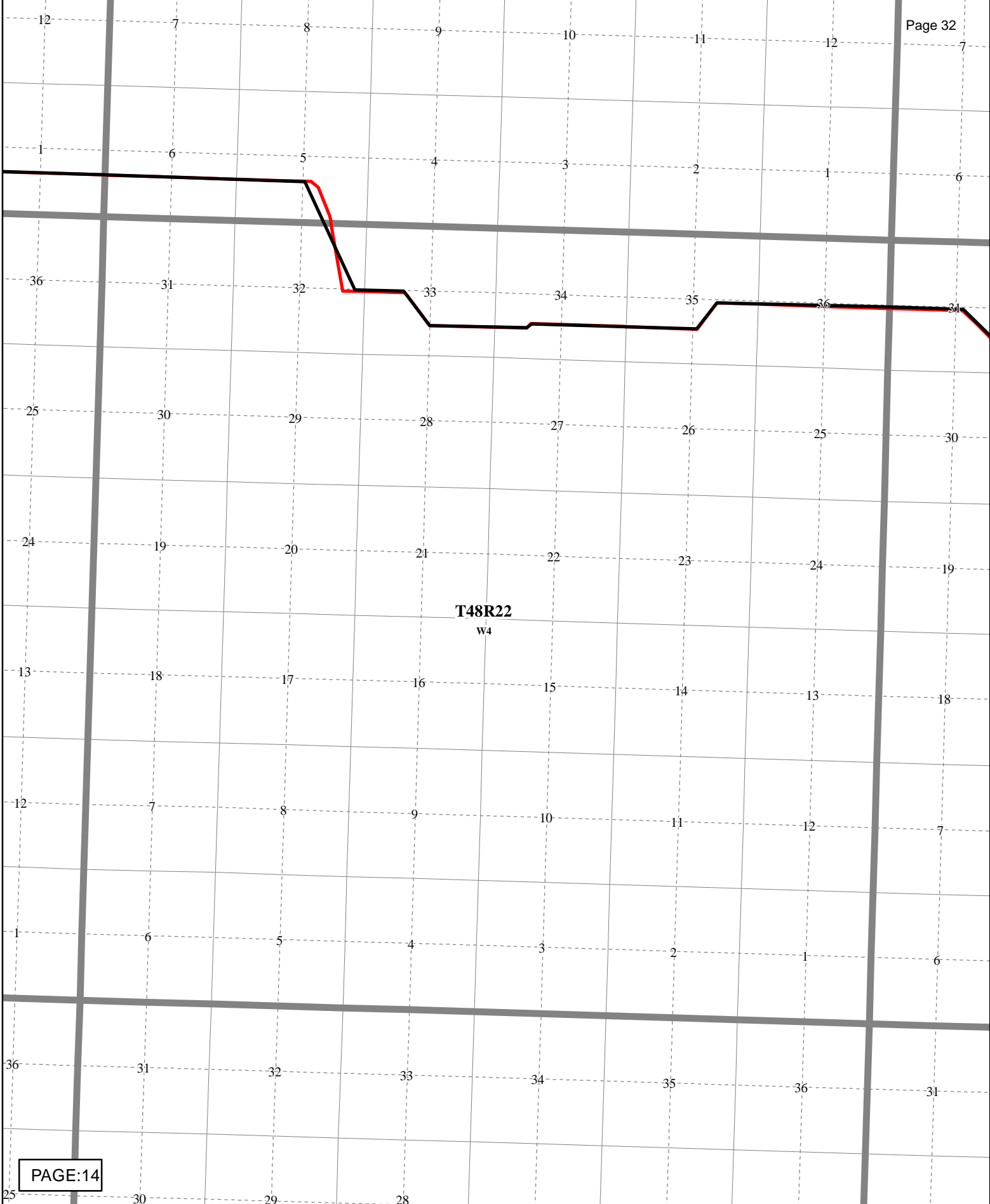
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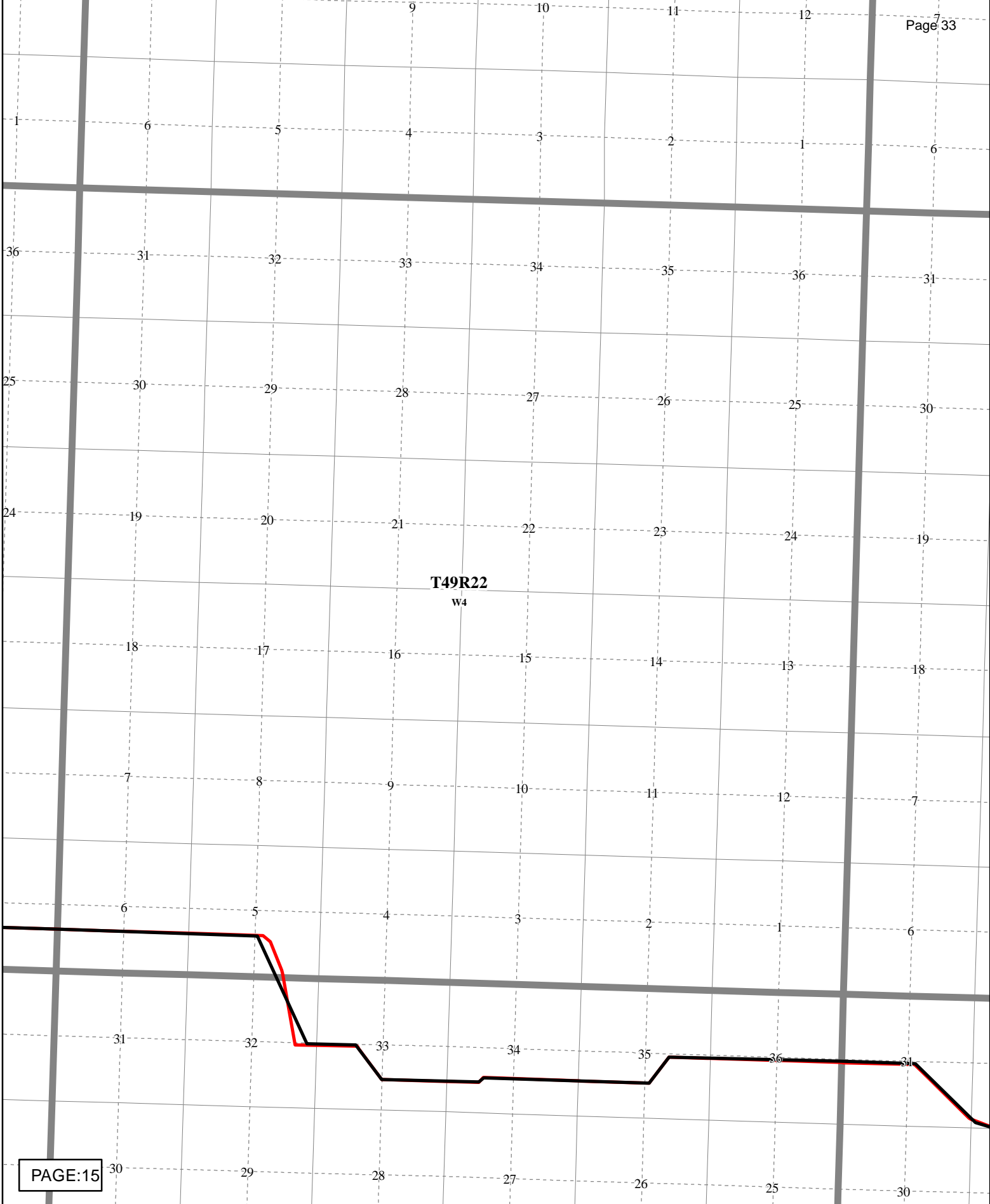
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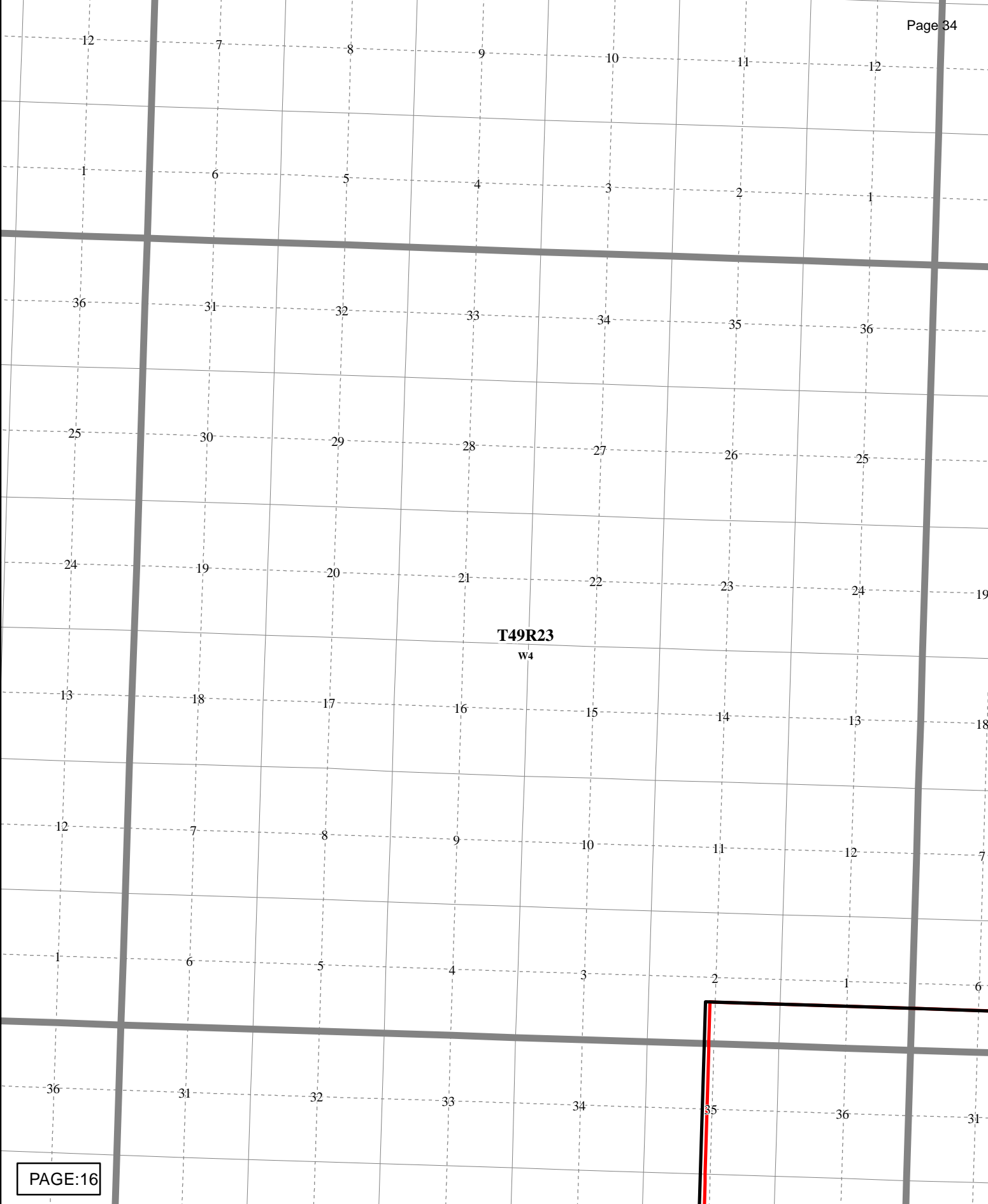
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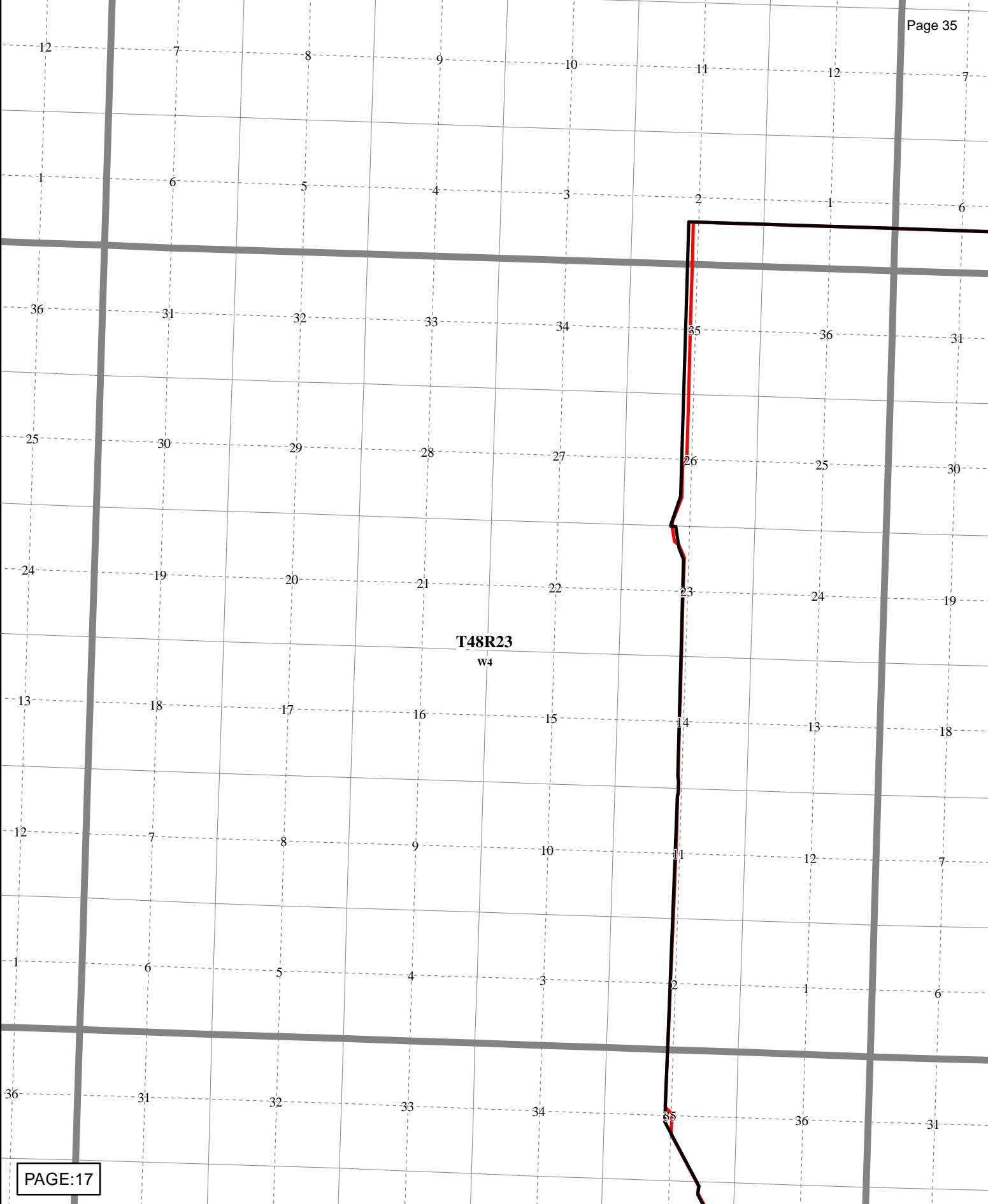
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- Legend**
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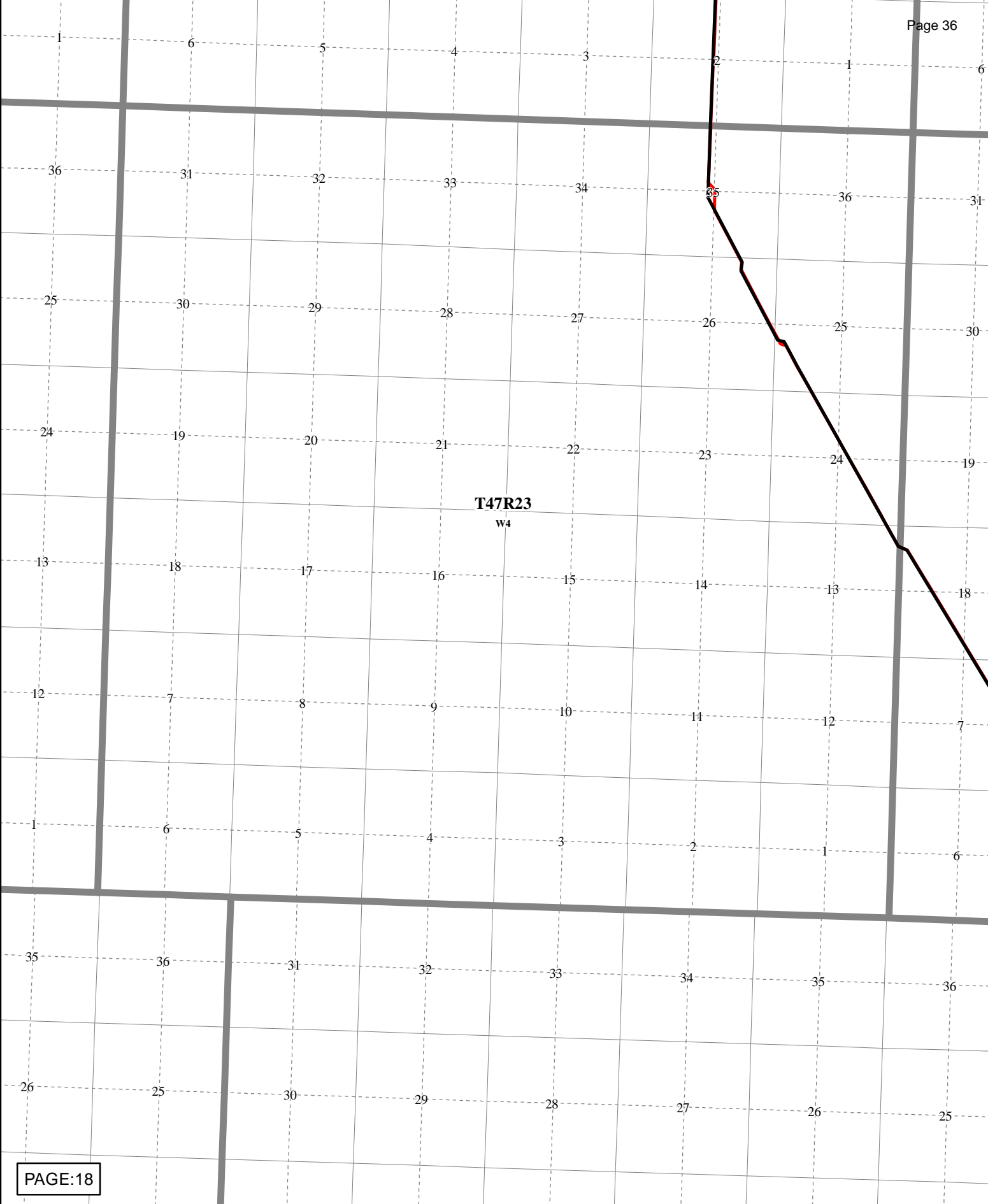
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Legend

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PAGE:19



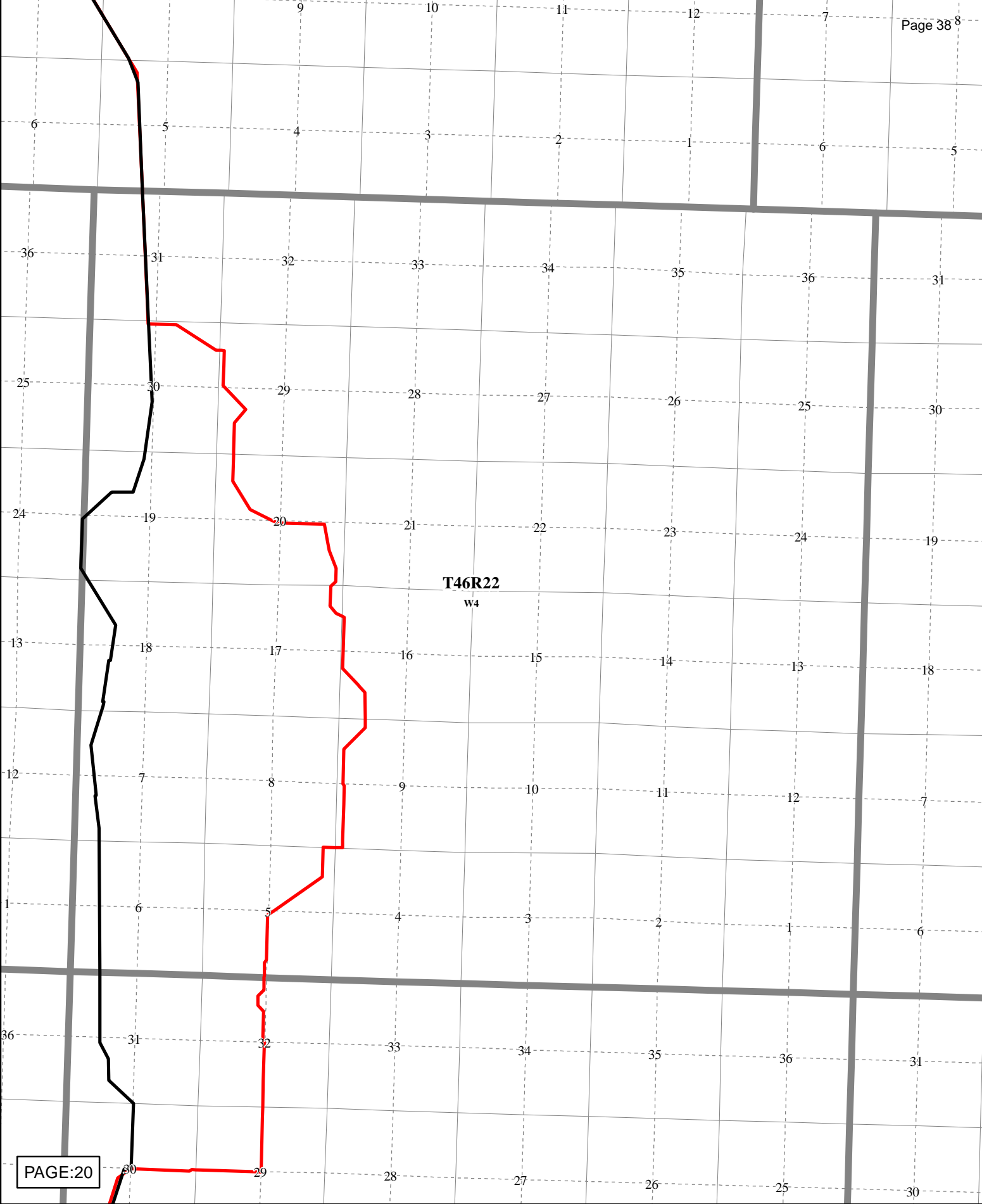
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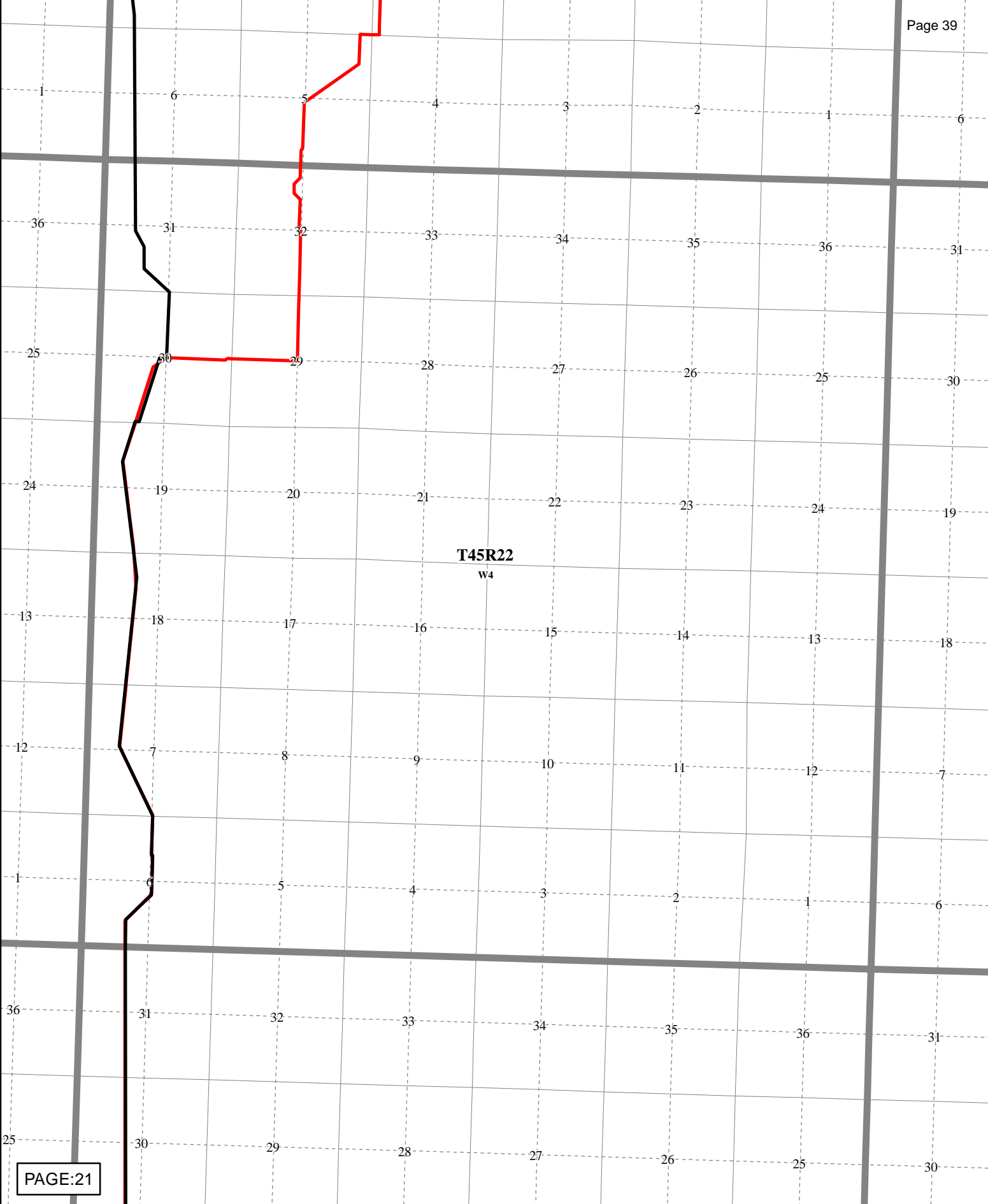
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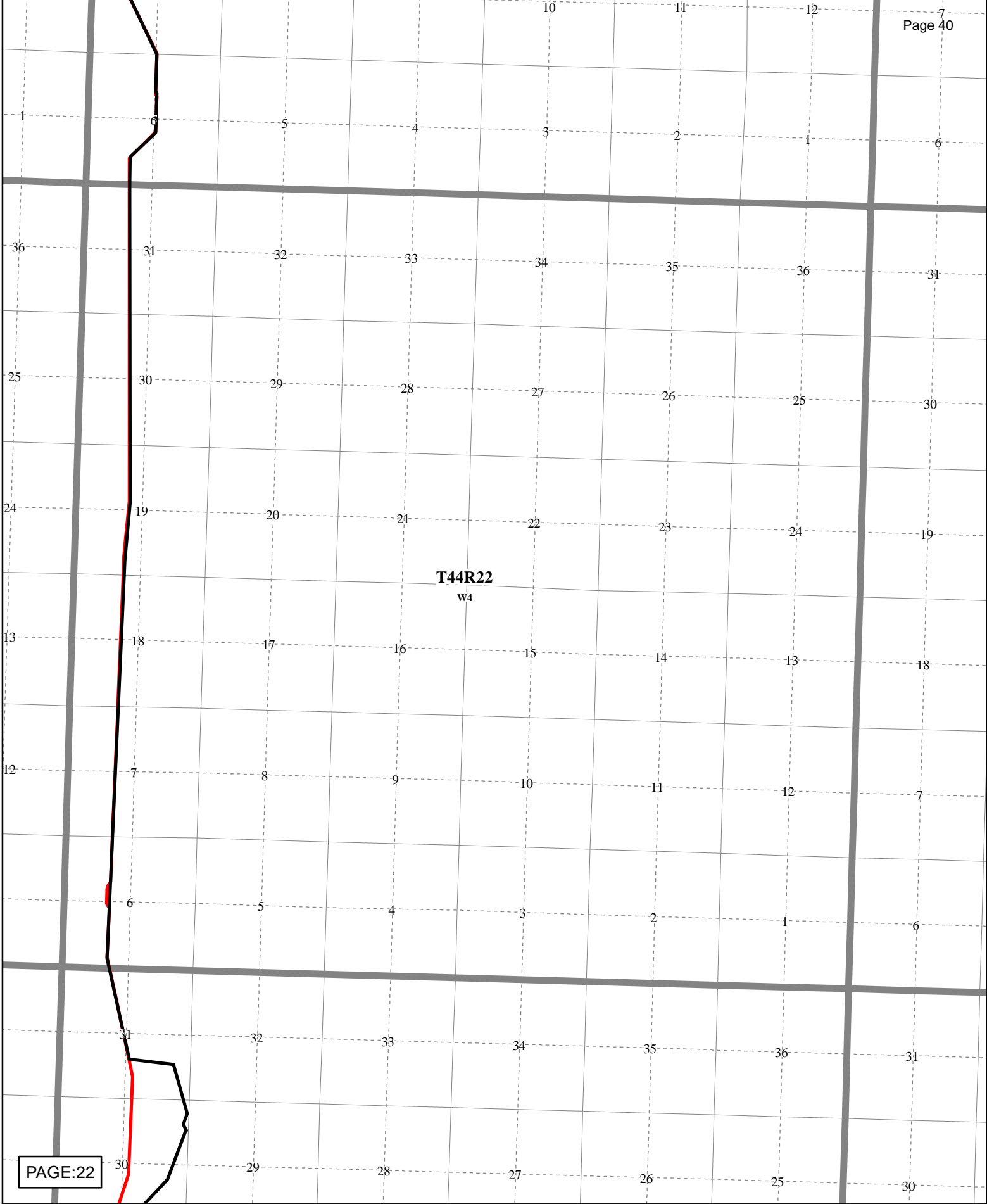
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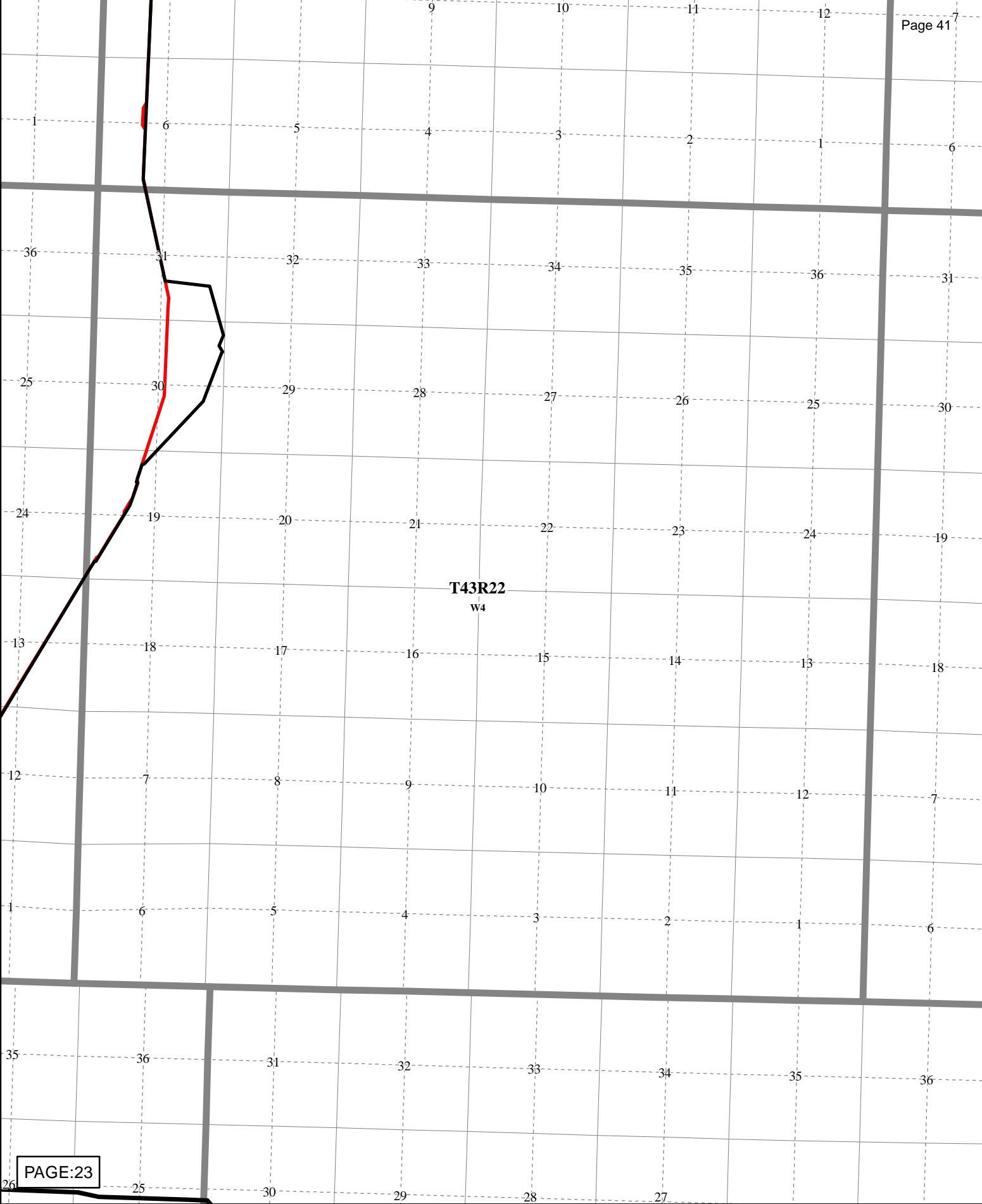
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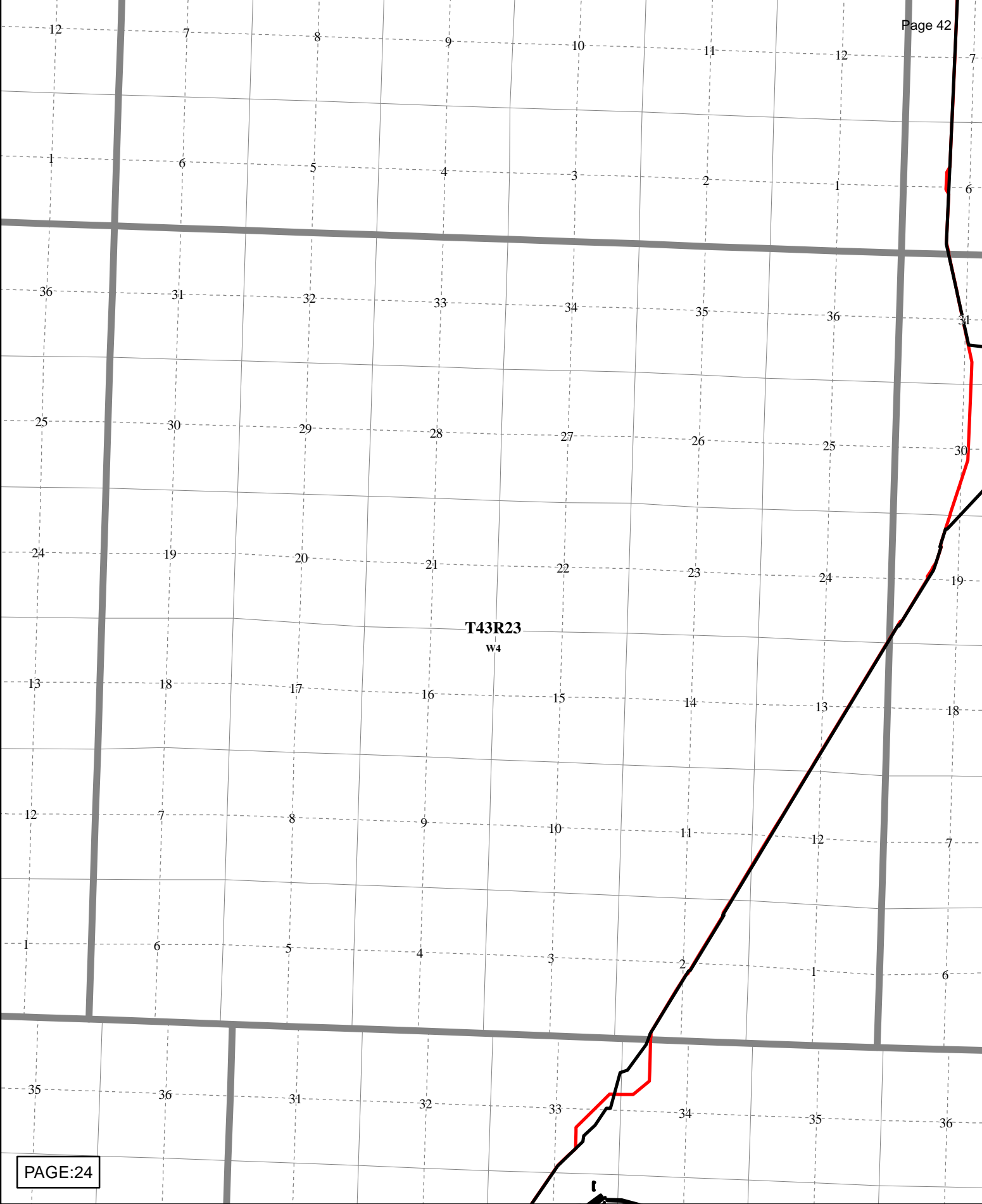
**Alberta Carbon
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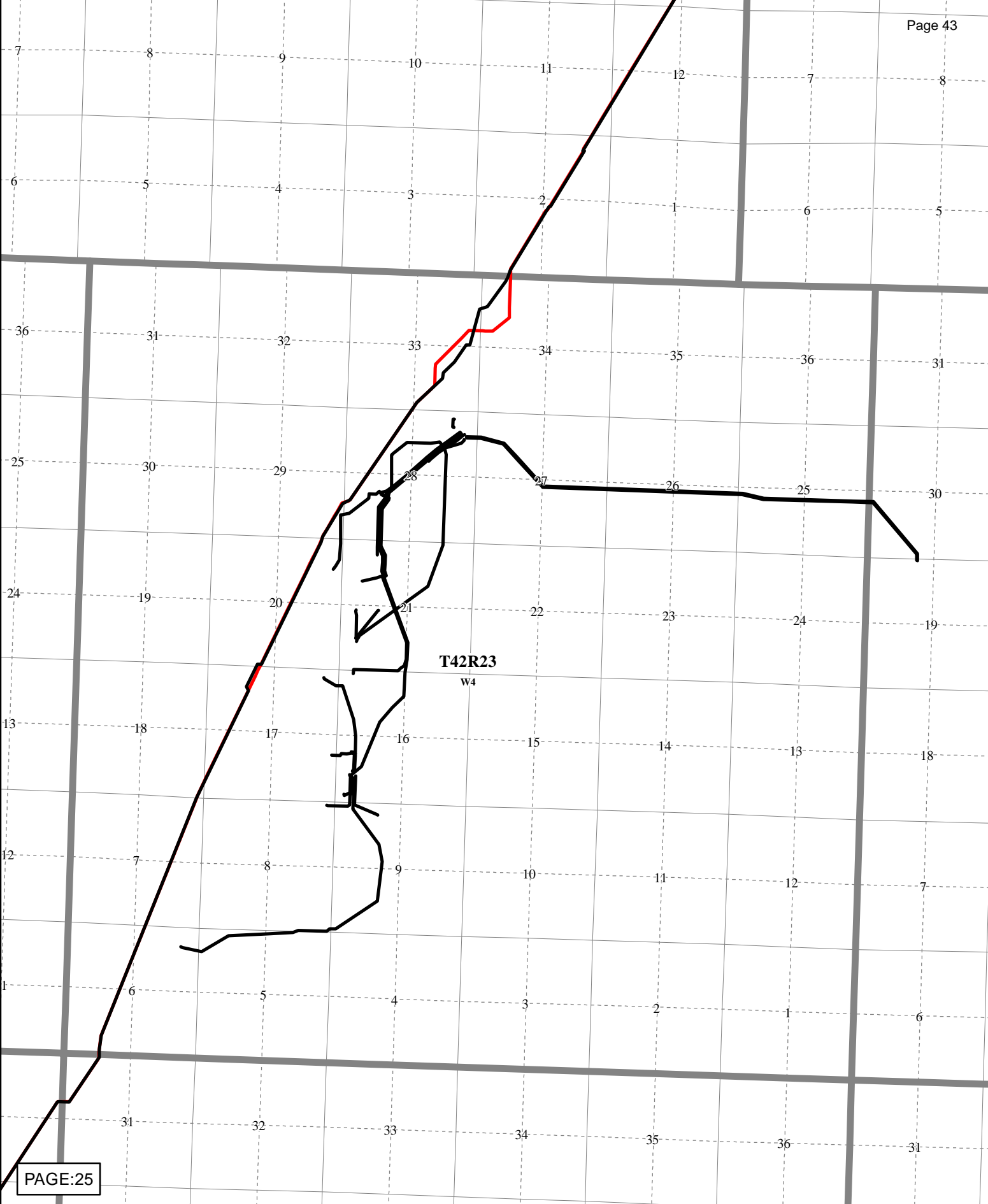


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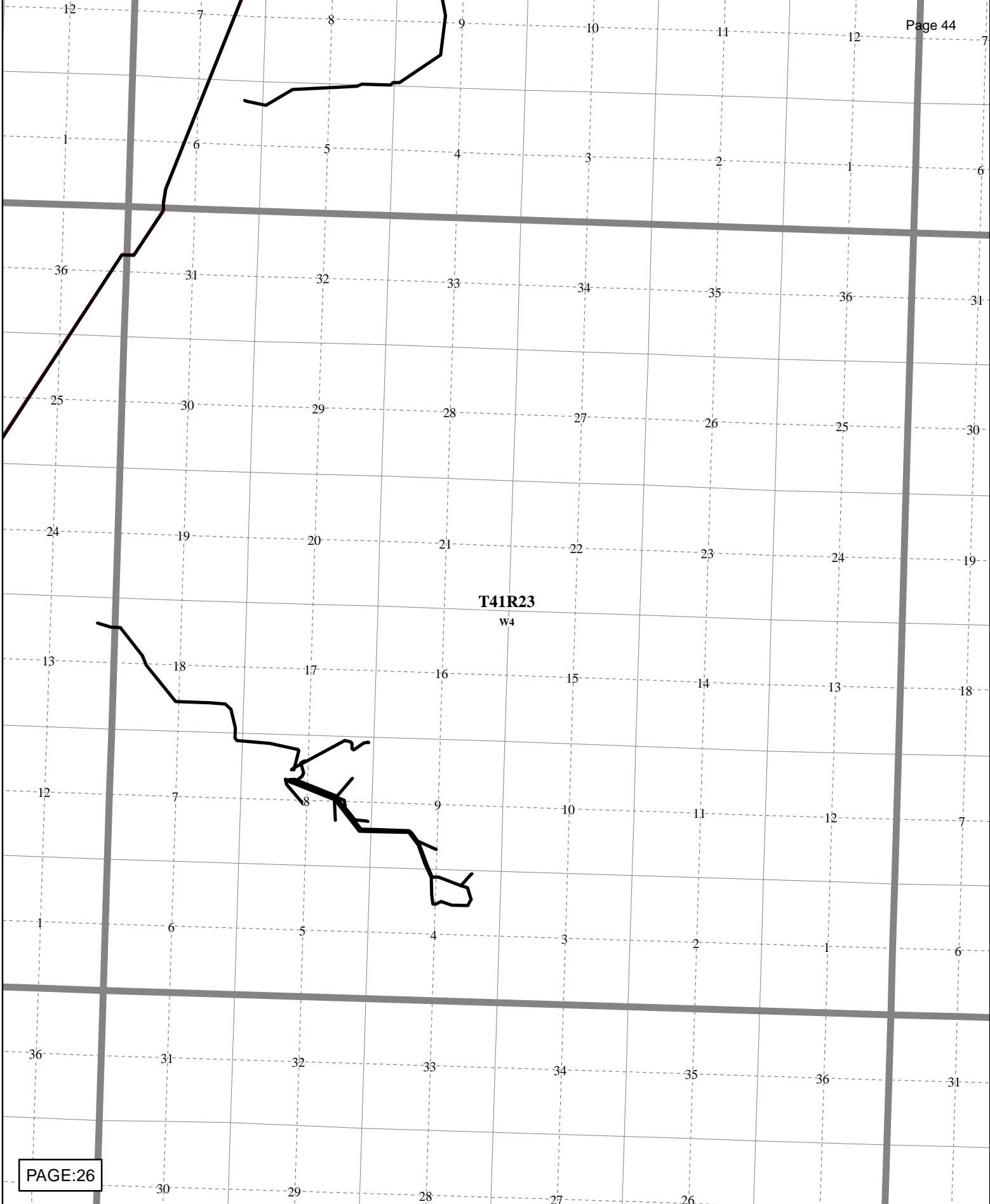
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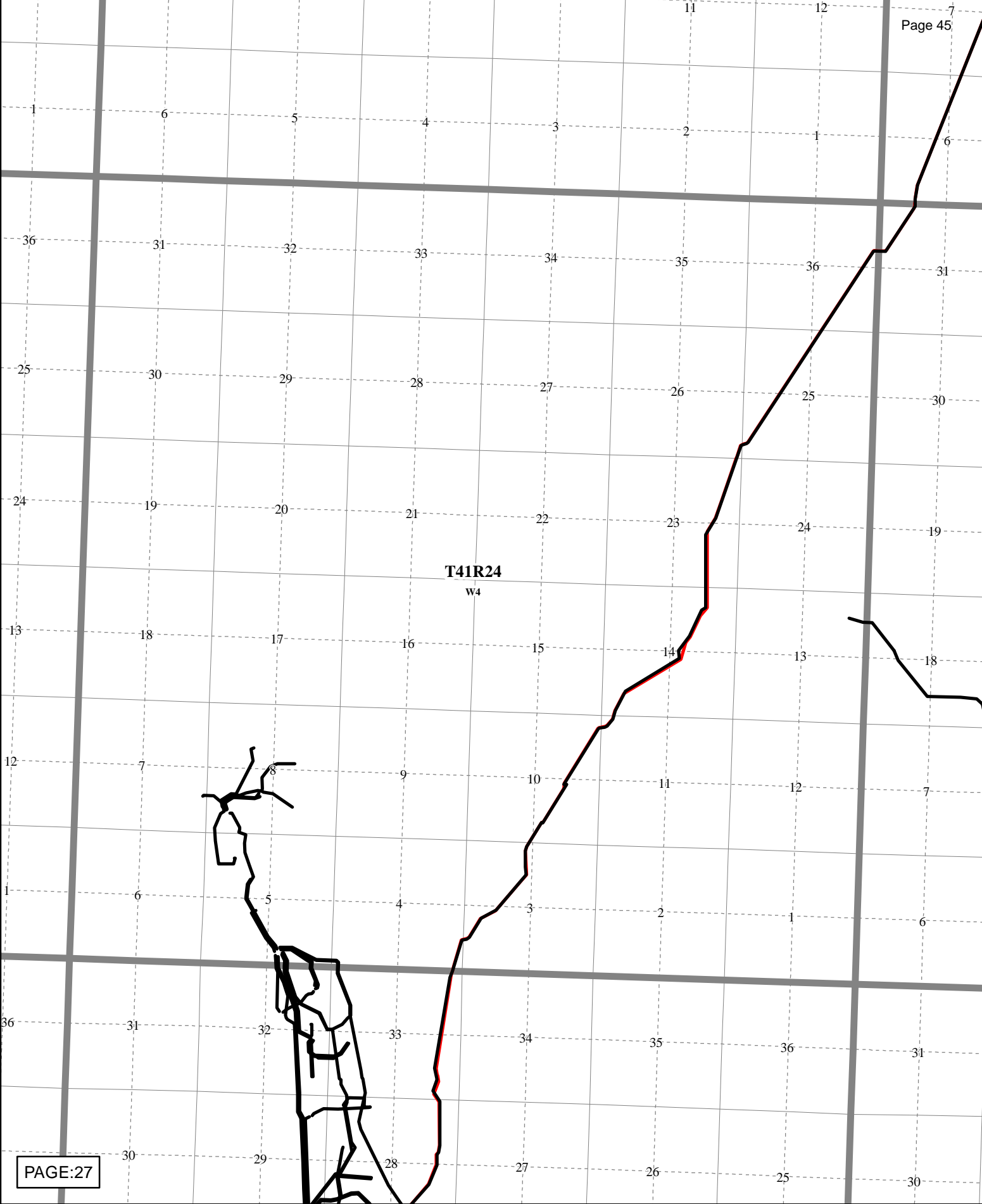
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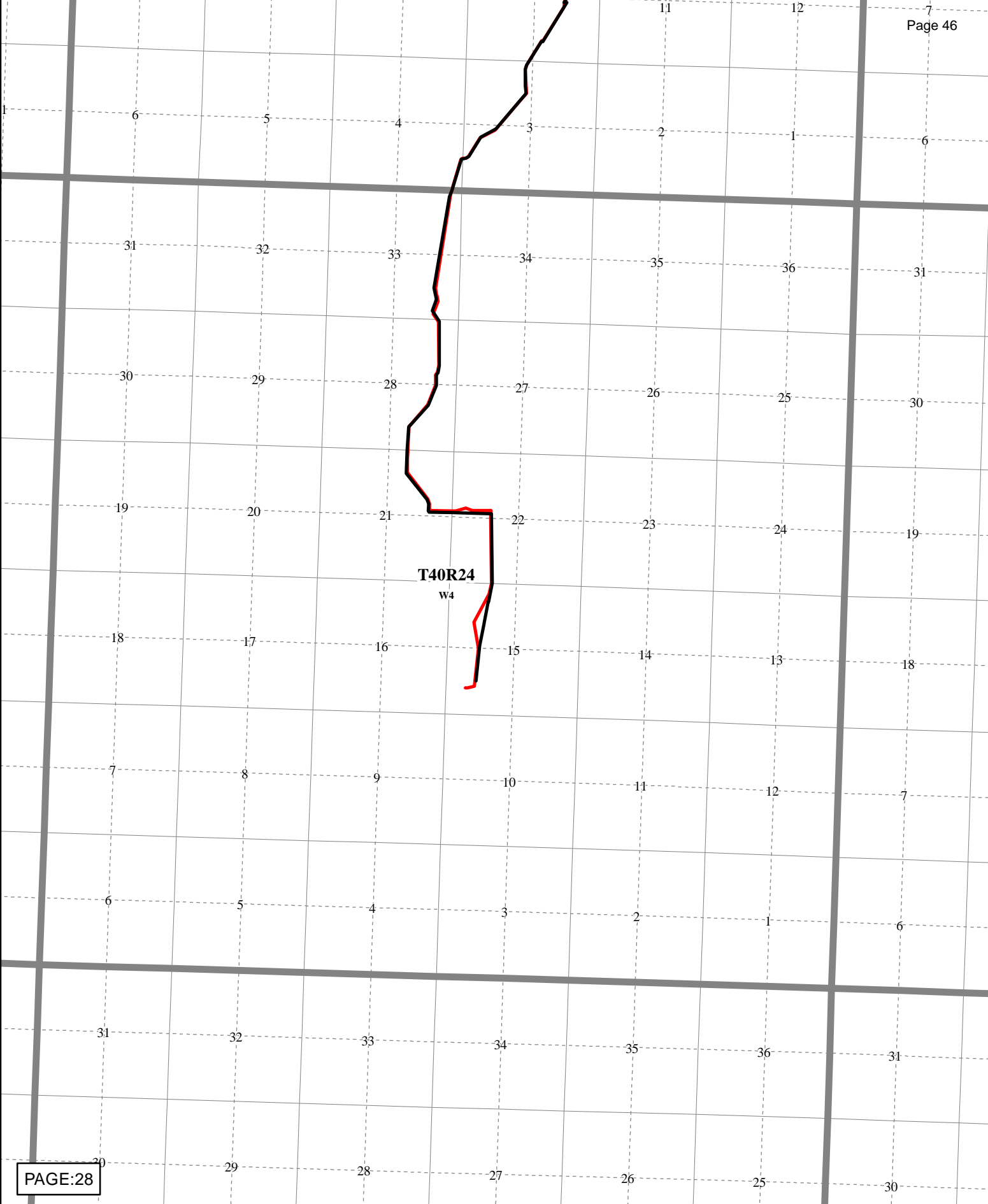
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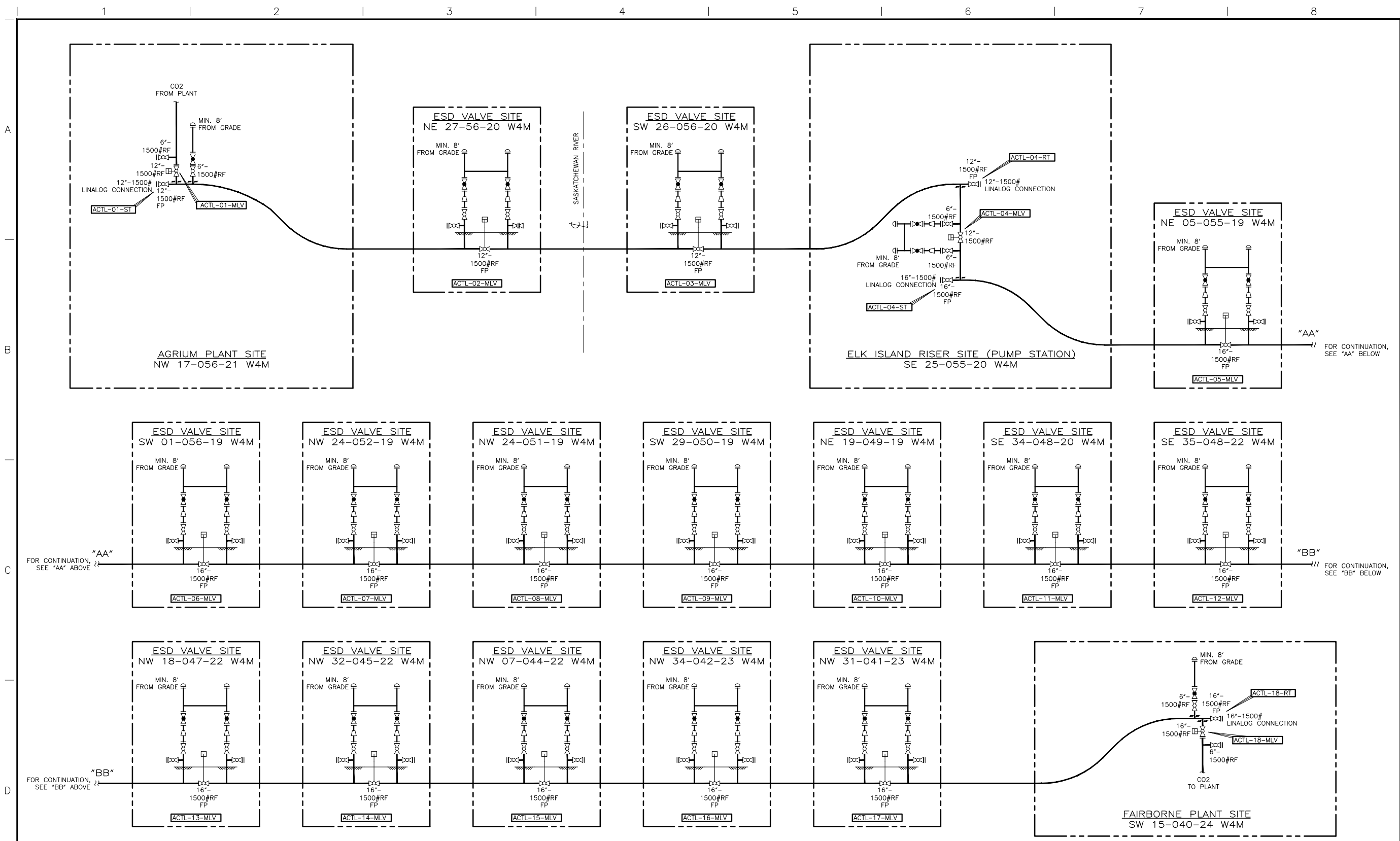
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APPENDIX viii ACTL Block Valve Schematic



Green River, by Tom Milosz





REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	BY	APPD.

ISSUE STAGE	DATE	BY	CHKD.	APPD.
A - ISSUED FOR REVIEW	11-02-11	RSN	SAW	

ENGINEER'S STAMP

PERMIT No. P10437

PROFESSIONAL STAMP AFFIXED ABOVE SHALL APPLY ONLY TO REV(S) 0

S.A.W. ENGINEERING LTD.

ENHANCE ENERGY INC.

SITE TYPE: CO2 TRUNKLINES

MAIN L.S.D.: -

SCALE: NONE

EPDM No.: SAW-11-004

TITLE: CO2 TRUNKLINES SYSTEM SCHEMATIC

AREA: ALBERTA

FILE NO.: 11-004-SCH-0001