

Casey and Julie Voigt v. Coyote Creek Mining Company, LLC
Case No. RC-23-348

2023 Soils Handling Plan

Voigt Exhibit 48

COYOTE CREEK MINING COMPANY, L.L.C.

6502 17th Street SW
Zap, ND 58580

(701) 873-7800 • Fax (701) 873-7810

A SUBSIDIARY OF THE NORTH AMERICAN COAL CORPORATION

April 5, 2023

Ms. Zanna Brinkman
Director Reclamation Division
Public Service Commission
600 East Boulevard Avenue
Department 408
Bismarck, ND 58505-0480

Dear Ms. Brinkman:

Enclosed is the 2023 Soils Handling Plan for Coyote Creek Mine.

Coyote Creek Mine has a mixing agreement with all surface owners within the main body of the permit area. There is no mixing agreement with the surface owners within the Revision 1 haulroad addition, so calculations for this area are shown separately. Soils from Section 30 were handled separately from the main body of the permit area so calculations from this area are shown separately.

Consistent with what is shown in Permit NACC-1302, salvaging deep lift and other suitable strata is necessary to meet required respread thicknesses. With the addition of deep lift subsoil and other suitable strata, it is projected that there will be an excess of subsoil of 0.3%. Due to timing constraints and minimizing disturbance prior to mining operations, Coyote Creek requests to continue to waive the NDPSC approval of subsoil removal operations.

Thank you for your consideration. Should you have any questions, feel free to contact me.

Sincerely,

COYOTE CREEK MINING COMPANY, L.L.C.

Jason Sailer P.E.
Mining Engineer

JRS
Enc.

Voigt-002

2023 COYOTE CREEK MINE SOILS HANDLING PLAN
Shop-Office Disturbance and Dedicated Piles in E2SE4 Section 30

SPGM Stockpile Inventory (01/01/23)

TS		SS	
Pile Number	Volume (CY)	Pile Number	Volume (CY)
1 ¹	50,660	2	13,811
3	2,749	4	15,151
Veneer ²	847		
Total	54,256		28,962

Acres Disturbed (01/01/23)

CCMC	TS Crop	TS Native	SS Crop	SS Native
	2.37	19.88	4.53	19.42
	2.34			
	6.51			
Subtotal	11.22	19.88	4.53	19.42

Voigt				
		1.30		1.09
Subtotal	0.00	1.30	0.00	1.09

Total	11.22	21.18	4.53	20.51
Total by Material		32.40		25.04

Respread Thickness Calculations (01/01/23)

Topsoil

	Pile No.	CY Salvaged	Crop (ac)	Native (ac)	Respread Thickness	
					Crop (in)	Native (in)
CCMC	1, Veneer	51,507	11.2	19.9	12.9	12.0
Voigt	3	1,529	0.0	1.3	NA	8.7
Subtotals		53,036	11.2	21.2		

Thickness calculations are based on pile volumes available to each landowner, since TS was piled separately by owner.

Subsoil

	CY Salvaged	Crop (ac)	Native (ac)	Respread Thickness	
				Crop (in)	Native (in)
CCMC	28,628	4.53	19.42	8.5	8.5
Voigt	334	0.00	1.09	NA	2.3
Subtotals	28,962	4.53	20.51		

Voigt subsoil thickness of 2.3" determined by soil survey; CCMC thickness determined by uniform respread of the remaining subsoil on SS-2 and SS-4 after Voigt lands at the shop-office facility are respread.

Summary

	Crop Respread Thickness			Native Respread Thickness		
	TS	SS	Total	TS	SS	Total
CCMC	12.9	8.5	21.4	12.0	8.5	20.5
Voigt	NA	NA	NA	8.7	2.3	11.0

Voigt subsoil inventory will be supplemented by future soil salvage in other parts of the mine. CCMC subsoil inventory will be supplemented by future soil salvage in other parts of the mine if other landowner needs are met. Alternatively, lands will be sampled during reclamation to assess overburden quality for use as other suitable strata as required by NDAC 69-05.2-08-11.

Notes

1. Voigt requested that Sec 30 CCMC topsoil not be mixed with his because of concerns about Canada thistle in the seedbank. Although not required, CCMC attempted to follow this request. Therefore, TS-1 was salvaged from and will only be respread on CCMC lands.
2. A temporary 3" veneer of topsoil was respread on 2.1 acres in Section 30, to stabilize long term slopes at the substation and near the shop-office. The veneer will be salvaged and respread during final reclamation. Topsoil in the veneer came from CCMC lands.
3. A small area (0.48 acres TS and 0.69 acres SS) in the E2SE4 Section 30, located north of the substation, was stripped in 2015 and hauled to piles on the west side of Coyote Creek because of poor access to the existing piles north of the office. Because soil from that area wasn't handled separately and stockpiled locally, it wasn't included in the calculations for the shop-office soil balance area.

2023 COYOTE CREEK MINE SOILS HANDLING PLAN
Haulroad North of County Road 12

SPGM Stockpile Inventory (01/01/23)

Gunsch

TS		SS	
Pile Number	Volume (CY)	Pile Number	Volume (CY)
17	68,637	14	31,922
19	13,166	16	62,178
Total		81,803	
		94,100	

Ottertall

11	42,281	8	63,141
27	22,662	24	23,913
29	35,954	26	58,519
31	12,862		
37	22,044		
Total		135,802	
		145,573	

Schwalbe

21	2,898	34	921
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State Sec 8

23	31,544	18	47,885
25	21,884	22	31,995
Total		53,427	
		79,881	

Grand Total TS Grand Total SS

273,930	320,474
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Acres Disturbed (01/01/23)

Gunsch

	TS R/W	TS Native & Tame	SS R/W	SS Native & Tame
	0.95	40.73	0.68	4.30
				27.17
Subtotal	0.95	40.73	0.68	31.47

Ottertall

		76.22		6.87
				34.40
				0.81
				22.79
Subtotal	0.00	76.22	0.00	64.87

Schwalbe

		2.11		0.39
				0.15
Subtotal	0.00	2.11	0.00	0.54

State Sec 8

		28.24		23.67
		0.02		0.01
Subtotal	0.00	28.26	0.00	23.68

Total	0.95	147.32	0.68	120.56
Total by Material		148.27		121.24

Respread Thickness Calculations (01/01/23)

Topsoil

	CY Salvaged	R/W (ac)	Native (ac)	Respread Thickness	
				R/W (in)	Native (in)
Gunsch	81,803	0.95	40.73	6.00	14.8
Ottetail	135,802	-	76.22	-	13.3
Schwalbe	2,898	-	2.11	-	10.2
State Sec 8	53,427	-	28.26	-	14.1

Subsoil

	CY Salvaged	R/W (ac)	Native (ac)	Respread Thickness	
				R/W (in)	Native (in)
Gunsch	94,100	0.68	31.47	12.00	22.0
Ottetail	145,573	-	64.87	-	16.7
Schwalbe	921	-	0.54	-	12.7
State Sec 8	79,881	-	23.68	-	25.1

Summary

	R/W Respread Thickness			Native Respread Thickness		
	TS	SS	Total	TS	SS	Total
Gunsch	6	12.00	18.00	14.8	22.0	36.8
Ottetail	-	-	-	13.3	16.7	29.9
Schwalbe	-	-	-	10.2	12.7	22.9
State Sec 8	-	-	-	14.1	25.1	39.2

Lands will be sampled during reclamation to assess overburden quality for use as other suitable strata as required by NDAC 69-05.2-08-11.

2023 COYOTE CREEK MINE SOILS HANDLING PLAN
Main Body of NACC-1302, CCMC/Mixing Agreement Lands, 1/01/23

1) Determine SPGM Available for Respread

SPGM Stockpile Inventory (As of 01/01/23)

TS		SS	
Pile Number	Volume (CY)	Pile Number	Volume (CY)
5	3,181	6	577,101
9	498,039	10	88,332
13	743,014	12	1,189,993
15	56,537	20	1,582,742
33	432,963	28	6,287
35	4,991	30	10,445
39	366,499	32	8,945
41	497,280	36	987,312
43	17,539	38	499
45	6,429	40	6,148
47	793	42	339,769
49	93,489	44	18,713
51	48,089	46	15,582
53	98	48	12,606
Temp TS-1	9,511	50	14,474
		52	235,114
		54	219,342
		56	4,733
		Temp SS-2	3,957
Total	2,778,452		5,322,094

2) Determine SPGM Respread Thickness Required by Disturbance Type (Assoc. vs Mining) and Surface Owner (As of 01/01/23)

2A) Associated Disturbance: The amount of redistributed SPGM in associated disturbance areas must be based on the amount removed (NDAC 69-05.2-15-04).

Calculations in Section 2A determine **total** respread thickness on areas of associated disturbance. A unique topsoil thickness will not be calculated for associated versus mining disturbance areas.

2A-1) Voigt Associated Disturbance - Crop (As of 01/01/23)

TS			SS		
Inches	Acres	CY	Inches	Acres	CY
5	0.10	67	0	0.78	-
7	0.79	743	6	0.74	597
15	1.36	2,743	10	1.88	2,528
16	0.02	43	12	0.00	-
18	4.90	11,858	30	0.01	40
22	6.97	20,616	38	5.88	30,040
28	0.75	2,823	40	0.00	-
30	0.01	40	42	4.44	25,071
32	2.00	8,604	44	0.02	118
	16.90	47,538	45	0.53	3,206
				14.28	61,601
Weighted Avg TS (in):	20.9		Weighted Avg SS (in):	32.1	

Total (in): 53.0

2A-2) Voigt Associated Disturbance - Native (As of 01/01/23)

TS		
Inches	Acres	CY
0	9.76	-
3	8.08	3,259
4	5.23	2,813
5	1.61	1,082
6	11.26	9,083
7	30.8	28,986
8	3.65	3,926
9	5.98	7,236
12	14.44	23,296
15	30.43	61,367
16	38.13	82,022
18	14.43	34,920
19	2.46	6,284
20	2.16	5,808
21	3.5	9,882
22	45.92	135,821
27	6.91	25,083
28	8.7	32,751
30	4.59	18,513
31	12.77	53,222
32	4.99	21,468
38	1.03	5,262
	266.83	572,083

SS		
Inches	Acres	CY
0	35.88	-
5	3.54	2,380
6	6.12	4,937
7	0.00	-
8	4.13	4,442
10	3.64	4,894
12	16.10	25,975
13	5.02	8,774
15	4.42	8,914
16	0.41	882
17	0.13	297
18	0.50	1,210
21	0.06	169
22	1.93	5,708
28	0.42	1,581
30	4.13	16,658
32	4.46	19,188
35	0.29	1,365
38	25.33	129,408
40	10.80	58,080
42	6.90	38,962
44	6.92	40,936
45	15.42	93,291
50	7.39	49,677
60	0.35	2,823
	164.29	520,548

Weighted Avg TS (in): 15.9

Weighted Avg SS (in): 23.6

Total (in): 39.5

2A-3) State Associated Disturbance - Native (As of 01/01/23)

Inches	TS	
	Acres	CY
0	1.94	-
3	4.72	1,904
4	0.00	-
5	1.28	860
6	4.69	3,783
7	6.33	5,957
13	0.00	-
15	0.12	242
16	0.74	1,592
18	5.84	14,133
20	0.09	242
21	7.85	22,163
22	2.06	6,093
24	0.00	-
28	0.06	226
30	0.61	2,460
31	9.12	38,010
35	11.38	53,549
38	0.49	2,503
57.32		153,718
Weighted Avg TS (in):		19.9

Inches	SS	
	Acres	CY
0	4.76	-
5	0.90	605
6	1.42	1,145
8	0.15	161
10	1.89	2,541
12	0.51	823
13	0.97	1,695
15	2.11	4,255
18	0.09	218
22	0.22	651
30	0.37	1,492
38	1.05	5,364
39	0.04	210
40	0.57	3,065
42	0.68	3,840
45	0.10	605
50	0.04	269
60	0.65	5,243
16.52		32,183
Weighted Avg SS (in):		14.5

Total (in): 34.4

2B) Mining Disturbance - Soil spread thickness is based on projected respread depths found in Section 2.5.7 of NACC-1302. (As of 01/01/23)

2B-1) Voigt Mining Disturbance

TS Acres			SS Acres					
Crop	Native	R/W	48" Crop	48" Native	36" Native	36" Crop	24" Crop	
258.70	292.61		80.36	286.20	11.25	5.79	18.70	
	99.36		23.48	74.08		19.96		
1.48	13.3		5.22	7.57		77.18		
260.18	405.22	0.00	109.06	367.85	11.25	102.93	18.70	
Total Acres TS			Total Acres SS					609.79

2B-2) State Mining Disturbance

TS Acres			SS Acres					
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	48" Crop	
	262.72		238.43	2.11	0.85			
	215.31		163.33	19.16	1.85			
	42.76		52.93					
0.00	520.79	0.00	454.69	21.27	2.70	0.00	0.00	
Total Acres TS			Total Acres SS					478.7

2B-3) P Winkler Mining Disturbance

TS Acres			SS Acres					
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	36" Crop	
	1.99		1.54					
0.00	1.99	0.00	1.54	0.00	0.00	0.00	0.00	
Total Acres TS			Total Acres SS					1.5

2B-4) Winkler Mining Disturbance

TS Acres			SS Acres					
Crop	Native	R/W	48" Native	36" Native	24" Native	R/W	36" Crop	
	1.26		1.19					
0.00	1.26	0.00	1.19	0.00	0.00	0.00	0.00	
Total Acres TS			Total Acres SS					1.2

3) Determine SPGM Respread Thickness Required by Disturbance Type (Assoc. vs Mining) and Surface Owner (As of 01/01/23)

Topsoil	Voigt				State				P Winkler Native	Winkler Native	Total
	Crop	Native	R/W	Subtotal	Crop	Native	R/W	Subtotal			
Assoc Dist Acres	16.90	266.83	1.02	284.75		57.32		57.32			
Mining Dist Acres	260.18	405.22		665.40	0.00	520.79	-	520.79	1.99	1.26	
Total Acres	277.08	672.05	1.02	950.15	0.00	578.11	-	578.11	1.99	1.26	1531.51
CY	669,111	1,080,792	823	1,750,726	0	1,024,865	0	1,024,865	1,659	1,203	2,778,452
Inches	17.96	11.96	6.0	NA	0.00	13.19	-	NA	6.2	7.1	13.5

*Based on both Sections 2.5.4.2 and 2.5.4.1, Voigt topsoil is 4% thicker than State owned lands but Voigts also asked for additional cropland so need to prorated accordingly by finding State's thickness first.
 Assume State Thickness is "Z" in following fomula. (Total State acres × Z × 43560) + (Total Voigt acres less R/W × 1.04Z × 43560) = (Topsoil Stockpile Volume - RW Volume - P Winkler Volume - Winkler Volume) × 27
 So: (578.11 × Z × 43560) + (949.13 × 1.04Z × 43560) = 2774767 × 27 Solving for Z = 1.0988 feet or 13.19 inches which equates to 1,024,865 CY of topsoil for State and Voigts get remaining 1,749,902 CY
 Assume Voigts Native Thickness is "Z" in following formula: (Voigt Native Acres × Z × 43560) + (Voigt Crop Acres × (Z+0.5) × 43560) = Voigt Topsoil Volume × 27
 So: (672.05 × Z × 43560) + (277.08 × (Z + 0.5) × 43560) = 1,749,902 × 27 Solving for Z = 0.9968 feet or 11.96 inches for Native and 17.96 inches for cropland.
 **Topsoil will not be respread at different thicknesses based on disturbance type. Associated disturbance calculations will be used to determine total respread depth only.
 ***Cropland topsoil is calculated to be respread at approximately 6" thicker than native topsoil.
 **** Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary
 *****Potential cropland topsoil will be respread at same thickness as native topsoil.

Subsoil	Voigt								State				P Winkler Mining Dist	Winkler Mining Dist	Total
	Assoc Dist		Mining Dist						Assoc Dist	Mining Dist					
Total Rspd Land Use	48	39.5	48	48	36	36	24	34.4	48	36	24	48	48	48	
	Crop	Native	Crop	Native	Crop	Native	Crop	Native	Native	Native	Native	Native	Crop	Native	Native
Acres	14.28	165.31	109.06	367.85	102.93	11.25	18.70	16.52	454.69	21.27	2.70	0.00	1.54	1.19	1287.29
CY	57,669	612,353	440,433	1,782,274	249,617	36,358	15,180	47,197	2,128,193	65,240	3,925	0	8,654	6,543.52	5,453,637
Inches	30.0	27.6	30.0	36.0	18.0	24.04	6.0	21.3	34.8	22.8	10.8	48.0	41.8	40.9	31.5

Total SS Volume Required (cy)	5,453,637
Total Available SS (cy)	5,322,094
SS Excess/Deficit (cy)	(131,543)

Notes
 1. Calculations below were used to compare Voigt and State topsoil thickness in both the mining disturbance area and permit area and come from Section 2.5 in the NACC-1302. It appears that Voigt owned surface consistently has an average of 4% thicker topsoil. Therefore, this was used in the calculations in (3) above, when determining topsoil respread by owner.

	Acres	CY	In		Acres	CY	In
Voigt	1,621	3,166,212	14.5		3,250	6,610,146	15.1
State	1,307	2,460,036	14.0		1,807	3,490,464	14.4
Difference between Voigt and State			4%				5%

4) Determine 2023 Subsoil Salvage Volume Required (01/01/23 - 01/01/24)

4A) Projected Associated Disturbance (01/01/23 - 01/01/24):

The amount of redistributed SPGM in associated disturbance areas must be based on the amount removed (NDAC 69-05.2-15-04). Calculations in Section 2A determine total respread thickness on areas of associated disturbance. A unique topsoil thickness will not be calculated for associated versus mining disturbance areas. Associated disturbance areas will be respread with the calculated topsoil respreath thickness based on inventoried yards. Subsoil will be respread at a thickness necessary to achieve the associated disturbance premine weighted average soil thickness, by landowner.

4A-1) State Associated Disturbance - Native

TS		
Inches	Acres	CY
0	0.00	-
4	0.00	-
5	0.00	-
6	0.00	-
7	0.00	-
15	0.00	-
16	0.00	-
18	0.00	-
21	0.00	-
28	0.00	-
30	0.00	-
31	0.00	-
35	0.00	-
	0.00	-

Weighted Avg TS (in): 0.0

SS		
Inches	Acres	CY
0	0.00	-
5	0.00	-
6	0.00	-
8	0.00	-
10	0.00	-
12	0.00	-
13	0.00	-
15	0.00	-
18	0.00	-
32	0.00	-
38	0.00	-
49	0.00	-
60	0.00	-
102	0.00	-
	0.00	-

Weighted Avg SS (in): 0.0

Total (in): 0.0

4A-2) Voigt Associated Disturbance - Native

TS		
Inches	Acres	CY
6	0.00	-
7	0.97	913
16	2.00	4,302
18	0.00	-
22	0.00	-
38	0.00	-
2.97		5,215

SS		
Inches	Acres	CY
0	0.00	-
6	0.48	387
10	0.09	121
22	0.00	-
38	0.93	4,751
40	2.45	13,176
65	0.00	-
3.95		18,435

Weighted Avg TS (in): 13.1

Weighted Avg SS (in): 34.7

Total (in): 47.8

4A-3) Voigt Associated Disturbance - Crop

TS		
Inches	Acres	CY
15	0.00	-
16	0.00	-
22	0.00	-
0.00		-

SS		
Inches	Acres	CY
0	0.00	-
38	0.00	-
45	0.00	-
0.00		-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

4A-4) Winkler's Associated Disturbance - Native

TS		
Inches	Acres	CY
0	0.00	-
3	0.00	-
6	0.00	-
7	0.00	-
15	0.00	-
0.00		-

SS		
Inches	Acres	CY
0	0.00	-
6	0.00	-
8	0.00	-
12	0.00	-
40	0.00	-
0.00		-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

4A-5) P Winkler Associated Disturbance - Native

TS		
Inches	Acres	CY
0	0.00	-
3	0.00	-
6	0.00	-
7	0.00	-
15	0.00	-
0.00		-

SS		
Inches	Acres	CY
0	0.00	-
6	0.00	-
8	0.00	-
12	0.00	-
40	0.00	-
0.00		-

Weighted Avg TS (in): 0.0

Weighted Avg SS (in): 0.0

Total (in): 0.0

4B) Projected Mining Disturbance (01/01/23 - 01/01/24)

4B-1) Voigt Mining Disturbance - Crop

TS		
Inches	Acres	CY
0	1.13	-
3	1.72	694
7	2.66	2,503
9	9.46	11,447
15	11.14	22,466
16	8.55	18,392
17	2.51	5,737
18	2.67	6,461
21	0.04	113
22	25.25	74,684
28	5.90	22,210
30	0.32	1,291
	71.35	165,997

SS		
Inches	Acres	CY
0	18.15	-
6	2.19	1,767
15	0.65	1,311
16	0.05	108
30	0.50	2,017
32	4.36	18,758
38	12.08	61,715
40	4.33	23,286
43	0.45	2,601
44	1.59	9,406
45	4.09	24,744
56	0.62	4,668
62	0.00	-
66	0.00	-
68	0.00	-
80	0.75	8,067
89	0.62	7,419
92	1.19	14,719
98	17.70	233,207
104	3.28	45,862
105	15.54	219,372
115	0.00	-
	88.14	679,024

Weighted Avg TS (in): 17.3

Weighted Avg SS (in): 57.3

Total: 74.6

4B-2) State Mining Disturbance - Native

TS		
Inches	Acres	CY
0	0.47	-
3	3.55	1,432
4	0.82	441
5	0.00	-
6	1.18	952
7	5.38	5,063
8	0.20	215
13	0.00	-
15	1.29	2,601
16	4.07	8,755
17	0.00	-
18	0.55	1,331
20	0.00	-
21	4.43	12,507
22	0.00	-
28	0.84	3,162
30	0.63	2,541
31	0.36	1,500
35	0.00	-
	23.77	40,501

Weighted Avg TS (in): 12.7

SS		
Inches	Acres	CY
0	5.82	-
6	1.99	1,605
8	1.20	1,291
12	1.24	2,001
13	0.00	-
15	0.51	1,028
28	0.20	753
35	0.99	4,658
38	3.96	20,231
39	6.82	35,759
40	7.04	37,859
41	0.92	5,071
50	3.44	23,124
51	3.32	22,764
89	1.85	22,136
90	0.92	11,132
92	0.90	11,132
98	0.02	264
99	1.15	15,306
102	0.68	9,325
105	1.12	15,811
	44.09	241,252

Weighted Avg SS (in): 40.7

Total: 53.4

4B-3) Voigt Mining Disturbance - Native

TS		
Inches	Acres	CY
0	1.41	-
3	8.65	3,489
4	0.00	-
6	2.36	1,904
7	14.70	13,834
9	1.29	1,561
15	0.00	-
16	4.35	9,357
18	0.00	-
20	0.00	-
21	1.95	5,505
22	0.00	-
30	2.29	9,236
31	0.55	2,292
35	0.00	-
	37.55	47,179

Weighted Avg TS (in): 9.35

SS		
Inches	Acres	CY
0	12.07	0
4	0.00	0
6	8.88	7163
8	2.40	2581
10	0.00	0
12	7.86	12681
15	1.95	3932
38	1.21	6182
39	0.46	2412
40	1.64	8820
42	0.00	0
45	0.00	0
50	0.24	1613
54	0.00	0
57	0.00	0
62	0.00	0
66	0.69	6123
89	0.00	0
98	2.29	30172
104	3.24	45302
113	0.18	2735
	43.11	129,716

Weighted Avg SS (in): 22.38 **Total: 31.7**

4B-4) Winkler's Mining Disturbance - Native

TS		
Inches	Acres	CY
0	0.97	-
3	8.63	3,481
4	0.31	167
6	3.45	2,783
7	3.90	3,670
15	2.08	4,195
30	0.76	3,065
	20.10	17360.75

Weighted Avg TS (in): 6.42

SS		
Inches	Acres	CY
0	9.66	0
5	0.01	7
6	0.96	774
8	3.44	3700
12	3.04	4905
30	0.47	1896
35	2.09	9835
50	0.21	1412
66	0.29	2573
	20.17	25100.69

Weighted Avg SS (in): 9.26 **Total: 15.7**

4B-5) P Winkler's Mining Disturbance - Native

TS		
Inches	Acres	CY
0	0.00	-
3	1.82	734
6	0.22	177
7	0.16	151
22	0.05	148
	2.25	1210.00

Weighted Avg TS (in): 4.00

SS		
Inches	Acres	CY
0	2.12	0
5	0.22	148
6	0.00	0
10	0.15	202
12	0.16	258
	2.65	607.69

Weighted Avg SS (in): 1.71 **Total: 5.7**

5) Determine SPGM Available (01/01/23 - 01/01/24)

Summary	Voigt		Voigt		State		Winkler's		P Winkler		Total
	Mining Dist		Assoc Dist		Assoc Dist	Mining Dist	Assoc Dist	Mining Dist	Assoc Dist	Mining Dist	
	Native	Crop	Native	Crop	Native	Native	Native	Native	Native	Native	
TS CY	47,179	165,997	5,215	0	0	40,501	0	17,361	0	1,210	277,463
TS Inches	9.3	17.3	13.1	0.0	0.0	12.7	0.0	6.4	0.0	4.0	13.1
SS CY	129,716	679,024	18,435	0	0	241,252	0	25,101	0	608	1,094,135
SS Inches	22.4	57.3	34.7	0.0	0.0	40.7	0.0	9.3	0.0	1.7	71.4
Total Available (In)	31.7	74.6	47.8	0.0	0.0	53.4	0.0	15.7	0.0	5.7	84.5
Total Available (CY)	176,895	845,021	23,650	0	0	281,753	0	42,461	0	1,818	1,371,598

* Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary

6) Determine SPGM Excess/Deficit (01/01/23 - 01/01/24)

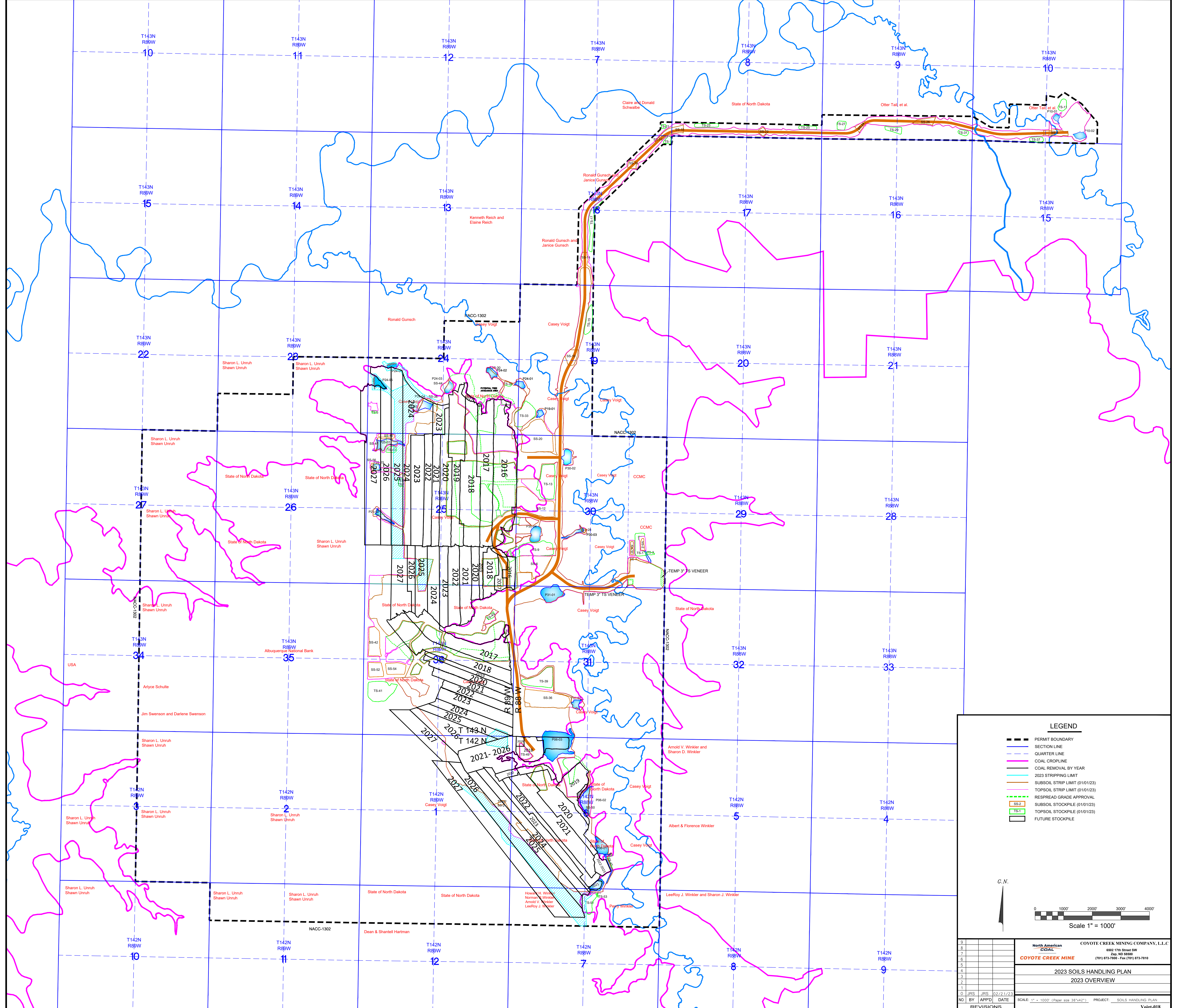
Summary	Voigt				State				Winkler's		P Winkler		Total				
	Assoc Dist		Mining Dist		Assoc Dist	Mining Dist			Assoc Dist	Mining Dist	Assoc Dist	Mining Dist					
	Native	Crop	Native	Native	Native	Crop	Crop	Crop	Native	Native	Native	Native					
Total Rspd Required (in)	47.8	0.0	48.0	36.0	24.0	48.0	36.0	24.0	0.0	48.0	36.0	24.0	0.0	48.0	0.0	48.0	
Land Use	Native	Crop	Native	Native	Native	Crop	Crop	Crop	Native	Native	Native	Native	Native	Native	Native	Native	
Acres	3.95	0.00	35.60	7.72	0.00	56.64	20.79	9.75	0.00	42.53	1.59	0.00	0.00	20.21	0.00	2.65	201.43
Total TS Required (In)	12.0	18.0	12.0	12.0	12.0	18.0	18.0	18.0	13.2	13.2	13.2	13.2	0.0	7.1	0.0	6.2	
Total SS Required (In)	35.8	-18.0	36.0	24.0	12.0	30.0	18.0	6.0	-13.2	34.8	22.8	10.8	0.0	40.9	0.0	41.8	
Total SS Required (CY)	19,018	0	172,486	24,949	0	228,738	50,418	7,915	0	199,063	4,877	0	0	111,130	0	14,892	833,487
SS Excess/Deficit (CY)	583	0	-67,720			391,953			0	37,312				-86,029		-14,285	261,815

*Total TS required based on 2023 respread depth.

** Winkler's and P Winkler's topsoil thickness determined by taking the weighted average of all the topsoil depth inside the mining disturbance boundary

2023 Projections:

Total SS Volume Required (cy)	833,487
Excess/Deficit from Previous Year (cy)	-131,543
Total Available SS including Deep Lift (cy)	1,094,135
Subsoil to be Salvaged (90%) (cy)	984,721
Total SS Excess/Deficit (cy)	19,691
Total SS Acres Disturbed	1,489
Surplus as inches	0.1



LEGEND

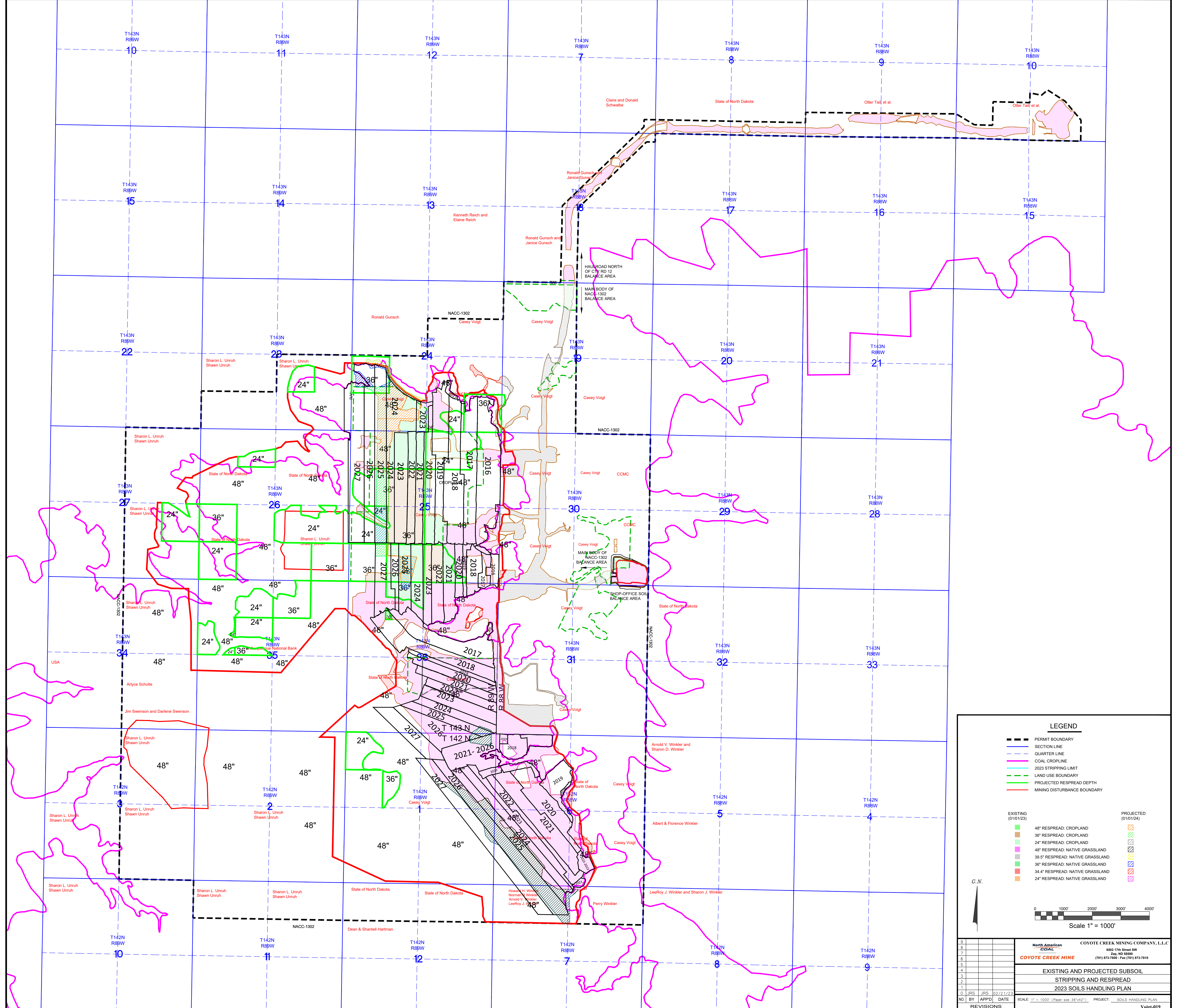
- PERMIT BOUNDARY
- SECTION LINE
- QUARTER LINE
- COAL CROPLINE
- COAL REMOVAL BY YEAR
- 2023 STRIPPING LIMIT
- SUBSOIL STRIP LIMIT (01/01/23)
- TOPSOIL STRIP LIMIT (01/01/23)
- RESPREAD GRADE APPROVAL
- SUBSOIL STOCKPILE (01/01/23)
- TOPSOIL STOCKPILE (01/01/23)
- FUTURE STOCKPILE

C.N.

0 1000' 2000' 3000' 4000'

Scale 1" = 1000'

North American COAL		COYOTE CREEK MINING COMPANY, L.L.C.	
6502 17th Street SW		Cap. NO. 85558	
(701) 873-7800		Fax (701) 873-7810	
2023 SOILS HANDLING PLAN			
2023 OVERVIEW			
0	JRS	JRS	02/21/23
NO.	BY	APPD.	DATE
SCALE: 1" = 1000' (Paper size 36"x42") PROJECT: SOILS HANDLING PLAN			
REVISIONS			



LEGEND

- PERMIT BOUNDARY (dashed black line)
- SECTION LINE (dashed blue line)
- QUARTER LINE (dashed blue line)
- COAL CROPLINE (dashed pink line)
- 2023 STRIPPING LIMIT (dashed green line)
- LAND USE BOUNDARY (dashed green line)
- PROJECTED RESPREAD DEPTH (dashed green line)
- MINING DISTURBANCE BOUNDARY (solid red line)

EXISTING (01/01/23)	PROJECTED (01/01/24)
48" RESPREAD: CROPLAND	48" RESPREAD: CROPLAND
36" RESPREAD: CROPLAND	36" RESPREAD: CROPLAND
24" RESPREAD: CROPLAND	24" RESPREAD: CROPLAND
48" RESPREAD: NATIVE GRASSLAND	48" RESPREAD: NATIVE GRASSLAND
39.5" RESPREAD: NATIVE GRASSLAND	39.5" RESPREAD: NATIVE GRASSLAND
36" RESPREAD: NATIVE GRASSLAND	36" RESPREAD: NATIVE GRASSLAND
34.4" RESPREAD: NATIVE GRASSLAND	34.4" RESPREAD: NATIVE GRASSLAND
24" RESPREAD: NATIVE GRASSLAND	24" RESPREAD: NATIVE GRASSLAND

G.N.

Scale 1" = 1000'

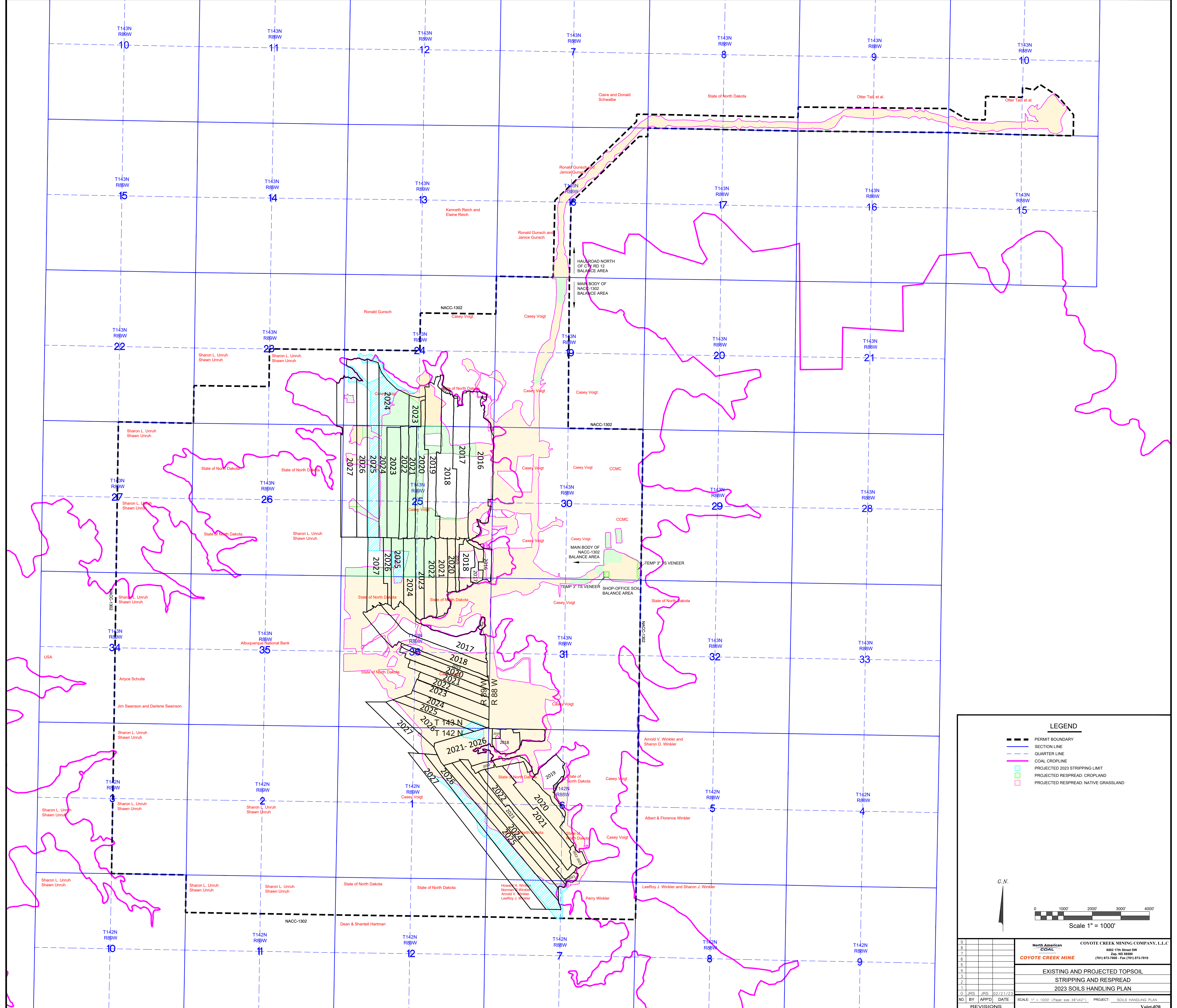
0 1000' 2000' 3000' 4000'

3					
2					
1					
0	JRS	JRS	02/21/23		
NO.	BY	APPD	DATE	SCALE: 1" = 1000' (Paper size 36"x42")	PROJECT: SOILS HANDLING PLAN
REVISIONS					Voigt-019

North American COAL COYOTE CREEK MINE

COYOTE CREEK MINING COMPANY, L.L.C.
6502 17th Street SW
Fargo, ND 58103
(701) 873-7800 - Fax (701) 873-7810

EXISTING AND PROJECTED SUBSOIL STRIPPING AND RESPREAD 2023 SOILS HANDLING PLAN



LEGEND

- PERMIT BOUNDARY
- SECTION LINE
- QUARTER LINE
- COAL CROPLINE
- PROJECTED 2023 STRIPPING LIMIT
- PROJECTED RESPREAD: CROPLAND
- PROJECTED RESPREAD: NATIVE GRASSLAND

C.N.

0 1000' 2000' 3000' 4000'

Scale 1" = 1000'

8					
7					
6					
5					
4					
3					
2					
1					
0	JRS	JRS	02/21/23		
NO. BY	APPD	DATE			
REVISIONS			SCALE: 1" = 1000' (Paper size 36"x42")	PROJECT: SOILS HANDLING PLAN	Voigt-020

North American COAL
 COYOTE CREEK MINE

COYOTE CREEK MINING COMPANY, L.L.C.
 6502 17th Street SW
 Zap, ND 58584
 (701) 873-7800 - Fax (701) 873-7810

EXISTING AND PROJECTED TOPSOIL
 STRIPPING AND RESPREAD
 2023 SOILS HANDLING PLAN